

# NYSE Pillar Gateway FIX Protocol Specification

NYSE Equities
NYSE Arca Equities
NYSE American Equities
NYSE National Equities
NYSE Texas Equities

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# 1. Introduction

This document describes the implementation of the FIX 4.2 protocol used by the NYSE Group markets via the Pillar FIX Gateway. It includes information pertaining to application communication with the following venues.

Current Market Support	Future Market Support
NYSE Equities	NYSE Bonds
NYSE Arca Equities	
NYSE American Equities	
NYSE National Equities	
NYSE Texas Equities	

This document assumes the reader has a thorough understanding of the FIX 4.2 protocol available at <a href="http://www.fixprotocol.org/">http://www.fixprotocol.org/</a>. As such, it is not intended as a guide to constructing a FIX client. Rather, it is a reference to ensure that a firm's FIX client, constructed according to the FIX 4.2 specifications, will be compatible with the Pillar FIX Gateway.

#### 1.1 About the Pillar FIX Gateway

Pillar FIX Gateway is the application offering a single protocol for firms to transact business with one or more of the NYSE Group markets. It is a component of Pillar, an integrated trading technology platform that has been designed to reduce complexity, while enhancing consistency, performance and resiliency across the NYSE Group markets.

For more information on the Pillar trading platform and gateway rollout, please visit https://www.nyse.com/pillar.

#### 1.2 Session Configuration by Market

Each session on the Pillar Gateway will be configured to access a single NYSE Group market. The market configuration will determine which market-specific FIX tags and values may be transacted over that session. For details on the applicability of each tag and value to the various markets, please refer to the FIX Application Layer message formats.

## 1.3 Failure Recovery

Each session on the Pillar Gateway is assigned two pairs of destination Pillar IP addresses, and one port number used by all four IPs. The IP/Port pairs correspond to the Pillar Primary and DR production environments.

- **Primary Production Environment** Pillar FIX Gateway users may be logged in to either the primary or backup destination IP addresses, but not both, at any given time.
  - Once logged in, a successful login attempt on the other IP address will result in a logout on the first IP.
  - In the event that the primary destination becomes unavailable, the user should attempt to log in on the secondary IP address.
    - Cancel on Disconnect will be triggered if the outage was caused by a gateway failure or when the login occurs on the secondary IP address, honoring the Cancel on Disconnect configuration for the session.
    - The sequence number on the secondary IP address will always continue from the last Application Layer message transacted on the primary IP (and vice versa). That is, Session Layer messages will not be recovered nor counted in determining the next sequence number expected from the client.

- o In the event of an intraday session restart, both Primary and Secondary destination IP addresses will be temporarily unavailable.
  - All open orders entered on the affected session will be cancelled, regardless of the Cancel on Disconnect configuration for the session.
  - Upon restart:
    - If the session restart was not accompanied by a software release rollback, Application
      Layer messages transacted on the affected session prior to the outage will be
      recoverable, and the sequence number will continue from the last Application Layer
      message transacted. That is, Session Layer messages will not be recovered.
    - If the session restart was accompanied by a software release rollback, messages transacted on the affected session prior to the outage will not be recoverable. Sequence numbers will start with 1.
- **DR Production Environment** In the event that the Pillar Primary Production environment becomes unavailable, Pillar FIX Gateway users may log in to the DR IP addresses configured for their sessions.
  - All open orders will be cancelled automatically, regardless of whether the user attempts to log back in or not and regardless of the Cancel on Disconnect configuration for the session.
  - UROUTs will not be sent for the orders.
  - Messages transacted on the affected session prior to the outage will not be recoverable. Sequence numbers will start with 1.

#### **NYSE Pillar Risk Mitigation**

In the event a matching engine enters an unexpected state, the Pillar Risk Mitigation process will be triggered.

- Gateway users will receive unsolicited cancels on all live orders on the impacted matching engine, including MOO, LOO, MOC, LOC, with a reason code '168 Pillar Risk Mitigation'.
- The impacted matching engine will initiate an automatic recovery during which period new orders will be rejected with a reason code '76 System not available'.
- Once the resumption is complete, users will need to resubmit MOO, LOO, MOC, and LOC orders.

#### 1.4 Contact Us

The NYSE Group Market Support teams have a centralized phone number. Through this number, clients are able to reach all support contacts for Trading, Technical, Market Data and Client Relationship Services.

+1 212-896-2830

Follow the prompts for menu options.

# 2. Data Types

A data type and length are provided for each FIX tag in this specification in the "Data Type" column of the message format tables. These length values represent systemic limits enforced by the Pillar FIX Gateway. All values entered by firms are subject to additional validations, as indicated in the "Values" column of the tables.

Firms should not null pad a FIX tag to equal the systemic limit. Instead, each tag should be populated with the natural length of the intended value.

# 3. Maximum Order Price and Quantity

The maximum allowable limit Price and OrderQty for the NYSE Group equities markets are as follows. Order and Cancel/Replace messages entered with values larger than the following will be rejected.

Maximum Price - for all NYSE Group equities markets except where noted. The maximum value is determined
on a per symbol basis, adjusted nightly based on closing last sale.

It is recommended that at the start of each trading day, firms refer to the Price Scale Code published in the NYSE XDP Symbol Index Mapping message:

- Symbols with price scale code 6 = \$2,147.48
- Symbols with price scale code 4 = \$214,748.364; except for orders routed to NYSE Floor Broker
   Systems which have a maximum of \$9,999.99
- Symbols with price scale code 3 = \$999,999.999; except for orders routed to NYSE Floor Broker
   Systems which have a maximum of \$999,999.99

<b>Price Scale</b>	Closing Last Sale Threshold	Max Price
6	< \$500.00	\$2,147.480000
4	>= \$500.00	\$214,748.3640
3	>= \$100,000.00	\$999,999.999

#### Maximum OrderQty

- NYSE Equities
  - Auction orders routed to matching engine = 25,000,000 shares. Auction orders consist of MOO, LOO, MOC, LOC, Imbalance Offset for Close, Closing D Order, Opening D Order, and DMM orders representing manual interest for open and close. The maximum does not apply to Issuer Direct Offering (IDO) Order

- All other orders routed to matching engine = 5,000,000 shares
- Orders routed to NYSE Floor Broker Systems = 99,000,000 shares
- NYSE Arca Equities, NYSE American Equities, NYSE National Equities = 5,000,000 shares
- NYSE Texas Equities
  - Cross orders = 25,000,000 shares
  - All other orders = 5,000,000 shares

# 4. Mapping Orders and Executions to NYSE XDP Market Data

The NYSE Pillar FIX Gateway provides order and deal identifiers as unique 8 byte integers (unsigned Little Endian), represented as strings up to 20 characters in the following outgoing message types.

FIX Message Type	FIX Tag(s) for Mapping to XDP
MsgType 8 – Execution Report	OrderID (37), DealID (9483)
MsgType 9 – Cancel, Cancel/Replace Reject	OrderID (37)

To correlate the OrderID and TradeID values provided in the Pillar FIX Gateway with XDP 2.1 products:

- The full 8 bytes of the gateway "OrderID" correspond to the 'OrderID' field in XDP messages.
- Bytes 5 through 8 of the gateway "DealID" correspond to the 'TradeID' field in XDP messages.
  - o In all XDP feeds, the MarketID and SystemID are provided in the Symbol Index Mapping, and these values are static for the trading day.
  - The table below shows the data structure of the 8-byte DealID value provided in the Pillar FIX Gateway
    as it maps to XDP fields. This table assumes the client byte ordering is Little Endian. If the client byte
    ordering is Big Endian, the byte order is reversed.

XDP Field Name	Offset	Size (Bytes)	XDP Format	Description
Reserved	0	1	Binary	0
SystemID	1	1	Binary	Unique ID of the originating Pillar symbol partition. This value is found in the Symbol Index Mapping message's ID field.
				ID of the Originating market in the Symbol
MarketID	2	2	Binary	Index Mapping.
TradeID	4	4	Binary	Public TradeID as it will appear in XDP products.

For more information, please refer to the XDP Common Client Specification at <a href="https://www.nyse.com/market-data/real-time">https://www.nyse.com/market-data/real-time</a>.

**NYSE and NYSE Texas Equities** - on response messages for orders routed to Brokerplex and NYSE Floor Broker Systems, the OrderID and TradeID values will not correlate with NYSE XDP Market Data.

# 5. Trading Services

#### 5.1 Self-Trade Prevention

NYSE Group offers a Self-Trade Prevention (STP) service. This service is designed to allow firms to better manage their order flow and prevent unintended executions with themselves.

STP Firm Identifier - STP may be enforced using one of two alternative firm identifiers:

- MPID based STP two orders with the same MPID (OnBehalfOfCompID) + OnBehalfOfSubID (optional sub identifier) will be prevented from trading with each other.
- ClientID based STP two orders with the same ClientID, an identifier registered with the Exchange, will be prevented from trading with each other regardless of whether the MPIDs are same or different. A firm may register a ClientID in support of a business unit within the same or affiliated firm, or for routing to the exchange through another member. ClientID STP is configured as a session level default. The default will be echoed back on order acknowledgements via unsolicited FIX tag ClientID (109). To register a new ClientID, please contact Client Relationship Services at CRS@nyse.com.
- The above identifiers are mutually exclusive. An order with a ClientID will always be allowed to trade with an order that does not have a ClientID, even if they are from the same MPID.

#### **STP Types:**

- STP Cancel Newest An incoming order marked with this designation will not execute against opposite side resting interest marked with any of the STP Types. Instead, the incoming order or repriced order will be automatically cancelled back to the order originator. The resting order remains on the order book.
- STP Cancel Oldest An incoming order marked with this designation will not execute against opposite side resting interest marked with any of the STP Types. Instead, the resting order will be automatically cancelled back to the order originator. The incoming order will then continue to auto execute or be placed on the order book.
- STP Cancel Both An incoming order marked with this designation will not execute against opposite side resting interest marked with any of the STP Types. Instead, both the incoming order and the resting order will be cancelled back automatically.
- STP Cancel Decrement An incoming order marked with this designation will not execute against opposite side resting interest marked with any of the STP Types. Instead, for price-time allocation, if both orders are equivalent in quantity, both orders will be cancelled back to the order originator. If the orders are not equivalent in quantity, the larger order is decremented by the quantity of the smaller order, and the smaller order is fully cancelled. For parity allocation (applicable only to NYSE), both the portion of a resting order that would receive an allocation and the portion of the incoming order that would be allocated to that resting order will be cancelled back to the order originator.

NYSE Equities - for orders routed to NYSE Floor Broker Systems, STP evaluation is performed as follows:

- ClientID may be specified on an order-by-order basis only (gateway session level default will not be applied)
- If ClientID (Tag 109) is specified orders with the same ClientID (Tag 109) values will not execute against each other
- If ClientID (Tag 109) is not specified orders with the same MPID (OnBehalfOfCompID/Tag 115) will not execute against each other
- OnBehalfOfSubID (Tag 116) will not be considered in STP evaluation, regardless of whether or not it is specified

• STP is not evaluated between orders sent directly to the matching engine versus orders routed to NYSE Floor Broker Systems and then sent by a Broker to the matching engine. These orders will be allowed to trade with each other

#### 5.2 Message Throttling

Inbound messages from a given session are read at a rate of 500 messages per rolling 100 milliseconds (including all Session and Application Layer message types).

A session becomes throttled when the message count reaches a value of 500 during the time window. A session becomes un-throttled when there are no messages to read from the firm.

Throttled messages are queued and processed in time sequence as the message read rate allows. Gap Fill Requests will be processed without impact to processing of inbound messages. However, responses to inbound application messages (acknowledgements, execution reports, etc.) will be sequenced after a Gap Fill Request that is in process.

#### **5.3** Denial of Service Restrictions

Pillar maintains a running counter of log in attempts and session level rejects on a per SenderCompID/Target IP address basis over the course of a trading day. If either of the counters reaches 100, the SenderCompID/Target IP will go into Denial of Service Mode. Upon entering this mode Pillar will:

- Reset counters for the SenderCompID/Target IP to zero
- Cancel orders based on customer cancel on disconnect settings for the SenderCompID
- Disconnect the SenderCompID and refuse connection attempts to that specific TargetIP for 60 seconds

# 6. FIX Header & Trailer

All FIX messages sent and received via the Pillar FIX Gateway must include a Header and Trailer as defined below.

## 6.1 Header

Tag	Field Name	Data Type	Req'd	Values
-n/				(ALWAYS FIRST FIELD IN MESSAGE)
FIX-		6	.,	5114.4.0
8	BeginString	String[8]	Υ	FIX.4.2
FIV				(ALWAYS SECOND FIELD IN MESSAGE)
FIX-	Dodyl onath	Int[C]	V	Massaga langth in hytes farward to the Chael Cum field
9	BodyLength	Int[6]	Y	Message length, in bytes, forward to the CheckSum field.  (ALWAYS THIRD FIELD IN MESSAGE)
				A = Logon
				0 = Heartbeat
				1 = Test Request
				2 = Resend Request
				3 = Session Layer Reject
				4 = Sequence Reset
				5 = Logout
				D = New Order Single
				F = Order Cancel Request
				G = Order Cancel/Replace Request
FIX-				8 = Execution Report
35	MsgType	String[3]	Υ	9 = Order Cancel Reject
FIX-				Last sequence number processed. First message sent has
34	MsgSeqNum	Int[20]	Y	sequence of 1.
FIX-				Y = Yes
43	PossDupFlag	Boolean	С	N = No
				Incoming Messages from Firm: Agreed upon Connection identifier
				set between the Exchange and the entering firm.
				Outgoing Messages from Exchange: Market Identifier Code (MIC)
				of the sending Exchange.
				ARCX = NYSE Arca Equities
				XASE = NYSE American Equities
				XCHI = NYSE Texas Equities
FIX-				XCIS = NYSE National Equities
49	SenderCompID	String[32]	Υ	XNYS = NYSE Equities
				Incoming Messages from Firm: This value represents a Market
				Maker, LMM, SLP, SLMM or DMM, agreed upon between the firm
				and the Exchange. These firms must provide their MMID along
				with its associated MPID on all orders intended to receive credit
				for satisfying their market making/liquidity obligations.
				Outgoing Messages from Exchange: Set to the value of the
				original SenderCompID on the incoming message from the firm.
FIX-				On drop copy sessions, represents the SenderCompID of the
50	SenderSubID	String[32]	С	order entry session which originated the message.

Tag	Field Name	Data Type	Req'd	Values
Tag	Field Name	Data Type	-keq u	Time of message transmission on Incoming Messages from Firms
		UTC		& Outgoing messages from Exchange.
FIX-		Timestamp		a outgoing messages from Exchange.
52	SendingTime	[27]	Υ	UTC time, in Milliseconds - YYYYMMDD-HH:MM:SS.mmm
		[]		Incoming Messages from Firm: Market Identifier Code (MIC) of
				target Exchange.
				ARCX = NYSE Arca Equities
				XASE = NYSE American Equities
				XCHI = NYSE Texas Equities
				XCIS = NYSE National Equities
				XNYS = NYSE Equities
FIX-				Outgoing Messages from Exchange: Agreed upon connection
56	TargetCompID	String[32]	Υ	identifier set between the Exchange and the entering firm.
				On Incoming Messages from Firm: Populate with "RET" (all caps)
				to designate an order as eligible for retail billing. All other values
				will be rejected. Not valid for orders entered on NYSE Texas
				Equities.
				On Outgoing Messages from Exchange: If provided on the
				incoming message from the firm (in SenderSubID), will be
				populated with the Market Maker ID (MMID). This value
				represents a Market Maker, LMM, SLP, SLMM or DMM, agreed
				upon between the firm and the Exchange. These firms must
				provide their MMID along with its associated MPID on all orders
				intended to receive credit for satisfying their marking
				making/liquidity obligations.
				On Outgoing Messages from Exchange related to orders routed to
FIX-				NYSE Texas IB Firms: will be populated with the badge of the IB
57	TargetSubID	String[32]	С	firm personnel that handled the related action.
FIX-				Y = Yes
97	PossResend	Boolean	С	N = No
				Incoming Messages from Firm: Firm Identifier – MPID. Required
				on all Application Layer message types. If provided on a Session
				Layer message type, the value will not be validated.
				Outgoing Messages from Exchange: If provided on the incoming message from the firm (in DeliverToCompID), will be populated
				with the Algo MPID, NYSE Agency Code, Broker Badge or NYSE
FIX-				Texas IB Firm Identifier.
115	OnBehalfOfCompID	String[4]	С	
				Incoming Messages from Firm to Exchange Matching Engine:
				Customer defined when sending to Matching engine– identifies
				specific entity/trading desk of the firm. For pre-trade risk
				controls, optional SubID.
FIV				Incoming Messages from Firm to NYSE Texas IB Firms: Trading
FIX-	OppobalfOfcubio	Ctrin a[4]	N.	Account for Non-Member Participants where applicable.
116	OnBehalfOfSubID	String[4]	N	

Tag	Field Name	Data Type	Req'd	Values
J				Incoming Messages from Firm to NYSE Floor Broker Systems: Optional mnemonic.
				Only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  ***********************************
				Outgoing messages from Exchange Matching Engine: If provided on the incoming message from the firm, will be populated with the specific entity/trading desk of the firm or pre-trade risk controls SubID.
				Outgoing messages from NYSE Texas IB firms: If provided on the incoming message from the firm, will be populated with the Trading Account for Non-Member Participant.
				Outgoing messages from NYSE Floor Broker Systems: If provided on the incoming message from the firm, will be populated with mnemonic.
				Original time of message transmission when transmitting orders
		UTC		as the result of a resend request.
FIX-	Out of a said to office a	Timestamp		LITC times in Additionant de MONAMARD LILLANANCC manage
122	OrigSendingTime	[27]	N	UTC time, in Milliseconds - YYYYMMDD-HH:MM:SS.mmm  If intended to route to non-Matching Engine destinations, RouteToBroker (FIX-20011) must be populated as "Y" and the value must be a valid NYSE Agency Code or Broker Badge, (must be "zero-padded") or NYSE Texas IB Firm Identifier.
				The incoming message will be accepted and routed to the matching engine regardless of what is provided in the DeliverToCompID field when the abovementioned criteria is not met.
				This field is required when FIX Tag 9303 is set to "E" and the value must be a valid Algo MPID designated to act in a Broker Dealer capacity.
FIX- 128	DelivertoCompID	String[5]	С	Outgoing Messages from Exchange: Firm Identifier – MPID. Required on all Application Layer message types.

# 6.2 Trailer

Tag	Field Name	Data Type	Req'd	Values
				(ALWAYS LAST FIELD IN MESSAGE; Always unencrypted)
FIX-				Three byte, simple checksum that serves, with the trailing <soh>,</soh>
10	CheckSum	String[6]	Υ	as the end-of-message delimiter.

