NYSE Pillar Gateway
FIX
Protocol Specification

NYSE Arca Options

NYSE American Options

June 27, 2025

OPTIONS SPEC VERSION 3.22

Contents

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
NYSE Arca Options
NYSE American Options

This document assumes the reader has a thorough understanding of the FIX 4.2 protocol available at http://www.fixprotocol.org/. 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.

- 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, including GTC orders, 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 GTC, MOO, LOO, CUBE 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 GTC, MOO, LOO and CUBE 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.

1.5 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.

For FIX tags with data type Price[16], the maximum acceptable length is 16 characters including the decimal point. The maximum number of digits allowed to the right of the decimal is 8 (including significant digits and any trailing 0s).

1.6 Mapping Orders and Executions to Pillar 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
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 Pillar Market Data:

- The full 8 bytes of the gateway "OrderID" correspond to the 'OrderID' field in Pillar Market Data.
- Bytes 5 through 8 of the gateway "DealID" correspond to the 'TradeID' field in Pillar Market Data.
  - In all 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 Pillar Market Data. This table assumes the client byte ordering is Little Endian. If the client byte ordering is Big Endian, the byte order is reversed.

Pillar Market Data Field Name	Offset	Size (Bytes)	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.
MarketID	2	2	Binary	ID of the Originating market in the Symbol Index Mapping.
TradeID	4	4	Binary	Public TradeID as it will appear in Pillar Market Data products.

For more information, please refer to the Pillar Market Data Common Client Specification at https://www.nyse.com/market-data/real-time.

2. Trading Services

2.1 Self-Trade Prevention

NYSE Group offers a Self-Trade Prevention (STP) service. This service is designed to allow firms to better manage their order/quote 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/quotes with the same MPID (OnBehalfOfCompID) + OnBehalfOfSubID (optional sub identifier) will be prevented from trading with each other.
- **ClientID based STP** - two orders/quotes 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. Firms may opt in to using the ClientID STP functionality by requesting it as a session level default. The default will be echoed back on order acknowledgements via unsolicited FIX tag ClientID[109]. To request this functionality, please contact Client Relationship Services at CRS@nyse.com.
- The above identifiers are mutually exclusive. An order/quote with a ClientID will always be allowed to trade with an order/quote that does not have a ClientID, even if they are from the same MPID.

STP Types:

- **STP Cancel Newest –** An incoming order/quote marked with this designation will not execute against opposite side resting interest that is also marked with any of the STP Types. Instead, the incoming or repriced order/quote will be automatically cancelled back to the originator. The resting order/quote remains on the order book.
- **STP Cancel Oldest –** An incoming order/quote marked with this designation will not execute against opposite side resting interest that is also marked with any of the STP Types. Instead, the resting orders/quotes will be automatically cancelled back to the originator. The incoming order/quote will then continue to auto execute or be placed on the order book.
- **STP Cancel Both –** An incoming order/quote marked with this designation will not execute against opposite side resting interest that is also marked with any of the STP Types. Instead, both the incoming and the resting order/quote will be cancelled back automatically.

2.2 Message Throttling

Inbound messages from a given session are throttled 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.

2.3 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

2.4 GTC Restatement Messages

NYSE Arca Options and NYSE American Options provide unsolicited messages for prior day Good Till Cancel (GTC) orders over the session that originally entered the order.

- **GTC Loading** - a GTC Restatement Ack, identified with *ExecType[150]* = D (Restatement) and *ExecRestatementReason[378]* = 1 (GT renewal/restatement), is published for each prior day GTC order as it loaded for the day. In the event a prior day GTC order is canceled overnight due to underlying corporate action, delisting, etc. an unsolicited order reject will be published.
- **Done for Day** - at the market's Done for Day time, a Done for Day message (*OrdStatus[39]* = 3 with *Text[58]* = R104: Done for Day) will be sent for each GTC order with remaining leaves quantity.
- **Series Expiration** - at the market's Done for Day time, an unsolicited cancel message (*OrdStatus[39]* = 4 with *Text[58]* = R246: Series Expired) will be sent for each GTC order cancelled due to series expiration.

3. FIX Header & Trailer

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

3.1 Header

Tag	Field Name	Data Type	Req'd	Values
FIX-8	BeginString	String[8]	Y	(ALWAYS FIRST FIELD IN MESSAGE) FIX.4.2
FIX-9	BodyLength	Int[6]	Y	(ALWAYS SECOND FIELD IN MESSAGE) Message length, in bytes, forward to the *CheckSum* field.
FIX-35	MsgType	String[3]	Y	(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 8 = Execution Report 9 = Order Cancel Reject
FIX-34	MsgSeqNum	Int[20]	Y	Last sequence number processed. First message sent has sequence of 1.
FIX-43	PossDupFlag	Boolean	C	Y = Yes N = No
FIX-49	SenderCompID	String[32]	Y	Incoming Messages from Firm: Agreed upon Connection identifier set between the Exchange and the entering firm.

Tag	Field Name	Data Type	Req'd	Values
				Outgoing Messages from Exchange: Market Identifier Code (MIC) of the sending Exchange. ARCO = NYSE Arca Options AMXO = NYSE American Options
FIX-50	SenderSubID	String[32]	C	Incoming Messages from Firm: This value represents a Market Maker (including LMM, Primary Specialist, Specialist and e-Specialist), agreed upon between the firm and the Exchange. MMID must be specified when *CustomerOrFirm[204]* is identified as Market Maker or Away Market Maker, and will be rejected if populated for any other CustomerOrFirm value. Outgoing Messages from Exchange: Set to the value of the original *SenderCompID* on the incoming message from the firm. On drop copy sessions, represents the *SenderCompID* of the order entry session which originated the message.
FIX-52	SendingTime	UTC Timestamp [27]	Y	Time of message transmission on Incoming Messages from Firms & Outgoing messages from Exchange. UTC time, in Milliseconds - YYYYMMDD-HH:MM:SS.mmm
FIX-56	TargetCompID	String[32]	Y	Incoming Messages from Firm: Market Identifier Code (MIC) of target Exchange. ARCO = NYSE Arca Options AMXO = NYSE American Options Outgoing Messages from Exchange: Agreed upon connection identifier set between the Exchange and the entering firm.
FIX-57	TargetSubID	String[32]	C	On Incoming Messages from Firm: Not valid for orders entered on NYSE Arca Options and NYSE American Options. 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 (including LMM, Primary Specialist, Specialist and e-Specialist), agreed upon between the firm and the Exchange.
FIX-97	PossResend	Boolean	C	Y = Yes N = No
FIX-115	OnBehalfOfCompID	String[4]	C	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 Options Market Maker MPID for Directed MM Order or Market Maker MPID for PFOF.
FIX-116	OnBehalfOfSubID	String[4]	N	Incoming Messages from Firm to Exchange Matching Engine: Customer defined when sending to Matching engine– identifies specific entity/trading desk of the firm.

Tag	Field Name	Data Type	Req'd	Values
				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.
FIX-122	OrigSendingTime	UTC Timestamp [27]	N	Original time of message transmission when transmitting orders as the result of a resend request. UTC time, in Milliseconds - YYYYMMDD-HH:MM:SS.mmm
FIX-128	DeliverToCompID	String[5]	C	Incoming Messages from Firm: Options MarketMaker MPID for Directed MM Order or Market Maker MPID for PFOF. If there is a default setup and the field is left blank, default will be used. To skip default setup, use "0". Only supported for American Options DOMM and American Options PFOF. Outgoing Messages from Exchange: Firm Identifier – MPID. Required on all Application Layer message types.

3.2 Trailer

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

4. 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.

4.1 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.

4.2 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:

<table>
<tr><th>Tag</th><th>Field Name</th><th>Data Type</th><th>Req'd</th><th>Description</th><th>Values</th></tr>
<tr><td></td><td>Standard Header</td><td></td><td>Y</td><td>MsgType[35] = A</td><td></td></tr>
<tr><td>FIX-98</td><td>EncryptMethod</td><td>Int[1]</td><td>Y</td><td>Must be 0 (No encryption).</td><td>0</td></tr>
<tr><td>FIX-108</td><td>HeartBtInt</td><td>Int[2]</td><td>Y</td><td>The Heartbeat interval in seconds.</td><td>1-60</td></tr>
<tr><td>FIX-95</td><td>RawDataLength</td><td>Int[1]</td><td>C</td><td>Length of RawData[96]. Must be included if RawData[96] is present.</td><td>4</td></tr>
<tr><td>FIX-96</td><td>RawData</td><td>String[4]</td><td>C</td><td>Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Valid values:
<table>
<tr><th>Position</th><th>Description</th><th>Valid Values</th></tr>
<tr><td>1</td><td>Cancel on Disconnect</td><td>0 = Cancel on Disconnect Disabled

1 = Enable Cancel on Disconnect; Cancel – Day;
(This will cancel all orders for the Session EXCEPT at the Opening, GTX and Good Till Cancel*)

2 = Enable Cancel on Disconnect. Cancel – ALL orders for the Session*

*Exclusions – The following orders are always excluded from cancellation during a Cancel on Disconnect event:

- Immediate or Cancel (IOC) orders (this covers all Cross</td></tr>
</table></td><td>Byte1: 0-2

Byte2: 0-1

Byte3: T,N,O,C

Byte4: 4-8 (NYSE American Options only) or 0 (All Markets)</td></tr>
</table>

Tag	Field Name	Data Type	Req'd	Description			Values
						Orders - CUBE, QCC, Customer to Customer) - GTC - Open Outcry orders 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 or unsolicited "Repricing Ack" message on the Session. 1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment) 2 = Receive unsolicited "Order Priority Update Ack" message AND unsolicited "Repricing Ack" message on the Session.	
				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	

<table>
<tr><th>Tag</th><th>Field Name</th><th>Data Type</th><th>Req’d</th><th>Description</th><th>Values</th></tr>
<tr><td></td><td></td><td></td><td></td><td><table>
<tr><td></td><td></td><td>N = Cancel Newest
O (letter O) = Cancel Oldest
C = Cancel Both</td></tr>
<tr><td>4</td><td>BOLD Designation (NYSE American Options only)</td><td>Session level default for the BOLD setting on all Order and Cancel/Replace requests entered on the session.

Note: if the BOLD value is set on an individual Order or Cancel/Replace Request, that value will override this session level default.

0 = Not Applicable/Do Not Change My Default
4 = BOLD - Expose order info only
5 = BOLD - Expose order info and Capacity only
6 = BOLD - Expose order info and Participant ID only
7 = BOLD - Expose order info, Capacity and Participant ID
8 = No BOLD Designation defaulting</td></tr>
</table>
Example: Tag 96 = 11C4: 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 AND BOLD routable orders with Order info only.

