



Cboe Europe EU Derivatives FIX Specification

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1 Overview

This document describes the Cboe interpretation and implementation of the FIX specification for its derivatives trading environment. Cboe uses a subset of the FIX 4.2 protocol for order entry and drop copies. It is assumed that the reader is familiar with the FIX 4.2 protocol as described by the FIX Protocol Organisation.

1.1 Hours of Operation

Refer to the Cboe website for hours of operation.

All orders are live upon acceptance by Cboe. Orders are rejected if they are received outside the hours Cboe is available for trading. Cboe does not support maintaining orders for multiple days (GTC orders). All open orders are canceled on close of the market. Participants will receive an execution report for every open order with *ExecType* (150) = 4 (Canceled).

1.2 Timestamps

All FIX timestamps are GMT as per the FIX standard. Participants are expected to synchronise their clocks with an external time source.

1.3 Symbology

Cboe accepts two symbologies: Cboe Symbology and ISIN. Different symbologies may be used on different orders, but it is recommended that Participants use the same symbology for all orders.

If using Cboe Symbology to identify an instrument, the Participant:

- **must** set *Symbol* (55) to the Cboe Symbology symbol.

If using ISIN to identify an instrument, the Participant:

- **must** set *IDSource* (22) to ISIN (4);
- **must** set *SecurityID* (48) to the ISIN;
- *may optionally* set the *Symbol* (55).

If using ISIN to identify a in *SecurityID* (48), and opting to also send *Symbol* (55), the *Symbol* (55) may be specified as the Cboe Symbology symbol, or the *SecurityID* (48).

Execution reports will always respond with the same symbology as was sent in the corresponding New Order message.

For additional information about the Cboe symbology, see the Cboe Market Guide.

1.4 Tick Sizes

Orders entered which violate the tick size as specified in the contract will be rejected.

1.5 Fee Codes Returned on Execution Reports

The Fee Code returned on an execution report indicates which category of fee is applicable to the trade. Details on the fee codes returned (including the rate charged and description of the category of trade) are available at:

CEDX: http://www.cboe.com/europe/derivatives/participation/fee_schedule/cedx/

All fee codes map directly to a tariff on the Cboe Europe trading price list, available at http://www.bats.com/europe/equities/support/price_lists/ under Trading Price List. Participants should program their systems to read, validate and pass along this field in order to avoid making software changes to their system when the Cboe fee schedule changes. All fee codes map directly to a tariff on the Cboe Europe trading price list, available at http://www.bats.com/europe/equities/support/price_lists/ under Trading Price List. Participants should program their systems to read, validate and pass along this field in order to avoid making software changes to their system when the Cboe fee schedule changes.

1.6 Service Bureau Configuration

Service Bureaus require special configuration. *OnBehalfOfCompID* (115) must be set for Order, Cancel, and Cancel/Replace messages sent to Cboe. Orders with an unknown *OnBehalfOfCompID* (115) will be rejected. *CIOrdID* (11) values are required to be unique only within a given *OnBehalfOfCompID* (115). Execution Reports, Cancel Rejects and trade capture related messages sent by Cboe will have the *DeliverToCompID* (128) set. **Orders must be canceled or replaced using the same OnBehalfOfCompID (115) as was sent on the original order.**

1.7 Account Field

This field is a trading account name/number. With configuration, this can be passed to the CCP. This must be 16 characters or less. The trading account is configurably available via Drop.

1.8 Participant Trade Prevention

The *PreventParticipantMatch* (7928) consists of 3 characters, which are not space separated.

The first character is the PTP Modifier with the following possible values:

- N = Cancel Newest
- O = Cancel Oldest
- B = Cancel Both

Not all values are supported in all contexts. The following shows which PTP Modifiers are supported in different scenarios.

Message/Instrument	N	O	B
New Order Single - Simple Futures	Y	Y	Y
New Order Single - Single-leg options	Y	Y	Y
New Order Multileg - Spread Futures or Complex options	Y	Y	Y
New Order Cross and New Order Cross Multileg (options)	Y	Y	N

Note that for complex options order, when these values are specified, they only apply on complex vs. complex matches. When a complex order with Participant Trade Prevention interacts with a single-leg order with Participant Trade Prevention, the complex order will always be cancelled.

Similarly, for futures, when a complex order with Participant Trade Prevention interacts with a single-leg order with Participant Trade Prevention, the complex order will always be cancelled.

For AIM response messages (New Order Single options or New Order Multileg for options where the Auction ID is set), only Cancel Newest is supported.

The second character indicates the Unique ID Level with the following possible values.

- F = Prevent Match at Participant Level
- M = Prevent Match at Trading Firm Level

The third character indicates a Trading Group ID, and is optional. If specified, it is a Member specified alphanumeric value 0-9, A-Z, or a-z.

The Unique ID level (character 2) of both orders must match to prevent a trade. If specified on both orders, Trading Group ID (character 3) must match to prevent a trade.

The PTP Modifier (character 1) of the inbound order will be honored, except that if the inbound order specified Decrement and the resting order does not, and the resting order is larger, then both orders will be canceled. This exception is to protect the order entry software for the resting order from receiving an unexpected restatement message.

1.9 Volatility Strategies

A Volatility Strategy is defined as a complex option package with a future leg in the same underlying product.

A Volatility Strategy instrument can be created using either the Security Definition Request or the New Order Multileg – Long Form message types.

A minimum of two legs must be specified and a maximum of 12 legs will be accepted. Only one future leg is allowed and it must be last leg in the repeating group, all of the remaining legs must be options. For the future leg a reference price must be specified using the *LegPrice* (566) field.

Orders for Volatility Strategies must be entered using the New Order Multileg message type.