# 7. FIX Session Layer

This section describes the protocol for the initiation, operation, and termination of FIX sessions with the Pillar FIX Gateway. TCP/IP is the required transmission protocol, and FIX 4.2 is the required application protocol supplemented by certain custom tags and values as defined in this specification. The Pillar FIX Gateway will reject a message with any tags that are not defined for the given message type in this specification.

#### 7.1 Pillar FIX Session Layer Handling

The Pillar FIX Gateway validates and handles inbound Session Layer messages according to the following rules:

- MsgSeqNum as expected all messages with a sequence number equal to the expected value will be accepted
  and processed in full, provided they pass basic message type format validations. This includes both Session and
  Application Layer messages, regardless of the PossDup or GapFillFlag values indicated on the inbound message.
- MsgSeqNum greater than expected in general, upon receipt of a message with a sequence number greater than the expected value, Pillar FIX Gateway will neither accept nor process the message and will not increment the expected client-side sequence number. The gateway will respond with a Resend Request with BeginSeqNo = the expected value, and EndSeqNo = 0 (infinity).

However, there are two cases with special handling:

- Login Request with MsgSeqNum greater than expected Pillar FIX Gateway will send a Logon Response, immediately followed by the Resend Request.
- Resend Request with MsgSeqNum greater than expected Pillar FIX Gateway will process the request, provided it passes basic message type format validations. The requested messages will be retransmitted to the client.
- Sequence Reset with GapFillFlag set to N, or not set Pillar FIX Gateway will accept and process the
  request, provided it passes basic message type format validations. The expected client-side sequence
  number will be adjusted according to the NewSeqNo specified in the Sequence Reset message, as long
  as the requested number is higher than the next expected value.
- MsgSeqNum less than expected in general, upon receipt of a message with a sequence number less than the
  expected value, Pillar FIX Gateway will respond with a Session-Level Reject message, then close the TCP
  connection. The expected client-side sequence number will not be incremented.
  However, there are two cases with special handling:
  - Any Message with PossDup set to Y Pillar FIX Gateway will silently ignore the message.
  - Sequence Reset with GapFillFlag set to N, or not set Pillar FIX Gateway will accept and process the
    request, provided it passes basic message type format validations. The expected client-side sequence
    number will be adjusted according to the NewSeqNo specified in the Sequence Reset message, as long
    as the requested number is higher than the next expected value.

## 7.2 Logon

This single message format is used as either a Logon Request or Logon Response depending on the message direction:

Usage	Description	Direction
Logon Request	Request to establish a FIX session.	Client to Gateway
Logon Response	Confirmation a FIX session has been established successfully.	Gateway to Client

The Pillar FIX Gateway authenticates the Logon Request by checking the SenderCompID [49] against the Username [553] and Password [554]. If either the Username or Password does not match the previously agreed value for that SenderCompID, the Pillar FIX Gateway will send a Logout Message [35=5] with SessionStatus [1409=5], then close the TCP connection. If the Logon Request is authenticated, the Pillar FIX Gateway will respond with a confirmation Logon Response.

The format for the Logon Request message is below:

Standard   Header	L-60
Standard   Header	) L-60
Header	L-60
FIX- 98 EncryptMethod Int[1] Y Must be 0 (No encryption).  O  FIX- 108 HeartBtInt Int[2] Y The Heartbeat interval in seconds.  FIX- 95 RawDataLength Int[1] C Length of RawData [96]. Must be included if RawData [96] is present.  Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts. Valid values:    Position   Description   Valid Values     Cancel on Disconnect   0 = Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	L-60
FIX- 108   HeartBtInt   Int[2]   Y   The Heartbeat interval in seconds.   1-6  FIX- 95   RawDataLength   Int[1]   C   Length of RawData [96]. Must be included if RawData [96] is present.   3  Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts. Valid values:    Position   Description   Valid Values     1   Cancel on Disconnect   0 = Cancel on Disconnect Disabled     1   Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	L-60
FIX- 108   HeartBtInt   Int[2]   Y   The Heartbeat interval in seconds.   1-6  FIX- 95   RawDataLength   Int[1]   C   Length of RawData [96]. Must be included if RawData [96] is present.   3  Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts. Valid values:    Position   Description   Valid Values     1   Cancel on Disconnect   0 = Cancel on Disconnect Disabled     1   Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	
FIX- 95 RawDataLength Int[1] C Length of RawData [96]. Must be included if RawData [96] is present.  Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts.  Valid values:  Position Description Valid Values  1 Cancel on Disconnect 0 = Cancel on Disconnect Disabled  1 = Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	
95 RawDataLength Int[1] C Length of RawData [96]. Must be included if RawData [96] is present.  Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts. Valid values:  Position Description Valid Values  1 Cancel on Disconnect 0 = Cancel on Disconnect Disabled  1 = Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	3
Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts.  Valid values:    Position	3
the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts.  Valid values:  Position  Description  1 Cancel on Disconnect  0 = Cancel on Disconnect Disabled  1 = Enable Cancel on Disconnect; Cancel – Day; Directed Orders  (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	
1 Cancel on Disconnect 0 = Cancel on Disconnect Disabled  1 = Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	Byte1: 0-2
Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)	Jy (C1. U-Z
2 = Enable Cancel on Disconnect. Cancel – ALL orders for the Session*  NYSE and NYSE Texas Equities - subscription with values 1 and 2 will cancel both orders in the matching engine and orders routed to NYSE Floor Broker Systems and Brokerplex.  *Exclusions – The following orders are always excluded from cancellation during a Cancel on Disconnect event:  - IOC orders  - NYSE Arca and NYSE American Equities - for	
FIX- 96 RawData String[3] C primary symbols - MOO/LOO orders for 1 minute prior to the Core Opening Auction	

		Data					
Tag	Field Name	Type	Req'd	Descripti	on		Values
						- Primary Close Only Market/Limit (PO + MOC/LOC) orders for NYSE symbols after 3:50 PM	
						- MOC/LOC orders during Closing Auction freeze; on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM	
						- NYSE Equities - for primary symbols - all orders after scheduled closing time	
						- NYSE Equities - Issuer Direct Offering (IDO) order	
						Note: Cancel on Disconnect may only be "upgraded" through Logon. If Cancel on Disconnect is Disabled by default, the Logon message can Enable it (setting = 1 or 2). If the default configuration value = 1, the Logon Request can be used to set the configuration = 2.	
						A change in configuration from 2 to 1 or to 0 is not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.	
				2	Subscription to Order Priority Update Acknowledgements	0 = Not subscribed to receive the unsolicited "Order Priority Update Ack" message on the Session.	Byte2: 0-1
						1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment)	
				3	Self-Trade Prevention	Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.	Byte3: T,N,O,C,D
						Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.	
						T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both	
						Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.	
				Receive u		orders for the Session for Cancel on Disconnect AND by Update Ack" message on the Session AND Cancel	
				defaults. I overridde	f Tag 96 is included, the	request, Pillar FIX Gateway will use the client e default configuration for the client will be only. Clients must contact NYSE Group Market urations.	
	ResetSeqNum Flag	Boolean	N	Indicates		on should reset sequence numbers. If included, this	N

		Data			
Tag	Field Name	Type	Req'd	Description	Values
FIX-		String			String [16]
553	Username	[16]	Υ	Username agreed in advance with NYSE Group – SenderCompID.	
FIX-		String		Password agreed in advance with NYSE Group. Required on Logon Request, but	String [32]
554	Password	[32]	Υ	omitted from Logon response.	
	Standard Trailer		Υ		

The format for the successful Logon Response message is below:

		Data									
Tag	Field Name		Req'd	Descripti	on		Values				
	Standard										
FIV	Header	Chui a a	Y	MsgType	gType [35] = A						
FIX-	Text	String [100]	N	Text assoc	ct associated with Logon Response						
	NextExpected	[200]									
	MsgSeqNum	Int [20]	Υ	Next Msg	SeqNum [34] expected b	ov Pillar	expected by Pillar				
FIX-	1113g3cq11aiii	1111 [20]		TTEXT ITINGS	requality (5.1) expected to	, i mai	1				
98	EncryptMethod	Int [1]	Υ	Must be 0	(No encryption).		0				
FIX- 108	HeartBtInt	Int [2]	Υ	The Heart	beat interval in seconds	i.	1-60				
FIX-											
95	RawDataLength	Int [1]	С	Length of	RawData [96]. Must be	included if RawData [96] is present.	3				
				persisted	Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Changes will be persisted for the length of the trading day or until the next time Pillar restarts. Valid values:  Position Description Valid Values						
				1	Cancel on Disconnect	0 = Cancel on Disconnect Disabled					
				1	Cancel on Disconnect	1 = Enable Cancel on Disconnect; Cancel – Day; Directed Orders (This will cancel all orders for the Session EXCEPT Auction orders – TIF = 2-At the Opening and 7-On Close*)  2 = Enable Cancel on Disconnect. Cancel – ALL					
						orders for the Session*					
						NYSE and NYSE Texas - subscription with values 1 and 2 will cancel both orders in the matching engine and orders routed to NYSE Floor Broker Systems and Brokerplex.  *Exclusions – The following orders are always					
						excluded from cancellation during a Cancel on Disconnect event:					
FIX- 96	RawData	String [3]	С			- IOC orders					

Pick   Name   Type   Req'd   Description   NYSE Area and NYSE Area and NYSE Area and Equities - for primary symbols - MOO/LOO orders for 1 minute prior to the Core Opening Auction   Primary Symbols - MOO/LOO orders for 1 minute prior to the Core Opening Auction   Primary Symbols - MOO/LOO orders for NYSE Symbols after 3:50 PM   - MOC/LOC orders during Closing Auction freeze; on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM   - MOC/LOC orders after 3:50 PM   - MYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equities - for primary symbols - all orders after scheduled closing time   - NYSE Equiti			Data					
primary symbols - MOD/ACO orders for 1 minute prior to the Core Opening Auction  - Primary Close Only Market/Limit (PO + MOC/LOC) orders for NYSE symbols after 3:50 PM  - MOC/LOC) orders during Closing Auction freeze; on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM  - MOC/LOC orders during Closing Auction freeze; on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM  - NYSE Equities - For primary symbols - all orders after sito PM - MOC/LOC orders after 3:50 PM - NYSE Equities - In primary symbols - MOC/LOC orders after sito PM - NYSE Equities - Sor primary symbols - MOC/LOC orders after sito PM - NYSE Equities - In primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - NYSE Equities - For primary symbols - MOC/LOC orders after sito PM - Note - In the sito PM - Note - In t	Tag	Field Name	Type	Req'd	Descripti	ion		Values
MOC/LOC) orders for NYSE symbols after 3:50 PM - MOC/LOC orders during Closing Auction freeze; on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM - NYSE Equities - for primary symbols - all orders after 3:50 PM - NYSE Equities - Issuer Direct Offering (IDO) order Note: Cancel on Disconnect may only be "upgraded' through Logon, if Cancel on Disconnect is Disabled by default, the Logon message can Enable it (setting = 1 or 2). If the default configuration value = 1, the Logon Request can be used to set the configuration = 2.  A change in configuration from 2 to 1 or to 0 is not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.  2 Subscription to Order Priority Update Acknowledgements  Acknowledgements  3 Self Trade Prevention  3 Self Trade Prevention  3 Self Trade Prevention Note: If the STP value is set on an individual Order or Cancel/Replace requests tentered on the session and destined for Pillar matching engine. Note: If the STP value is set on an individual Order or Cancel/Replace request that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newest O (letter 0) = Cancel Oldest C = Cancel Both D = Cancel Decrement Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  String [16] Y Username agreed in advance with NYSE Group – SenderCompID.  O (Session							primary symbols - MOO/LOO orders for 1 minute	
on NYSE, for primary symbols - MOC/LOC orders after 3:50 PM  - NYSE Equities - for primary symbols - all orders after 3:50 PM  - NYSE Equities - for primary symbols - all orders after scheduled closing time  - NYSE Equities - Issuer Direct Offering (IDO) order Note: Cancel on Disconnect may only be "upgraded" through Logon. If Cancel on Disconnect is Disabled by default, the Logon message can Enable it (jecting = 1 or 2). If the default configuration value = 1, the Logon Request can be used to set the configuration = 2.  A change in configuration from 2 to 1 or to 0 is not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.  2 Subscription to Order Priority Update Ack" message on the Session.  1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment).  Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention  N = Cancel Newest  O (letter O) = Cancel Oldest  C = Cancel Both  D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX.  String [16]  Y Username agreed in advance with NYSE Group – SenderCompID.  String [16]								
after scheduled closing time  - NYSE Equities - Issuer Direct Offering (IDO) order  Note: Cancel on Disconnect may only be  "upgraded" through Logon. If Cancel on Disconnect is Disabled by defagial to 72. If the default configuration value = 1, the Logon Request can be used to set the configuration = 2.  A change in configuration from 2 to 1 or to 0 is not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.  2 Subscription to Order Priority Update Acknowledgements  3 Self Trade Prevention  3 Self Trade Prevention  3 Self Trade Prevention  4 Session.  1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment)  5 Session level default for the STP value on Order acnec/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newst O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX.  String String 16 Y Username agreed in advance with NYSE Group – SenderCompID.  String [16]							on NYSE, for primary symbols - MOC/LOC orders	
Note: Cancel on Disconnect may only be "upgraded" through Logon. If Cancel on Disconnect to Disconnect Disconne								
"upgraded" through Logon. If Cancel on Disconnect is Disabled by default, the Logon message can Enable it (setting = 1 or 2). If the default configuration = 2.  A change in configuration from 2 to 1 or to 0 is not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.  2 Subscription to Order Priority Update Acknowledgements  3 Self Trade Prevention  3 Self Trade Prevention  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention  N = Cancel Rowest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX: String String String String Username greed in advance with NYSE Group – SenderCompID.  String [16]							- NYSE Equities - Issuer Direct Offering (IDO)order	
not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group Market Support.  2 Subscription to Order Priority Update Ack" message on the Session.  1 = Receive unsolicited "Order Priority Update Ack" message on the Session.  1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment)  3 Self Trade Prevention Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX.  String [16] Y Username agreed in advance with NYSE Group – SenderCompID.  String [16] FIX- O (Session							"upgraded" through Logon. If Cancel on Disconnect is Disabled by default, the Logon message can Enable it (setting = 1 or 2). If the default configuration value = 1, the Logon Request	
Priority Update Acknowledgements  Priority Update Acknowledgements  Session.  1 = Receive unsolicited "Order Priority Update Ack" message on the Session. (for Reserve Order replenishment)  3 Self Trade Prevention  Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention  N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  String 16  Y Username agreed in advance with NYSE Group – SenderCompID.  String [16]  String [16]							not allowed through the Logon Request. To make these changes, the firm must contact NYSE Group	
Ack" message on the Session (for Reserve Order replenishment)  3 Self Trade Prevention Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX- String [16] Y Username agreed in advance with NYSE Group – SenderCompID.  String [16]					2	Priority Update	"Order Priority Update Ack" message on the	Byte2: 0-1
Self Trade Prevention  Session level default for the STP value on Order and Cancel/Replace requests entered on the session and destined for Pillar matching engine.  Note: if the STP value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX- String [16] Y Username agreed in advance with NYSE Group – SenderCompID.  String [16]							Ack" message on the Session (for Reserve Order	
or Cancel/Replace Request, that value will override this session level default.  T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX- String [16] Y Username agreed in advance with NYSE Group — SenderComplD.  String [16] O (Session					3	Self Trade Prevention	Session level default for the STP value on Order and Cancel/Replace requests entered on the	
N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement  Orders routed to NYSE Floor Broker Systems - all default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX- String [16] Y Username agreed in advance with NYSE Group – SenderCompID.  O (Session							or Cancel/Replace Request, that value will	
default values at login will be ignored. Values N and O are available on an order-by-order basis.  Example: Tag 96 = 11C: Cancel all orders for the Session for Cancel on Disconnect AND Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX-  String  [16] Y Username agreed in advance with NYSE Group – SenderCompID.  O (Session							N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both	
Receive unsolicited "Order Priority Update Ack" message on the Session AND Cancel Both for Self Trade Prevention  FIX- String 553 Username [16] Y Username agreed in advance with NYSE Group – SenderCompID.  FIX- O (Session							default values at login will be ignored. Values N	
553 Username     [16]     Y     Username agreed in advance with NYSE Group – SenderCompID.       FIX-     0 (Session					Receive u	nsolicited "Order Priorit		
FIX- 0 (Session		Hearnage		v	Hearne	agrand in advance with	h NVCE Croup CondorCom-ID	String [16]
TOTAL SECTION AND A CONTRACT OF THE PROPERTY O	FIX-		[16] Int [1]				п мъс Group – SendercompiD.	0 (Session Active)

		Data			
Tag	Field Name	Type	Req'd	Description	Values
	Standard Trailer		Υ		

## 7.3 Logout

This single message format is used for different purposes depending on the message direction and SessionStatus [1409] value:

Usage	Description	Direction	SessionStatus [1409]
Logout Request	Client request to the Pillar FIX Gateway to terminate a FIX session.	Client to Pillar	n/a
Logout Response	The Pillar FIX Gateway response to a client Logout Request indicating the client may terminate the session.	Pillar to Client	0 = Session active
Unsolicited Logout	The Pillar FIX Gateway has terminated the FIX session.	Pillar to Client	4 = Session logout complete
Logon Reject	The Pillar FIX Gateway has rejected the client Logon Request.	Pillar to Client	5 = Invalid username or password

The format for the Logout message is below:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard Header		Υ	MsgType[35] = 5	
FIX- 1409	SessionStatus	Int[1]	N	Current status of the FIX session provided to indicate the message usage. The Pillar FIX Gateway will ignore this field if received from the client on a Logout message.	0 = Session Active 4 = Session logout complete 5 = Invalid username or password
FIX- 58	Text	String [100]	N	Logout description.	String [100]
FIX- 789	NextExpected MsgSeqNum	Int[20]	Y	Next MsgSeqNum [34] expected by Pillar	Next MsgSeqNum [34] expected by Pillar
	Standard Trailer		Υ		

## 7.4 Heartbeat and Test Request

The client must send a Heartbeat message [35=0] if the interval specified in the Logon Message HeartBtInt [108] passes without the client sending any messages. If HeartBtInt seconds pass without the Pillar FIX Gateway receiving any messages from the client, the Pillar FIX Gateway will send a Test Request [35=1] to solicit a Heartbeat from the client. If an additional HeartBtInt seconds pass without receiving any messages, the Pillar FIX Gateway will send a logout and close the TCP connection.

It is recommended that the client implements similar monitoring for messages received from the Pillar FIX Gateway.