If Tag 96 is omitted in the Logon request, Pillar FIX Gateway will use the client defaults. If Tag 96 is included, the default configuration for the client will be overridden for the single session only. Clients must contact NYSE Group Market Support to change default configurations.</td><td></td></tr>
<tr><td>FIX-141</td><td>ResetSeqNum Flag</td><td>Boolean</td><td>N</td><td>Indicates both sides of a FIX session should reset sequence numbers. If included, this tag must be set to N.</td><td>N</td></tr>
<tr><td>FIX-553</td><td>Username</td><td>String[16]</td><td>Y</td><td>Username agreed in advance with NYSE Group – SenderCompID.</td><td>String[16]</td></tr>
<tr><td>FIX-554</td><td>Password</td><td>String[32]</td><td>Y</td><td>Password agreed in advance with NYSE Group. Required on Logon Request but omitted from Logon response.</td><td>String[32]</td></tr>
<tr><td></td><td>Standard Trailer</td><td></td><td>Y</td><td></td><td></td></tr>
</table>

The format for the successful Logon Response message is below:

<table>
<tr><th>Tag</th><th>Field Name</th><th>Data Type</th><th>Req'd</th><th>Description</th><th>Values</th></tr>
<tr><td></td><td>*Standard Header*</td><td></td><td>Y</td><td>*MsgType[35]* = A</td><td></td></tr>
<tr><td>FIX-58</td><td>Text</td><td>String[40]</td><td>N</td><td>Text associated with Logon Response</td><td>String[100]</td></tr>
<tr><td>FIX-789</td><td>NextExpected MsgSeqNum</td><td>Int[20]</td><td>Y</td><td>Next *MsgSeqNum[34]* expected by Pillar</td><td>Next MsgSeqNum[34] expected by Pillar</td></tr>
<tr><td>FIX-98</td><td>EncryptMethod</td><td>Int[1]</td><td>Y</td><td>Must be 0 (No encryption).</td><td>0</td></tr>
<tr><td>FIX-108</td><td>HeartBtInt</td><td>Int[2]</td><td>Y</td><td>The Heartbeat interval in seconds.</td><td>1-60</td></tr>
<tr><td>FIX-95</td><td>RawDataLength</td><td>Int[1]</td><td>C</td><td>Length of *RawData[96].* Must be included if *RawData[96]* is present.</td><td>4</td></tr>
<tr><td>FIX-96</td><td>RawData</td><td>String[4]</td><td>C</td><td>Session configuration settings. Optional on the Logon request, but always included in the Logon response. If included, all positions must be populated. Valid values:
<table>
<tr><th>Position</th><th>Description</th><th>Valid Values</th></tr>
<tr><td>**1**</td><td>Cancel on Disconnect</td><td>0 = Cancel on Disconnect Disabled

1 = Enable Cancel on Disconnect; Cancel – Day
(This will cancel all orders for the Session EXCEPT at the Opening, GTX and Good Til Cancel *)

2 = Enable Cancel on Disconnect. Cancel – ALL orders for the Session*

*Exclusions – The following orders are always excluded from cancellation during a Cancel on Disconnect event:
- Immediate or Cancel (IOC) orders (this covers all Cross Orders - CUBE, QCC, Customer to Customer)
- GTC
- Open Outcry orders
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</td></tr>
</table></td><td>Byte1: 0-2

Byte2: 0-1

Byte3: T,N,O,C

Byte4: 4-8 (NYSE American Options only) or 0 (All Markets)</td></tr>
</table>

Tag	Field Name	Data Type	Req'd	Description			Values
						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 or unsolicited "Repricing Ack" message on the Session. 1 = Receive unsolicited "Order Priority Update Ack" message on the Session (for Reserve Order replenishment) 2 = Receive unsolicited "Order Priority Update Ack" message AND unsolicited "Repricing Ack" message on the Session.	
				3	Self Trade Prevention	Session level default for the STP value on all 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	
				4	BOLD Designation (NYSE American Options only)	Session level default BOLD setting on all Order and Cancel/Replace requests entered on the session. Note: if the BOLD value is set on an individual Order or Cancel/Replace Request, that value will override this session level default. 0 = Not Applicable/Do Not Change My Default 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only	

Tag	Field Name	Data Type	Req'd	Description	Values
				6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = No BOLD Designation defaulting Example: Tag 96 = 11C4: 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 AND BOLD routable orders with Order info only.	
FIX-553	Username	String[16]	Y	Username agreed in advance with NYSE Group – *SenderCompID*.	String[16]
FIX-1409	SessionStatus	Int[1]	N	Status of FIX Session.	0 (Session Active)
	Standard Trailer		Y		

4.3 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		Y	*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[40]	N	Logout description.	String[100]

Tag	Field Name	Data Type	Req'd	Description	Values
FIX-789	NextExpected MsgSeqNum	Int[20]	Y	Next *MsgSeqNum[34]* expected by Pillar	Next *MsgSeqNum[34]* expected by Pillar
	Standard Trailer		Y		

4.4 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 Header		Y	*MsgType[35]* = 0	
FIX-112	TestReqId	String[20]	C	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		Y	*MsgType[35]* = 1	
FIX-112	TestReqID	String[20]	Y	Identifier included in Test Request message to be returned in resulting Heartbeat.	String[20]
	Standard Trailer		Y		

4.5 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		Y	*MsgType[35]* = 2	

Tag	Field Name	Data Type	Req'd	Description	Values
FIX-7	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]	Y	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		Y		

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.

4.6 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		Y	*MsgType[35]* = 4	
FIX-123	GapFillFlag	Boolean	Y	Indicates the mode in which the message is to be interpreted: Y = Gap Fill Reset (MsgSeqNum[34] validated) N = Sequence Reset (MsgSeqNum[34] ignored)	Y N
FIX-36	NewSeqNo	Int[20]	Y	The new valid sequence number	1-18446744073709551615
	Standard Trailer		Y		

4.7 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 *Text[58]*, 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		Y	*MsgType[35]* = 3	
FIX-45	RefSeqNum	Int[20]	Y	The sequence number of the rejected message.	1-18446744073709551615
FIX-373	SessionRejectReason	Int[2]	N	A code, which identifies the reason for the session level reject. Valid values: 0 = Invalid Tag Number 1 = Required Tag Missing 2 = Tag Not Defined For This Message Type 3 = Undefined Tag 4 = Tag specified without a value 5 = Value is incorrect (out of range) for this tag 6 = Incorrect data format for value 7 = Decryption problem 8 = Signature problem 9 = *CompID* problem (*SenderCompID*, *TargetCompID*, or both) 10 = *SendingTime* accuracy problem 11 = Invalid MsgType 13 = Tag Appears More than Once (non-repeating group tags only) 14 = Tag specified out of required order 15 = Repeating group fields out of order 99 = Other	0 1 2 3 4 5 6 7 8 9 10 11 13 14 15 99
FIX-371	RefTagId	Int[9]	N	The tag number of the FIX field being referenced.	1 - 999999999
FIX-372	RefMsgType	String[2]	N	The *MsgType* of the FIX message being referenced.	String[2]
FIX-58	Text	String[40]	N	Reject text, which identifies the reason for the rejected message. Text is limited to 40 characters.	String[100]
FIX-789	NextExpected MsgSeqNum	Int[20]	Y	Next *MsgSeqNum[34]* expected by Pillar	Next *MsgSeqNum[34]* expected by Pillar
	Standard Trailer		Y		

5. 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.

5.1 New Order – Single

This message is used to send a New Order to the NYSE Pillar Trading Engine.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = D	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	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.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-18	ExecInst	Char[1]	C	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	 f
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	1 2 3 4	1 2 3 4
FIX-44	Price	Price[16]	C	0.01-9,999.99	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	1 2
FIX-55	Symbol	String[16]	Y	Valid Options OSI Root symbol.	Yes	Yes
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 1 2 3	0 1 2 3 5
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
FIX-77	OpenClose	Char[1]	Y	Indicates status of Client's position in the Option		

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				O = Open C = Close	O C	O C
FIX-99	StopPx	Price[16]	C	Trigger price for Stop or Stop limit order 0.01 - 9,999.99	Yes	Yes
FIX-110	MinQty	Qty[5]	N	Must be ≤ *OrderQty*	No	No
FIX-111	MaxFloor	Qty[5]	C	1 - 999,999	Yes	Yes
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option	OPT	OPT
FIX-200	MaturityMonthYear	String[6]	Y	Month and year of maturity. Part of Options series identifier YYYYMM	Yes	Yes
FIX-201	PutOrCall	Char[1]	Y	Put or Call indicator. Part of Options series identifier. 0 = Put 1 = Call	0 1	0 1
FIX-202	StrikePrice	Price[16]	Y	Strike price of the option. Part of Options series identifier. 0.000001 - 999,999,999.999999	Yes	Yes
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-205	MaturityDay	String[2]	Y	Maturity day. Part of Options series identifier. DD	Yes	Yes
FIX-386	NoTradingSessions	Int[1]	Y	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)	2	2

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-526	OptionalData	String[16]	N	Clearing Optional Data 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
FIX-7928	SelfTradeType	Char[1]	N	0 (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 *If 0 is specified, the explicit value (T,N,O,C,D) configured for the session will be sent back on response messages.	0 T N O C	0 T N O C
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) 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)	 N R	 N R

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO)	8 N	8
FIX-9448	IntroducingBadgeID	String[4]	C	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-20001	AttributedQuote	Char[1]	N	0 = Not Attributed (equities) / Use current session configuration BOLD setting for the *SenderCompID* (options) 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market Data Feeds, and Include in Broker Volume 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only 6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = Do not BOLD		0 4 5 6 7 8
FIX-20002	ProactiveIfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked for routable orders 2 = Proactive trade non-display (Non-display remove liquidity for non-displayed orders locked by contraside ALOs)	0 1	0 1
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not Applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only 2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3 6 = Combination of value 2 and 4	0 3 4	0 3 4
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.		

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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 assumed as a value of 0.	0 1	0 1
FIX-20041	AuctionID	String[20]	N	CUBE Auction identifier supplied by Pillar Market Data to allow GTX responses to target specific CUBE auctions. If provided on non-GTX responses, the order will be rejected.		Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.2 New Cross Order

This message is used to send a New Cross Order to NYSE Pillar Trading Engine for the Options Markets.