2 Cboe Specific FIX Fields

The following FIX fields are specific to Cboe:

Tag	Name	Description
6253	<i>DrillThruProtection</i>	<p>Amount sender is willing to trade through BBO at the time of order entry. This is available for both futures and options on simple and complex instruments.</p> <p>The amount should be entered as a non-negative value indicating the protection to be applied for the order. This is the value by which the order may aggress the resting BBO. The drill through price is then the resting BBO aggressed by the drill through protection value. A zero value denotes full BBO protection. This will allow the inbound order to execute only against the top level of the resting price. The drill through price is the resting BBO.</p> <p>If unspecified, the exchange default value will be used. The drill through price is the resting BBO aggressed by the exchange default value.</p>
7692	<i>RiskReset</i>	For use by participants using Cboe Risk Management tools to reset or release Trading Firm, Trading Firm Group, Symbol or CustomGroupID level lockout conditions resulting from risk profile trips or self-imposed lockout issued via Order Cancel Request or Purge Request message.
7699	<i>CustomGroupID</i>	Custom identifier for a group of orders.
7928	<i>PreventParticipant Match</i>	Participant Trade Prevention: 3 characters (not space separated). See Participant Trade Prevention (p. 5) for allowed values and explanations.
9303	<i>RoutingInst</i>	<p>For Options only.</p> <p>Character 1</p> <p>B = Book Only (Default). Allowed to interact with single-leg orders and other complex orders</p> <p>D = Complex Book Only. Allowed to interact with other complex orders only. (No legging into the Simple Book.) Requires <i>TimeInForce</i> (59) = "0" (Day) or "3" (IOC).</p> <p>Character 2</p> <p>L = Do not expose order via C-RFQ</p> <p>S = Expose order via C-RFQ. Any non-IOC Complex orders will be eligible for C-RFQ unless otherwise specified. IOC Complex Orders can opt in to initiating a C-RFQ. Any quantity not executed will be cancelled at the end of the process.</p>
9479	<i>DisplayIndicator</i>	<p>This is only applicable for Complex Options orders participating in C-RFQ.</p> <p>I = Hidden</p> <p>If set to hidden, the auction price will be hidden for the initiator. For responders, their response will be hidden from the Auction Summary. This will only happen if the order meets the LIS threshold. By default, if this is not specified, or if the LIS threshold is not met, the auction price or the response will be displayed.</p>
9688	<i>OrigCompID</i>	Drop only. <i>TargetCompID</i> (56) of original FIX execution report. Drop port must be configured to send this optional field.
9689	<i>OrigSubID</i>	Drop only. <i>TargetSubID</i> (57) of original FIX execution report. Drop port must be configured to send this optional field.

9882	<i>FeeCode</i>	Specific fee code associated with the trade. See the Fee Schedule for the respective market for possible values.
22058	<i>SubreasonText</i>	If present, indicates addition detail for the reject or cancel. Format is one letter code followed by colon and space followed by free form text. See Subreason Codes (§ 12.2, p. 75) for a list of possible reasons.

3 FIX Session Protocol

Cboe uses the FIX 4.2 session protocol. FIX 4.4 is possible should the firm dedicate the port for trade reporting purposes. The Participant will be provided with a *SenderCompID* (49) and *SenderSubID* (50) that must be sent on every message. The *TargetCompID* (56) for all messages the Participant sends will be CEDX. The *TargetSubID* (57) is TEST for the Cboe test system and PROD for the Cboe production system. All messages the Participant receives will have the sender and target fields swapped, as per the FIX specification.

The following session messages are supported in both directions:

Message	Type	Comment
Logon	A	Begin session (or resume a broken session)
Heartbeat	0	
Test Request	1	
Resend Request	2	
Reject	3	Malformed message or improper session level handling
Sequence Reset	4	Both Gap Fill (<i>GapFillFlag</i> (123) = Y) and Reset
Logout	5	used to gracefully close session

3.1 Sequence Numbers

Sequence numbers, both inbound and outbound, will be reset to one each night during the down time.

Messages are processed in sequence order. Behind sequence messages (other than Sequence Reset — Reset) cause immediate logout. Ahead of sequence messages (other than a Resend Request) trigger a message recovery via a Resend Request.

3.2 Logon

The logon must be the first message sent by the Participant after the TCP connection is established. *Encrypt-Method* (98) is ignored (FIX level encryption is not supported).

The IP address of the Participant, the *SenderCompID* (49), *SenderSubID* (50), *TargetCompID* (56) (CEDX) and *TargetSubID* (57) (TEST or PROD) will be validated. If validation fails, the connection will be dropped without a reject (to avoid corrupting the Participant's sequence in the case that the Participant merely mistakenly connected to the wrong port).

If the connection is unexpectedly broken, upon reconnection, the Participant may receive a login reply with a sequence number greater than expected. This means that in-flight messages were missed (likely important execution reports). The Participant should issue a Resend request to retrieve the missed messages.

Similarly, Cboe will issue a Resend Request to the Participant for messages that it missed. The Participant may wish to send gap fill messages in place of new orders to avoid submission of potentially stale orders.

HeartBtInt (108) must be specified by the Participant in the Logon message. This value will be clamped between five and 300 seconds and returned in the Logon reply message. We recommend using as low a value as the reliability and latency of your telecommunications channel will allow.

3.3 Heartbeat

A Heartbeat message should be sent if the agreed upon *HeartBtInt* (108) has elapsed since the last message sent. If any message has been sent during the preceding *HeartBtInt* (108), a Heartbeat message need not be sent.

3.4 Test Request

If *HeartBtInt* + 1 seconds have elapsed since the last message received, a Test Request should be issued. If another *HeartBtInt* + 1 seconds go by without receiving a message, the TCP connection should be dropped.

This ensures that a broken TCP connection will be detected even if the TCP stack doesn't notice (this has been observed to happen in WAN environments, particularly when a VPN is involved).

3.5 Resend Request

A Resend Request message should be processed even if it is received ahead of sequence. Only after resending the requested range (all marked *PossDup* (43) = Y), including any gap fills) should Resend Request be issued in the opposite direction.

As discussed in the FIX 4.2 specification, it is possible to send an open or closed sequence range in a Resend Request (an open range uses sequence zero as the *EndSeqNo* (16)). Cboe will honor either type of request, but will always issue Resend Requests with a closed sequence range.