The Heartbeat message format is below:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard			MsgType[35] = 0	
	Header		Υ		
FIX- 112	TestReqId	String[20]	С	Required when the Heartbeat is in response to a Test Request. Must be the same value as in the Test Request that solicited the Heartbeat.	String[20]
	Standard Trailer		Y		

The Test Request message format is below:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard Header		Υ	MsgType[35] = 1	
FIX- 112	TestReqID	String[20]	Υ	Identifier included in Test Request message to be returned in resulting Heartbeat.	String[20]
	Standard Trailer		Υ		

## 7.5 Message Retransmission

If Pillar receives a MsgSeqNum [34] higher than expected, Pillar will disregard or process the message, and may issue a Resend Request, as described in the "Pillar FIX Session Layer Handling" section of this specification.

Clients may issue a Resend Request to Pillar. In response, Pillar will retransmit Application Layer messages only. Pillar will never retransmit any Session Layer messages (including Session-Level Rejects).

The format for the Resend Request message is below:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard Header		Υ	MsgType[35] = 2	
FIX-	BeginSeqNo	Int[20]	Y	The message sequence number of the first message in the range of messages to be re-sent.	1- 18446744073709551615
FIX- 16	EndSeqNo	Int[20]	Υ	The message sequence number of the last message in the range of messages to be re-sent. If the request is for all the messages since the BeginSeqNo, set EndSeqNo to 0.	0- 18446744073709551615
	Standard Trailer		Υ		

Note: Pillar will ignore the contents of PossResend [97] beyond basic message integrity validations and will treat all messages with PossResend = Y as new messages.

#### 7.6 Sequence Reset

The client may send Pillar a Sequence Reset message to advance the next expected MsgSeqNum [34] Pillar should expect from the client:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard Header		Υ	MsgType[35] = 4	

Tag	Field Name	Data Type	Req'd	Description	Values
FIV				Indicates the mode in which the message is to be interpreted:  Y = Gap Fill Reset (MsgSeqNum [34] validated)	V N
FIX-	Cantillelaa	Dooloon	v		Y, N
123	GapFillFlag	Boolean	Y	N = Sequence Reset (MsgSeqNum [34] ignored)	
FIX-				The new valid sequence number	1-
36	NewSeqNo	Int[20]	Υ		18446744073709551615
	Standard Trailer		Υ		

## 7.7 Session-Level Rejects

Pillar generates a Session-Level Reject upon receipt of a message containing a session-level rule violation (e.g. a required FIX tag is missing). Error details are contained in SessionRejectReason [373] and 58 [Text], while the tag causing the error (if applicable) is identified in RefTagID [371].

The Session-Level Reject message format is below:

Tag	Field Name	Data Type	Req'd	Description	Values
	Standard Header		Υ	MsgType [35] = 3	
FIX-					
45	RefSeqNum	Int[20]	Υ	The sequence number of the rejected message.	1-18446744073709551615
				A code, which identifies the reason for the session level	
				reject.	
				Valid values:	
				0 = Invalid Tag Number	0
				1 = Required Tag Missing	1
				2 = Tag Not Defined For This Message Type	2
				3 = Undefined Tag	3
				4 = Tag specified without a value	4
				5 = Value is incorrect (out of range) for this tag	5
				6 = Incorrect data format for value	6
				7 = Decryption problem 8 = Signature problem	7 8
				9 = CompID problem (SenderCompID, TargetCompID, or	9
				both)	9
				10 = SendingTime accuracy problem	10
				11 = Invalid MsgType	11
				13 = Tag Appears More than Once (non-repeating group	13
				tags only) 14 = Tag specified out of required order	14
FIX-				15 = Repeating group fields out of order	15
373	SessionRejectReason	Int[2]	N	199 = Other	99
FIX-	-				
	RefTagId	Int[9]	N	The tag number of the FIX field being referenced.	1-99999999
FIX-					
	RefMsgType	String[2]	N	The MsgType of the FIX message being referenced.	String[2]
FIX-				Reject text, which identifies the reason for the rejected	
58	Text	String[100]	N	message.	String[100]
FIX-	NextExpected			Next MsgSeqNum [34] expected by Pillar	Next MsgSeqNum [34]
	MsgSeqNum	Int[20]	Υ		expected by Pillar
	Standard Trailer		Υ		

# 8. FIX Application Layer

This section describes the FIX Application messages currently supported by the Pillar FIX Gateway. Only the message types represented here will be accepted.

Order, Cancel, and Cancel/Replace acknowledgments will be returned with all tags submitted on the original request.

## 8.1 New Order - Single

This message is used to send a New Order.

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
8	Standard FIX Header		Υ	MsgType = D	Yes	Yes	Yes	Yes	Yes
FIX-1	Account	String[16]	N	Customer defined up to 16 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes
FIX-11	CIOrdID	String[20]	Y	Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-18	ExecInst	Char[1]	С	d = Tracking Order f = ISO B = OK to Cross E = DNI F = DNR G = All or None R = Primary Peg P = Market Peg M = MPL (Midpoint Liquidity) N = Non-displayed (Retail Price Improvement and Limit-Non Displayed orders) y = Trade-at ISO L = Last Sale Peg	f M N	d f R P M N	d f R P M N	d f R P M N	d f R P M N
FIX-38	OrderQty	Qty[9]	Υ	1 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	1 2 7	1 2 7	1 2 7 P	1 2 7	1 2 7
FIX-44	Price	Price[16]	С	0.000001- 999,999,999.999999	Yes	Yes	Yes	Yes	Yes
FIX-54	Side	Char[1]	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	1 2 5 6	1 2 5 6	1 2 5 6	1 2 5 6	1 2 5 6 8 9 A

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX-55	Symbol	String[16]	Υ	Valid Equities Ticker Symbol.	Yes	Yes	Yes	Yes	Yes
FIX-58	Text	String[80]	N	On Incoming Messages from Firm: Freeform text field; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, max length is 40 characters.  However, will not be passed back in Acknowledgments or any subsequent response messages.  On Outgoing Message from Exchange: Reason code and text description for order activity. For example, reason for cancel/cancel-replace	Yes	Yes	Yes	Yes	Yes
FIX-59	TimeInForce	Char[1]	Υ	rejection. 0 = Day	0	0	0	0	0
				1 = GTC 2 = At the Opening 3 = IOC 4 = FOK 5 = GTX 6 = GTD 7 = On Close	2 3	2 3 7	2 3 7	2 3 7	2 3 7
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time.  On Outgoing Message from Exchange: Exchange application time.	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				UTC time, in Milliseconds  YYYYMMDD- HH:MM:SS.mmm					
FIX-63	SettlementType	Char[1]	N	0 = Regular Way 1 = Cash* *Only supported on Cross Orders. If not specified, the settlement type is assumed as regular way					0 1
FIX-65	SymbolSfx	String[10]	N	Valid Suffix value	Yes	Yes	Yes	Yes	Yes
FIX- 109	ClientID	String[4]	С	Not supported when sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self-Trade Prevention" section of this spec for more details.	Yes*				Yes
FIX- 110	MinQty	Qty[5]	N	Must be ≤ OrderQty	Yes	Yes	Yes	Yes	Yes
FIX- 111	MaxFloor	Qty[5]	С	Must be entered in Round Lots.	Yes	Yes	Yes	Yes	Yes
FIX- 114	LocateReqd	Boolean	С	N = No  Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is	N	N	N	N	N

					NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req'd	Values	Z	∢	Z	⋖	_
				not provided, order will be rejected.					
FIX- 126	ExpireTime	UTC	N	Specified end time for the Algo order.	Yes				
120		Timestamp [27]		Aigo order.					
		[-7]		UTC time					
				YYYYMMDD-HH:MM:SS					
FIX-	EffectiveTime	UTC	N	Specified start time for	Yes				
168		Timestamp		the Algo order.					
		[27]		UTC time					
				YYYYMMDD-HH:MM:SS					
FIX- 386	NoTradingSessions	Int[1]	Υ	1	1	1	1	1	1
FIX-	TradingSessionID	Char[1]	Υ	1 = Early Trading Session	1	1	1	1	1
336				2 = Core Trading Session	2	2	2	2	2
				3 = Late Trading Session		3	3	3	3
				4 = Early & Core Trading	4*	4	4	4	4
				Sessions 5 = Core & Late Trading	5*	5	5	5	5
				Sessions	)		)	)	)
				6 = Early, Core, & Late	6*	6	6	6	6
				Trading Sessions					
				*Note: for symbols trading					
				on NYSE, all values that					
				include Core designation					
				(Core, Early/Core, Core/Late, and Early/Core/Late) will be					
				allowed, if the order type					
				supports the combination on					
				other Pillar markets.					
				However, for each of those values, Pillar will honor the					
				applicable trading sessions					
				included in the instruction					
				based on Tape (B/C symbols					
				- Early and Core; A symbols - Core only), and ignore the					
				other trading sessions					
				specified in the instruction					
				(Tape B/C symbols - Late;					
				Tape A symbols - Early and Late)					
FIX-	OrderCapacity	Char[1]	Υ	A = Agency	Α	Α	Α	Α	Α
528				P = Principal	P	P	P	P	P
				R = Riskless Principal	R O*	R	R	R	R O*
			]	Q = Error Account	Q*				Q*

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				*NYSE and NYSE Texas Equities - supported only on orders routed to NYSE Floor Broker Systems and Brokerplex					
FIX- 849	ParticipationRate	Price[16]	N	Specified participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 5700	LocateBroker	String[4]	С	For orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt, identifies which broker has loaned the stock to settle the short sale.  For firms using Pillar Pretrade Risk Controls, use of this tag may be configured as mandatory.	Yes	Yes	Yes	Yes	Yes
FIX- 7928	SelfTradeType	Char[1]	N	O (number 0) = Use current Session Configuration STP setting for the SenderCompID T = No Self Trade Prevention N = Cancel Newest O (letter O)= Cancel Oldest C = Cancel Both D = Cancel Decrement  *NYSE Equities - supported only on orders routed to matching engine; not supported on orders routed to NYSE	0 T* N O C* D*	O T N O C D	T N O C D	T N O C D	O T N O C D
FIX- 9202	SpecialOrdType	Char[1]	С	Floor Broker Systems  1 = DMM Open/Re- open/Close with or without Auction (AOC) - drop copy only					

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				2 = DMM Pre-auction - drop copy only 3 = DMM After-auction - drop copy only T = QCT (DeliverToComp ID must be populated with IB Firm Identifier) 8 = Reserved for future use					Т
FIX- 9303	RoutingInst	Char[1]	С	N = Non Routable R = Routable D = Directed (Primary Only)	N R	N R D	N R D	N R D	N R D
				S = Directed + Routable (PO+S) 1 = Primary Market until 9:45		S 1	S 1	S 1	S 1
				2 = Primary Market after 3:55 3 = BOTH Primary Market		2	2	2	2
				until 9:45 AND Primary Market after 3:55					
				8 = Minimum Fill (must be entered with MinQty tag populated with a nonzero value) A = Route to ATS	8 A	8 A	8 A	8 A	8 A
				E = Route to Algo	E	, ,	, ,	, ,	
9403	OffsetPrice	Price[16]	С	Value must be zero, or otherwise:  • For Market Peg order - equal to or multiple of 0.01  • For Retail Price Improvement order (optional modifier on NYSE only) - equal to or multiple of 0.001	Yes	Yes	Yes	Yes	Yes
FIX- 9416	ExtendedExecInst	Char[1]	С	A = Add Liquidity Only (ALO) 2 = No route to IOI 4 = Retail Order Type 1	A 4	А	A 2	A 2	A 2

						ر			
Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
Iag	Field Name	Бака Туре	Key u	5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset L = Limit dOrder M = Midpoint dOrder C = Complex Order	7 8	8	5 7	8	8
				Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO)	ı	9 D		9	
FIX- 9448	IntroducingBadgel D	String[4]	С	1 – 4 numeric characters.  Present on orders from Brokerplex to Pillar.  Present on orders from NYSE Floor Broker Systems to Pillar.					Yes
FIX- 9451	ParentFirmClOrdID	String[20]	С	<= 20 chars Present on orders from Brokerplex to Pillar. Present on orders from NYSE Floor Broker Systems to Pillar.					Yes
FIX- 9453	ParentFirmMPID	String[4]	С	Firm Identifier - MPID. Present on orders from Brokerplex to Pillar. Present on orders from NYSE Floor Broker Systems to Pillar.					Yes
FIX- 9478	InterestType	Char[1]	С	3 = NYSE Floor Broker Cross - 72D Q = Q-Order Y = Yield Order		Q	Q	Q	Q
FIX- 20001	AttributedQuote	Char[1]	N	0 = Not Attributed 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market Data Feeds, and Include in Broker Volume	0	0 1	0 1	0 1	0
FIX- 20002	ProactivelfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked for routable orders	0	0	0 1	0 1	1
				2 = Proactive trade non- display (Non-display	2	2	2	2	2

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req u	remove liquidity for non- displayed orders locked by contraside ALOs)					
FIX- 20003	CancelInsteadOf Reprice	Char[1]	N	0 = Not applicable (follow default order behavior) 1 = Cancel order instead	0	0	0	0	0
				of repricing – for LULD only 3 = Cancel order instead of repricing for any reason	3	3	3	3	3
FIX- 20011	RouteToBroker	Char[1]	С	Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems) based on value provided in DelliverToCompID on incoming messages from Firm  Y = Route to non-Matching Engine destination N = Route to Matching	Y				Y
				If not specified, will be assumed as a value of "N", and will be routed directly to Matching Engine					
FIX- 20012	BrokerOMSID	String[4]	С	Present on orders from Brokerplex to Pillar to identify the Broker ID targeted by the parent order.					Yes
FIX- 20013	SubIDIndicator	Char[1]	N	When populating both OnBehalfOfSubID (116) and SelfTradeType (7928) on an order, allows the firm to specify whether the OnBehalfOfSubID should be used or ignored for Self-Trade Prevention (STP) evaluation. See "Self-Trade Prevention"					

					NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req'd	Values	Z	₹	Z	₹	F
				section of this spec for more details.  If also using Pillar Pretrade Risk Controls, the OnBehalfOfSubID will be used for Risk Entity purposes regardless of the value specified in this field.  O = for this order, use OnBehalfOfSubID (within the MPID) for STP evaluation 1 = for this order, ignore the OnBehalfOfSubID for STP (conduct STP)	0	0	0	0	0
				evaluation at MPID level only)  If not specified, will be assumed as a value of 0.					
FIX- 20046	TargetStrategy	String[20]	N	Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  Target Strategy to be used by the Algo.	Yes				
FIX-	10b-18	Char[1]	N	0 = Not eligible for 10b-18	0				
20047				1 = Eligible for 10b-18	1				
FIX- 20048	AuctionEligible	Char[1]	N	0 = Do not participate in any Auction 1 = Participate in the Closing Auction 2 = Participate in the Opening Auction 3 = Participate in both the Opening and Closing Auction	0 1 2 3				

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 20049	MinParticipationRa te	Price[16]	N	Minimum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20050	MaxParticipationR ate	Price[16]	N	Maximum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20051	WouldPrice	Price[16]	N	Would Price to be used by the Algo to get the Target Strategy done.	Yes				
FIX- 20052	RoutingStrategy	Int[8]	N	1 = Midpoint Ping 2 = Retail Price Improvement Seeking 3 = Retail Midpoint Ping	1	1	1 2 3	1	1
	Standard FIX Trailer		Υ	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

#### 8.2 Order Cancel Request

This message is used to either cancel a single targeted order, or to bulk cancel multiple orders based on the combination of criteria specified in the message.

#### **Single Order Cancel Request:**

The following tags in the Cancel Request must be populated with the same values that were sent on the original order:

- OnBehalfOfCompID [115] MPID
- **DeliverToCompID** [128] Algo MPID, if applicable
- NYSE and NYSE Texas Equities if Pillar can find the OrigClOrdID specified, the cancel request will be routed either to the matching engine or to NYSE Floor Broker Systems/Brokerplex, regardless of how RouteToBroker (20011) is specified on the cancel request message.

#### **Bulk Cancel Request:**

- As with all Application Layer FIX messages, OnBehalfOfCompID (115) in the FIX Header must be populated with a valid MPID configured for use on that session.
  - When selecting a Bulk Cancel Code in OrderID (37) for MPID-level order cancellation, the MPID provided in OnBehalfOfCompID will determine the MPID whose orders are cancelled.
  - When selecting a Bulk Cancel Code in OrderID (37) for Session-level order cancellation, all orders entered on the session will be cancelled, regardless of their MPIDs and the value provided in OnBehalfOfCompID.
- To enter a Bulk Cancel Request for a particular MMID, the firm may populate SenderSubID (50) in the FIX Header with the MMID targeted for cancellation. This will limit the scope of cancellation to Q Orders entered with the specified MMID.
- NYSE and NYSE Texas Equities the bulk cancel request will be routed to both the matching engine and to NYSE
  Floor Broker Systems/Brokerplex, regardless of how RouteToBroker (20011) is specified on the cancel request
  message. This will result in cancellation of both orders in the matching engine as well as orders routed to
  brokers.
- Exclusions the following orders are always excluded from cancellation by a Bulk Cancel Request:
  - o IOC orders
  - NYSE Arca and NYSE American Equities for primary symbols MOO/LOO orders for 1 minute prior to the Core Opening Auction
  - o Primary Close Only Market/Limit (PO + MOC/LOC) orders for NYSE symbols after 3:50 PM
  - MOC/LOC orders during Closing Auction freeze; on NYSE, for primary symbols MOC/LOC orders after
     3:50 PM
  - o NYSE Equities for primary symbols all orders after scheduled closing time
  - NYSE Equities Issuer Direct Offering (IDO)order

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
108	Standard FIX Header	Data Type	Y	MsgType = F	Yes	Yes	Yes	Yes	Yes
FIX-11	ClOrdID	String[20]	Y	Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.	Yes	Yes	Yes	Yes	Yes
FIX-37	OrderID	String[20]	С	Required for Bulk Cancel - populate with Bulk Cancel Code:  1 = Cancel orders for the	1	1	1	1	1

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
Tag	riciu Name	Data Type	Keq u	individual gateway session only. Cancel – Day; Directed Orders					
				2 = Cancel orders for the individual gateway session only. Cancel – ALL orders	2	2	2	2	2
				3 = Cancel orders for the individual gateway session only. Cancel – At the Opening; Day; Directed orders	3	3	3	3	3
				4 = Cancel orders for the MPID. Cancel – At the Opening; Day; Directed orders	4	4	4	4	4
				5 = Cancel orders for the MPID. Cancel – Day; Directed orders	5	5	5	5	5
				6 = Cancel orders for the MPID. Cancel – GTC orders (NYSE Arca & American Options only)					
				7 = Cancel orders for the MPID. Cancel – At the Opening and On Close orders	7	7	7	7	7
				8 = Cancel orders for the MPID. Cancel – Day orders	8	8	8	8	8
				9 = Cancel orders for the MPID, and Block all new order entry for the MPID. Cancel – Day; Directed orders	9	9	9	9	9
				10 = Block all new order entry for the MPID	10	10	10	10	10

<b>-</b>	Field Name		D- 1/4	Walana	NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req'd	Values  11 = Unblock new order entry for the MPID	11	11	11	11	11
				12 = Cancel orders for the MPID. Cancel – Directed orders	12	12	12	12	12
FIX-41	OrigClOrdID	String[20]	С	Required for single order cancellation.	Yes	Yes	Yes	Yes	Yes
				Represents the ClOrdID of the previously entered order intended for cancellation (NOT necessarily the initial order of the day).					
				Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.					
				*NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-54	Side	Char[1]	С	Required for single order cancellation.  Optional for Bulk Cancel. On a Bulk Cancel Request, 1 (Buy) and 2 (Sell) are supported. In that case, 2 (Sell) will cancel all Sell, Sell Short, and Sell Short Exempt orders.					
				1 = Buy 2 = Sell	1 2	1 2	1 2	1 2	1 2

Tag	Field Name	Data Type	Reg'd	Values	NYSE	American	National	Arca	Texas
105	Tiele Hame	Data Type	neq a	5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	5	5	5	5	5 6 8 9 A
FIX-55	Symbol	String[16]	С	Required for single order cancellation; Valid Equities Ticker Symbol.  Optional for Bulk Cancel.	Yes	Yes	Yes	Yes	Yes
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time.  On Outgoing Message from Exchange: Exchange application time.  UTC time, in Milliseconds  YYYYMMDD-HH:MM:SS.mmm	Yes	Yes	Yes	Yes	Yes
FIX-65	SymbolSfx	String[10]	N	Valid Suffix value	Yes	Yes	Yes	Yes	Yes
FIX- 20011	RouteToBroker	Char[1]	С	Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems) based on value provided in DelliverToCompID on incoming messages from Firm					
				Y = Route to non- Matching Engine destination N = Route to Matching Engine	Y N				Y N
				If not specified, will be assumed as a value of "N", and will be routed directly to Matching Engine					

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

## 8.3 Order Cancel/Replace Request

This message may be used in two ways:

- Full Cancel/Replace Request used to make changes to an order without preserving its ranking in the Exchange order book. The replacement order will get a new ClOrdID (equal to the ClOrdID of the Cancel/Replace Request), a new Timestamp, and a new OrderID.
- Modify Request used to reduce the total number of shares/contract order quantity, or to change the side of an existing order between Sell, Sell Short, and Sell Short Exempt only, while preserving the order's ranking in the Exchange order book as well as its original OrderID. The modified order, however, will get a new ClOrdID (equal to the ClOrdID of the Modify Request).