Options Market Makers - when entering a cross order:

- MMID may be specified per Side of the order in *GiveUpMarketMaker[20014]*.
- An MMID may NOT be specified in the FIX Message Header - *SenderSubID[50].* If entered, will be rejected.
- At least one Side of the order must have both of the following attributes:
  - *GiveUpMarketMaker* = a valid MMID associated with the MPID in *OnBehalfOfCompID[115]*
  - CustomerOrFirm = 3 (Market Maker)

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	MsgType = s	Yes	Yes
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999	Yes	Yes
FIX-55	Symbol	String[16]	Y	Valid Options OSI Root symbol.	Yes	Yes
FIX-59	TimeInForce	Char[1]	Y	0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK	3	3

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				5 = GTX 6 = GTD 7 = On Close		
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
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument. OPT = Single leg Option MLEG = Complex Option	OPT	OPT
FIX-200	MaturityMonthYear	String[6]	Y	Month and year of maturity. Part of Options series identifier. YYYYMM	Yes	Yes
FIX-201	PutOrCall	Char[1]	Y	Put or Call indicator. Part of Options series identifier. 0 = Put 1 = Call	0 1	0 1
FIX-202	StrikePrice	Price[16]	Y	Strike price of the option. Part of Options series identifier. 0.000001 - 999,999,999.999999	Yes	Yes
FIX-205	MaturityDay	String[2]	Y	Maturity day. Part of Options series identifier. DD	Yes	Yes
FIX-386	NoTradingSessions	Int[1]	Y	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)	2	2
FIX-548	CrossID	String[20]	Y	Unique ID of the Cross as assigned by the firm.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				Pillar will validate that the *CrossID* 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 *CrossID* 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.		
FIX-9202	SpecialOrdType	Char[1]	Y	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 9 = Cabinet C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE T = QCT (*DeliverToCompID* must be populated with IB Firm Identifier)	C Q	C P Q S
FIX-9448	IntroducingBadgeID	String[4]	N	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-552	NoSides	Char[1]	Y	Number of Sides in the repeating group.	2	2
→ Repeating group Exposed side of the Cross order *(CoveredOrUncovered[203] = E)* must be defined first before the Covered side *(CoveredOrUncovered[203] = C)* is defined. A CUBE order must be defined with "E", CUBE contra order with a "C". *Side[54]* must appear first on each side.						
→ FIX-54	Side	Char[1]	Y	Required Tag to begin each repeating group. 1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	1 2	1 2
→ 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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.		
→ 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.	Yes	Yes
→ FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	 2	1 2 9
→ FIX-44	Price	Price[16]	C	0.01 - 9,999.99	Yes	Yes
→ FIX-77	OpenClose	Char[1]	Y	Indicates status of Client's position in the Option O = Open C = Close	 O C	 O C
→ FIX-203	CoveredOrUncovered	Char[1]	Y	Identifies the Exposed and Covered Side of each order in the Cross. E = Exposed C = Covered	 E C	 E C
→ FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	 0 1 2 3 4 8	 0 1 2 3 4 8
→ FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
→ FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
→ FIX-526	OptionalData	String[16]	N	Clearing Optional Data 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
→ FIX-20014	GiveUpMarketMaker	String[4]	N	Market Maker Identifier - MMID. If provided, the value will be used in place of FIX Tag 50.	Yes	Yes
→ FIX-20015	AllocationPct	String[2]	N	Percentage of allocation a single stop price Covered order is willing to surrender. Valid values are 0 - 100 pct. If the value provided results in a greater than standard allocation, then the max allowable quantity will be allocated. Field not applicable for QCC, Customer to Customer and CUBE orders defined as AutoMatch (market or limit) or AON.		Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.3 Order Cancel Request

This message is used to cancel a single targeted order including Complex orders.

For Complex orders, the request must be entered with the *OrigClOrdID* of the complex order (no leg level details), and will cancel the entire order along with all of its legs.

- *OnBehalfOfCompID[115]* in the FIX Header of the Cancel Request must be populated with the same MPID that was sent on the order intended for cancellation.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	MsgType = F	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.	Yes	Yes
FIX-41	OrigClOrdID	String[20]	Y	Required for single order cancellation. 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.	Yes	Yes
FIX-54	Side	Char[1]	C	Required for single leg order cancellation. Not required for Complex orders. 1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short	 1 2	 1 2

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				A = Cross Short Exempt		
FIX-55	Symbol	String[16]	C	Required for single leg order cancellation. Not required for Complex orders; Valid Options OSI Root symbol.	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
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.4 Bulk Cancel Request

This message is used to bulk cancel multiple orders based on the combination of criteria specified in the message. FIX bulk cancel will apply to orders designated with CustomerOrFirm = Customer, Firm, Broker, Away Market Maker, and Professional Customer only.

- *OnBehalfOfCompID[115]* in the FIX Header must be populated with a valid MPID configured for use on that session.
- *OnBehalfOfSubID[116]* will be added to the bulk cancellation criteria, when populated.
- *SenderSubID[50]* is not a valid field for the FIX Bulk Cancel request.
- At least one of the ***TargetCancelSenderCompID[20025]*** or ***TargetCancelMPID[20026]*** fields must be populated, and determine the cancellation scope as follows:

TargetCancelSenderCompID	TargetCancelMPID	Result
Populated	<blank>	**"Synthetic Cancel on Disconnect"** - cancel all MPIDs for the *TargetCancelSenderCompID* (must match the *SenderCompID* of the session sending this Bulk Cancel Request), without disconnecting.
<blank>	**Populated**	**Market Wide MPID Cancel** - cancel the *TargetCancelMPID* (must be a valid MPID entitled for use on the session sending this Bulk Cancel Request) - across ALL *SenderCompIDs* on the given market.
Populated	**Populated**	Cancel combination of ***TargetCancelSenderCompID*** (must match the *SenderCompID* of the session sending this Bulk Cancel Request) **+ *TargetCancelMPID*** (must be a valid MPID entitled for use on the session sending this Bulk Cancel Request).

- **Exclusions** – the following orders are always excluded from cancellation by a Bulk Cancel Request:
    - Immediate or Cancel (IOC) orders (for NYSE Arca & American Options, this covers all Cross Orders - CUBE, QCC, Customer to Customer)
    - GTC
    - Open Outcry orders

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = F	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	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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.		
FIX-37	OrderID	String[20]	Y	Required for Bulk Cancel - populate with Bulk Cancel Code: 0 = Bulk Cancel Request	0	0
FIX-54	Side	Char[1]	N	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 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt	1 2	1 2
FIX-55	Symbol	String[16]	N	Optional for Bulk Cancel. For Options, it will cancel the entire underlying symbol.	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
FIX-65	SymbolSfx	String[10]	N	Valid Suffix value	Yes	Yes
FIX-20025	TargetCancelSenderCompID	Char[32]	N	Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with the *SenderCompID* of the session sending this Bulk Cancel Request. If populated, only orders originally entered via this *SenderCompID* will be cancelled.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-20026	TargetCancelMPID	Char[4]	N	Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with a valid MPID entitled for use on the session sending this Bulk Cancel Request. If populated, only orders for the specified MPID will be cancelled. Firm Identifier – MPID.	Yes	Yes
FIX-20027	BulkAction	Char[1]	Y	Required for Bulk Cancel. 1 = Cancel Single Leg only 2 = Cancel Complex only 3 = Cancel both Single Leg and Complex	 1 2 3	 1 2 3
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.5 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 order quantity, 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.

Options cross orders are not eligible for cancel replacement.

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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = G	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	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,	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				greater than/less than, ampersand (&) and single/double quotation mark.		
FIX-18	ExecInst	Char[1]	C	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	f
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	1 2 3 4	1 2 3 4
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 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
FIX-44	Price	Price[16]	C	0.01 - 9,999.99	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	1 2
FIX-55	Symbol	String[16]	Y	Valid Options OSI Root symbol.	Yes	Yes
FIX-59	TimeInForce	Char[1]	Y	0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK	0 1 2 3	0 1 2 3

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				5 = GTX 6 = GTD 7 = On Close		5
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
FIX-77	OpenClose	Char[1]	N	Indicates status of Client's position in the Option O = Open C = Close	O C	O C
FIX-99	StopPx	Price[16]	N	Trigger price for Stop and Stop Limit orders 0.01 - 9,999.99	Yes	Yes
FIX-110	MinQty	Qty[5]	N	Must be ≤ *OrderQty*	No	No
FIX-111	MaxFloor	Qty[5]	C	1 - 999,999	Yes	Yes
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option	OPT	OPT
FIX-200	MaturityMonthYear	String[6]	Y	Month and year of maturity. Part of Options series identifier. YYYYMM	Yes	Yes
FIX-201	PutOrCall	Char[1]	Y	Put or Call indicator. Part of Options series identifier. 0 = Put 1 = Call	0 1	0 1
FIX-202	StrikePrice	Price[16]	Y	Strike price of the option. Part of Options series identifier. 0.000001 - 999,999,999.999999	Yes	Yes
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-205	MaturityDay	String[2]	Y	Maturity day. Part of Options series identifier. DD	Yes	Yes
FIX-386	NoTradingSessions	Int[1]	Y	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	2	2

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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)		
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-526	OptionalData	String[16]	N	Clearing Optional Data. 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
FIX-7928	SelfTradeType	Char[1]	N	0 (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 *If 0 is specified, the explicit value (T,N,O,C,D) configured for the session will be sent back on response messages.	0 T N O C	0 T N O C

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) 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)	N R	N R
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO)	8 N	8
FIX-9448	IntroducingBadgeID	String[4]	C	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-20001	AttributedQuote	Char[1]	N	0 = Not Attributed (equities) / Use current session configuration BOLD setting for the *SenderCompID* (options) 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market Data Feeds, and Include in Broker Volume 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only 6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = Do not BOLD		0 4 5 6 7 8
FIX-20002	ProactiveIfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked for routable orders 2 = Non-display remove liquidity for non-displayed orders locked by contraside ALOs	0 1	0 1
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not Applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only	0	0

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3 6 = Combination of value 2 and 4	3 4	3 4
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" 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 assumed as a value of 0.	0 1	0 1
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.6 Order Cancel Reject

This message is used to reject a Cancel or Cancel/Replace Request. A single reject is provided for a Complex Cancel or Cancel Replace.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = 9	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.	Yes	Yes
FIX-37	OrderID	String[20]	Y	*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
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	8	8
FIX-41	OrigClOrdID	String[20]	C	Returned from Order Cancel or Cancel/Replace Request.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.		
FIX-58	Text	String[80]	N	On Incoming Messages from Firm: Freeform text field, up to 80 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. 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 rejection.	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
FIX-434	CxlRejResponse To	Char[1]	Y	1 = Order Cancel Request 2 = Order Cancel/Replace Request	1 2	1 2
FIX-20009	Nanosecond SendingTime	String[27]	Y	Time of message transmission on outgoing message from Exchange. UTC time, in Nanoseconds – YYYYMMDD-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.	Yes	Yes
FIX-20010	Nanosecond TransactTime	String[27]	Y	Exchange application time. UTC time, in Nanoseconds – YYYYMMDD-HH:MM:SS.sssssssss	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				Note: this represents the same reference time as provided in the standard FIX tag *TransactTime* (60), with more granular resolution.		
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.7 New Complex Order

This message is used to send a New Complex Order to the NYSE Pillar Trading Engine for the Options Markets.

A complex series is defined from the perspective of the buyer (i.e. Buy aligned). Pillar sequences the component legs from the complex order message or Binary Complex Series Request from lowest series ID to highest series ID. After sequencing the component legs, using the first component leg, if the leg is to Buy, the complex series is defined and published to Pillar Market Data. If the first leg is to Sell, the side of all component legs are reversed and published to Pillar Market Data.