3.6 Reject

Session level rejects (*MsgType* (35) = 3) are used to indicate violations of the session protocol, or missing (or mangled) fields. These are to be expected during development and certification while the Participant's systems are being adapted for Cboe, but should be extremely rare in production. Application layer rejects (like Order Reject, Cancel Reject, Trade Capture Reject) are normal and should be handled separately. See FIX Application Messages - Cboe to Participant (p. 46) for more details.

3.7 Sequence Reset

Sequence Reset — Gap Fill messages (*GapFillFlag* (123) = Y) must be received in sequence. Any messages (including Gap Fills) sent in response to a Resend Request should have *PossDup* (43) = Y.

Sequence Reset — Reset (*GapFillFlag* (123) ≠ Y) is used only as a last resort, and always by human intervention, to allow an otherwise hopelessly confused session to be resumed. In these cases, all chances at automatic message recovery are lost.

3.8 Logout

Either side may issue a logout to gracefully close the session. The side that issues the logout should process messages normally until it sees the logout reply, and then break the TCP connection. Cboe will typically only request logout after the scheduled end of FIX session.

4 Standard FIX Message Header and Trailer

4.1 Header

Tag	Name	Description
8	<i>BeginString</i>	FIX.4.2 Must be the first field in the message.
9	<i>BodyLength</i>	Length of message following <i>BodyLength</i> field up to and including the delimiter preceding the <i>Checksum</i> (10) field. Must be the second field in the message.
35	<i>MsgType</i>	Must be the third field in the message.
34	<i>MsgSeqNum</i>	Sequential sequence number for the session.
43	<i>PossDupFlag</i>	Indicates a message resent from the admin level (has a duplicate sequence number). Defaults to N.
49	<i>SenderCompID</i>	ID of sender. Assigned by Cboe for messages sent to Cboe. (<i>TargetCompID</i> (56) for messages from Cboe.)
52	<i>SendingTime</i>	GMT date and time that message was sent. Microsecond level resolution.
56	<i>TargetCompID</i>	ID of destination. CEDX for messages sent to CEDX ports. (<i>SenderCompID</i> (49) for messages from Cboe.)
57	<i>TargetSubID</i>	Sub ID of destination. TEST for messages sent to the Cboe test system. PROD for messages sent to the Cboe production system. (<i>SenderSubID</i> (50) for messages from Cboe.)
97	<i>PossResend</i>	Possible resend flag. Cboe has special handling for the <i>PossResend</i> for New Order Single messages. See New Order — Single below.
115	<i>OnBehalfOfCompID</i>	Service bureau use. Identifies end-client on messages to Cboe. Must be identifier known to Cboe. May be used by non-service bureau to specify which clearing arrangement to use if multiple are configured.
116	<i>OnBehalfOfSubID</i>	End-client sub identifier. Four characters, alphanumeric, otherwise not validated. Recorded and returned in <i>DeliverToSubID</i> (129). Available via Drop.
122	<i>OrigSendingTime</i>	For messages with <i>PossDupFlag</i> (43) = Y, indicates time that message was first sent. Microsecond level resolution.
128	<i>DeliverToCompID</i>	Service bureau use. Identifies end-client on message from Cboe. Must be Cboe approved identifier.
129	<i>DeliverToSubID</i>	Returns <i>OnBehalfOfSubID</i> (116) optionally sent by client.

4.2 Trailer

Tag	Name	Description
10	<i>Checksum</i>	Modulo 256 checksum of all characters in the message up to and including the delimiter preceding the <i>Checksum</i> field. Three digits with leading zeroes if necessary.

5 FIX Application Messages — Participant to Cboe

5.1 New Order — Single

A New Order Single message is used to submit a single-leg order for standard listed options, or an order for simple futures instrument. Complex options or spread futures orders must use the New Order Multileg message.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = D
97	<i>PossResend</i>	<p>N = indicates a new order (default) Y = indicates an application level resend and is not supported</p> <p>For reasons of economy, Cboe does not track (in primary storage), the <i>CIOrdID</i> (11) values of orders that are no longer live.</p> <p>For reasons of performance, Cboe does not access secondary storage to enforce unique <i>CIOrdID</i> (11) values against orders that are no longer live.</p> <p>Without full duplicate <i>CIOrdID</i> (11) value enforcement, it is not possible to safely implement the full behavior specified in the FIX 4.2 protocol for <i>PossResend</i> = Y.</p> <p>To remain economical, fast, and safe, all messages with <i>PossResend</i> = Y will be simply ignored.</p>
1	<i>Account</i>	Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). The value supplied can be passed to the CCP and made available on the Drop feed.
11	<i>CIOrdID</i>	<p>Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.</p> <p>A leading tilde(~) cannot be sent on any <i>CIOrdID</i> and will result in a reject. These are reserved for internal use by Cboe and could be received as a result of a system-generated <i>CIOrdID</i>.</p> <p>If the <i>CIOrdID</i> matches a live order, it will be rejected as duplicate (unless <i>PossResend</i> (97) = Y; see above).</p> <p>Note: Cboe only enforces the uniqueness of CIOrdID values among currently live orders. However, we strongly recommend that you keep your CIOrdID values day unique.</p>
22	<i>IDSource</i>	<p>Values supported by Cboe:</p> <p>4 = ISIN</p> <p>Required if <i>Symbol</i> (55) is not set.</p>
38	<i>OrderQty</i>	Number of contracts for order, 1 to 999,999.
40	<i>OrdType</i>	<p>1 = Market 2 = Limit 3 = Stop (Options only) 4 = Stop Limit</p> <p>Market (1) implies <i>TimInForce</i> (59) = 3 (IOC). Stop/Stop Limit orders must have <i>TimInForce</i> (59) = 0 (DAY), 1 (GTC), or 6 (GTD).</p>
44	<i>Price</i>	Limit price.