Note: Reducing the total quantity to 0 will cancel the order.

In both cases, the following tags in the FIX Header of the Cancel/Replace Request must be populated with the same values that were sent on the original order intended for replacement:

- OnBehalfOfCompID (115) MPID
- SenderSubID (50) MMID
- **DeliverToCompID[128]** if applicable, Algo MPID, NYSE Agency Code, Broker Badge, or NYSE Texas IB Firm Identifier
- NYSE and NYSE Texas Equities for cancel/replacement of orders routed to NYSE Floor Broker Systems and
  Brokerplex, the combination of values in tags OnBehalfOfCompID (115) + OnBehalfOfSubID (116) +
  DeliverToCompID (128) + RouteToBroker (20011)

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
	Standard FIX Header		Υ	MsgType = G	Yes	Yes	Yes	Yes	Yes
FIX-1	Account	String[16]	N	Customer defined up to 16 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX-11	ClOrdID	String[20]	Y	Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.	Yes	Yes	Yes	Yes	Yes
117-10	ExecInst	Cital[1]	C	d = Tracking Order f = ISO B = OK to Cross E = DNI F = DNR G = All or None R = Primary Peg	f	d f	d f	f R	d f R

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
Tug	Tiela Name	Sutu Type	neq a	P = Market Peg M = MPL (Midpoint Liquidity)	М	P M	P M	P M	P M
				N = Non-displayed (Retail Price Improvement and Limit-Non Displayed orders)	N	N	N	N	N
				y = Trade-at ISO L = Last Sale Peg	y L	У	У	У	У
FIX-38	OrderQty	Qty[9]	Υ	1 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 7 = Inside Limit 9 = AutoMatch Limit	1 2 7	1 2 7	1 2 7	1 2 7	1 2 7
				P = Pegged	Р	Р	Р	Р	Р
FIX-41	OrigClOrdID	String[20]	Y	ClOrdID of the previously entered order intended for cancellation or replacement (NOT necessarily the initial order of the day).  Customer defined up to 20 chars; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for	Yes	Yes	Yes	Yes	Yes
				orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-44	Price	Price[16]	С	0.000001- 999,999,999.999999	Yes	Yes	Yes	Yes	Yes
FIX-54	Side	Char[1]	Υ	1 = Buy 2 = Sell 5 = Sell Short	1 2 5	1 2 5	1 2 5	1 2 5	1 2 5

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	6	6	6	6	6 8 9 A
FIX-55	Symbol	String[16]	Y	Valid Equities Ticker Symbol.	Yes	Yes	Yes	Yes	Yes
FIX-58	Text	String[80]	N	On Incoming Messages from Firm: Freeform text field; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, max length is 40 characters.  However, will not be passed back in Acknowledgments or any subsequent response messages.  On Outgoing Messages from Exchange: Reason code and text description for order activity. For example, reason for cancel/cancel-replace rejection.	Yes	Yes	Yes	Yes	Yes
FIX-59	TimeInForce	Char[1]	Υ	0 = Day 1 = GTC	0	0	0	0	0
				2 = At the Opening 3 = IOC 4 = FOK 5 = GTX 6 = GTD	3	3	3	3	3
				7 = On Close	7	7	7	7	7

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time.  On Outgoing Messages from Exchange: Exchange application time.  UTC time, in Milliseconds  YYYYMMDD- HH:MM:SS.mmm	Yes	Yes	Yes	Yes	Yes
FIX-65	SymbolSfx	String[10]	N	Valid Suffix value	Yes	Yes	Yes	Yes	Yes
FIX- 109	ClientID	String[4]	С	Not supported when sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self-Trade Prevention" section of this spec for more details.	Yes *				Yes
FIX- 110	MinQty	Qty[5]	N	Must be ≤ OrderQty	Yes	Yes	Yes	Yes	Yes
FIX- 111	MaxFloor	Qty[5]	С	Must be entered in Round Lots.	Yes	Yes	Yes	Yes	Yes
FIX- 114	LocateReqd	Boolean	С	N = No  Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as	N	N	N	N	N

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				LocateReqd = Y or tag is not provided, order will be rejected.					
FIX- 126	ExpireTime	UTC Timestamp [27]	N	Specified end time for the Algo order.  UTC time  YYYYMMDD-HH:MM:SS	Yes				
FIX- 168	EffectiveTime	UTC Timestamp [27]	N	Specified start time for the Algo order.  UTC time  YYYYMMDD-HH:MM:SS	Yes				
FIX- 386	NoTradingSessions	Int[1]	Υ	1	1	1	1	1	1
→ FIX-336	TradingSessionID	Char[1]	Y	1 = Early Trading Session 2 = Core Trading Session 3 = Late Trading Session 4 = Early & Core Trading Sessions 5 = Core & Late Trading Sessions 6 = Early, Core, & Late Trading Sessions  *Note: for symbols trading on NYSE, all values that include Core designation (Core, Early/Core, Core/Late, and Early/Core/Late) will be allowed, if the order type supports the combination on other Pillar markets. However, for each of those values, Pillar will honor the applicable trading sessions included in the instruction based on Tape (B/C symbols - Early and Core; A symbols - Core only), and ignore the other trading sessions specified in the instruction (Tape B/C symbols - Late; Tape A symbols - Early and Late)	1 2 4* 5* 6*	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

					NYSE	American	National	Arca	Texas
FIX- 528	Field Name OrderCapacity	Data Type Char[1]	Req'd Y	Values  A = Agency P = Principal R = Riskless Principal Q = Error Account  *NYSE and NYSE Texas Equities - supported only on orders routed to NYSE Floor Broker Systems and	A P R Q*	A P R	A P R	A P R	A P R Q*
FIX- 849	ParticipationRate	Price[16]	N	Brokerplex  Specified participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 5700	LocateBroker	String[4]	С	For orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt, identifies which broker has loaned the stock to settle the short sale.  For firms using Pillar Pretrade Risk Controls, use of this tag may be configured as mandatory.	Yes	Yes	Yes	Yes	Yes
FIX- 7928	SelfTradeType	Char[1]	N	O (number 0) = Use current Session Configuration STP setting for the SenderCompID T = No Self Trade Prevention N = Cancel Newest O (letter O)= Cancel Oldest C = Cancel Both D = Cancel Decrement  *NYSE Equities - supported only on orders routed to matching engine; not supported on	0 T* N O C* D*	O T N O C D	O T N O C D	O T N O C D	0 T N O C D

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				orders routed to NYSE Floor Broker Systems					
FIX- 9202	SpecialOrdType	Char[1]	N	1 = DMM Open/Re- open/Close with or without Auction (AOC) - drop copy only 2 = DMM Pre-auction - drop copy only 3 = DMM After-auction - drop copy only T = QCT (DeliverToComp ID must be populated with IB Firm Identifier) 8 = Reserved for future use					Т
FIX- 9303	RoutingInst	Char[1]	С	N = Non Routable R = Routable D = Directed (Primary Only)	N R	N R D	N R D	N R D	N R D
				S = Directed + Routable (PO+S) 1 = Primary Market until		S 1	S 1	S 1	S 1
				9:45 2 = Primary Market after		2	2	2	2
				3:55 3 = BOTH Primary Market until 9:45 AND Primary Market after 3:55		3	3	3	3
				8 = Minimum Fill (must be entered with MinQty tag populated with a	8	8	8	8	8
				non-zero value) A = Route to ATS E = Route to Algo	A E	А	А	А	А
FIX- 9403	OffsetPrice	Price[16]	С	Value must be zero, or otherwise:  • For Market Peg order - equal to or multiple of 0.01  • For Retail Price Improvement order (optional modifier on NYSE only) - equal to or	Yes	Yes	Yes	Yes	Yes

					NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req'd	Values	Ź	Ā	ž	Ā	Te
				multiple of 0.001					
FIX-	ExtendedExecInst	Char[1]	С	A = Add Liquidity Only	Α	Α	Α	Α	Α
9416				(ALO) 2 = No route to IOI			2	2	2
				4 = Retail Order Type 1	4				
				5 = Retail Order Type 2			5		
				7 = Retail Provider	7		7		
				8 = Imbalance Offset	8	8		8	8
				L = Limit dOrder M = Midpoint dOrder					
				C = Complex Order					
				Auction					
				9 = Discretionary Peg		9		9	
				D = Dark (Non-Displayed)		D			
				Primary Peg I = Issuer Direct Offering	1				
				(IDO)	'				
FIX-	IntroducingBadgeI	String[4]	С	1 – 4 numeric characters.					Yes
9448	D			Present on orders from					
				Brokerplex to Pillar. Present on orders from					
				NYSE Floor Broker					
				Systems to Pillar.					
FIX-	ParentFirmClOrdID	String[20]	С	<= 20 chars					Yes
9451				Present on orders from					
				Brokerplex to Pillar. Present on orders from					
				NYSE Floor Broker					
				Systems to Pillar.					
FIX-	ParentFirmMPID	String[4]	С	Firm Identifier - MPID.					Yes
9453				Present on orders from					
				Brokerplex to Pillar. Present on orders from					
				NYSE Floor Broker					
				Systems to Pillar.					
FIX-	InterestType	Char[1]	С	3 = NYSE Floor Broker		Q	Q	Q	Q
9478				Cross - 72D					
				Q = Q-Order Y = Yield Order					
FIX-	AttributedQuote	Char[1]	N	0 = Not Attributed	0	0	0	0	0
20001	- Att. In dica quote	J[±]	'	1 = Attributed for Market		1	1	1	1
				Data Feeds					
				2 = Include in Broker					
				Volume 3 = Attributed for Market					
			<u> </u>	3 = Attributed for Market	<u> </u>				

						an	al		
<b>.</b>	Etald Name	Data Toma	D/d	Value	NYSE	American	National	Arca	Texas
Tag	Field Name	Data Type	Req'd	Data Feeds, and Include in Broker Volume					
FIX- 20002	ProactivelfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked	0	0	0	0	0
				for routable orders  2 = Non-display remove liquidity for non- displayed orders locked by contraside ALOs	2	2	2	2	2
FIX- 20003	CancelInsteadOfRe price	Char[1]	N	0 = Not applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only	0	0	0	0	0
				3 = Cancel order instead of repricing for any reason	3	3	3	3	3
FIX- 20011	RouteToBroker	Char[1]	С	Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems) based on value provided in DelliverToCompID on incoming messages from Firm					
				Y = Route to non- Matching Engine destination N = Route to Matching Engine	Y N				Y N
				If not specified, will be assumed as a value of "N", and will be routed directly to Matching Engine					
FIX- 20012	BrokerOMSID	String[4]	С	Present on orders from Brokerplex to Pillar to identify the Broker ID targeted by the parent order.					Yes
FIX- 20013	SubIDIndicator	Char[1]	N	When populating both OnBehalfOfSubID (116)					

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				and SelfTradeType (7928) on an order, allows the firm to specify whether the OnBehalfOfSubID should be used or ignored for Self-Trade Prevention (STP) evaluation. See "Self- Trade Prevention" section of this spec for more details.  If also using Pillar Pre- trade Risk Controls, the OnBehalfOfSubID will be used for Risk Entity purposes regardless of the value specified in this field.  0 = for this order, use OnBehalfOfSubID (within the MPID) for STP evaluation 1 = for this order, ignore the OnBehalfOfSubID for STP (conduct STP evaluation at MPID level only)  If not specified, will be	0	0	0	0	0
FIX- 20046	TargetStrategy	String[20]	N	assumed as a value of 0.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  Target Strategy to be used by the Algo.	Yes				

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 20047	10b-18	Char[1]	N	0 = Not eligible for 10b- 18	0				
FIX- 20048	AuctionEligible	Char[1]	N	1 = Eligible for 10b-18  0 = Do not participate in any Auction  1 = Participate in the Closing Auction  2 = Participate in the Opening Auction  3 = Participate in both the Opening and Closing Auction	1 2 3				
FIX- 20049	MinParticipationR ate	Price[16]	N	Minimum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20050	MaxParticipationR ate	Price[16]	N	Maximum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20051	WouldPrice	Price[16]	N	Would Price to be used by the Algo to get the Target Strategy done.	Yes				
FIX- 20052	RoutingStrategy	Int[8]	N	1 = Midpoint Ping 2 = Retail Price Improvement Seeking 3 = Retail Midpoint Ping	1	1	1 2 3	1	1
	Standard FIX Trailer		Υ	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

## 8.4 Order Cancel Reject

This message is used to reject a Cancel or Cancel/Replace Request.

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
	Standard FIX Header		Y	MsgType = 9	Yes	Yes	Yes	Yes	Yes
FIX-11	ClOrdID	String[20]	Y	Returned from the Cancel or Cancel/Replaced Request – the ClOrdID of the message that is rejected (Cancel or Cancel/Replace request).  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX-37	OrderID	String[20]	Υ	OrderID of the order intended for cancellation or replacement.  Unique identifier of most recent order as assigned by the Exchange. Published externally to market data feeds.  Numerical up to 20 characters.	Yes	Yes	Yes	Yes	Yes
FIX-39	OrdStatus	Char[1]	Υ	Status of the order:  0 = New  1 = Partially Filled  2 = Filled  3 = Done For Day  4 = Cancelled  5 = Replaced  6 = Pending Cancel  8 = Rejected  C = Billable Cancel (Self Trade Prevention)  E = Pending Replace  M = Pending Modify	8	8	8	8	8
FIX-41	OrigClOrdID	String[20]	С	Returned from Order Cancel or Cancel/Replace Request.  Represents the ClOrdID of the previously entered order intended for cancellation or replacement (NOT necessarily the initial order of the day).  Customer defined up to 20 chars; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
		,		*NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-58	Text	String[40]	N	On Incoming Messages from Firm: Freeform text field; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE	Yes	Yes	Yes	Yes	Yes
				Floor Broker Systems, max length is 40 characters.  However, will not be passed back in Acknowledgments or any subsequent response messages.  On Outgoing Message from Exchange: Reason					
				code and text description for order activity, up to 40 characters. For example, reason for cancel/cancel-replace rejection.					
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time.	Yes	Yes	Yes	Yes	Yes
				On Outgoing Message from Exchange: Exchange application time.					

Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
			UTC time, in Milliseconds  YYYYMMDD-					
			HH:MM:SS.mmm					
CxlRejResponseTo	Char[1]	Υ	1 = Order Cancel Request 2 = Order Cancel/Replace Request	1 2	1 2	1 2	1 2	1 2
Nanosecond SendingTime	String[27]	Υ	Time of message transmission on outgoing message from Exchange.	Yes	Yes	Yes	Yes	Yes
			UTC time, in Nanoseconds –					
			YYYYMMDD- HH:MM:SS.sssssssss					
			Note: this represents the same reference time as provided in the Standard					
			SendingTime (52), with more granular resolution.					
Nanosecond TransactTime	String[27]	Y	time.	Yes	Yes	Yes	Yes	Yes
			UTC time, in Nanoseconds –					
			YYYYMMDD- HH:MM:SS.sssssssss					
			Note: this represents the same reference time as provided in the standard					
			FIX tag TransactTime (60), with more granular resolution.					
RouteToBroker	Char[1]	С	Required when intending to route message to non-Matching Engine					
			Texas Brokerplex or NYSE Floor Broker Systems)					
	CxIRejResponseTo  Nanosecond SendingTime  Nanosecond TransactTime	CxIRejResponseTo Char[1]  Nanosecond String[27]  Nanosecond TransactTime  String[27]	CxlRejResponseTo Char[1] Y  Nanosecond String[27] Y  Nanosecond TransactTime  String[27] Y	CxIRejResponseTo  Char[1]  V 1 = Order Cancel Request 2 = Order Cancel/Replace Request Tammission on outgoing message from Exchange.  UTC time, in Nanoseconds — VYYYMMDD— HH:MM:SS.sssssssss Note: this represents the same reference time as provided in the Standard FIX Header tag SendingTime (52), with more granular resolution.  Nanosecond TransactTime  VTC time, in Nanoseconds — VYYYMMDD— HH:MM:SS.sssssssss Note: this represents the same reference time as provided in the standard FIX tag TransactTime (60), with more granular resolution.  RouteToBroker  Char[1]  C Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE	CxlRejResponseTo  Char[1]  CxlRejResponseTo  Char[1]  V  Char[27]  Nanosecond  SendingTime  String[27]  Note: this represents the same reference time as provided in the standard fix Header tag SendingTime  String[27]  V  Exchange application time.  ViryyMMDD- HH:MM:SS.ssssssss  Note: this represents the same reference time as provided in the Standard Fix Header tag SendingTime (52), with more granular resolution.  ViryyMMDD- HH:MM:SS.sssssssss  Note: this represents the same reference time as provided in the Standard Fix Header tag SendingTime (52), with more granular resolution.  Nanosecond  TransactTime  ViryyMMDD- HH:MM:SS.ssssssss  Note: this represents the same reference time as provided in the standard Fix tag TransactTime (60), with more granular resolution.  RouteToBroker  Char[1]  C  Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems)	CxIRejResponseTo	CxIRejResponseTo  CxIRejResponseTo  Char[1]  Y  1 = Order Cancel Request 2 = Order Cancel/Replace Request Time of message Trime of message Tri	CxIRejResponseTo

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				in DelliverToCompID on incoming messages from Firm					
				Y = Route to non- Matching Engine destination	Y				Y
				N = Route to Matching Engine	N				N
				If not specified, will be assumed as a value of "N", and will be routed directly to Matching Engine					
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

## 8.5 Execution Report

This message is used to confirm new orders, cancellations, replacements, fills, trade busts, trade corrections (NYSE Texas only), and order rejections.