All complex orders except GTX must adhere to the 3:1 ratio restriction.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = AB	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	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.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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. **Note:** Firms must specify a *ClOrdID* value for the entire Complex order in tag 11.		
FIX-38	OrderQty	Qty[6]	Y	1 - 999,999 Number of times the spread is available. Leg order quantity is determined by *OrderQty*LegRatioQty*, the resulting value cannot exceed 999,999.	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	 2	 2
FIX-44	Price	Price[16]	Y	-214,748.36 - 214,748.36 Net Limit price of the order - can be positive, negative or zero. A positive value indicates Customer is paying (net debit); a negative value indicates Customer is receiving (net credit). Zero is even. Max of 2 decimal places. Required when OrdType = 2	Yes	Yes
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 1 3 5	0 1 3 5
FIX-60	TransactTime	UTCTimestamp [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
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument. OPT = Single leg Option MLEG = Complex Option (Multi-leg Option)	 MLEG	 MLEG

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-386	NoTradingSessions	Int[1]	Y	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)	2	2
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-526	OptionalData	String[16]	N	Clearing Optional Data. 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
FIX-555	NoLegs	String[2]	Y	Number of Instrument Leg repeating group instances. A minimum of 2 and a maximum of 12 legs supported.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
→ Repeating group A minimum of 2 legs must be defined. A maximum of 12 legs can be defined. *LegSymbol[600]* must be the first tag in this repeating group.						
→ FIX-600	LegSymbol	String[16]	Y	Options OSI Root symbol. **Note:** This must be the first tag of each leg.	Yes	Yes
→ FIX-564	LegPositionEffect	Char[1]	Y	Indicates status of Client's position in the Option. Option legs only. O = Open C = Close	O C	O C
→ FIX-608	LegCFICode	String[2]	Y	Security CFI code for the individual leg of the Complex Option instrument. For Options: OC = Option – Call [OPT] OP = Option – Put [OPT] EQ = Equity common shares	OC OP	OC OP
→ FIX-611	LegMaturityDate	String[8]	Y	Complex instrument's individual security's Maturity Date. Expiration Date in the YYYYMMDD format.	Yes	Yes
→ FIX-612	LegStrikePrice	Price[16]	Y	0.000001 – 999,999,999.999999	Yes	Yes
→ FIX-623	LegRatioQty	Qty[6]	Y	The ratio of quantity for this individual leg. 1 - 65,535 Number of option contracts for this leg is: *OrderQty*LegRatioQty*	Yes	Yes
→ FIX-624	LegSide	Char[1]	Y	The side of this individual leg. 1 = Buy 2 = Sell	1 2	1 2
→ FIX-654	LegRefID	int[10]	Y	Unique ID of the individual leg of the new Order or Cancel/Replace request as assigned by the firm. Pillar will validate that the *LegRefID* is unique among the legs in a Complex order. However, the firm is responsible for ensuring that the *LegRefID* provided is unique among all legs of a certain Complex order. Customer defined value up to 10 digits numeric starting from 1 up to 4,294,967,295.	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 N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement	0 T N O C	0 T N O C

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				*If 0 is specified, the explicit value (T, N, O, C, D) configured for the Username will be sent back on response messages.		
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) 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)	C	C
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO)	C	C
FIX-9448	IntroducingBadgeID	String[4]	N	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only 2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3 6 = Combination of value 2 and 4	0	0

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
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" 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	0	0
				1 = for this order, ignore the *OnBehalfOfSubID* for STP (conduct STP evaluation at MPID level only)	1	1
				If not specified, will be assumed as a value of 0.		
FIX-20041	AuctionID	String(20)	N	CUBE Auction identifier supplied by Pillar Market Data to allow GTX responses to target specific CUBE auctions. If provided on non-GTX responses, the order will be rejected.		Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.8 New Complex Cross Order

This message is used to send a New Complex Cross Order to NYSE Pillar Trading Engine for the Options Markets. Customer to Customer Cross orders must adhere to the 3:1 ratio restriction, QCC and CUBE are not restricted.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = As	Yes	Yes
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999 Number of times the spread is available. Leg order quantity is determined by *OrderQty*LegRatioQty*, the resulting value cannot exceed 999,999.	Yes	Yes
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	3	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
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option (Multi-leg Option)	MLEG	MLEG
FIX-386	NoTradingSessions	Int[1]	Y	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	2	2

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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-548	CrossID	String[20]	Y	Unique ID of the Cross as assigned by the firm. Pillar will validate that the *CrossID* 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 *CrossID* 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.	Yes	Yes
FIX-9202	SpecialOrdType	Char[1]	Y	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 9 = Cabinet C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE T = QCT (*DeliverToCompID* must be populated with IB Firm Identifier)	C Q	C P Q S
FIX-9448	IntroducingBadgeID	String[4]	N	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-552	NoSides	Char[1]	Y	Number of Sides in the repeating group	2	2
→ <u>Repeating group</u> Exposed side of the Cross order *(CoveredOrUncovered[203] = E)* must be defined first along with all its legs before the Covered side *(CoveredOrUncovered[203] = C)* is defined along with all its legs. A CUBE order must be defined with "E", CUBE contra order with a "C". *ClOrdID[11]* must appear first on each side.						
→ FIX-11	ClOrdID	String[20]	Y	Required Tag to begin each repeating group. Unique ID of the new Order, Cancel, or Cancel/Replace request as assigned by the firm.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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. **Note:** Firms must specify a *ClOrdID* value for the entire Complex order in tag 11.		
→ 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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	Yes	Yes
→ FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	 2	 2 9
→ FIX-44	Price	Price[16]	C	-214,748.36 - 214,748.36 Net Limit price of the order - can be positive, negative or zero. A positive value indicates Customer is paying (net debit); a negative value indicates Customer is receiving (net credit). Zero is even. Max of 2 decimal places.	Yes	Yes
→ FIX-203	CoveredOrUncovered	Char[1]	Y	Identifies the Exposed and Covered Side of each order in the Cross. E = Exposed C = Covered	 E C	 E C
→ FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer	 0	 0

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	1 2 3 4 8	1 2 3 4 8
→ FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
→ FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
→ FIX-526	OptionalData	String[16]	N	Clearing Optional Data. 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
→ FIX-555	NoLegs	String[2]	Y	Number of *InstrumentLeg* repeating group instances. A minimum of 2 and a maximum of 12 legs supported.	Yes	Yes
→→ <u>Repeating group</u> A minimum of 2 legs must be defined. A maximum of 12 legs can be defined. *LegSymbol[600]* must be the first tag in this repeating group.						
→→ FIX-600	LegSymbol	String[16]	Y	Valid Equities Ticker Symbol or Options OSI Root symbol. **Note:** This must be the first tag of each leg.	Yes	Yes
→→ FIX-564	LegPositionEffect	Char[1]	Y	Indicates status of Client's position in the Option. Option legs only. O = Open C = Close	O C	O C
→→ FIX-608	LegCFICode	String[2]	Y	Security CFI code for the individual leg of the Complex Option instrument. For Options: OC = Option – Call [OPT] OP = Option – Put [OPT] EQ = Equity common shares	OC OP	OC OP
→→ FIX-611	LegMaturityDate	String[8]	Y	Complex instrument's individual security's Maturity Date. Expiration Date in the YYYYMMDD format.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
→→ FIX-612	LegStrikePrice	Price[16]	Y	0.000001 – 999,999,999.999999	Yes	Yes
→→ FIX-623	LegRatioQty	Qty[6]	Y	The ratio of quantity for this individual leg. 1 - 65,535 <u>QCC</u> 1 - 999,999 Number of option contracts for this leg is: *LegRatioQty * OrderQty*	Yes	Yes
→→ FIX-624	LegSide	Char[1]	Y	The side of this individual leg. 1 = Buy 2 = Sell	 1 2	 1 2
→→ FIX-654	LegRefID	Int[10]	Y	Unique ID of the individual leg of the new Order or Cancel/Replace request as assigned by the firm. Pillar will validate that the *LegRefID* is unique among the legs in a Complex order. However, the firm is responsible for ensuring that the *LegRefID* provided is unique among all legs of a certain Complex order. Customer defined value up to 10 digits numeric starting from 1 up to 4,294,967,295.	Yes	Yes
→ FIX-20014	GiveUpMarket Maker	String[4]	N	Market Maker Identifier - MMID. If provided, the value will be used in place of FIX Tag 50.	Yes	Yes
→ FIX-20015	AllocationPct	String[2]	N	Percentage of allocation a single stop price Covered order is willing to surrender. Valid values are 0 - 100 pct. If the value provided results in a greater than standard allocation, then the max allowable quantity will be allocated. Field not applicable for QCC, Customer to Customer and CUBE orders defined as AutoMatch (market or limit) or AON.		Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.9 Complex 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, 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.

Options cross orders are not eligible for cancel replacement.

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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = AC	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	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	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. **Note:** Firms must specify a *ClOrdID* value for the entire Complex order in tag 11.		
FIX-38	OrderQty	Qty[6]	Y	Quantity from Order Message 1 - 999,999 Leg order quantity is determined by *OrderQty * LegRatioQty*, the resulting value cannot exceed 999,999.	Yes	Yes
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	 2	 2
FIX-41	OrigClOrdID	String[20]	Y	This value must match 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 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
FIX-44	Price	Price[16]	Y	-214,748.36 - 214,748.36 Net Limit price of the order - can be positive, negative or zero. A positive value indicates Customer is paying (net debit); a negative value indicates Customer is receiving (net credit). Zero is even. Max of 2 decimal places.	Yes	Yes
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 1 3 5	0 1 3 5
FIX-60	TransactTime	UTC Timestamp [27]	N	On Incoming Messages from Firm: Customer application time. On Outgoing Messages from Exchange: Exchange application time.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				UTC time, in Milliseconds YYYYMMDD-HH:MM:SS.mmm		
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option	MLEG	MLEG
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-386	NoTradingSessions	Int[1]	Y	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)	2	2
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-526	OptionalData	String[16]	N	Clearing Optional Data. Customer defined up to 16 characters; only printable ASCII characters allowed, excluding	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.		
FIX-555	NoLegs	String[2]	Y	Number of Instrument Leg repeating group instances. A minimum of 2 and a maximum of 12 legs supported.	Yes	Yes
→ <u>Repeating group</u> A minimum of 2 legs must be defined. A maximum of 12 legs can be defined. *LegSymbol[600]* must be the first tag in this repeating group.						
→ FIX-600	LegSymbol	String[16]	Y	Valid Equities Ticker Symbol or Options OSI Root symbol. Note: This must be the first tag of each leg.	Yes	Yes
→ FIX-564	LegPositionEffect	Char[1]	Y	Indicates status of Client's position in the Option. Option legs only. O = Open C = Close	O C	O C
→ FIX-608	LegCFICode	String[2]	Y	Security CFI code for the individual leg of the Complex Option instrument. For Options: OC = Option – Call [OPT] OP = Option – Put [OPT] EQ = Equity common shares	OC OP	OC OP
→ FIX-611	LegMaturityDate	String[8]	Y	Complex instrument's individual security's Maturity Date. Expiration Date in the YYYYMMDD format.	Yes	Yes
→ FIX-612	LegStrikePrice	Price[16]	Y	0.000001 – 999,999,999.999999	Yes	Yes
→ FIX-623	LegRatioQty	Qty[6]	Y	The ratio of quantity for this individual leg. 1 - 65,535 Number of option contracts or stock shares for this leg is: *OrderQty * LegRatioQty*	Yes	Yes
→ FIX-624	LegSide	Char[1]	Y	The side of this individual leg. 1 = Buy 2 = Sell	1 2	1 2
→ FIX-654	LegRefID	Int[10]	Y	Unique ID of the individual leg of the new Order or Cancel/Replace request as assigned by the firm. Pillar will validate that the *LegRefID* is unique among the legs in a Complex order. However, the firm is responsible for ensuring that the *LegRefID* provided is unique among all legs of a certain Complex order. Customer defined value up to 10 digits numeric starting from 1 up to 4,294,967,295.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-7928	SelfTradeType	Char[1]	N	0 (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 *If 0 is specified, the explicit value (T, N, O, C, D) configured for the Username will be sent back on response messages.	0 T N O C	0 T N O C
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) 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)	C	C
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO)	C	C
FIX-9448	IntroducingBadgeID	String[4]	C	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only 2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3	0	0

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				6 = Combination of value 2 and 4		
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" 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 assumed as a value of 0.	0 1	0 1
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.10 Execution Report

This message is used to confirm new orders, cancellations, replacements, fills, trade busts, trade corrections, order rejections and Done for Day. Done for Day messages are sent for all open orders at the Done for Day time 4:45pm ET (30 minutes from late series market close).