47	<i>OrderCapacity</i>	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')
48	<i>SecurityID</i>	ISIN if <i>IDSource</i> (22) is set.
54	<i>Side</i>	1 = Buy 2 = Sell
55	<i>Symbol</i>	Security symbol. See Symbology (p. 4) for additional notes.
59	<i>TimeInForce</i>	0 = Day (Default) - Expires at the end of market day. 1 = GTC (allowed, but treated as Day) 2 = At the Open. Will remain queued and only interact in the Opening process. 3 = IOC 4 = FOK 6 = GTD (expires at earlier of specified <i>ExpireTime</i> (126) or end of day)
60	<i>TransactTime</i>	Time order initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
77	<i>OpenClose</i>	Indicates status of client position. O = Open C = Close N = None Orders with <i>AccountType</i> (581) = 3 (House Trader) are not required to specify <i>OpenClose</i> or may optionally specify a value of "N". Otherwise, orders with <i>AccountType</i> (581) = 1 (Customer Account) must specify <i>OpenClose</i> .
99	<i>StopPx</i>	The trigger price for Stop (Options only) and Stop Limit orders. Required if <i>OrdType</i> (40) = 3 or 4.
110	<i>MinQty</i>	Optional minimum ¹ fill quantity for IOC orders. Ignored for other orders. Default is zero.
126	<i>ExpireTime</i>	Required for <i>TimeInForce</i> (59) = 6 (GTD) orders, specifies the date and time (in GMT) that the order expires.
439	<i>ClearingFirm</i>	Firm that will clear trade. Optional. Note: shares storage with <i>OnBehalfOfCompID</i> (115). If both fields are set, they must be equal.
440	<i>ClearingAccount</i>	Supplemental identifier. Optional. Recorded and returned in execution reports. Available via Drop. Note: shares storage with <i>OnBehalfOfSubID</i> (116). If both fields are set, then <i>OnBehalfOfSubID</i> (116) takes precedence for Service Bureau connections and <i>ClearingAccount</i> takes precedence for other connections.
453	<i>NoPartyIDs</i>	Indicates the number of instances of the repeating group <i>NewOrderPtyRptGrp</i> to follow. Defaults to zero.

¹Once resting all fills will exceed the minimum. On entry and user modification, the behaviour is configurable on the port and can apply to the **total** fill size, which may be made up of several **consecutive** smaller fills.

Repeating Group <i>NewOrderPtyRptGrp</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
448	<i>PartyID</i>	<p>The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules.</p> <p>For clients, the following values are reserved for applicable use:</p> <p>Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation)</p> <p>Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)</p>
447	<i>PartyIDSource</i>	Must always be P (Short code identifier)
452	<i>PartyRole</i>	<p>Specifies the role of the party to the trade. At this time, only the following values are valid:</p> <p>3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)</p>
2376	<i>PartyRoleQualifier</i>	<p>Provides further qualification of the PartyRole value. Valid values are:</p> <p>0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)</p>
581	<i>AccountType</i>	<p>Type of account associated with the order</p> <p>1 = Account is carried on customer side of the books. 3 = House Trader</p> <p>This field is required.</p>
1031	<i>CustOrderHandlingInst</i>	<p>Indicates the Execution Source Code on orders prior to their executions. Mandatory. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to Y (Electronic).</p> <p>Y = Electronic. (Default) W = Desk C = Vendor-provided Platform billed by Executing Broker (For complex) G = Sponsored Access via Exchange API or FIX provided by Executing Broker (For complex) H = Premium Algorithmic Trading Provider billed by Executing Broker (For complex) D = Other, including Other-provided screen (For complex)</p>

1724	<i>OrderOrigination</i>	<p>5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order.</p> <p>0 = Non-DEA. (default)</p> <p>Other values are unsupported and will be rejected.</p>
6253	<i>DrillThruProtection</i>	<p>Amount sender is willing to trade through BBO at the time of order entry. This is available for both futures and options on simple and complex instruments.</p> <p>The amount should be entered as a non-negative value indicating the protection to be applied for the order. This is the value by which the order may aggress the resting BBO. The drill through price is then the resting BBO aggressed by the drill through protection value. A zero value denotes full BBO protection. This will allow the inbound order to execute only against the top level of the resting price. The drill through price is the resting BBO.</p> <p>If unspecified, the exchange default value will be used. The drill through price is the resting BBO aggressed by the exchange default value.</p>

7692	<i>RiskReset</i>	<p>For use by participants using Cboe Risk Management tools to reset or release Trading Firm, Trading Firm Group, Symbol or CustomGroupID level lockout conditions resulting from risk profile trips or self-imposed lockout issued via Order Cancel Request or Purge Request message.</p> <p>Single Character Values - with counter reset:</p> <p>S = Symbol level lockout reset F = Trading firm level lockout reset C = CustomGroupID lockout reset G = Trading firm Group level lockout reset</p> <p>Single Character Values - without counter reset:</p> <p>T = Symbol level self-imposed lockout reset E = Trading firm level self-imposed lockout reset D = CustomGroupID self-imposed lockout reset H = Trading firm Group level lockout reset</p> <p>Values may be combined together to allow for resets of multiple self-imposed lockouts in a single message. For example, FS, SC, FC, and SFC are all acceptable values.</p> <p>The single character values with no counter reset will release a self-imposed lockout condition only without resetting any counters related to active risk rules. This may be useful for time based risk rules where the lockout may be released without resetting any risk values being tracked back to zero. If a conflicting value is provided the lockout release with counter reset will take precedence. For example, "ST" will release any lockout and reset any applicable root-level rule counters to zero.</p> <p>When a resting or inbound order is executed and a Symbol level risk profile limit is reached, resting orders on the associated Product Code will be cancelled and inbound orders on the Product Code will be rejected until this field is filled with the value S on a subsequent NEW ORDER or NEW COMPLEX ORDER message corresponding to a symbol on the same Product Code, or on a RESET RISK message.</p> <p>If a Trading Firm level rule is tripped, this tag can be filled with the value F to reset all Trading Firm level rules. While this will reset Trading Firm level rules, it is possible that both Trading Firm and Symbol level rules are currently both tripped. Setting this field to F will not clear Symbol level rules and the order may still be rejected. To clear both Symbol and Trading Firm level rules, set this field to SF to reset all associated Trading Firm level and Symbol level lockouts.</p> <p>If orders have been locked out by at the custom group ID level, inbound orders for the locked custom group ID will be rejected until this field is filled with the value C.</p>
7699	<i>CustomGroupID</i>	Custom identifier for a group of orders.
7928	<i>PreventParticipant Match</i>	Participant Trade Prevention: 3 characters (not space separated). See Participant Trade Prevention (p. 5) for allowed values and explanations.