It is also used as a Billable Cancel message when ExecType = C (Billable Cancel). This message is sent only for STP types Cancel Both and Cancel Decrement, and is generated for the quantity that was prevented from trading (matching quantity). Then, if the balance of either order needs to be cancelled as a result of the STP instruction, a UROUT will be sent for the remaining shares with with ExecType = 4 (Canceled).

On the Billable Cancel message, 'LastQty' represents the matching quantity and 'LastPx' represents the price at which the orders would have executed had they been allowed to trade.

This message may also be sent unsolicited by the Exchange as an Order Priority Update Acknowledgement to notify the firm of a Reserve Order replenishment event. Firms control receipt of these Acks by session level subscription via the Logon Request message. The Ack indicates that the displayed portion of a Reserve Order has been replenished according to the order's 'MaxFloor'. The replenishment order is assigned a new OrderID, which is provided in the message.

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
	Standard FIX Header		Y	MsgType = 8	Yes	Yes	Yes	Yes	Yes
FIX-1	Account	String[16]	N	Customer defined up to 16 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes
FIX-11	CIOrdID	String[20]	Y	Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-14	CumQty	Qty[9]	С	0 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX-17	ExecID	String[32]	Y	Unique identifier of the outgoing FIX message, assigned by the Exchange to all FIX MsgType 8.  Up to 32 characters.	Yes	Yes	Yes	Yes	Yes
FIX-18	ExecInst	Char[1]	С	d = Tracking Order f = ISO B = OK to Cross E = DNI F = DNR G = All or None R = Primary Peg P = Market Peg M = MPL (Midpoint Liquidity) N = Non-displayed (Retail Price Improvement and Limit-Non Displayed orders)	f M N	d f R P M	d f R P M	d f R P M	d f R P M
				y = Trade-at ISO L = Last Sale Peg	y L	У	У	У	У

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				v = Stock-Option/Stock- Future Contingent (only present on outbound drop copy messages)					v
FIX-19	ExecRefID	String[32]	С	Contains the ExecID (Tag 17) value of the Fill that is busted or corrected.  Up to 32 characters.	Yes	Yes	Yes	Yes	Yes
FIX-20	ExecTransType	Char[1]	Y	0 = New (ack, pending cancel, pending replace, partial fill, fill, order reject) 1 = Cancel (Trade Break	0	0	0	0	0
				Only) 2 = Correct (Trade Correction Only)	2*	1	1	1	2
FIX-30	LastMkt	String[4]	С	*NYSE Equities - supported only for orders routed to NYSE Floor Broker Systems On fills and partial fills,	Yes	Yes	Yes	Yes	Yes
FIX-3U	Lastivikt	String[4]		Market Identifier Code (MIC) of the sending Exchange (regardless of local or away market execution) or other destinations, as noted	res	res	res	res	res
				below. ARCX = NYSE Arca Equities XASE = NYSE American Equities XCHI = NYSE Texas					
				Equities  XCIS = NYSE National  Equities  XNYS = NYSE Equities  TRFN = NYSE TRF (NYSE					
				Texas Equities via Brokerplex) NOTH = Manual Destination (NYSE Texas Equities via Brokerplex)					
				ALGO = algorithm away market execution (NYSE					

					щ	American	National	o o	as
Tag	Field Name	Data Type	Req'd	Values	NYSE	Am	Nat	Arca	Texas
				only via NYSE Floor Broker Systems)					
FIX-31	LastPx	Price[16]	С	Price of current partial fill or fill message (set to 0 on all non-fills).	Yes	Yes	Yes	Yes	Yes
				0 - 999999.999999					
FIX-32	LastQty	Qty[9]	С	Quantity of current partial fill or fill message (set to 0 on all non-fills).	Yes	Yes	Yes	Yes	Yes
				0 - 999,999,999					
FIX-37	OrderID	String[20]	С	Unique identifier of most recent order as assigned by the Exchange. Published externally to market data feeds.  Numerical up to 20	Yes	Yes	Yes	Yes	Yes
				characters.					
FIX-38	OrderQty	Qty[9]	Υ	1 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX-39	OrdStatus	Char[1]	Y	Status of the order:  0 = New  1 = Partially Filled  2 = Filled  3 = Done For Day  4 = Cancelled  5 = Replaced  6 = Pending Cancel  8 = Rejected  C = Billable Cancel (Self Trade Prevention)  E = Pending Replace  M = Pending Modify  1 = Market  2 = Limit	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C E M
				7 = Inside Limit 9 = AutoMatch Limit P = Pegged	2 7 P	2 7 P	2 7 P	2 7 P	7 P
FIX-41	OrigClOrdID	String[20]	С	Returned from Order Cancel or Cancel/Replace Request.  Represents the ClOrdID of the previously entered order intended for	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				cancellation or replacement (NOT necessarily the initial order of the day).  Customer defined up to 20 chars; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.					
FIX-44	Price	Price[16]	С	0.000001- 999,999,999.999999	Yes	Yes	Yes	Yes	Yes
FIX-54	Side	Char[1]	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	1 2 5 6	1 2 5 6	1 2 5 6	1 2 5 6	1 2 5 6 8 9 A
FIX-55	Symbol	String[16]	Υ	Valid Equities Ticker Symbol.	Yes	Yes	Yes	Yes	Yes
FIX-58	Text	String[40]	N	On Incoming Messages from Firm: Freeform text field; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				*NYSE Equities - for orders routed to NYSE Floor Broker Systems, max length is 40 characters.  However, will not be passed back in Acknowledgments or any subsequent response messages.  On Outgoing Messages from Exchange: Reason code and text description for order activity, up to 40 characters. For example, reason for cancel/cancel-replace rejection.					
FIX-59	TimeinForce	Char[1]	Y	0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK 5 = GTX 6 = GTD 7 = On Close	0 2 3	0 2 3	0 2 3	0 2 3	0 2 3
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time.  On Outgoing Message from Exchange: Exchange application time.  UTC time, in Milliseconds  YYYYMMDD-HH:MM:SS.mmm	Yes	Yes	Yes	Yes	Yes
FIX-63	SettlementType	Char[1]	N	0 = Regular Way 1 = Cash* *Only supported on Cross Orders.					0

FIX-   MinQty   Qty[5]   N   Must be entered in Round Lots.   FIX-   MaxFloor   IX-   IX-	NYSE American	Values	National	Arca	Texas
FIX- 109  ClientID  String[4]  C  Not supported when sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self-Trade Prevention" section of this spec for more details.  FIX- 110  MinQty Qty[5]  N  Must be ≤ OrderQty Yes  FIX- 111  FIX- 111  C  MaxFloor  Qty[5]  C  Must be entered in Round Lots.  FIX- 114  Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will be rejected.  FIX- 126  ExpireTime  UTC Timestamp  N  Specified end time for the Algo order.		settlement type is			
sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self- Trade Prevention" section of this spec for more details.  FIX- I110  MaxFloor Qty[5]  C Must be entered in Round Lots.  FIX- I111  Corders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will be rejected.  FIX- ExpireTime UTC Timestamp  Sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas Equities - Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB firms Required for orders sent to NYSE Texas IB for to NYSE Required for Optional sent to NYSE Required for Option Required for CAT Senders and Sent sent to NYSE Required for Option Required for Option Required for CAT Senders and Sent sent to NYSE Required for Option Required for Option Required for Option Required	es Yes	Valid Suffix value	Yes	Yes	Yes
FIX-110       MinQty       Qty[5]       N       Must be ≤ OrderQty       Yes         FIX-111       MaxFloor       Qty[5]       C       Must be entered in Round Lots.       Yes         FIX-114       LocateReqd       Boolean       C       N = No       N         Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will be rejected.         FIX-126       ExpireTime       UTC Timestamp       N       Specified end time for the Algo order.       Yes	es*	sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self-Trade Prevention" section of this spec for more			Yes
FIX- FIX- LocateReqd Boolean C N = No Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will be rejected.  FIX- ExpireTime UTC Timestamp N Specified end time for the Algo order.	es Yes		Yes	Yes	Yes
Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will be rejected.  FIX- ExpireTime UTC Timestamp N Specified end time for the Algo order.	es Yes		Yes	Yes	Yes
FIX- ExpireTime UTC N Specified end time for the Yes 126 Algo order.	N N	Orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt must be entered as LocateReqd = N. If entered as LocateReqd = Y or tag is not provided, order will	N	N	N
UTC time  YYYYMMDD-HH:MM:SS	res	Specified end time for the Algo order.  UTC time			

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 150	ЕхесТуре	Char[1]	Y	0 = New 1 = Partially Filled 2 = Filled 3 = Done For Day 4 = Cancelled 5 = Replaced 6 = Pending Cancel 8 = Rejected C = Billable Cancel (Self Trade Prevention) E = Pending Cancel/Replace L = Eligible for Cross (Used for Broker Cross Orders) M = Pending Modify	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C
FIX- 151	LeavesQty	Qty[9]	С	0 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX- 168	EffectiveTime	UTC Timestamp [27]	N	Specified start time for the Algo order.  UTC time  YYYYMMDD-HH:MM:SS	Yes				
FIX- 386	NoTradingSession s	Int[1]	Υ	1	1	1	1	1	1
FIX- 336	TradingSessionID	Char[1]	Y	1 = Early Trading Session 2 = Core Trading Session 3 = Late Trading Session 4 = Early & Core Trading Sessions 5 = Core & Late Trading Sessions 6 = Early, Core, & Late Trading Sessions  *Note: for symbols trading on NYSE, all values that include Core designation (Core, Early/Core, Core/Late, and Early/Core/Late) will be allowed, if the order type supports the combination on other Pillar markets. However, for each of those values, Pillar will honor the applicable trading sessions included in the instruction	1 2 4* 5* 6*	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				based on Tape (B/C symbols - Early and Core; A symbols - Core only), and ignore the other trading sessions specified in the instruction (Tape B/C symbols - Late; Tape A symbols - Early and Late)					
FIX- 528	OrderCapacity	Char[1]	Y	A = Agency P = Principal R = Riskless Principal Q = Error Account  *NYSE and NYSE Texas Equities - supported only on orders routed to NYSE Floor Broker Systems and Brokerplex	A P R Q*	A P R	A P R	A P R	A P R Q*
FIX- 849	ParticipationRate	Price[16]	N	Specified participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 5700	LocateBroker	String[4]	С	For orders with Side of Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt, identifies which broker has loaned the stock to settle the short sale.  For firms using Pillar Pretrade Risk Controls, use of this tag may be configured as mandatory.	Yes	Yes	Yes	Yes	Yes
FIX- 7928	SelfTradeType	Char[1]	N	O (number 0) = Use current Session Configuration STP setting for the SenderCompID T = No Self Trade Prevention N = Cancel Newest O (letter O) = Cancel Oldest	0 T* N O	T N O	T N O	T N O	O T N O

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				C = Cancel Both D = Cancel Decrement  *NYSE Equities - supported only on orders routed to matching engine; not supported on orders routed to NYSE Floor Broker Systems	C* D*	C D	C D	C D	C D
FIX- 9202	SpecialOrdType	Char[1]	С	1 = DMM Open/Re- open/Close with or without Auction (AOC) - drop copy only 2 = DMM Pre-auction - drop copy only 3 = DMM After-auction - drop copy only T = QCT (DeliverToComp ID must be populated with IB Firm Identifier) 8 = Reserved for future use					Т
FIX- 9303	RoutingInst	Char[1]	С	N = Non Routable R = Routable D = Directed (Primary Only) S = Directed + Routable (PO+S) 1 = Primary Market until 9:45 2 = Primary Market after 3:55 3 = BOTH Primary Market until 9:45 AND Primary Market after 3:55 8 = Minimum Fill (must be entered with MinQty tag populated with a non- zero value) A = Route to ATS E = Route to Algo	N R	N R D S 1 2 3	N R D S 1 2 3	N R D S 1 2 3	N R D S 1 2 3
FIX- 9403	OffsetPrice	Price[16]	С	Value must be zero, or otherwise:  • For Market Peg order - equal to or multiple of 0.01	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				<ul> <li>For Retail Price Improvement order (optional modifier on NYSE only) - equal to or multiple of 0.001</li> </ul>					
9416	ExtendedExecInst	Char[1]	С	A = Add Liquidity Only (ALO) 2 = No route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset L = Limit dOrder M= Midpoint dOrder C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO)	A 4 7 8	8 9 D	A 2 5 7	A 2 8	A 2 8
FIX- 9448	IntroducingBadgel D	String[4]	С	1 – 4 numeric characters  NYSE Equities - sent on executions of orders routed to NYSE Floor Broker Systems; populated with Broker badge	Yes				
FIX- 9451	ParentFirmClOrdl D	String[20]	С	<= 20 chars  *Present on drop copy messages of cross allocations done by NYSE Texas IB Firms					Yes*
FIX- 9453	ParentFirmMPID	String[4]	С	*Present on drop copy messages of cross allocations done by NYSE Texas IB Firms					Yes*
FIX- 9478	InterestType	Char[1]	С	3 = NYSE Floor Broker Cross - 72D Q = Q-Order Y = Yield Order		Q	Q	Q	Q

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
9483	DealID	String[20]	С	Unique identifier of a transaction, assigned by the Exchange to both Execution reports representing the two sides of a single trade.  Numerical up to 20 characters.  Busts - original DealID of the transaction that is being busted or corrected.  Corrections - new DealID for the corrected transaction.	Yes	Yes	Yes	Yes	Yes
FIX- 9730	LiquidityIndicator	String	С	On Order Acknowledgements:  1 = Candidate for setting a new displayed bid or offer on the local market 4 = Candidate for setting a new displayed bid or offer on the local market and joining the NBBO 5 = Candidate for setting a new displayed bid or offer on the local market and joining the NBBO Note: Candidate for setting a new displayed bid or offer on the local market and setting the NBBO  Note: Order Priority Update Acks will only be populated with value 0 or 1. The value 1 will be returned when the original order ack was populated with 1, 4, or 5  On Partial Fills and Fills: See Appendix for Values.	Yes	Yes	Yes	Yes	Yes
FIX- 20001	AttributedQuote	Char[1]	N	0 = Not Attributed 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market	0	0 1	0 1	0 1	0 1

					ш	American	National	_	35
Tag	Field Name	Data Type	Req'd	Values	NYSE	Ame	Nati	Arca	Texas
				Data Feeds, and Include in Broker Volume					
FIX- 20002	ProactivelfLocked	Char[1]	С	0 = No locked functionality	0	0	0	0	0
				1 = Proactive if Locked for routable orders 2 = Non-display remove	2	2	2	2	2
				liquidity for non- displayed orders locked by contraside ALOs					
FIX- 20003	CancelInsteadOf Reprice	Char[1]	N	0 = Not applicable (follow default order behavior)	0	0	0	0	0
				1 = Cancel order instead of repricing – for LULD only		1	1	1	1
				3 = Cancel order instead of repricing for any reason	3	3	3	3	3
FIX- 20004	WorkingPrice	Price[16]	С	0.000001-999999.999999	Yes	Yes	Yes	Yes	Yes
FIX- 20005	FlowIndicator	Char[1]	Υ	Indicates whether a corresponding inbound message was throttled. For outgoing messages without a corresponding inbound message, the tag will default to 0.					
				0 = Inbound message was not throttled	0	0	0	0	0
				1 = Inbound message was throttled	1	1	1	1	1
FIX- 20006	WorkingAwayFro mDisplay	Char[1]	С	On Order Acknowledgements, indicates whether the working price of the order is equal to or different than the display price.					
				0 = Working Price is equal to Display Price	0	0	0	0	0
				1 = Working Price is different from Display Price	1	1	1	1	1

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 20007	UnsolicitedAck Type	Char[1]	С	On Order Priority Update Acknowledgements, indicates the type of event that produced the unsolicited Ack.  2 = Order Priority Update - New OrderID (reserve order replenishment)  3 = Order Priority Update - Same OrderID (working price update)	2	2	2	2	2
FIX- 20008	ParticipantType	Char[1]	С	Sent on fills.  1 = Customer 2 = Market Maker/LMM 3 = DMM 4 = SLP 5 = NYSE Floor Broker/NYSE Texas IB	1 2 3 4 5	1 2	1 2	1 2	1 5
FIX- 20009	Nanosecond SendingTime	String[27]	Y	Time of message transmission on outgoing message from Exchange.  UTC time, in Nanoseconds –  YYYYMMDD-HH:MM:SS.ssssssss  Note: this represents the same reference time as provided in the Standard FIX Header tag SendingTime (52), with more granular resolution.	Yes	Yes	Yes	Yes	Yes
FIX- 20010	Nanosecond TransactTime	String[27]	Y	Exchange application time.  UTC time, in Nanoseconds –  YYYYMMDD- HH:MM:SS.sssssssss	Yes	Yes	Yes	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				Note: this represents the same reference time as provided in the standard FIX tag TransactTime (60), with more granular resolution.					
FIX- 20011	RouteToBroker	Char[1]	С	Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems) based on value provided in DelliverToCompID on incoming messages from Firm  Y = Route to non-	Y				Υ
				Matching Engine destination N = Route to Matching Engine  If not specified, will be assumed as a value of "N", and will be routed directly to Matching Engine	N				N
FIX- 20012	BrokerOMSID	String[4]	С	Present on orders from Brokerplex to Pillar to identify the Broker ID targeted by the parent order.  Present on drop copy messages of cross allocations done by NYSE Texas IB Firms					Yes
FIX- 20013	SubIDIndicator	Char[1]	N	When populating both OnBehalfOfSubID (116) and SelfTradeType (7928) on an order, allows the firm to specify whether the OnBehalfOfSubID should be used or ignored for Self-Trade Prevention (STP) evaluation. See "Self-Trade Prevention"					

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				section of this spec for more details.  If also using Pillar Pretrade Risk Controls, the OnBehalfOfSubID will be used for Risk Entity purposes regardless of the value specified in this field.  O = for this order, use OnBehalfOfSubID (within the MPID) for STP evaluation 1 = for this order, ignore the OnBehalfOfSubID for STP (conduct STP evaluation at MPID level only)  If not specified, will be assumed as a value of 0.	0	0	0	0	0
FIX- 20046	TargetStrategy	String[20]	N	Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  Target Strategy to be used by the Algo.	Yes				
FIX- 20047	10b-18	Char[1]	N	0 = Not eligible for 10b-18 1 = Eligible for 10b-18	0				
FIX- 20048	AuctionEligible	Char[1]	N	0 = Do not participate in any Auction 1 = Participate in the Closing Auction 2 = Participate in the Opening Auction 3 = Participate in both the Opening and Closing Auction	0 1 2 3				

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 20049	MinParticipationR ate	Price[16]	N	Minimum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20050	MaxParticipationR ate	Price[16]	N	Maximum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20051	WouldPrice	Price[16]	N	Would Price to be used by the Algo to get the Target Strategy done.	Yes				
FIX- 20052	RoutingStrategy	Int[8]	N	1 = Midpoint Ping 2 = Retail Price Improvement Seeking 3 = Retail Midpoint Ping	1	1	1 2 3	1	1
FIX- 30002	RefDealID	String[20]	С	Unique identifier of a transaction, assigned to both sides of a single trade.  Numerical up to 20 characters.	Yes				Yes
	Standard FIX Trailer		Υ	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

## 9. FIX Drop Copies

Drop copies of order activity transacted over the Pillar FIX Gateway are available via a separate FIX gateway interface. When ordering new FIX drop copy sessions, recipients may choose from the following configuration options.