For NYSE Arca and American Options cross messages, a separate message will be provided for each side of the cross.

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 or as a Re-pricing Ack to notify the firm of a working or display price update. Firms control receipt of these Acks by session level subscription via the Logon Request message. For both Reserve Order Replenishment and Repricing acks, *OrdStatus[39]* = 0 (New) and *LeavesQty[151]* = 0.

- Reserve Order Replenishment is represented by *UnsolicitedAckType[20007]* = 2 (Order Priority Update – New *OrderID*). 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.
- Repricing is represented by *ExecType = D* (Restatement) and *ExecRestatementReason[378]* = 3 (Repricing).

Complex orders are reported as follows:

- Order, cancel and replace acks, UROUTS, replaces, Done for Day and restatements are provided for the Complex and the individual legs.
- Fills, trade busts and trade corrections are provided for the individual legs only.
- Order rejects are provided for the Complex only.

For a list of post trade adjustment messages sent back on Order Entry session and Drop Copy session, please refer to the "Drop Copy" section of this document.

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = 8	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.	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	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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. When *MultiLegReportingType[442] = 2 or 3*, this field represents the *ClOrdID* value for the entire Complex order.		
FIX-14	CumQty	Qty[9]	C	0 - 999,999	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
FIX-18	ExecInst	Char[1]	C	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 v = Stock-Option/Stock-Future Contingent (only present on outbound drop copy messages)	 f	 f
FIX-19	ExecRefID	String[32]	C	Contains the *ExecID[17]* value of the Fill that is busted or corrected. Up to 32 characters.	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)	0 1 2	0 1 2
FIX-30	LastMkt	String[4]	C	On fills and partial fills, Market Identifier Code (MIC) of the sending Exchange (regardless of local or away market execution). AMXO = NYSE American Options ARCO = NYSE Arca Options	 ARCO	 AMXO

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-31	LastPx	Price[16]	C	Price of current partial fill or fill message (set to 0 on all non-fills). 0 - 9,999.99	Yes	Yes
FIX-32	LastQty	Qty[9]	C	Quantity of current partial fill or fill message (set to 0 on all non-fills). Quantity of current partial fill or fill of the leg when *MultiLegReportingType[442] = 2*. 0 - 999,999	Yes	Yes
FIX-37	OrderID	String[20]	C	Unique identifier of most recent order as assigned by the Exchange. Published externally to market data feeds. Numerical up to 20 characters.	Yes	Yes
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999 **Reserve Replenishment** (tag 20007 = 2) - represents the displayed quantity. **Repricing** (tag 150 = D and tag 378 = 3) - represents the leaves quantity of the order. When *MultiLegReportingType[442] = 2*, this field represents the leg level quantity.	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	 0 1 2 3 4 5 6 8 E M	 0 1 2 3 4 5 6 8 E M
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	1 2 3 4	1 2 3 4 9
FIX-41	OrigClOrdID	String[20]	C	Returned from Order Cancel or Cancel/Replace Request.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. When *MultiLegReportingType[442] = 2 or 3*, this field represents the *ClOrdID* value for the entire Complex order previously entered for cancellation or replacement.		
FIX-44	Price	Price[16]	C	0.01 - 9,999.99 When *MultiLegReportingType[442] = 2 or 3*, Net Limit price of the order - can be positive, negative or zero. A positive value indicates Customer is paying (net debit); a negative value indicates Customer is receiving (net credit). Zero is even. (-214,748.36 - 214,748.36)	Yes	Yes
FIX-54	Side	Char[1]	C	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt Not provided when *MultiLegReportingType[442] = 3*.	1 2	1 2
FIX-55	Symbol	String[16]	C	Valid Options OSI Root symbol. Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-58	Text	String[40]	N	On Incoming Messages from Firm: Freeform text field, up to 80 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. 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.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
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 1 2 3 5	0 1 2 3 5
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
FIX-77	OpenClose	Char[1]	Y	Indicates status of Client's position in the Option. For Complex orders, only populated when *MultiLegReportingType[442] = 3*. O = Open C = Close	O C	O C
FIX-99	StopPx	Price[16]	C	Trigger price for Stop or Stop limit order 0.01 - 9,999.99	Yes	Yes
FIX-109	ClientID	String[4]	N	For firms using ClientID based Self-Trade Prevention as a session default, this tag will be sent unsolicited on messages from the Exchange to the firm.	Yes	Yes
FIX-110	MinQty	Qty[5]	N	Must be ≤ *OrderQty*	No	No
FIX-111	MaxFloor	Qty[5]	C	1 - 999,999	Yes	Yes
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) D = Restatement E = Pending Cancel/Replace L = Eligible for Cross (Used for Broker Cross Orders) M = Pending Modify	0 1 2 3 4 5 6 8 D E M	0 1 2 3 4 5 6 8 D E M
FIX-151	LeavesQty	Qty[9]	C	0 - 999,999 When *MultiLegReportingType[442] = 2*, this field represents the leg level quantity.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option Value is 'MLEG' when *MultiLegReportingType[442] = 2 or 3*.	OPT MLEG	OPT MLEG
FIX-200	MaturityMonthYear	String[6]	Y	Month and year of maturity. Part of Options series identifier YYYYMM Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-201	PutOrCall	Char[1]	Y	Put or Call indicator. Part of Options series identifier 0 = Put 1 = Call Not provided when *MultiLegReportingType[442] = 3*.	0 1	0 1
FIX-202	StrikePrice	Price[16]	Y	Strike price of the option. Part of Options series identifier 0.000001 - 999,999,999.999999 Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-203	CoveredOrUncovered	Char[1]	C	Identifies the Exposed and Covered Side of each order in the Cross E = Exposed C = Covered	E C	E C
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market Maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-205	MaturityDay	String[2]	Y	Maturity day. Part of Options series identifier. DD Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-378	ExecRestatementReason	Char[1]	C	1 = GTC renewal/restatement 3 = Repricing	1 3	1 3
FIX-382	NoContraBrokers	Char[1]	C	Number of Contra Brokers	1	1
→ Repeating group *ContraBroker[375]* is the first tag in this repeating group.						
→ FIX-375	ContraBroker	String[5]	C	Contra party clearing number of CMTA	Yes	Yes
→ FIX-337	ContraTrader	String[4]	C	Contra party Firm Identifier - MPID	Yes	Yes
FIX-386	NoTradingSessions	Int[1]	Y	1	1	1

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
→ 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)	 2	 2
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-442	MultilegReportingType	Char[1]	C	Indicates the type of Execution Report. (e.g.: used with multi-leg securities, such as option strategies, spreads, etc.). 1 = Single-leg security 2 = Individual leg of a multi-leg security 3 = Multi-leg security Not provided in invalid symbol reject messages.	 1 2 3	 1 2 3
FIX-526	OptionalData	String[16]	N	Clearing Optional Data 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
FIX-548	CrossID	String[20]	C	Unique ID of the Cross as assigned by the firm. Pillar will validate that the *CrossID* is unique for the combination of *SenderCompID* + *OnBehalfOfCompID* (MPID) that entered the order, among open orders	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				only. However, the firm is responsible for ensuring that the *CrossID* 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.		
FIX-654	LegRefID	Int[10]	C	Unique ID of the individual leg of the new Complex Order or Complex Cancel/Replace request as assigned by the firm. Only provided when *MultiLegReportingType[442] = 2*.	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 N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement *If 0 is specified, the explicit value (T,N,O,C,D) configured for the session will be sent back on response messages.	0 T N O C	0 T N O C
FIX-9202	SpecialOrdTyp e	Char[1]	C	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* 9 = Cabinet C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE T = QCT (*DeliverToCompID* must be populated with IB Firm Identifier)	C Q	C P Q S
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) 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)	C N R	C N R

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO)	8 C N	8 C
FIX-9448	IntroducingBadgeID	String[4]	C	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-9483	DealID	String[20]	C	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
FIX-9730	LiquidityIndicator	String[4]	C	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 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
FIX-20001	AttributedQuote	Char[1]	N	0 = Not Attributed (equities) / Use current session configuration BOLD setting for the *SenderCompID* (options) 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume		0

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				3 = Attributed for Market Data Feeds, and Include in Broker Volume 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only 6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = Do not BOLD		4 5 6 7 8
FIX-20002	ProactiveIfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked for routable orders 2 = Non-display remove liquidity for non-displayed orders locked by contraside ALOs	0 1	0 1
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not Applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only 2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3 6 = Combination of value 2 and 4	0 3 4	0 3 4
FIX-20004	WorkingPrice	Price[16]	C	0.01-9,999.99	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 1 = Inbound message was throttled	0 1	0 1
FIX-20006	WorkingAwayFromDisplay	Char[1]	C	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 1 = Working Price is different from Display Price	0 1	0 1
FIX-20007	UnsolicitedAckType	Char[1]	C	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
FIX-20009	NanosecondSendingTime	String[27]	Y	Time of message transmission on outgoing message from Exchange. UTC time, in Nanoseconds – YYYYMMDD-HH:MM:SS.sssssssss	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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]	Y	Exchange application time. 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.	Yes	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" 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 assumed as a value of 0.	0 1	0 1
FIX-20014	GiveUpMarket Maker	String[4]	N	Market Maker Identifier - MMID. If provided, the value will be used in place of FIX Tag 50.	Yes	Yes
FIX-20015	AllocationPct	String[2]	N	Percentage of allocation a single stop price Covered order is willing to surrender. Valid values are 0 - 100 pct. If the value provided results in a greater than standard allocation, then the max allowable quantity will be allocated. Field not applicable for QCC, Customer to Customer and CUBE orders defined as AutoMatch (market or limit) or AON.		Yes
FIX-20016	ContraCustom erOrFirm	Char[1]	C	Contra party capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker	0 1 2 3	0 1 2 3

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				4 = Away Market Maker 8 = Prof customer	4 8	4 8
FIX-20017	ContraClearingAccount	String[5]	C	Contra party clearing number. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-20018	ContraOpenClose	Char[1]	C	Contra party position in the Option O = Open C = Close	 O C	 O C
FIX-20019	ContraMarketMaker	String[5]	C	Contra party MMID	Yes	Yes
FIX-20020	ContraCrossType	Char[1]	N	Contra party *CrossType* C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE	 C Q 	 C P Q S
FIX-20021	ContraCoveredOrUncovered	Char[1]	N	Identifies the Exposed or Covered Side when the contra side was Cross E = Exposed C = Covered	 E C	 E C
FIX-20025	TargetCancelSenderCompID	Char[32]	N	May be sent on Bulk Cancel Ack. Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with the *SenderCompID* of the session sending this Bulk Cancel Request. If populated, only orders originally entered via this *SenderCompID* will be cancelled.	Yes	Yes
FIX-20026	TargetCancelMPID	Char[4]	N	May be sent on Bulk Cancel Ack. Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with a valid MPID entitled for use on the session sending this Bulk Cancel Request. If populated, only orders for the specified MPID will be cancelled. Firm Identifier – MPID.	Yes	Yes
FIX-20027	BulkAction	Char[1]	Y	Required for Bulk Cancel. 1 = Cancel Single Leg only 2 = Cancel Complex only 3 = Cancel both Single Leg and Complex	 1 2 3	 1 2 3