8015	<i>OrderAttributeTypes</i>	Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values: 2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise. 4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.
9370	<i>AuctionID</i>	For Options only: Exposed order identifier supplied by Cboe. This identifier corresponds to the identifiers used in Cboe market data products.
9688	<i>OrigComplID</i>	Drop only. <i>TargetComplID</i> (56) of original FIX execution report. Drop port must be configured to send this optional field.
9689	<i>OrigSubID</i>	Drop only. <i>TargetSubID</i> (57) of original FIX execution report. Drop port must be configured to send this optional field.
	Standard Message Trailer	

5.1.1 MiFID II Short Code Identifier Ranges

Cboe supports six separate ranges of short codes listed below. A range is provided for each valid combination of *PartyRole* (452) and *PartyRoleQualifier* (2376). These tags are used to fully qualify the type of short code in *PartyID* (448).

- Client (Person) - *PartyRole* (452) = 3 and *PartyRoleQualifier* (2376) = 24
- Client (Entity) - *PartyRole* (452) = 3 and *PartyRoleQualifier* (2376) = 23
- Investment Decision Maker (Person) - *PartyRole* (452) = 122 and *PartyRoleQualifier* (2376) = 24
- Investment Decision Maker (Algorithm) - *PartyRole* (452) = 122 and *PartyRoleQualifier* (2376) = 22
- Execution Decision Maker (Person) - *PartyRole* (452) = 12 and *PartyRoleQualifier* (2376) = 24
- Execution Decision Maker (Algorithm) - *PartyRole* (452) = 12 and *PartyRoleQualifier* (2376) = 22

Each range is four bytes in length. Participants can use numbers 4 through to 4,294,967,295 as short codes. Values 0, 1, 2 and 3 are reserved for applicable use as per *PartyID* (448) tag definition on pg 14.

5.2 New Order — Cross (Options Only)

A New Order Cross message contains the details for both the agency (initiating) and contra side(s) of a cross order. The two-sided order consists of a number of required fields including symbol, price, quantity, and relevant clearing information for both the agency and contra sides, as well as a number of optional fields. A maximum of ten (10) contra-parties will be accepted per order.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = s
97	<i>PossResend</i>	<p>N = indicates a new order (default) Y = indicates an application level resend and is not supported</p> <p>For reasons of economy, Cboe does not track (in primary storage), the <i>CIOrdID</i> (11) values of orders that are no longer live.</p> <p>For reasons of performance, Cboe does not access secondary storage to enforce unique <i>CIOrdID</i> (11) values against orders that are no longer live.</p> <p>Without full duplicate <i>CIOrdID</i> (11) value enforcement, it is not possible to safely implement the full behavior specified in the FIX 4.2 protocol for <i>PossResend</i> = Y.</p> <p>To remain economical, fast, and safe, all messages with <i>PossResend</i> = Y will be simply ignored.</p>
548	<i>CrossID</i>	Identifier for the cross order. 20 characters or less. Characters in ASCII range 33-126 are allowed, except for comma, semicolon, pipe, at symbol (@) and double quotes.
549	<i>CrossType</i>	Type of auction order being submitted. This indicates the type of auction that will be initiated upon order entry. Currently, the following type is supported: 1 = Automated Improvement Mechanism (AIM)
550	<i>CrossPrioritization</i>	Indicates which side of the cross order will be prioritized for execution. This identifies the Agency side. 1 = Buy 2 = Sell
60	<i>TransactTime</i>	Time order initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
552	<i>NoSides</i>	Indicates the number of sides for the cross order. Must be set to 2. The first side is the Agency side, the second side is the Contra side. 2 instances of the repeating group <i>CrossSideRptGroup</i> must follow.

Repeating Group *CrossSideRptGroup* must occur the number of times specified in *NoSides* (552)

54	<i>Side</i>	Required tag to start each repeated group. 1 = Buy 2 = Sell
7928	<i>PreventParticipant Match</i>	Participant Trade Prevention: 3 characters (not space separated). See Participant Trade Prevention (p. 5) for allowed values and explanations. PTP instructions on the AIM order will be used to prevent executions against AIM responses only; executions against resting or unrelated orders will still be permitted. Responses may only employ "Cancel Newest", in which case the response will be cancelled and the auction order will continue. Valid for Agency Side only. Ignored on Contra Side.
78	<i>NoAllocs</i>	Indicates the number of repeating groups for contra-party responses. Should be set to 1 for Agency side.

Repeating Group *AllocsRptGroup* must occur the number of times specified in *NoAllocs* (78)

80	<i>AllocQty</i>	Required tag to start each repeated group. Number of contracts for this party.
11	<i>ClOrdID</i>	Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.
1	<i>Account</i>	Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). The value supplied can be passed to the CCP and made available on the Drop feed.
47	<i>OrderCapacity</i>	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')
77	<i>OpenClose</i>	Indicates status of client position. O = Open C = Close N = None Orders with <i>AccountType</i> (581) = 3 (House Trader) are not required to specify <i>OpenClose</i> or may optionally specify a value of "N". Otherwise, orders with <i>AccountType</i> (581) = 1 (Customer Account) must specify <i>OpenClose</i> .
439	<i>ClearingFirm</i>	Firm that will clear trade.
440	<i>ClearingAccount</i>	Supplemental identifier. Optional. Recorded and returned in execution reports. Available via Drop.
581	<i>AccountType</i>	Type of account associated with the order 1 = Account is carried on customer side of the books. 3 = House Trader This field is required.
1724	<i>OrderOrigination</i>	5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.