- Market Participant Filters receive drop copies of activity filtered by one of the following criteria:
  - SenderCompID(s) a single or multiple order entry session SenderCompIDs
  - MPID(s) a single or multiple MPIDs
  - Clearing Number(s) a single or multiple clearing numbers
  - o IntroducingBadgeID(s) (NYSE only) a single or multiple broker badges
- Order Activity Filters receive drop copies of outbound messages for either:
  - All order activity all Execution Reports (MsgType = 8) regardless of OrdStatus, and all Order Cancel Rejects (MsgType = 9)
  - Fills and Partial Fills only only Execution Reports (MsgType = 8) with OrdStatus = 1 (Partially Filled)
     and 2 (Filled)

**NYSE Texas Equities** - recipients configured with MPID or Clearing Number filters on their drop copy sessions will be able to identify cross allocations done by NYSE Texas IB Firms in the following manner via single sided execution report messages:

- Parent Firm MPID (9453) and Parent ClordID (9451) fields will be present
- Liquidity indicators (9730) will be one of the following:
  - o Z
  - o ZT
  - o ZTZ
- The Sell side will be identified as a cross side, with the following mapping:
  - 8 (cross) = 2 (sell)
  - 9 (cross short) = 5 (sell short)
  - A (cross short exempt) = 6 (sell short exempt)
- Other key attributes:
  - o OnBehalfOfSubID (116) will contain a Trading Account or MPID (more details in FIX header section)
  - o Account (1) will contain a Subaccount related to the MPID or Trading Account
  - BrokerOMSID (20012) will contain the MPID of the NYSE Texas IB Firm that executed the trade and handled the allocation
  - BillTo (9449) will contain values that that correspond to clearing/billing workflows for NYSE Texas IB
     Firms
- In the event of a cancel or correction, the initial execution report for an allocation will always be busted. In the case of a correction, a new execution report may be received based on the terms that were changed (e.g. if firm was changed, then new execution report may not be received, vs if price was changed and firm was same, new execution report will be received).

**NYSE Floor Broker Cross** - recipients configured with SenderCompID, MPID, Clearing Number or IntroducingBadgeID filters on their drop copy sessions will be able to identify cross allocations done by NYSE Floor Broker Firms in the following manner via single sided execution report messages:

- Parent ClordID [9451] field will be present
- Liquidity indicators [9730] will be one of the following:
  - o ZB
  - o ZBZ
- AllocationFirmMPID [20022] -

- O Self-Allocation if the Initiating Broker allocates both sides of the trade to self, this field will be present on both sides of the allocation pair
- Allocations to Third Party if the Initiating Broker allocates either side of a trade to a third party, this
  field will only be present on the side that is allocated to self
- AllocationIndicator [30003] = Y will distinguish an Allocation from an original execution via FIX Drop Copy
- OrigDealID [30006] on allocations, busts, and corrections will be populated with the DealID of the corresponding trade

Allocations to Third Party - if the Initiating Broker allocates either side of a trade to a third party via the FIX Gateway or NYSE Pillar Trade Ops Portal, allocation fill messages for both sides will be sent exclusively to FIX Drop Copy, after the third-party approval has been entered via the Trade Ops Portal. Allocation fill messages will not be sent back to the OMS order entry session, even if the Initiating Broker remains on one side

Busts by NYSE - will be sent back to the OMS order entry session. All Other Adjustments - such as allocations/changes to firm identifier, clearing changes, etc. will be sent exclusively to FIX Drop Copy and not to the OMS order entry session

For firms interested in correlating trades and allocations with the original Broker Cross order, if *OrigClOrdID* [41] is present on the drop copy message, this tag will refer to the *ClOrdID* [11] of the open outcry order. If tag 41 is not present, *ClOrdID* [11] on drop copy will refer to the Broker Cross order.

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
	Standard FIX Header		Υ	MsgType = 8	Yes	Yes	Yes	Yes	Yes
FIX-1	Account	String[16]	N	Customer defined up to 16 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes	Yes	Yes	Yes	Yes
FIX- 11	ClOrdID	String[20]	Υ	Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.  Pillar will validate that the ClOrdID is unique for the combination of SenderCompID + OnBehalfOfCompID (MPID) that entered the order, among open orders only. However, the firm is	Yes	Yes	Yes	Yes	Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				responsible for ensuring that the ClOrdID provided is unique among all orders sent for the full length of the trading day by the given SenderCompID + MPID.  Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then					
FIX-	CumQty	Qty[9]	С	one of them must be lowercase.  0 - 999,999,999	Yes	Yes	Yes	Yes	Yes
14 FIX- 17	ExecID	String[32]	Υ	Unique identifier of the outgoing FIX message, assigned by the Exchange to all FIX MsgType 8.  Up to 32 characters.	Yes	Yes	Yes	Yes	Yes
FIX- 18	Execinst	Char[1]	С	d = Tracking Order f = ISO B = OK to Cross E = DNI F = DNR G = All or None R = Primary Peg P = Market Peg M = MPL (Midpoint Liquidity) N = Non-displayed (Retail Price Improvement and Limit-	f R M N	d f R P M N	d f R P M N	d f R P M N	d f R P M N
				Non Displayed orders) y = Trade-at ISO	у	У	у	у	у

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				L = Last Sale Peg v = Stock-Option/Stock- Future Contingent (only present on outbound drop copy messages)	L				v
FIX- 19	ExecRefID	String[32]	С	Contains the ExecID (Tag 17) value of the Fill that is busted or corrected.  Up to 32 characters.	Yes	Yes	Yes	Yes	Yes
FIX- 20	ExecTransType	Char[1]	Y	0 = New (ack, pending cancel, pending replace, partial fill, fill, order reject) 1 = Cancel (Trade Break Only) 2 = Correct (Trade Correction Only)  *NYSE Equities - supported only for orders routed to NYSE Floor Broker Systems	0 1 2*	1	1	1	0 1 2
FIX- 30	LastMkt	String[4]	С	On fills and partial fills, Market Identifier Code (MIC) of the sending Exchange (regardless of local or away market execution) or other destinations, as noted below. ARCX = NYSE Arca Equities XASE = NYSE American Equities XCHI = NYSE Texas Equities XCIS = NYSE National Equities XCIS = NYSE Requities TRFN = NYSE TRF (NYSE Texas Equities via Brokerplex) NOTH = Manual Destination (NYSE Texas Equities via Brokerplex) ALGO = algorithm away market execution (NYSE only via NYSE Floor Broker Systems)	Yes	Yes	Yes	Yes	Yes
FIX- 31	LastPx	Price[16]	С	Price of current partial fill or fill message (set to 0 on all non-fills).	Yes	Yes	Yes	Yes	Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				0 - 999999.999999					
FIX- 32	LastQty	Qty[9]	С	Quantity of current partial fill or fill message (set to 0 on all non-fills).  0 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX- 37	OrderID	String[20]	С	Unique identifier of most recent order as assigned by the Exchange. Published externally to market data feeds.  Numerical up to 20 characters.	Yes	Yes	Yes	Yes	Yes
FIX- 38	OrderQty	Qty[9]	Υ	1 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX- 39	OrdStatus	Char[1]	Y	Status of the order:  0 = New  1 = Partially Filled  2 = Filled  3 = Done For Day  4 = Cancelled  5 = Replaced  6 = Pending Cancel  8 = Rejected  C = Billable Cancel (Self Trade Prevention)  E = Pending Replace  G = Pillar OMS Allocation  Pending  H = Pillar OMS Allocation  Reject  J = Pillar OMS Trade Reject  K = OMS Allocation Request  L = Eligible for Cross  M = Pending Modify  T = OMS Trade Request	0 1 2 3 4 5 6 8 C E G H J	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C
FIX- 40	OrdType	Char[1]	Υ	1 = Market 2 = Limit 7 = Inside Limit 9 = AutoMatch Limit	1 2 7	1 2 7	1 2 7	1 2 7	1 2 7
				P = Pegged	Р	Р	Р	Р	Р

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 41	OrigClOrdID	String[20]	С	Returned from Order Cancel or Cancel/Replace Request.  Represents the ClOrdID of the previously entered order intended for cancellation or replacement (NOT necessarily the initial order of the day).  Customer defined up to 20 chars; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.  *NYSE Equities - for orders routed to NYSE Floor Broker Systems, if alpha characters are used for the first two consecutive characters, then one of them must be lowercase.	Yes	Yes	Yes	Yes	Yes
FIX- 44	Price	Price[16]	С	0.000001- 999,999,999.999999	Yes	Yes	Yes	Yes	Yes
FIX- 54	Side	Char[1]	Υ	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	1 2 5 6 8 9 A	1 2 5 6	1 2 5 6	1 2 5 6	1 2 5 6 8 9 A
FIX- 55	Symbol	String[16]	Υ	Valid Equities Ticker Symbol or Options Underlying symbol.	Yes	Yes	Yes	Yes	Yes
FIX- 58	Text	String[40]	N	On Incoming Messages from Firm: Freeform text field; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol,	Yes	Yes	Yes	Yes	Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				greater than/less than, ampersand (&) and single/double quotation mark.					
				*NYSE Equities - for orders routed to NYSE Floor Broker Systems, max length is 40 characters.					
				However, will not be passed back in Acknowledgments or any subsequent response messages.					
				On Outgoing Messages from Exchange: Reason code and text description for order activity, up to 40 characters. For example, reason for cancel/cancel-replace rejection.					
FIX- 59	TimeinForce	Char[1]	Y	0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK 5 = GTX 6 = GTD	2 3	2 3	2 3	2 3	2 3
FIX- 60	TransactTime	UTC Timestam p [27]	N	7 = On Close On Incoming Messages from Firm: Customer application time.	7 Yes	7 Yes	7 Yes	7 Yes	7 Yes
				On Outgoing Message from Exchange: Exchange application time.					
				UTC time, in Milliseconds  YYYYMMDD-					
				HH:MM:SS.mmm					
FIX- 63	SettlementType	Char[1]	N	0 = Regular Way 1 = Cash*					0

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				*Only supported on Cross Orders. If not specified, the settlement type is assumed as regular way					
FIX- 65	SymbolSfx	String[10]	N	Valid Suffix value	Yes	Yes	Yes	Yes	Yes
FIX- 109	ClientID	String[4]	С	Not supported when sending to Matching Engine.  NYSE Texas Equities - Required for orders sent to NYSE Texas IB Firms (Brokerplex). Should be agreed upon Originator ID.  *NYSE Equities - Optional identifier for CAT SenderIMID for NYSE Floor Broker Systems, also used for Self Trade Prevention. See "Self-Trade Prevention" section of this spec for more details.	Yes*				Yes
FIX- 110	MinQty	Qty[5]	N	Must be ≤ OrderQty	Yes	Yes	Yes	Yes	Yes
FIX- 111	MaxFloor	Qty[5]	С	Must be entered in Round Lots.	Yes	Yes	Yes	Yes	Yes
FIX- 114	LocateReqd	Boolean	С	N = No  For orders with Side of Sell Short and Sell Short Exempt, must be entered as LocateReq = N. If tag is not included, or is entered as LocateReq = Y, order will be rejected.	N	N	N	N	N
FIX- 126	ExpireTime	UTC Timestam p [27]	N	Specified end time for the Algo order.  UTC time  YYYYMMDD-HH:MM:SS	Yes				

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 150	ExecType	Char[1]	Y	0 = New 1 = Partially Filled 2 = Filled 3 = Done For Day 4 = Cancelled 5 = Replaced 6 = Pending Cancel 8 = Rejected C = Billable Cancel (Self Trade Prevention) E = Pending Cancel/Replace G = Pillar OMS Allocation Pending H = Pillar OMS Trade Reject J = Pillar OMS Trade Reject K = OMS Allocation Request L = Eligible for Cross M = Pending Modify T = OMS Trade Request	0 1 2 3 4 5 6 8 C E G H J	0 1 2 3 4 5 6 8 C	0 1 2 3 4 5 6 8 C E	0 1 2 3 4 5 6 8 C E	0 1 2 3 4 5 6 8 C E
FIX- 151	LeavesQty	Qty[9]	С	T = OMS Trade Request 0 - 999,999,999	Yes	Yes	Yes	Yes	Yes
FIX- 168	EffectiveTime	UTC Timestam p [27]	N	Specified start time for the Algo order.  UTC time  YYYYMMDD-HH:MM:SS	Yes				
FIX- 386	NoTradingSession s	Int[1]	Υ	1	1	1	1	1	1
FIX- 336	TradingSessionID	Char[1]	Y	1 = Early Trading Session 2 = Core Trading Session 3 = Late Trading Session 4 = Early & Core Trading Sessions 5 = Core & Late Trading Sessions 6 = Early, Core, & Late Trading Sessions  *Note: for symbols trading on NYSE, all values that include Core designation (Core, Early/Core, Core/Late, and Early/Core/Late) will be allowed,	1 2 4* 5* 6*	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				if the order type supports the combination on other Pillar markets. However, for each of those values, Pillar will honor the applicable trading sessions included in the instruction based on Tape (B/C symbols - Early and Core; A symbols - Core only), and ignore the other trading sessions specified in the instruction (Tape B/C symbols - Late; Tape A symbols - Early and Late)					
FIX- 528	OrderCapacity	Char[1]	Υ	A = Agency P = Principal R = Riskless Principal Q = Error Account  *NYSE and NYSE Texas Equities - supported only on orders routed to NYSE Floor Broker Systems and Brokerplex	A P R Q*	A P R	A P R	A P R	A P R Q*
FIX- 849	ParticipationRate	Price[16]	N	Specified participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 5700	LocateBroker	String[4]	С	For Sell Short, Sell Short Exempt, Cross Short, and Cross Short Exempt orders, identifies which broker has loaned the stock to settle the short sale.  For firms using Pillar Pre- trade Risk Controls, use of this tag may be configured as mandatory.	Yes	Yes	Yes	Yes	Yes
FIX- 7928	SelfTradeType	Char[1]	N	0 (number 0) = Use current Session Configuration STP setting for the SenderCompID T = No Self Trade Prevention	0 T*	О Т	0 T	0 T	0 T

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement *NYSE Equities - supported	N O C* D*	N O C D	N O C D	N O C D	N O C D
				only on orders routed to matching engine; not supported on orders routed to NYSE Floor Broker Systems					
FIX- 9202	SpecialOrdType	Char[1]	С	1 = DMM Open/Re- open/Close with or without Auction (AOC) - drop copy only 2 = DMM Pre-auction - drop copy only 3 = DMM After-auction - drop copy only T = QCT (DeliverToComp ID must be populated with IB Firm Identifier) 8 = Reserved for future use					т
9303	RoutingInst	Char[1]	С	N = Non Routable R = Routable D = Directed (Primary Only) S = Directed + Routable (PO+S) 1 = Primary Market until 9:45 2 = Primary Market after 3:55 3 = BOTH Primary Market until 9:45 AND Primary Market after 3:55 8 = Minimum Fill (must be entered with MinQty tag populated with a non-zero	N R	N R D S 1 2 3	N R D S 1 2 3	N R D S 1 2 3	N R D S 1 2 3
FIX- 9403	OffsetPrice	Price[16]	С	value) A = Route to ATS E = Route to Algo  Value must be zero, or otherwise:  • For Market Peg order - equal to or multiple of 0.01 • For Retail Price Improvement order	A E Yes	A Yes	A Yes	A Yes	A Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				(optional modifier on NYSE only) - equal to or multiple of 0.001					
FIX- 9416	ExtendedExecInst	Char[1]	С	A = Add Liquidity Only (ALO) 2 = No route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider	A 4 7	A	A 2 5 7	A 2	A 2
				8 = Imbalance Offset L = Limit dOrder M = Midpoint dOrder C = Complex Order Auction	8 L M	8	·	8	8
				9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO)	9 D	9 D		9	
FIX- 9448	IntroducingBadge ID	String[4]	С	1 – 4 numeric characters  NYSE Equities - sent on executions of orders routed to NYSE Floor Broker Systems;	Yes				
FIX- 9449	BillTo	String[4]	С	populated with Broker badge  If provided, this information will be used for billing, instead of OnBehalfOf detail.	Yes				Yes*
				*May be present on drop copy messages of cross allocations done by NYSE Texas IB Firms with the following values: B - Bill					
				R - Remote BR - Bill and Remote					
FIX- 9451	ParentFirmClOrdI D	String[20]	С	<= 20 chars  Internal OrderID provided by the Floor Broker to identify the Floor Broker order being handled.	Yes				Yes*
				*Present on drop copy messages of cross allocations done by NYSE Texas IB Firms and NYSE Floor Brokers					

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 9453	ParentFirmMPID	String[4]	С	*Present on drop copy messages of cross allocations done by NYSE Texas IB Firms					Yes*
FIX- 9478	InterestType	Char[1]	С	3 = NYSE Floor Broker Cross - 72D Q = Q-Order Y = Yield Order	3 Y	Q	Q	Q	Q
FIX- 9483	DealID	String[20]	С	Unique identifier of a transaction, assigned by the Exchange to both Execution reports representing the two sides of a single trade.  Numerical up to 20 characters.  Busts - original DealID of the transaction that is being busted or corrected.  Corrections - new DealID for the corrected transaction.	Yes	Yes	Yes	Yes	Yes
FIX- 9565	DOrderAuctionPri ce	Price[16]	N	0.000100 - 999,999.990000	Yes				
FIX- 9730	LiquidityIndicator	String	С	On Order Acknowledgements:  1 = Candidate for setting a new displayed bid or offer on the local market  4 = Candidate for setting a new displayed bid or offer on the local market and joining the NBBO  5 = Candidate for setting a new displayed bid or offer on the local market and setting a new displayed bid or offer on the local market and setting the NBBO  Note: Order Priority Update Acks will only be populated with value 0 or 1. The value 1 will be returned when the original order ack was populated with 1, 4, or 5	Yes	Yes	Yes	Yes	Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX-	AttributedQuote	Char[1]	N	On Partial Fills and Fills: See Appendix for Values.  0 = Not Attributed	0	0	0	0	0
20001				1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market Data Feeds, and Include in Broker Volume		1	1	1	1
FIX- 20002	ProactivelfLocked	Char[1]	С	0 = No locked functionality 1 = Proactive if Locked for routable orders	0	0 1	0	0	0
				2 = Non-display remove liquidity for non-displayed orders locked by contraside ALOs	2	2	2	2	2
FIX- 20003	CancelInsteadOf Reprice	Char[1]	N	0 = Not applicable (follow default order behavior) 1 = Cancel order instead of	0	0	0	0	0
				repricing – for LULD only 3 = Cancel order instead of repricing for any reason	3	3	3	3	3
FIX- 20004	WorkingPrice	Price[16]	С	0.000001-999999.999999	Yes	Yes	Yes	Yes	Yes
FIX- 20005	FlowIndicator	Char[1]	Y	Indicates whether a corresponding inbound message was throttled. For outgoing messages without a corresponding inbound message, the tag will default to 0.					
				0 = Inbound message was not throttled	0	0	0	0	0
				1 = Inbound message was throttled	1	1	1	1	1
FIX- 20006	WorkingAwayFro mDisplay	Char[1]	С	On Order Acknowledgements, indicates whether the working price of the order is equal to or different than the display price.					