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-20041	AuctionID	String(20)	N	CUBE Auction identifier supplied by Pillar Market Data to allow GTX responses to target specific CUBE auctions. If provided on non-GTX responses, the order will be rejected.		Yes
FIX-30002	RefDealID	String[20]	C	Unique identifier of a transaction, assigned to both sides of a single trade. Numerical up to 20 characters.	Yes	Yes
FIX-30006	OriginalDealID	String[20]	C	For trade allocations, busts and corrections, identifier of the original open outcry trade. Used as the universal trade ID at OCC. Numerical up to 20 characters.	Yes	Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

5.11 Drop Copy

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 - default clearing number for MPID or specified *ClearingAccount[440]* give-up (NYSE Arca & American Options), plus specified *ClearingFirm[439]* CMTA (NYSE Arca & American Options) for CMTA values known by the Exchange

        Note: on a given execution, if *ClearingAccount[440]* and *ClearingFirm[439]* FIX tags are specified with different clearing numbers that map to the same clearing firm, a separate drop copy message will be generated for each value. If a single drop copy session is configured for both clearing numbers, both messages will go to that session. The combination of *DealID[9483] + Side[54]* may be used to compare such messages.
    - MMID(s) - a single or multiple MMIDs

- **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)

Note - for Market Maker Quotes (NYSE Arca and American Options), only Fills and Partial Fills are available via drop copy, regardless of the filter selected above.

NYSE Arca/American Options - Post Trade Adjustment Messaging

Below table outlines the messages sent back on the Order Entry session and Drop Copy session as a result of various post trade adjustment events.

		Trade Cancel (Bust)	Trade Correction	Trade Re-add	Contractual Trade Split (Outcry only)	All Other Post Trade Adjustments (TOP)
Trade Date	Order Entry Session	Yes [E]	Yes [E]	Yes [E]	Yes [E]	No
	Drop Copy Session	Yes [E, A]	Yes [E, A]	Yes [E, A]	Yes [E, A]	Yes [A]
T+N	Order Entry Session	No	No	No	No	No
	Drop Copy Session	Yes [A]	Yes [A]	Yes [A]	Yes [A]	Yes [A]

E - applies exclusively to execution messages
E, A - applies to execution and allocation messages
A - applies exclusively to allocation messages

Trade Cancel/Trade Correct messages - will only reflect price and or quantity changes of an execution, with all other details remaining the same as received on an initial execution report.

Single sided "allocation" messages - key attributes for identifying these messages are as follows:

- *AllocationFlag[30003]* = Y
- *OriginalDealID[30006]* = the *DealID* reported to OCC for all components of the execution
- For outcry trades where *LiquidityIndicator[9730]* is ZOC or ZOS, the allocation messages will contain the clearing information that goes to OCC. For all other executions, the execution message will contain the clearing information that goes to OCC.
- For post trade adjustments made to any executions, drop copy recipients will receive allocation messages (cancel followed by new), to match up with the way changes are communicated to OCC. Based on the terms that were changed, a new allocation message may not be received by the same user that received a cancel at the allocation level (e.g., if firm was changed).
    - Initial post trade adjustment performed on a trade - *ExecRefID[19*] of the allocation cancel refers to the corresponding trade.
    - Subsequent adjustments - *ExecRefID[19*] of the allocation cancel refers to the prior allocation in the chain.
- Firms are advised to ignore the values in the following tags on allocation messages - *CumQty[14], OrdStatus[39], ExecType[150], LeavesQty[151]*
- If a trade has a correction to price and/or quantity, a correction message will be received at the execution level, with cancel followed by new messages at the allocation level. Based on the terms that were changed, a new allocation message may not be received by the same drop copy recipients that received a cancel message at the allocation level (e.g.: quantity was reduced).

Open Outcry - NYSE Arca/NYSE American Options Trading Floor

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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
	Standard FIX Header		Y	*MsgType[35]* = 8	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. For NYSE Arca & NYSE American Options - up to 16 characters will be echoed back on gateway response	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				messages, but will be truncated to the first 10 characters to clearing, end of day output files, etc.		
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. When *MultiLegReportingType[442] = 2 or 3*, this field represents the *ClOrdID* value for the entire Complex order.	Yes	Yes
FIX-14	CumQty	Qty[9]	C	0 - 999,999	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
FIX-18	ExecInst	Char[1]	C	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 v = Stock-Option/Stock-Future Contingent (only present on outbound drop copy messages)	 f	 f
FIX-19	ExecRefID	String[32]	C	Contains the *ExecID[17]* value of the Fill that is busted or corrected. Up to 32 characters.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
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)	0 1 2	0 1 2
FIX-30	LastMkt	String[4]	C	On fills and partial fills, Market Identifier Code (MIC) of the sending Exchange (regardless of local or away market execution). AMXO = NYSE American Options ARCO = NYSE Arca Options	 ARCO	 AMXO
FIX-31	LastPx	Price[16]	C	Price of current partial fill or fill message (set to 0 on all non-fills). 0 - 9,999.99 Cabinet is 0.00000001 - 0.01	Yes	Yes
FIX-32	LastQty	Qty[9]	C	Quantity of current partial fill or fill message (set to 0 on all non-fills). Quantity of current partial fill or fill of the leg when *MultiLegReportingType[442] = 2*. 0 - 999,999	Yes	Yes
FIX-37	OrderID	String[20]	C	Unique identifier of most recent order as assigned by the Exchange. Published externally to market data feeds. Numerical up to 20 characters.	Yes	Yes
FIX-38	OrderQty	Qty[9]	Y	1 - 999,999 **Reserve Replenishment** (tag 20007 = 2) - represents the displayed quantity. **Repricing** (tag 150 = D and tag 378 = 3) - represents the leaves quantity of the order.	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 M = Pending Modify N = Broker Open Outcry Announcement	 0 1 2 3 4 5 6 8 E G H J K M N	 0 1 2 3 4 5 6 8 E G H J K M N

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				P = Trading Official Open Outcry Approval - clear the book required Q = Trading Official Open Outcry Approval - clear the book NOT required S = Trading Official Open Outcry Unapproval T = OMS Trade Request U = FLEX Price Request V = FLEX Price Reject W = Trading Official Open Outcry Unannouncement X = Trading Official Open Outcry Unannouncement & Unapproval	P Q S T U V W X	P Q S T U V W X
FIX-40	OrdType	Char[1]	Y	1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 7 = Inside Limit 9 = AutoMatch Limit P = Pegged	1 2	1 2 9
FIX-41	OrigClOrdID	String[20]	C	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 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. When *MultiLegReportingType[442] = 2 or 3*, this field represents the *ClOrdID* value for the entire Complex order previously entered for cancellation or replacement. For Floor OMS, *ClOrdID* of the open outcry order.	Yes	Yes
FIX-44	Price	Price[16]	C	0.01 - 9,999.99 Cabinet is 0.00000001 - 0.01 When *MultiLegReportingType[442] = 2 or 3*, Net Limit price of the order - can be positive, negative or zero. A positive value indicates Customer is paying (net debit); a negative value indicates Customer is receiving (net credit). Zero is even. (-214,748.36 - 214,748.36)	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				Required when *OrdType[40] = 2.* Not required or must be populated with 0 when *PercentagePrice[20031]* is populated.		
FIX-54	Side	Char[1]	C	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt 8 = Cross 9 = Cross Short A = Cross Short Exempt Not provided when *MultiLegReportingType[442] = 3*.	1 2	1 2
FIX-55	Symbol	String[16]	C	Valid Options OSI Root symbol. Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-58	Text	String[40]	N	On Incoming Messages from Firm: Freeform text field, up to 80 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark. 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.	Yes	Yes
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 1 2 3 5	0 1 2 3 5
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
FIX-77	OpenClose	Char[1]	Y	Indicates status of Client's position in the Option. For Complex orders, only populated when *MultiLegReportingType[442] = 3*. O = Open	O	O

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				C = Close	C	C
FIX-99	StopPx	Price[16]	C	Trigger price for Stop or Stop limit order. 0.01 - 9,999.99	Yes	Yes
FIX-109	ClientID	String[4]	N	For firms using ClientID based Self-Trade Prevention as a session default, this tag will be sent unsolicited on messages from the Exchange to the firm.	Yes	Yes
FIX-110	MinQty	Qty[5]	N	Must be ≤ *OrderQty*	Yes	Yes
FIX-111	MaxFloor	Qty[5]	C	1 - 999,999	Yes	Yes
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) D = Restatement E = Pending Cancel/Replace G = Pillar OMS Allocation Pending H = Pillar OMS Allocation Reject J = Pillar OMS Trade Reject K= OMS Allocation Request L = Eligible for Cross (Used for Broker Cross Orders) M = Pending Modify N = Broker Open Outcry Announcement P = Trading Official Open Outcry Approval - clear the book required Q = Trading Official Open Outcry Approval - clear the book NOT required S = Trading Official Open Outcry Unapproval T = OMS Trade Request U = FLEX Price Request V = FLEX Price Reject W = Trading Official Open Outcry Unannouncement X = Unannounced Trading Official Open Outcry Unannouncement & UnapprovedUnapproval	0 1 2 3 4 5 6 8 D E G H J K M N P Q S T U V W X	0 1 2 3 4 5 6 8 D E G H J K M N P Q S T U V W X
FIX-151	LeavesQty	Qty[9]	C	0 - 999,999	Yes	Yes
FIX-167	SecurityType	String[4]	Y	Identifies type of Options Instrument OPT = Single leg Option MLEG = Complex Option Value is 'MLEG' when *MultiLegReportingType[442] = 2 or 3*.	OPT MLEG	OPT MLEG