... continued ... part of Repeating Group *CrossSideRptGroup*

... continued ... part of Repeating Group *AllocsRptGroup*

1031	<i>CustOrderHandlingInst</i>	<p>Indicates the Execution Source Code on orders prior to their executions. Mandatory. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to Y (Electronic).</p> <p>Y = Electronic. (Default) W = Desk C = Vendor-provided Platform billed by Executing Broker (For complex) G = Sponsored Access via Exchange API or FIX provided by Executing Broker (For complex) H = Premium Algorithmic Trading Provider billed by Executing Broker (For complex) D = Other, including Other-provided screen (For complex)</p>
8015	<i>OrderAttributeTypes</i>	<p>Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values:</p> <p>2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is <u>mandatory</u> for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise.</p> <p>4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.</p>
453	<i>NoPartyIDs</i>	<p>Indicates the number of instances of the repeating group <i>NewOrderPartyRptGrp</i> to follow. Defaults to zero.</p>

... continued ... part of Repeating Group *CrossSideRptGroup*

... continued ... part of Repeating Group *AllocsRptGroup*

Repeating Group *NewOrderPtyRptGrp* must occur the number of times specified in *NoPartyIDs* (453)

448	<i>PartyID</i>	The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. For clients, the following values are reserved for applicable use: Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
447	<i>PartyIDSource</i>	Must always be P (Short code identifier)
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
2376	<i>PartyRoleQualifier</i>	Provides further qualification of the PartyRole value. Valid values are: 0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)

22	<i>IDSource</i>	Values supported by Cboe: 4 = ISIN Required if <i>Symbol</i> (55) is not set.
48	<i>SecurityID</i>	ISIN if <i>IDSource</i> (22) is set.
55	<i>Symbol</i>	Security symbol. See Symbology (p. 4) for additional notes.
38	<i>OrderQty</i>	Number of contracts for order, 1 to 999,999.
40	<i>OrdType</i>	Optional. Should be set to 2 (Limit). Any other value will be ignored.
44	<i>Price</i>	Auction Price

6253	<i>DrillThruProtection</i>	<p>Amount sender is willing to trade through BBO at the time of order entry. This is available for both futures and options on simple and complex instruments.</p> <p>The amount should be entered as a non-negative value indicating the protection to be applied for the order. This is the value by which the order may aggress the resting BBO. The drill through price is then the resting BBO aggressed by the drill through protection value. A zero value denotes full BBO protection. This will allow the inbound order to execute only against the top level of the resting price. The drill through price is the resting BBO.</p> <p>If unspecified, the exchange default value will be used. The drill through price is the resting BBO aggressed by the exchange default value.</p>
9040	<i>AutoMatch</i>	<p>0 = Disabled 1 = Market 2 = Limit</p> <p>Better-priced responses will be automatically matched by the Contra side. Indicates the type of Auto Match the Contra Order will use. Mutually exclusive with <i>LastPriority</i> (9849).</p>
9044	<i>AutoMatchPrice</i>	Required if <i>AutoMatch</i> (9040) is set to 2, ignored otherwise. Sets the limit price at which the Contra Order will Auto Match. Format is the same as <i>Price</i> (44).
9849	<i>LastPriority</i>	<p>0 = Disabled 1 = Enabled</p> <p>When enabled, allocation will go to other participants responses before requiring the Contra Order to satisfy remaining contracts of the Agency Order. Mutually exclusive with <i>AutoMatch</i> (9040).</p>
	Standard Message Trailer	

5.3 New Order — Multileg

A New Order Multileg message is used to submit a complex options order or spread futures order. Spread futures are predefined by Cboe. The message consists of all order details including a number of required fields such as *Price* (44), *OrdQty* (38), and relevant clearing information, as well as a number of optional fields. Complex orders in cross product spreads where the products do not operate on the same matching unit cannot leg into the simple book.

The New Order Multileg message supports two distinct styles of request:

Short Form

If the complex symbol is known at the time of entry, a short form of the New Order Multileg message can be utilized.

- *Symbol* (55) and *Side* (54) are required.
- *LegRefID* (654) and *LegPositionEffect* (564) are required for each of the legs. The order of the legs (and *LegPositionEffect*) must match the Security Definition response, as legs can be re-ordered during security definition. This requirement is relaxed for participants trading on a House Account. Where *AccountType* (581) = 3 (House) is specified, it is acceptable to either set *NoLegs* (555) = 0 or have *NoLegs* (555) unset.

In that scenario, the LegPositionEffect is defaulted to None for each leg.

- Sending any additional fields in the legs repeating group (LegSymbol, LegRatioQty, or LegSide) will result in the order being rejected to avoid confusion with an invalid long form request.

Long Form

If the complex symbol is not known, a long form of the request exists to enter the symbol legs at the same time as the order. The legs will be used to find an appropriate complex symbol in the Cboe Complex Order Book; the resulting symbol (if accepted by the system) will be returned on the Execution Report in *Symbol* (55). A minimum of two (2) legs must be specified and a maximum of 12 legs will be accepted.

For complex options, a new Cboe Complex instrument symbol will be created if an existing symbol cannot be found.

For futures, the order will be rejected if there is no pre-defined spread futures symbol.