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				0 = Working Price is equal to Display Price	0	0	0	0	0
				1 = Working Price is different from Display Price	1	1	1	1	1
FIX- 20007	UnsolicitedAck Type	Char[1]	С	On Order Priority Update Acknowledgements, indicates the type of event that produced the unsolicited Ack.					
				2 = Order Priority Update – New OrderID (reserve order replenishment)	2	2	2	2	2
				3 = Order Priority Update – Same OrderID (working price update)					
FIX- 20008	ParticipantType	Char[1]	С	Sent on fills.  1 = Customer					
				2 = Market Maker/LMM 3 = DMM 4 = SLP 5 = NYSE Floor Broker/NYSE Texas IB	1 2 3 4 5	1 2	1 2	1 2	5
FIX- 20009	Nanosecond SendingTime	String[27]	Υ	Time of message transmission on outgoing message from Exchange.	Yes	Yes	Yes	Yes	Yes
				UTC time, in Nanoseconds –					
				YYYYMMDD- HH:MM:SS.ssssssss					
				Note: this represents the same reference time as provided in the Standard FIX Header tag SendingTime (52), with more granular resolution.					
FIX- 20010	Nanosecond TransactTime	String[27]	Υ	Exchange application time.  UTC time, in Nanoseconds –	Yes	Yes	Yes	Yes	Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
FIX- 20011	RouteToBroker	Char[1]	C	YYYYMMDD- HH:MM:SS.ssssssss  Note: this represents the same reference time as provided in the standard FIX tag TransactTime (60), with more granular resolution.  Required when intending to route message to non-Matching Engine destination (i.e. NYSE Texas Brokerplex or NYSE Floor Broker Systems) based on value provided in DelliverToCompID on incoming messages from Firm  Y = Route to non-Matching Engine destination N = Route to Matching Engine If not specified, will be assumed as a value of "N",	Y				Y
20012	BrokerOMSID  SubIDIndicator	String[4] Char[1]	C	and will be routed directly to Matching Engine  Present on orders from Brokerplex to Pillar to identify the Broker ID targeted by the parent order.  Present on drop copy messages of cross allocations done by NYSE Texas IB Firms  When populating both OnBehalfOfSubID (116) and SelfTradeType (7928) on an order, allows the firm to specify whether the OnBehalfOfSubID should be used or ignored for Self-					Yes

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				Prevention" section of this spec for more details.  If also using Pillar Pre-trade Risk Controls, the OnBehalfOfSubID will be used for Risk Entity purposes regardless of the value specified in this field.  O = for this order, use OnBehalfOfSubID (within the MPID) for STP evaluation 1 = for this order, ignore the OnBehalfOfSubID for STP (conduct STP evaluation at MPID level only)  If not specified, will be	0	0	0	0	0
FIX- 20022	AllocationFirmMP ID	String[4]	С	assumed as a value of 0.  Identifier of the allocated party - MPID.  Required for Broker Cross orders, except on contra side of the Allocation fill for Broker-to-broker Cross orders.  Must be populated with:  Initiating Broker MPID - for self-allocation. Broker must specify self-allocation on at least one side of every allocation pair. The MPID populated in this tag must match the MPID specified in OnBehalfOfCompID (115)	Yes				
FIX- 20024	AllocationFirmIntr oducingBadgeID	String[4]	С	Identifier of the allocated party - Contra Broker Badge.  Required on Trade fill for Broker-to-broker Cross orders.  Must be populated with:	Yes				

<u>Tag</u>	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				Third party Broker Badge					
FIX- 20042	CATIMID	String[4]	N	Firm Identifier - IMID/MPID Identifies the IMID to be reported to CAT as the Broker Dealer responsible for the order.	Yes				
				Required for FBA sessions and must be a valid MPID for the session.					
FIX- 20046	TargetStrategy	String[20]	N	Customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Yes				
				Target Strategy to be used by the Algo.					
FIX- 20047	10b-18	Char[1]	N	0 = Not eligible for 10b-18 1 = Eligible for 10b-18	0				
FIX- 20048	AuctionEligible	Char[1]	N	0 = Do not participate in any Auction 1 = Participate in the Closing Auction 2 = Participate in the Opening Auction 3 = Participate in both the Opening and Closing Auction	0 1 2 3				
FIX- 20049	MinParticipationR ate	Price[16]	N	Minimum participation rate to be used by the Algo for Target Strategies.  Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively	Yes				
FIX- 20050	MaxParticipation Rate	Price[16]	N	Maximum participation rate to be used by the Algo for Target Strategies.	Yes				

Tag	Field Name	Data Type	Req'd	Values	NYSE	American	National	Arca	Texas
				Examples: values received of 5, 0.01 and 99.99 will indicate 5%, 0.01% and 99.99% respectively					
FIX- 20051	WouldPrice	Price[16]	N	Would Price to be used by the Algo to get the Target Strategy done.	Yes				
FIX- 20052	RoutingStrategy	Int[8]	N	1 = Midpoint Ping 2 = Retail Price Improvement Seeking 3 = Retail Midpoint Ping	1	1	1 2 3	1	1
FIX- 30002	RefDealID	String[20]	С	Unique identifier of a transaction, assigned to both sides of a single trade.  Numerical up to 20 characters.	Yes				Yes
FIX- 30003	AllocationIndicato r	Char[1]	С	Populated on allocations Y = Allocation message	Υ				
FIX- 30006	OriginalDealID	String[20]	С	For Broker Cross trade allocations and busts, identifier of the DealID from the Trade Request Acknowledgement.  Numerical up to 20 characters.	Yes				
FIX- 30016	RefExecTimestam p	UTC Timestam p [27]	С	Populated for Broker Cross orders on Pending Allocation and Allocation Fill messages with the time the Trade Request was printed.  Sent on Pending Allocation and Allocation Fill messages for open outcry orders.	Yes				
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes	Yes	Yes	Yes

### 10. Appendix A: Liquidity Indicators

Pillar will populate the tag LiquidityIndicator (9730) on Execution Report fills. This value represents the conditions under which an order was executed and whether it added or removed liquidity from the Exchange order book. Billing rates are determined in part by this value.

A list of all Liquidity Indicators is available at the web link below:

https://www.nyse.com/publicdocs/nyse/NYSE Pillar Reason Codes and Liquidity Indicators.xlsx

#### 11. Appendix B: Pillar Reason Codes

Pillar will return a set of event reason codes and descriptions as text (Tag 58) on Execution Reports and Cancel Reject messages. These codes qualify the event that produced the message.

**NYSE Texas Equities:** the text may be different for outgoing messages generated by Brokerplex (the system that handles messages that are routed to NYSE Texas IB firms).

Format: Text (58) = 'Rxxx: Description'

A list of all Pillar Reason Codes is available at the web link below:

https://www.nyse.com/publicdocs/nyse/NYSE Pillar Reason Codes and Liquidity Indicators.xlsx

### 12. Appendix C: Order Types

An inventory of the order types and modifiers available to firms via the Pillar FIX Gateway is available at:

https://www.nyse.com/publicdocs/NYSE Pillar FIX Gateway Order Type Matrix.xlsx

# 13. Appendix D: Field/Value Applicability - by Participant & Symbol

In addition to differences between markets denoted throughout this specification, within a given market there are certain fields and values applicable only to a subset of participants and/or symbols (Tape A or Tape B/C).

		NYSE Equities					
Description	Field Name/Value	Customer/ Market Maker or Service Bureau - to Matching Engine	Customer/ Market Maker or Service Bureau - to NYSE Floor Broker Systems	Designated Market Maker (DMM)	Tape - A Symbols	Tape - B/C Symbols	
Ord	der Entry from Firm to Exc	:hange - fields/value	s marked as "No" w	ill be rejected			
ExecInst	ExecInst (18)	Yes	No	Yes	Yes	Yes	
Market Order	OrdType (40) = 1	Yes	Yes	No	Yes	Yes	
Inside Limit Order	OrdType = 7	Yes	No	No	Yes	Yes	

		NYSE Equities				
Description	Field Name/Value	Customer/ Market Maker or Service Bureau - to Matching Engine	Customer/ Market Maker or Service Bureau - to NYSE Floor Broker Systems	Designated Market Maker (DMM)	Tape - A Symbols	Tape - B/C Symbols
Limit On Close	OrdType (40) = 2 with TimeInForce (59) = 7	Yes	Yes	No	Yes	Yes
SenderSubID	SenderSubID (50)	Yes	No	Yes	Yes	Yes
ClientID	ClientID (109)	No	Yes	No	Yes	Yes
MinQty	MinQty (110)	Yes	No	Yes	Yes	Yes
MaxFloor	MaxFloor (111)	Yes	No	Yes	Yes	Yes
Trading Session Designation - Early	TradingSessionID (336) = 1	Yes	Yes	No	No	Yes
Trading Session Designation - Late	TradingSessionID (336) = 3	No	No	No	No	No
SelfTradeType - explicit instruction for No Self Trade Prevention	SelfTradeType (7928) = T	Yes	No	Yes	Yes	Yes
ExtendedExecInst - overall support for field/tag	ExtendedExecInst (9416)	Yes	No	Yes	Yes	Yes
ExtendedExecInst - Retail Order Type 1	ExtendedExecInst (9416) = 4	Yes	No	No	Yes	Yes
ExtendedExecInst - Imbalance Offset (On Close)	ExtendedExecInst (9416) = 8	Yes	No	No	Yes	No
SpecialOrdType	SpecialOrdType (9202)	No	No	Yes	Yes	No
RoutingInst	RoutingInst (9303)	Yes	No	Yes	Yes	Yes
InterestType	InterestType (9478)	No	No	Yes	Yes	No
Route to ATS	RoutingInst (9303) = A	Yes	No	No	Yes	Yes
Route to Algo	RoutingInst (9303) = E	Yes	No	No	Yes	Yes
Respon	se Messages from Exchan	<b>ge to Firm</b> - fields/v	alues marked as "No	o" will not be ser	it	
Trade Corrections	ExecTransType (20) = 2	No	Yes	No	Yes	Yes
OrdStatus - Pending Modify	OrdStatus (39) = M *Instead, will be sent as E - Pending Replace	Yes	No*	Yes	Yes	Yes
LocateReqd	LocateReqd (114)	Yes	No	Yes	Yes	Yes
OffsetPrice	OffsetPrice (9403)	Yes	No	Yes	Yes	Yes
IntroducingBadgeID	IntroducingBadgeID (9448)	No	Yes	No	Yes	Yes
AttributedQuote	AttributedQuote (20001)	Yes	No	Yes	Yes	Yes

			NYSE Equ	ities		
Description	Field Name/Value	Customer/ Market Maker or Service Bureau - to Matching Engine	Customer/ Market Maker or Service Bureau - to NYSE Floor Broker Systems	Designated Market Maker (DMM)	Tape - A Symbols	Tape - B/C Symbols
ProactivelfLocked	ProactivelfLocked (20002)	Yes	No	Yes	Yes	Yes
CancelInsteadOf Reprice	CancelinsteadOf Reprice (20003)	Yes	No	Yes	Yes	Yes
FlowIndicator - value to indicate "corresponding inbound message was throttled"	FlowIndicator (20005) = 1 *Instead, will be sent as 0 regardless of whether or not the corresponding inbound message was throttled	Yes	No*	Yes	Yes	Yes
UnsolicitedAckType	UnsolicitedAckType (20007)	Yes	No	Yes	Yes	Yes
ParticipantType - NYSE Floor Broker	ParticipantType (20008) = 5	No	Yes	No	Yes	Yes
SubIDIndicator	SubIDIndicator (20013)	Yes	No	Yes	Yes	Yes

## 14. **Document Version History**

Date	Spec Version #	Change Summary
May 17, 2025	5.12	Added support for Imbalance Offset (ExtendedExecInst (9416) = 8) and Q-Orders ( InterestType (9478) = Q) on NYSE Texas
March 28, 2025	, 2025 5.11 Rebranded NYSE Chicago to NYSE Texas	
February 14, 2025	5.10	FIX Tag 20052 RoutingStrategy - added to support Routing Strategies on all equities markets
September 23, 2024 5.9		MinQty - removed the requirement for MinQty to be ≥ Round Lot Removal of 'Next Day' support for NYSE Chicago

March 11, 2024	5.8	The Liquidity Indicator and Pillar Reason Code tables have been relocated from the Appendix to a dedicated document. A link to this document is now available within the Appendix for easy access.
		Removed support for following values on NYSE Arca Equities and added support on NYSE National:  - ExtendedExecInst (9416) - values 4 (Retail Order Type 1), 5 (Retail Order Type 2), 7 (Retail Provider)  - Appendix A liquidity indicators - ARP, ARM, RRT
June 27, 2023	5.7	Removed support for following liquidity indicators (Appendix A) - AMLR, AMLO, ARER, AREO, ARRI, AROI.
		SpecialOrdType (9202) - removed support for value 8 (No Interaction with Retail Taker).
		Trading Services: Self-Trade Prevention - clarified use cases for ClientID registration.
		ExtendedExecInst (9416) - removed support for value 5 (Retail Order Type 2).
	5.6	SpecialOrdType (9202) - added support for value 8 (No Interaction with Retail Taker).
March 9, 2023		Appendix A Liquidity Indicators:  - Added support for new indicators - AMLR, AMLO, AREI, ARER, AREO, ARRI, AROI, ARIZ, RR, RRZ, RIR, RIRZ, RBD, RBI, RBDZ, RBIZ, RNDR, RNRZ, OMR, OR, CMR, CR  - Updated descriptions of existing indicators - ARP, RRT  - Removed support for ARP on NYSE Arca Equities
January 9, 2023	5.5	Self-Trade Prevention - added support for ClientID based STP.
November 18, 2022	5.4	ExecRefID (30002) - added to Execution Report for NYSE & NYSE Chicago; added to Drop Copy for NYSE Chicago.
October 25, 2022	5.3	Appendix A - updated descriptions of following liquidity indicators - AML, AMZ, AND, ANZ, ARP, ARM, RML.  Appendix B - added reason codes 326, 327, 906, 999. Updated text for reason code 313.
		Trading Services - added section "Denial of Service Restrictions."
August 12, 2022	5.2	FIX Drop Copies - added support for Clearing Number and IntroducingBadgeID filters.  Added Drop Copy Spec table. Added NYSE Floor Broker Cross order related details.
July 25, 2022	5.1	LocateReqd (114) and LocateBroker (5700) - added reference to orders with Side of Cross Short and Cross Short Exempt.
		Appendix B - removed code 326.
June 30, 2022	5.0	LocateReqd (114) for orders with Side of Sell Short and Sell Short Exempt, must be entered as LocateReqd = N. If tag is not included, or is entered as LocateReqd = Y, order will be rejected.
		LocateBroker (5700) - added support for tag.