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-200	MaturityMonthYear	String[6]	Y	Month and year of maturity. Part of Options series identifier YYYYMM Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-201	PutOrCall	Char[1]	Y	Put or Call indicator. Part of Options series identifier 0 = Put 1 = Call Not provided when *MultiLegReportingType[442] = 3*.	0 1	0 1
FIX-202	StrikePrice	Price[16]	Y	Strike price of the option. Part of Options series identifier 0 - 999,999,999.999999 Note: The value must be 0 when *PercentageStrike[20030]* is populated. Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-203	CoveredOrUncovered	Char[1]	C	Identifies the Exposed and Covered Side of each order in the Cross E = Exposed C = Covered	E C	E C
FIX-204	CustomerOrFirm	Char[1]	Y	Capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market Maker 4 = Away Market Maker 8 = Prof customer	0 1 2 3 4 8	0 1 2 3 4 8
FIX-205	MaturityDay	String[2]	Y	Maturity day. Part of Options series identifier DD Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-277	TradeCondition	Char[1]	C	e = Single Leg Floor Trade i = Complex Order to Complex Order Floor Trade m = Complex Order to Single Leg Order Floor Trade p = Complex Order with Stock to Complex Order with Stock Floor Trade s = Complex Order with Stock to Single Leg Order Floor Trade	e i m p s	e i m p s
FIX-378	ExecRestatementReason	Char[1]	C	1 = GTC renewal/restatement 3 = Repricing	1 3	1 3
FIX-382	NoContraBrokers	Char[1]	C	Number of Contra Brokers	1	1
→ Repeating group *ContraBroker[375]* is the first tag in this repeating group.						
→ FIX-375	ContraBroker	String[5]	C	Contra party clearing number of CMTA	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
→ FIX-337	ContraTrader	String[4]	C	Contra party Firm Identifier - MPID	Yes	Yes
FIX-386	NoTradingSessions	Int[1]	Y	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)	 2	 2
FIX-439	ClearingFirm	String[5]	N	Clearing number of CMTA. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-440	ClearingAccount	String[5]	N	Clearing number, if other than the default Clearing Number for the MPID. If not specified, the default clearing number associated with the MPID will be sent back on response messages. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-442	MultilegReportingType	Char[1]	Y	Indicates the type of Execution Report. (e.g.: used with multi-leg securities, such as option strategies, spreads, etc.). 1 = Single-leg security 2 = Individual leg of a multi-leg security 3 = Multi-leg security	 1 2 3	 1 2 3
FIX-526	OptionalData	String[16]	N	Clearing Optional Data. 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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-548	CrossID	String[20]	C	Unique ID of the Cross as assigned by the firm. Pillar will validate that the *CrossID* 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 *CrossID* 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.	Yes	Yes
FIX-654	LegRefID	Int[10]	C	Unique ID of the individual leg of the new Complex Order or Complex Cancel/Replace request as assigned by the firm. Only provided when *MultiLegReportingType[442] = 2.*	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 N = Cancel Newest O (letter O) = Cancel Oldest C = Cancel Both D = Cancel Decrement *If 0 is specified, the explicit value (T,N,O,C,D) configured for the session will be sent back on response messages.	0 T N O C	0 T N O C
FIX-7929	CapStrategyID	String[4]	N	Strategy Execution Fee cap identifier, as agreed upon between firms and Exchange.	Yes	Yes
FIX-9202	SpecialOrdTyp e	Char[1]	C	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* 9 = Cabinet C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE T = QCT (*DeliverToCompID* must be populated with IB Firm Identifier)	 9 C Q	 9 C P Q S
FIX-9303	RoutingInst	Char[1]	C	C = Complex Only (non-legging Complex Order) N = Non-routable R = Routable	C N R	C N R

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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)		
FIX-9416	ExtendedExecInst	Char[1]	C	A = Add Liquidity Only (ALO) 0 = No trade against MPL 2 = No route to IOI 3 = No trade against MPL and no route to IOI 4 = Retail Order Type 1 5 = Retail Order Type 2 7 = Retail Provider 8 = Imbalance Offset C = Complex Order Auction 9 = Discretionary Peg D = Dark (Non-Displayed) Primary Peg I = Issuer Direct Offering (IDO) N = Add Liquidity Only (Non-Taking ALO) O = Open Outcry B = Clear the Book	8 N O B	8 O B
FIX-9448	IntroducingBadgeID	String[4]	C	Initiating Broker Badge, 1-4 numeric characters. Required on orders from NYSE Arca/American Options Floor Broker OMS to Pillar.	Yes	Yes
FIX-9478	InterestType	Char[1]	C	Q = Q-Order 1 = Options MMQuote - *Drop copy only*	1	1
FIX-9483	DealID	String[20]	C	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
FIX-9730	LiquidityIndicator	String[4]	C	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 the NBBO	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				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.		
FIX-20001	AttributedQuote	Char[1]	N	0 = Not Attributed (equities) / Use current session configuration BOLD setting for the SenderCompID (options) 1 = Attributed for Market Data Feeds 2 = Include in Broker Volume 3 = Attributed for Market Data Feeds, and Include in Broker Volume 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only 6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = Do not BOLD		0 4 5 6 7 8
FIX-20002	ProactiveIfLocked	Char[1]	N	0 = No locked functionality 1 = Proactive if Locked for routable orders 2 = Non-display remove liquidity for non-displayed orders locked by contraside ALOs	0 1	0 1
FIX-20003	CancelInsteadOfReprice	Char[1]	N	0 = Not Applicable (follow default order behavior) 1 = Cancel order instead of repricing – for LULD only 2 = Cancel if doesn't set NBBO on arrival or if needs to reprice for LULD 3 = Cancel order instead of repricing for any reason 4 = Once resting, allow to reprice once, then cancel instead of repricing 5 = Combination of value 2 and 3 6 = Combination of value 2 and 4	0 3 4	0 3 4
FIX-20004	WorkingPrice	Price[16]	C	0.01 - 9,999.99 Cabinet is 0.00000001 - 0.01	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 1 = Inbound message was throttled	 0 1	 0 1
FIX-20006	WorkingAwayFromDisplay	Char[1]	C	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

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
				1 = Working Price is different from Display Price	1	1
FIX-20007	UnsolicitedAck Type	Char[1]	C	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
FIX-20009	Nanosecond SendingTime	String[27]	Y	Time of message transmission on outgoing message from Exchange. UTC time, in Nanoseconds – YYYYMMDD-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.	Yes	Yes
FIX-20010	Nanosecond TransactTime	String[27]	Y	Exchange application time. 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.	Yes	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" 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 assumed as a value of 0.	0 1	0 1
FIX-20014	GiveUpMarket Maker	String[4]	N	Market Maker Identifier - MMID. If provided, the value will be used in place of FIX Tag 50.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-20015	AllocationPct	String[2]	N	Percentage of allocation a single stop price Covered order is willing to surrender. Valid values are 0 - 100 pct. If the value provided results in a greater than standard allocation, then the max allowable quantity will be allocated. Field not applicable for QCC, Customer to Customer and CUBE orders defined as AutoMatch (market or limit) or AON.		Yes
FIX-20016	ContraCustomerOrFirm	Char[1]	C	Contra party capacity of the order 0 = Customer 1 = Firm 2 = Broker 3 = Market maker 4 = Away Market Maker 8 = Prof customer	 0 1 2 3 4 8	 0 1 2 3 4 8
FIX-20017	ContraClearingAccount	String[5]	C	Contra party clearing number. Numeric characters only, no preceding zeros.	Yes	Yes
FIX-20018	ContraOpenClose	Char[1]	C	Contra party position in the Option O = Open C = Close	 O C	 O C
FIX-20019	ContraMarketMaker	String[5]	C	Contra party MMID	Yes	Yes
FIX-20020	ContraCrossType	Char[1]	N	Contra party *CrossType* C = Customer to Customer Cross P = CUBE Price Improvement Q = QCC S = AON CUBE	 C Q 	 C P Q S
FIX-20021	ContraCoveredOrUncovered	Char[1]	N	Identifies the Exposed or Covered Side when the contra side was Cross E = Exposed C = Covered	 E C	 E C
FIX-20022	AllocationFirmMPIID	String[4]	N	Identifier of the allocated party - MPID. May 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	Yes
FIX-20023	AllocationFirmMMID	String[12]	N	Identifier of the allocated party - MMID. May be populated with: **Third party MMID** - allocation will be considered pending until the third party approves the allocation via NYSE Pillar Trade Ops Portal.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-20024	AllocationFirmIntroducingBadgeID	String[4]	N	Identifier of the allocated party - Broker Badge. May be populated with: **Third party Broker Badge** - allocation will be considered pending until the third party approves the allocation via NYSE Pillar Trade Ops Portal.	Yes	Yes
FIX-20025	TargetCancelSenderCompID	Char[32]	N	May be sent on Bulk Cancel Ack. Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with the *SenderCompID* of the session sending this Bulk Cancel Request. If populated, only orders originally entered via this *SenderCompID* will be cancelled.	Yes	Yes
FIX-20026	TargetCancelMPID	Char[4]	N	May be sent on Bulk Cancel Ack. Optional - at least one of *TargetCancelSenderCompID* or *TargetCancelMPID* must be specified. May be populated with a valid MPID entitled for use on the session sending this Bulk Cancel Request. If populated, only orders for the specified MPID will be cancelled. Firm Identifier – MPID.	Yes	Yes
FIX-20027	BulkAction	Char[1]	Y	Required for Bulk Cancel. 1 = Cancel Single Leg only 2 = Cancel Complex only 3 = Cancel both Single Leg and Complex	 1 2 3	 1 2 3
FIX-20030	PercentageStrike	Price[16]	N	FLEX orders with percent of the underlying price represented as the Strike Price. 0.01 - 9,999.99	Yes	Yes
FIX-20031	PercentagePrice	Price[16]	N	FLEX orders with percent of the underlying price represented as the Premium Price. 0.01 - 9,999.99	Yes	Yes
FIX-20032	TiedHedgeIndicator	Char[1]	N	Y = order is a tied hedge N = order is NOT a tied hedge	Y N	Y N
FIX-20033	BestOfferQty	Qty[9]		Quantity the Initiating Broker would be obligated to satisfy if trading at the *BestOfferPrice[20034]*. 0 - 999,999 Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-20034	BestOfferPrice	Price[16]		0.00000000 - 9,999.99 Not provided when *MultiLegReportingType[442] = 3*.	Yes	Yes
FIX-20035	TiedToStock	Char[1]	N	Y = order is tied to stock N = order is NOT tied to stock	Y N	Y N
FIX-20037	RefDelta	Price[16]	C	Required if *TiedToStock[20035] = Y* Numeric only - decimal supported. May be positive or negative.	Yes	Yes
FIX-20038	StockPrice	Price[16]	C	Required if *TiedToStock[20035] = Y* 0.000000 - 999,999,999.999999	Yes	Yes
FIX-20039	StockQty	Qty[9]	C	Required if *TiedToStock[20035] = Y* 1 - 999,999,999	Yes	Yes
FIX-20040	PackageLinkID	Int[10]	N	Unique ID of the single leg or complex Order or Cancel/Replace request, as assigned by the firm. This field is to be used to link orders together that cannot be facilitated using the complex message structure. The ID should be the same for all orders and legs of the package.	Yes	Yes
FIX-20043	ProtectedBest Bid	Price[16]	N	NBB price at the time of TO approval. 0 = no NBB	Yes	Yes
FIX-20044	ProtectedBest Offer	Price[16]	N	NBO price at the time of TO approval. 0 = no NBO	Yes	Yes
FIX-20045	ReferencePric e	Price[16]	N	Underlying Reference price used to calculate the trade price and/or strike price for Percentage FLEX. 0.01 - 999,999,999.99	Yes	Yes
FIX-30002	RefDealID	String[20]	C	Unique identifier of a transaction, assigned to both sides of a single trade. Numerical up to 20 characters.	Yes	Yes
FIX-30003	AllocationIndic ator	Char[1]	C	Populated on allocations Y = Allocation message *Present on drop copy messages for post-trade adjustment.	Y*	Y*
FIX-30006	OriginalDealID	String[20]	C	For trade allocations, busts and corrections, identifier of the original open outcry trade. Used as the universal trade ID at OCC. Numerical up to 20 characters.	Yes	Yes

Tag	Field Name	Data Type	Req'd	Values	Arca Options	American Options
FIX-30016	RefExecTimestamp	UTC Timestamp [27]	C	Populated with the original Trading Official approval time for the associated open outcry order. Sent on Pending Allocation and Allocation Fill messages for open outcry orders.	Yes	Yes
	Standard FIX Trailer		Y	Standard FIX Trailer	Yes	Yes

6. 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

7. Appendix B: Pillar Reason Codes

Pillar will return a set of event reason codes and descriptions in *Text[58]* on Execution Reports and Cancel Reject messages. These codes qualify the event that produced the message.