- If *Symbol* (55) or *Side* (54) are present and non-blank, the order will be rejected to avoid confusion with an invalid short form request.
- Each leg must be fully entered as described below.
- Equity leg is not supported.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = AB
97	<i>PossResend</i>	<p>N = indicates a new order (default) Y = indicates an application level resend and is not supported</p> <p>For reasons of economy, Cboe does not track (in primary storage), the <i>CIOrdID</i> (11) values of orders that are no longer live.</p> <p>For reasons of performance, Cboe does not access secondary storage to enforce unique <i>CIOrdID</i> (11) values against orders that are no longer live.</p> <p>Without full duplicate <i>CIOrdID</i> (11) value enforcement, it is not possible to safely implement the full behavior specified in the FIX 4.2 protocol for <i>PossResend</i> = Y.</p> <p>To remain economical, fast, and safe, all New Order — Single and Trade Capture Report messages with <i>PossResend</i> = Y will be simply ignored.</p>
1	<i>Account</i>	<p>Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). H: and C: prefix can be used to specify which CCP Account to use.</p> <p>If configured by Cboe: <i>House</i> or <i>Client</i> CCP account can be defaulted. <i>OrderCapacity</i> (47) is no longer used to determine which CCP account to use. The value supplied can be passed to the CCP and made available on the Drop feed.</p>
11	<i>CIOrdID</i>	<p>Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.</p> <p>A leading tilde(~) cannot be sent on any <i>CIOrdID</i> and will result in a reject. These are reserved for internal use by Cboe and could be received as a result of a system-generated <i>CIOrdID</i>.</p> <p>If the <i>CIOrdID</i> matches a live order, it will be rejected as duplicate (unless <i>PossResend</i> (97) = Y; see above).</p> <p>Note: Cboe only enforces the uniqueness of CIOrdID values among currently live orders. However, we strongly recommend that you keep your CIOrdID values day unique.</p>
60	<i>TransactTime</i>	Time order initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
54	<i>Side</i>	<p>Required only for short format request</p> <p>1 = Buy 2 = Sell</p>
55	<i>Symbol</i>	<p>Required only for short format request</p> <p>Cboe Complex Order Book Symbol</p>
555	<i>NoLegs</i>	Indicates the number of legs in this complex order. Minimum of 2, maximum of 12 total legs. Orders with <i>AccountType</i> (581) = 3 (House Trader) may set this to zero or have this unset in short form. In such scenario, there should not be repeating groups <i>LegsRptGroup</i> following, and the <i>LegPositionEffect</i> will be defaulted to N (None) for each leg.

Repeating Group <i>LegsRptGroup</i> must occur the number of times specified in <i>NoLegs</i> (555)		
654	<i>LegRefID</i>	Required tag to start each repeated group. Leg ID chosen by client. Five or fewer alphanumeric characters.
600	<i>LegSymbol</i>	Cboe Symbology Symbol. Not required for short form requests
623	<i>LegRatioQty</i>	Ratio of number of contracts in this leg per order quantity. All legs must be reduced (i.e. 2:2 must be sent as 1:1) in order to be accepted by the system when using this message type. Accepted values are 1 - 99,999. Not required for short form requests
624	<i>LegSide</i>	Side is from the Agency side's perspective: 1 = Buy 2 = Sell Not required for short form requests
566	<i>LegPrice</i>	Reference price for the future leg of a Volatility Strategy. Mandatory for this case, otherwise ignored. See the Volatility Strategies section (p. 6) for more details. Not required for short form requests
564	<i>LegPositionEffect</i>	Indicates status of client position in option for this leg. O = Open C = Close N = None Orders with <i>AccountType</i> (581) = 3 (House Trader) may specify a value of "N". House Trader only needs to specify this if <i>NoLegs</i> (555) is set to a non-zero value. For orders with <i>AccountType</i> (581) = 1 (Customer Account), <i>LegPositionEffect</i> must be specified with a valid value for each leg.
38	<i>OrderQty</i>	Number of contracts for order, 1 to 999,999.
40	<i>OrdType</i>	1 = Market 2 = Limit
44	<i>Price</i>	Short form request Net Price of the Strategy. Buy Orders: Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero) Sell Orders: Positive Value, Credit Negative Value, Debit Even Order - 0 (Zero) Long form request Net Price of the Strategy. Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero) Price must be in whole pennies for option-only spreads.
439	<i>ClearingFirm</i>	Firm that will clear trade. Optional. Note: shares storage with <i>OnBehalfOfCompID</i> (115). If both fields are set, they must be equal.

440	<i>ClearingAccount</i>	Supplemental identifier. Optional. Recorded and returned in execution reports. Available via Drop. Note: shares storage with <i>OnBehalfOfSubID</i> (116). If both fields are set, then <i>OnBehalfOfSubID</i> (116) takes precedence for Service Bureau connections and <i>ClearingAccount</i> takes precedence for other connections.
47	<i>OrderCapacity</i>	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')
59	<i>TimelnForce</i>	0 = Day (Default) - Expires at the end of market day. 1 = GTC (allowed, but treated as Day) 2 = At the Open. Will remain queued and only interact in the Opening process. 3 = IOC 6 = GTD (expires at earlier of specified <i>ExpireTime</i> (126) or end of day)
126	<i>ExpireTime</i>	Required for <i>TimelnForce</i> (59) = 6 (GTD) orders, specifies the date and time (in GMT) that the order expires.
453	<i>NoPartyIDs</i>	Indicates the number of instances of the repeating group <i>NewOrderPtyRptGrp</i> to follow. Defaults to zero.
Repeating Group <i>NewOrderPtyRptGrp</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
448	<i>PartyID</i>	The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. For clients, the following values are reserved for applicable use: Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
447	<i>PartyIDSource</i>	Must always be P (Short code identifier)
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
2376	<i>PartyRoleQualifier</i>	Provides further qualification of the PartyRole value. Valid values are: 0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)

581	<i>AccountType</i>	Type of account associated with the order 1 = Account is carried on customer side of the books. 3 = House Trader This field is required.
1031	<i>CustOrderHandlingInst</i>	Indicates the Execution Source Code on orders prior to their executions. Mandatory. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to Y (Electronic). Y = Electronic. (Default) W = Desk C = Vendor-provided Platform billed by Executing Broker (For complex) G = Sponsored Access via Exchange API or FIX provided by Executing Broker (For complex) H = Premium Algorithmic Trading Provider billed by Executing Broker (For complex) D = Other, including Other-provided screen (For complex)
1724	<i>OrderOrigination</i>	5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.
6253	<i>DrillThruProtection</i>	Amount sender is willing to trade through BBO at the time of order entry. This is available for both futures and options on simple and complex instruments. The amount should be entered as a non-negative value indicating the protection to be applied for the order. This is the value by which the order may aggress the resting BBO. The drill through price is then the resting BBO aggressed by the drill through protection value. A zero value denotes full BBO protection. This will allow the inbound order to execute only against the top level of the resting price. The drill through price is the resting BBO. If unspecified, the exchange default value will be used. The drill through price is the resting BBO aggressed by the exchange default value.