		RoutingInst (9303) - added support for A = Route to ATS; Appendix A - added liquidity indicators XWA and XDA.
		ExtendedExecInst (9416) - removed support for 0 = No trade against MPL and 3 = No trade against MPL and no route to IOI.
		ProactiveIfLocked (20002) - added support on NYSE for 1 = Proactive if Locked for routable orders and 2 = Proactive trade non display (non-display remove liquidity for non-displayed orders locked by contraside ALOs.
		CancelInsteadOfReprice (20003) - added support for 3 = Cancel order instead of repricing for any reason.
		Appendix B - added new reject codes 311-326. Updated text of the following codes to "Session Transition" instead of "Symbol Transition": 154-157.
		Added support for:  NYSE - Inside Limit order - OrdType (FIX-40) = 7 (Inside Limit); updated Appendix D with Inside Limit details
	4.9	<ul> <li>NYSE Arca Equities - Discretionary Peg order - ExtendedExecInst (FIX- 9416) = 9 (Discretionary Peg)</li> </ul>
		Added new section - Maximum Order Price and Quantity
		Self-Trade Prevention - added details regarding orders routed to NYSE Floor Broker Systems.
		Logon message - RawData (FIX-96) - clarified that session configuration changes will be persisted for the length of the trading day or until the next time Pillar restarts.
		Cancel on Disconnect and Bulk Cancel - clarified that on NYSE, MOC/LOC orders for primary symbols are excluded from cancellation after 3:50 PM (added time reference).
February 17, 2022		Prohibited characters in freeform text fields - added guidance regarding character restrictions in the following fields:  • ClOrdID (11)
		OrigClOrdID (41)
		• Text (58)
		OnBehalfOfSubID (116)
		Text (FIX-58) - clarified that for orders routed to NYSE Floor Broker Systems, max length is 40 characters.
		TargetSubID (FIX-57) - added support for value "RET" (to designate an order as eligible for retail execution billing) on NYSE American Equities and NYSE National.
		Appendix A - added support for the following liquidity indicators by market:  • NYSE Arca Equities - ADB, ADM, ADZ, RDB, RDM, RDZ
		NYSE American Equities & NYSE National - ARE, AREZ, RRM, XNRT, XPRT, XDRT

		NYSE National - XART
		<ul> <li>Appendix B:</li> <li>Added new codes: 191, 213-214, 228 - 269, 271-279, 281-289, 291-310, 400, 800</li> <li>Removed codes: 900-906</li> <li>Updated text of the following codes to cover options series in addition to equities symbol ("symbol/series" instead of "symbol"): 20, 79, 80, 84, 110, 138, 139</li> </ul>
December 9, 2020	4.8	NYSE - added support for:  • SelfTradeType (7928) = C (Cancel Both)  • SelfTradeType (7928) = D (Cancel Decrement)  Clarifications for order routing to NYSE Floor Broker Systems:  • ClientID (109) - added details regarding CAT SenderIMID  • SelfTradeType (7928) = T, C, and D are not supported  • Trade Corrections are supported - ExecTransType (20) = 2
October 28, 2020	4.7	Added support for Issuer Direct Offering (IDO) order:  - ExtendedExecInst = I  - Excluded from cancel on disconnect; bulk cancel  - Pillar Reason Codes 270, 280, 290  Clarifications for order routing to NYSE Floor Broker Systems:  • OrderCapacity (528) = Q (error account) is supported  • Liquidity Indicators (Appendix) - added XI and XIZ for routed to IOI/Ping  • BrokerOMSID (20012) - updated as not applicable for NYSE
August 3, 2020	4.6	Introduced support for order routing to NYSE Floor Broker Systems:  Account (1), ClOrdID (11), OrigClOrdID (41), Text (58) - updated to indicate list of printable characters that must not be sent, else will be rejected  LastMkt (30) - added value "ALGO" for algorithm away market executions  Cancel on Disconnect (RawData/tag 96) - both orders in the matching engine and orders routed to NYSE Floor Broker Systems will be cancelled if session is subscribed to cancel on disconnect  Order Cancel Request - added details regarding single and bulk cancellation of orders routed to the matching engine and NYSE Floor Broker Systems  Order Cancel/Replace Request - added details regarding combination of tags that must be populated the same way on a Cancel/Replace Request compared to original order routed to NYSE Floor Broker Systems  Self-Trade Prevention (STP) section, ClientID (109) - NYSE - STP evaluation may be conducted for orders routed to NYSE Floor Broker Systems using either MPID or ClientID  OnBehalfOfSubID (116) - may optionally be populated with mnemonic  DeliverToCompID (128) - values entered for NYSE Floor Broker Agency ID or Badge must not be "zero padded" to fill the max length of the tag  IntroducingBadgeID (9448) - added support (Execution Report only)  ParticipantType (20008) - added support for 5 = NYSE Floor Broker

		<ul> <li>RouteToBroker (20011) - added support</li> <li>Field/Value Applicability by Participant Type &amp; Symbol (Appendix) - updated to indicate fields/values that firms must not send on orders routed to NYSE Floor Broker Systems else will be rejected, and fields/values that NYSE Floor Broker Systems will not send on response messages to firms</li> <li>Liquidity Indicators (Appendix) - added new values</li> <li>Mapping Orders and Executions to NYSE XDP Market Data section - on response messages for orders routed to NYSE Floor Broker Systems, the OrderID and TradeID values will not correlate with NYSE XDP Market Data</li> </ul>
		<ul> <li>Updated support for orders routed to NYSE Chicago Brokerplex:         <ul> <li>Cancel on Disconnect (RawData/tag 96) - both orders in the matching engine and orders routed to Brokerplex will be cancelled if session is subscribed to cancel on disconnect</li> <li>Order Cancel Request - added details regarding single and bulk cancellation of orders routed to the matching engine and Brokerplex</li> <li>Order Cancel/Replace Request - added details regarding combination of tags that must be populated the same way on a Cancel/Replace Request compared to original order routed to Brokerplex</li> </ul> </li> </ul>
		Message Throttling section - eliminated throttle formula that approximated a point in time when messages arrived during the previous 100 milliseconds, in favor of a true 100 millisecond rolling window
		LiquidityIndicator (9730) - added support for pre-liquidity indicator values 4 (Candidate for setting a new displayed bid or offer on the local market and joining the NBBO) and 5 (Candidate for setting a new displayed bid or offer on the local market and setting the NBBO)
		Liquidity Indicators (Appendix) - added new NYSE liquidity indicators for executions of orders routed to MEMX (XU, XUZ); MIAX (XH, XHZ); LTSE (XL, XLZ, XLA, XLT, XLRT, XLZD)
		Pillar Reason Codes (Appendix) - added new codes 200, 223-227, 800
May 11, 2020	4.5	Added support for tag 20013 - SublDIndicator.
November 4, 2019	4.4	NYSE American - added support for values to be introduced on a date announced via Trader Update:  • ExtendedExecInst field (9416) - added A = Add Liquidity Only (ALO) as a valid value  • ProactiveIfLocked field (20002) - added 2 = Non-display Remove liquidity as a valid value
October 31, 2019	4.3	Increased length of Text field (58) to the following values:  • Logon, Logout, Session-Level Reject messages - to 100 characters  • New Order Single, Order Cancel/Replace Request messages - to 80 characters  Added details on FIX drop copy messages for cross allocations on NYSE Chicago:  • Provided detail in FIX Drop Copies section

		<ul> <li>Updated applicable fields for NYSE Chicago in execution report based on their presence in cross allocation FIX drop copy messages: BillTo (9449), ParentFirmMPID (9453), ParentFirmClOrdID (9451)</li> </ul>
October 17, 2019	4.2	NYSE Chicago:  • Execution Report - in DealID field, updated description for busts and corrections  • ExecInst field (18) - removed v = Options/Futures Related; will not be supported  • SpecialOrdType field (9202) - for value T = QCT, added clarification that DeliverToCompID must be populated with IB Firm Identifier  • Further Details on NYSE Chicago related identifiers in TargetSubID (57) and OnBehalfOfSubID (116)  • Participant Type field (20008) - added value of 5 and removed value of 2  • ClientID (109) is required when sending to NYSE Chicago IB Firms  Liquidity Indicators (Appendix) - added support for new indicators RBN/RBNZ for all markets on a date announced via Trader Update; added back missing indicators OIO/OIOZ, previously removed in error.  Designated Limit Cross - IOC for elimination on NYSE Arca Equities, NYSE American
September 5, 2019	4.1	Equities, and NYSE National on a date announced via Trader Update.  FIX Header - corrected description of OnBehalfOfSubID (116) to indicate that the value provided by the firm on the incoming message to the Exchange is echoed back in the same tag on outgoing messages from the Exchange to the firm. Removed DeliverToSubID (129) as this tag is not currently used in Pillar FIX Gateway protocol.  Cancel Request - removed bulk cancel value 0 from field OrderID (37), as this is not a valid value.  Liquidity Indicators (Appendix):  • Merged the updated liquidity indicators for "Executions in Opening/Reopening Auctions" and "Executions in Closing Auctions" from addendum table into main table. Removed designation that these codes will be introduced "beginning on a date announced via Trader Update" as they have since been implemented.  • Corrected the indicators for "additional manual PRIN interest - NYSE DMM only" as OL and "additional manual PRIN interest - NYSE DMM only" as "OLZ."  Corrected the cancel cutoff time for Primary Close Only Market/Limit (PO + MOC/LOC) orders for NYSE symbols - 3:50 PM.  NYSE Chicago:  - Included additional values in LastMkt field if receiving execution report messages from Brokerplex  - Added ClientID to execution report message (was previously added to New Order - Single and Order Cancel/Replace Request messages)  - Added RouteToBroker field (FIX-20011) to support routing orders to

		OffsetPrice - updated description to cover both Market Peg and Retail Price Improvement (optional modifier on NYSE only).
June 17, 2019	4.0	<ul> <li>Added support for NYSE Chicago throughout all data structures and sections of the document, including the following:         <ul> <li>SpecialOrdType supported on Inbound Messaging from firms to support QCT entry</li> <li>Added SettlementType tag to support Non-Regular Way Settlement on Cross Orders</li> <li>Added ClientID tag to support Institutional Broker workflows</li> <li>Included details in DeliverToCompID to facilitate routing order orders to Institutional Brokers</li> </ul> </li> <li>Appendix B, "Pillar Reason Codes":         <ul> <li>Updated R191, R202, R213, and R214 as reserved for future use</li> <li>Added R212: No Prev Closing Price, R220: Dry Run, R221: Unsupported by BrokerPlex, and R222: Cross Blocked by BBO/PBBO</li> </ul> </li> </ul>
March 29, 2019	3.2	<ul> <li>Pillar Gateway support for NYSE:         <ul> <li>Appendix "Liquidity Indicators" - added codes for Executions on Routed Orders; Primary Only to NASDAQ; Primary Only to BATZ; Primary Only to IEX</li> <li>TradingSessionID (336) - added clarification for NYSE, that all values that include Core designation (Core, Early/Core, Core/Late, and Early/Core/Late) will be allowed, but only if the order type supports the combination on other Pillar markets. See field description for how the values are processed based on Tape of the Symbol</li> <li>Appendix "Pillar Reason Codes" - updated text for code 171; added codes 184+</li> <li>Added FIX tag 9202 - SpecialOrdType - for NYSE DMM drop copy of Opening/Re-opening/Closing with and without Auction, Pre-auction order instruction, and After-auction order instruction</li> </ul> </li> <li>Clarification that MMID must be provided along with its associated MPID on Market Maker, LMM, SLP, SLMM and DMM orders intended to receive credit for satisfying their market making/liquidity obligations.</li> <li>RountingInstruction (9303) - changed description of the value for "Routable IOC" to "Routable" for greater flexibility in future use.</li> </ul>
January 14, 2019	3.1	Appendix B, "Pillar Reason Codes" - updated text for R065 to "Invalid InterestType"; R070 to "Invalid DOrderAuctionPrice."  Clarification that MMID must be provided on all market maker orders.
November 19, 2018	3.0	Liquidity Indicators (Appendix) - added supplemental table with planned changes for Opening/Re-opening and Closing auction liquidity indicators on all Pillar markets with auction eligible securities - NYSE Arca Equities, NYSE American Equities, and NYSE.  Pillar Gateway support for NYSE, general:  - Throughout spec, updated field/value applicability for NYSE market - Eliminated business descriptions of the following fields; updated as reserved for future use - MinPegQty (9563), DisplayInd (9479) - Re-named QuoteType as InterestType (9478) - Introduced new value to the following field:

		<ul> <li>ExecInst (18) - added support for Last Sale Peg</li> <li>Liquidity Indicators (Appendix)         <ul> <li>Updated value applicability for NYSE market</li> <li>Introduced new values - ASPZ, AJPZ, ASP, AJP, ADR, AC, RDA, ZB, ZBZ</li> </ul> </li> <li>Pillar Reason Codes (Appendix) - added new reason codes 169+         <ul> <li>Added new Appendix - Order Type/Modifier Applicability by Participant &amp; Symbol</li> </ul> </li> <li>Bulk Cancel Request and Cancel on Disconnect - updated list of exclusions for order cancellation</li> <li>Denoted changes to protocol support for the following markets beginning on a date announced via Trader Update - NYSE Arca Equities and NYSE National - introduction of Minimum Fill (via RoutingInstruction)</li> </ul>
May 24, 2018	2.1	Added new Liquidity Indicators for NYSE Arca Equities (Appendix) - Add Retail Provider Sub Dollar (AREZ); 945/355 Executed on NYSE Retail (XNRT); 945/355 Executed on NYSE American Retail (XART); 945/355 Executed on Away Market Non-NYSE Group (XDRT).
February 8, 2018	2.0	Added protocol support for NYSE National.
October 3, 2017	1.10	Updated message throttle rate to 500 messages/100 milliseconds.  Updated protocol support for NYSE Arca Equities and NYSE American Equities – new ExtendedExecInst (9416) value 8 = Imbalance Offset. New liquidity indicators for NYSE Arca Equities and NYSE American in support of Imbalance Offset order.
September 14, 2017	1.9	Updated protocol support for NYSE American Equities – new RoutingInst (9303) value 8 = Minimum Fill (must be entered with MinQty tag populated with a non-zero value)
July 17, 2017	1.8	Added implementation detail in section Message Throttling.  Removed duplicate entries of liquidity indicators AND, RND for Dark Primary Peg, and simplified original descriptions to be applicable to non-displayed orders in general (including Dark Primary Peg), in Appendix.
June 22, 2017	1.7	Added New Liquidity Indicators for NYSE American Equities – in support of Discretionary Peg Order and Dark Primary Peg Order.  Updated references of "Arca/American/NYSE Only" order to "Non-Routable Limit Order" (for NYSE Arca Equities, still known as Arca Only Order pending official name change).
May 16, 2017	1.6	Updated protocol support for NYSE American Equities – removed MinPegQty (9563) and DiscPriceRng (9565)
April 12, 2017	1.5	Updated protocol support for NYSE American Equities (formerly known as NYSE MKT Equities):  - TargetSubID (57) – removed support for RET (Retail Order)  - TradingSessionID (336) – added support all trading sessions  - OrderCapacity (528) – removed support for Error Account

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		<ul> <li>ExtendedExecInst (9416) – removed support for Add Liquidity Only; No Route to IOI; No Trade against MPL and No Route to IOI; Retail Order Type 1; Retail Order Type 2; Retail Provider; Imbalance Offset. Added support for Discretionary Peg; Dark Primary Peg</li> <li>QuoteType (9478) – added support for Q-Order</li> <li>ProactiveIfLocked (20002) – removed support for Proactive Trade Non Display</li> <li>Added Liquidity Indicator values and definitions in support of NYSE American Equities (Appendix). Added new Liquidity Indicators for both NYSE Arca Equities and NYSE American Equities – Add MPL Sub Dollar Execution; Add Non-Displayed Sub Dollar Execution; Remove Regular Limit IOC; Remove Sub Dollar IOC; Remove Sub</li> </ul>
		Dollar MPL Order; Remove Non-Displayed Sub Dollar Limit Order.  Updated the binary Order Types matrix in support of NYSE American Equities (link to the matrix in Appendix) – added Discretionary Peg Order and Dark Primary Peg order types.
		Added the tag OrigSendingTime (122) to the FIX Header.
February 23, 2017	1.4	<ul> <li>Updated max length of the following tags to 20 characters (previously 32):         <ul> <li>ClOrdID (11)</li> <li>OrigClOrdID (41)</li> <li>ParentFirmClOrdID (9451)</li> </ul> </li> <li>Added descriptive detail to the following sections:         <ul> <li>Failure Recovery – added sub-section Pillar Risk Mitigation; added detail regarding next expected client sequence number on a secondary Pillar destination IP address, and after an intraday session restart</li> <li>Pillar FIX Session Layer handling – regarding Pillar FIX Gateway handling of Resend Requests from the firm with MsgSeqNum greater than expected</li> <li>Message Retransmission – regarding Pillar FIX Gateway responses to Resend Requests from the firm</li> <li>Appendix: Pillar Reason Codes – regarding the text format of Reason Code 133 (STP Cancel)</li> </ul> </li> </ul>
		Clarification on values provided in the tag LastMarket (30).
		Added detail on validation of the tag Account (1).
		Added Pillar Reason Code 168 (Pillar Risk Mitigation) to Appendix.
		Added hyperlink and guidelines for interpretation of NYSE Arca Equities order type validation matrix to Appendix.  Clarification that the tags MinPegQty (9563) and DiscPriceRng (9565) are not currently available for NYSE Arca Equities.
January 5, 2017	1.3	Removed the following tags:  Account (1), from Order Cancel Request  ClearingAccount (440), from Execution Report  Clarified valid values in Logon Request and Logon Response (MsgType A), tag RawData (96) for position 3 (Self Trade Prevention).
December 8, 2016	1.2	Added section, "Pillar FIX Session Layer Handling."  Updated the following message types:

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		<ul> <li>Order Cancel Request (MsgType F) – removed tag OrderQty (38). Updated valid values and description for tag Side (54) as used on a Bulk Cancel Request. Added details regarding OnBehalfOfCompID (115)</li> <li>Order Cancel/Replace Request (MsgType G) – Added details regarding OnBehalfOfCompID (115) and SenderSubID (50)</li> <li>Order Cancel Reject (MsgType 9) – added tags NanosecondSendingTime (20009) and NanosecondTransactTime (20010)</li> <li>Updated the following tags:         <ul> <li>ClOrdID (11) – updated details about uniqueness validation</li> <li>CumQty (14), LastPx (31), LastQty (32), LeavesQty (151) – updated minimum value to 0</li> <li>LastMkt (30) – updated to be conditional</li> <li>SendingTime (52) and TransactTime (60) – updated format to be compliant with standard FIX 4.2 Protocol</li> <li>TargetCompID (56) – added list of values</li> <li>DeliverToCompID (128) – updated max length</li> <li>ExecType (150) – added value M (Pending Modify)</li> <li>AttributedQuote (20001) – removed values 2 and 3 from list of currently accepted values (descriptions remain; reserved for future use)</li> <li>FlowIndicator (20005) – updated to be required; updated description</li> </ul> </li> <li>Added Pillar Reason Code 166 (Invalid Permission for SenderCompID) to Appendix.</li> </ul>
October 28, 2016	1.1	Added the following new tags to existing message types:  Text (58) – to Logout  DeliverToSubID (129) – to FIX Header  FlowIndicator (20005) – to Execution Report  NanosecondSendingTime (20009) – to Execution Report  NanosecondTransactTime (20010) – to Execution Report  NanosecondTransactTime (20010) – to Execution Report  NanosecondTransactTime (20010) – to Execution Report  Modifications to existing tags:  ClOrdID (11) and OrigClOrdID (41) – updated max length  ExecID (17) and ExecRefID (19) – updated max length  HeartBtInt (108) – updated max length  ParentFirmClOrdID (9451) – updated max length  AttributedQuote (20001) – assigned tag number (previously TBD)  ProactivelfLocked (20002) – assigned tag number (previously TBD)  CancelInsteadOfReprice (20003) – replaced RepriceOrCancel; assigned tag number (previously TBD); values updated  Updated "Req'd" status (Y, N, C) – various tags  WorkingPrice (20004) – assigned tag number (previously TBD); updated max length  WorkingAwayFromDisplay (20006) – assigned tag number (previously TBD)  ParticipantType (20008) – assigned tag number (previously TBD)  TransactTime (50) – bulk cancel codes  SendingTime (52)  TransactTime (60) – updated timestamp format (standard FIX)  RawData (96)  OnBehalfOfCompID (115)

August 12, 2016	1.0	<ul> <li>DeliverToCompID (128)</li> <li>ExecType (150)</li> <li>SelfTradeType (7928)</li> <li>LiquidityIndicator (9730)</li> <li>Pillar Reason Codes – added 154 through 165; see Appendix</li> <li>Added/updated descriptive detail to the following sections:</li> <li>Failure Recovery</li> <li>Self Trade Prevention</li> <li>FIX Drop Copies</li> <li>Order Cancel Request</li> <li>Heartbeat and Test Request</li> <li>Message Retransmission</li> <li>Sequence Reset</li> <li>Session-Level Rejects</li> </ul>
August 12, 2016	1.0	Initial version of the specification.