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

8. Appendix C: Order Types

An inventory of the options 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

9. Document Version History

Date	Spec Version #	Change Summary
6/27/2025	3.22	Added support for *OnBehalfOfSubID[116]* filter in Bulk Cancel Request message.
3/28/2025	3.21	Rebranded NYSE Chicago to NYSE Texas.
12/16/2024	3.20	Removal of the ratio restriction for CUBE and GTX orders.
6/17/2024	3.19	Drop Copy - updated price values for FLEX percentage orders and corrected available outcry related activity values for *OrderStatus[39]*. Added missing fields FIX Tags 20039, 20040, 20043, 20044 and 20045.
3/12/2024	3.18	Order type support now available: • Arca Options - Single Leg and Complex Customer to Customer Cross • American Options - Single Leg and Complex Customer to Customer Cross, Complex CUBE and Complex CUBE AON
11/3/2023	3.17	Order types pending rule approval: • American Options - Customer to Customer Cross Appendix B - added Pillar Reason Code 329

Date	Spec Version #	Change Summary
10/2/2023	3.16	Order types pending rule approval: • Arca Options - Single Leg and Complex Customer to Customer Cross • American Options - Single Leg and Complex Customer to Customer Cross, Complex CUBE and Complex CUBE AON • Appendix A: Addition of Outcry Liquidity Indicators
7/10/2023	3.15	Appendix A: Addition of MIAX Sapphire routing code
5/8/2023	3.14	Removed *ExecInst[18]* = N (Non-Displayed) as valid instruction Removed *MinQty[110]* as a valid instruction *AllocationPct[20015]* - updated description Appendix A: Addition of MEMX routing code Appendix B: R308 modified from 'COA Not Running' to 'Auction Not Running' Appendix B: Addition of reject codes: 311-328 NYSE Arca & American Options supported functionality to be available in September 2023 • Complex *Price[44]* support from -99,999.99 - 99,999.99 to -214,748.36 - 214,748.36 • *SpecialOrdType[9202]* - value "C" Customer to Customer Cross • *LegRatioQty[623]* support from a max of 65,535 to 999,999 for QCC orders • Removal of 3:1 ratio restriction for QCC orders • Updated Liquidity Indicators
2/10/2023	3.13	Self-Trade Prevention - added support for ClientID based STP. Execution Report & Drop Copy - added support for tag *ClientID[109]*. Execution Report & Drop Copy - *ContraBroker[375]* will be the anchor tag of the repeating group under *NoContraBrokers[382]*. Drop Copy - added support for Trade Re-add and Contractual Trade-split. NYSE American Options • Updated Liquidity Indicators for NYSE American Options in support of CUBE and Market Makers. • Removed Facilitating CUBE codes as Price Improvement CUBE will be available for all order sizes in NYSE American Options.
12/05/2022	3.12	Corrected repeating group structure where *ContraBroker[375]* tag appeared twice.
11/18/2022	3.11	*ExecRefID[30002]* - added to Execution Report. NYSE American Options - Removed ALO as a valid instruction.
9/15/2022	3.10	Execution Report - Identified that Done for Day messages are sent out 30 minutes following the late series close time.
8/10/2022	3.9	Trading Services - added section "Pillar Denial of Service Restrictions"
7/22/2022	3.8	Added the value range supported for *LegRatioQty[623]*

Date	Spec Version #	Change Summary
7/6/2022	3.7	Added description to OrderQty and *LastQty* fields of Execution Report. Added a note under New Order Single section to inform the deferral of AON, FOK and MTS order types.
4/8/2022	3.6	Datatype of tag *LegStrikePrice[612]* corrected to be Price[16].
2/9/2022	3.5	GTC Restatement Messages - clarified that for options series expiration, Pillar will send an unsolicited cancel message (*OrdStatus[39]* = 4) at market close time. Datatype of tag *LegStrikePrice[612]* corrected to be Price[16].
12/16/2021	3.4	*GTCIndicator* filed removed from Pillar Market Data. *LegRefID[654]* - A value of 0 is not acceptable. New Cross Order - Support for *OrdType[40]* = 'Market' is removed for Arca Options due to removal of support for Market QCC order type.
11/3/2021	3.3	Data Types - Added explanation for *Price[16]*. Data type for *LegStrikePrice[612]* updated from *Price[12]* to *Price[16].* Valid values updated. Order Cancel Reject - removed tag *SecurityType[167].* Execution Report and Drop Copy - clarified that for repricing ack, OrderQty (38) will be populated with the leaves quantity of the order. For both reserve order replenishment and repricing acks, *OrdStatus[39]* = 0 (New) and *LeavesQty* = 0. Appendix B - added code 310.
9/24/2021	3.2	While mapping orders and executions to Pillar Market Data, *GTCIndicator* will always be 0. Added note to *DeliverToCompID[128]* to indicate that it is only supported for American Options DOMM and American Options PFOF. Drop Copy - added following tags - *BestOfferQty[20033], BestOfferPrice[20034], RefExecTimestamp[30016]*. Added details regarding *ExecRefID[19]* on allocation cancel messages. Support for ' Proactive trade non display' removed from *ProactiveIfLocked[20002]* field. Appendix A - clarified that liquidity code OL applies to all options market participants. Appendix B - added codes 307-309. Changed tag 442 in Execution report from 'Required' to 'Conditional'. Added text to indicate that the tag will not be populated for invalid symbol reject messages.
8/13/2021	3.1	*UnsolicitedAck Type[20007]* - removed value 3 (Order Priority Update; Same OrderID - working price update), since existing tag *ExecRestatementReason[378]* value 3 (Repricing) covers this use case. Updated *ClearingFirm[439]* and *ClearingAccount[440]* descriptions to clarify that only numeric characters are allowed and no preceding zeros allowed. Changed label of *ContraMMID[20019]* to be *ContraMarketMaker*, and *GiveUpMMID*[20014] to be *GiveUpMarketMaker*. Drop Copy - Open Outcry for NYSE Arca/NYSE American Options Trading Floor - for firms interested in correlating trades and allocations with the original open outcry order, if *OrigClOrdID[41]* is present on the drop copy message, this tag will refer back

Date	Spec Version #	Change Summary
		to the *ClOrdID[11]* of the open outcry order. If tag 41 is not present, *ClOrdID*[11] on drop copy will refer back to the open outcry order.
7/16/2021	3.0	Equity related details removed. GTC Restatement Messages - clarification that at GTC load time, a prior day GTC order canceled overnight due to underlying corporate action, delisting, etc. will result in an unsolicited order reject. At market close, a GTC order cancelled due to series expiration will receive a Done for Day message. *AuctionID* tag added to New Order - Single, New Complex Order and Execution Report messages. Updated quantity (*OrderQty, LastQty, CumQty, MinQty, MaxFloor*), price (*Price, StopPx, LastPx, WorkingPrice*) and market (*LastMkt*) fields to Options specific values. *OrderTypes[40]* Stop and Stop Limit removed from valid values of Execution Report. Drop Copy - on allocation messages, firms are advised to ignore the values in the following tags - *CumQty[14], OrdStatus[39], ExecType[150], LeavesQty[151]*. New Drop Copy message section added. New Liquidity Indicators added to Appendix A. Appendix B - updated text for Pillar Reason Codes 238, 298, 299, 303; added codes 304-306.
5/28/2021	2.2	Bulk Cancel Request Variant 2 - correction that if *Symbol[55]* is specified, it will cancel all series within the underlying symbol (not OSI root symbol). Added support for tag *SymbolSfx[65].* Removed support for electronic Cabinet orders. Cancel on Disconnect and Bulk Cancel - added note that Fill or Kill (FOK) and Open Outcry orders are excluded from cancellation. New Complex Cross Order - clarification that *ClOrdID[11]* must appear first on each side of the order. Appendix A - added support for liquidity indicators “OL” and “RBN” Appendix B - added Pillar Reason Codes 284-289 and 293-303. Updated text for codes 20 and 80 to cover series in addition to symbol (“symbol/series”)
4/26/2021	2.1	New Pillar Reason Codes added to Appendix B. NYSE Arca and American Options: - Removed the support for Market and AON complex orders - Updated the datatype of tag LegRefID from *String[10]/String[20]* to *int[10]*. - Removed Support for values 3 and 4 in tag CancelInsteadOfReprice for Complex order and Complex Cancel/Replace. - ExecInst field in ‘New Complex Order’ message is changed to a not required field. - Two new fields added to Execution Report message: AllocationIndicator, OriginalDealID - Removed ‘Side’ field as a required tag in the repeating group of ‘New Complex Cross Order’ message.

Date	Spec Version #	Change Summary
		- FIX Drop Copies - Market Participant Filters - Clearing Number - added note regarding message delivery when the values specified in ClearingAccount (FIX-440) and ClearingFirm (FIX-439) FIX tags map to the same clearing firm. - Added note to state the numeric requirement of ClearingFirm (FIX-439) field.

3/1/2021	2.0	NYSE Arca and American Options:
		- Account (1) - up to 16 characters will be echoed back on gateway response messages, but will be truncated to the first 10 characters for publishing to clearing, end of day output files, etc.
		- *SpecialOrdType[9202]* - removed support for Customer to Customer Cross on NYSE Arca Options
		- Bulk Cancel Request - Variant 2
		  o *TargetCancelSenderCompID[20025]* - updated data type to Char[32] from Char[16]
		  o Added tag *BulkAction[20027]*
		- *SelfTradeType[7928]* - if 0 is specified, the explicit value (T,N,O,C,D) configured for the session will be sent back on response messages
		- *ClearingAccount[440]* - If not specified, the default clearing number associated with the MPID will be sent back on response messages
		- Execution Report message - added tags for Bulk Cancel Ack
		  o TargetCancelSenderCompID[20025]
		  o TargetCancelMPID[20026]
		  o BulkAction[20027]
		- Pillar Reason Codes (Appendix) - added new reason codes for options markets
		- Addition of Message Type AB, As and AC for Complex orders
		- Added tag *MultilegReportingType[442]* for Message 8

1/13/2021	1.1	NYSE Arca and American Options: - Logon Request/Response - added BOLD Designation = 8 for No BOLD Designation defaulting - Added message type - Bulk Cancel Request - Variant 2 (options only) - New Cross Order (options only) - added details for Options Market Maker - IntroducingBadgeID (9448) - required on orders from NYSE Arca and American Options Floor Broker OMS to Pillar - ContraClearingAccount (20017) and ContraMMID (20019) - updated data type to String[5] (previously String[4]) - Removed support for ExtendedExecInst (9416) = A (Add Liquidity Only); only value N = Add Liquidity Only (Non-Taking ALO) will be supported
11/9/2020	1.0	Added support for NYSE Arca and American Options - single leg orders. Added placeholders for the following functionality - complex orders.