7692	<i>RiskReset</i>	<p>For use by participants using Cboe Risk Management tools to reset or release Trading Firm, Trading Firm Group, Symbol or CustomGroupID level lockout conditions resulting from risk profile trips or self-imposed lockout issued via Order Cancel Request or Purge Request message.</p> <p>Single Character Values - with counter reset:</p> <p>S = Symbol level lockout reset F = Trading firm level lockout reset C = CustomGroupID lockout reset G = Trading firm Group level lockout reset</p> <p>Single Character Values - without counter reset:</p> <p>T = Symbol level self-imposed lockout reset E = Trading firm level self-imposed lockout reset D = CustomGroupID self-imposed lockout reset H = Trading firm Group level lockout reset</p> <p>Values may be combined together to allow for resets of multiple self-imposed lockouts in a single message. For example, FS, SC, FC, and SFC are all acceptable values.</p> <p>The single character values with no counter reset will release a self-imposed lockout condition only without resetting any counters related to active risk rules. This may be useful for time based risk rules where the lockout may be released without resetting any risk values being tracked back to zero. If a conflicting value is provided the lockout release with counter reset will take precedence. For example, "ST" will release any lockout and reset any applicable root-level rule counters to zero.</p> <p>When a resting or inbound order is executed and a Symbol level risk profile limit is reached, resting orders on the associated Product Code will be cancelled and inbound orders on the Product Code will be rejected until this field is filled with the value S on a subsequent NEW ORDER or NEW COMPLEX ORDER message corresponding to a symbol on the same Product Code, or on a RESET RISK message.</p> <p>If a Trading Firm level rule is tripped, this tag can be filled with the value F to reset all Trading Firm level rules. While this will reset Trading Firm level rules, it is possible that both Trading Firm and Symbol level rules are currently both tripped. Setting this field to F will not clear Symbol level rules and the order may still be rejected. To clear both Symbol and Trading Firm level rules, set this field to SF to reset all associated Trading Firm level and Symbol level lockouts.</p> <p>If orders have been locked out by at the custom group ID level, inbound orders for the locked custom group ID will be rejected until this field is filled with the value C.</p>
7699	<i>CustomGroupID</i>	Custom identifier for a group of orders.
7928	<i>PreventParticipant Match</i>	Participant Trade Prevention: 3 characters (not space separated). See Participant Trade Prevention (p. 5) for allowed values and explanations.

8015	<i>OrderAttributeTypes</i>	<p>Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values:</p> <p>2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise.</p> <p>4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.</p>
9303	<i>RoutingInst</i>	<p>For Options only.</p> <p>Character 1</p> <p>B = Book Only (Default). Allowed to interact with single-leg orders and other complex orders</p> <p>D = Complex Book Only. Allowed to interact with other complex orders only. (No legging into the Simple Book.) Requires <i>TimelnForce</i> (59) = "0" (Day) or "3" (IOC).</p> <p>Character 2</p> <p>L = Do not expose order via C-RFQ</p> <p>S = Expose order via C-RFQ. Any non-IOC Complex orders will be eligible for C-RFQ unless otherwise specified. IOC Complex Orders can opt in to initiating a C-RFQ. Any quantity not executed will be cancelled at the end of the process.</p>
9370	<i>AuctionID</i>	For Options only: Exposed order identifier supplied by Cboe. This identifier corresponds to the identifiers used in Cboe market data products.
9479	<i>DisplayIndicator</i>	<p>This is only applicable for Complex Options orders participating in C-RFQ.</p> <p>I = Hidden</p> <p>If set to hidden, the auction price will be hidden for the initiator. For responders, their response will be hidden from the Auction Summary. This will only happen if the order meets the LIS threshold. By default, if this is not specified, or if the LIS threshold is not met, the auction price or the response will be displayed.</p>
	Standard Message Trailer	

5.4 New Order — Cross Multileg(Options Only)

A New Order Cross Multileg message contains the details for both the agency (initiating) and contra side(s) of a cross order (such as an AIM order). The two-sided order consists of a number of required fields including symbol, price, quantity, and relevant clearing information for both the agency and contra sides, as well as a number of optional fields. A maximum of ten (10) contra-parties will be accepted per order.

Short Form

If the complex symbol is known at the time of entry, a short form of the New Order Cross Multileg message can be utilized.

- *Symbol* (55) and *Side* (54) are required.
- The order of position effects in *LegPositionEffects* (22019) must match the Security Definition response, as legs can be re-ordered during security definition.
- Sending any additional fields in the legs repeating group (*LegSymbol*, *LegRatioQty*, or *LegSide*) will result in the order being rejected to avoid confusion with an -invalid long form request.

Long Form

If the complex symbol is not known, a long form of the request exists to enter the symbol legs at the same time as the order. The legs will be used to find an appropriate complex symbol in the Cboe Complex Order Book; the resulting symbol (if accepted by the system) will be returned on the Execution Report in *Symbol* (55). A minimum of two (2) legs must be specified and a maximum of 12 legs will be accepted.

- If *Symbol* (55) or *Side* (54) are present and non-blank, the order will be rejected to avoid confusion with an invalid short form request.
- The order of position effects in *LegPositionEffects* (22019) must match the order of the symbol legs in the message.
- Each leg must be fully entered as described below.
- Equity leg is not supported.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = As
97	<i>PossResend</i>	<p>N = indicates a new order (default) Y = indicates an application level resend and is not supported</p> <p>For reasons of economy, Cboe does not track (in primary storage), the <i>CIOrdID</i> (11) values of orders that are no longer live.</p> <p>For reasons of performance, Cboe does not access secondary storage to enforce unique <i>CIOrdID</i> (11) values against orders that are no longer live.</p> <p>Without full duplicate <i>CIOrdID</i> (11) value enforcement, it is not possible to safely implement the full behavior specified in the FIX 4.2 protocol for <i>PossResend</i> = Y.</p> <p>To remain economical, fast, <i>and</i> safe, all New Order — Single and Trade Capture Report messages with <i>PossResend</i> = Y will be simply ignored.</p>
548	<i>CrossID</i>	Identifier for the cross order. 20 characters or less. Characters in ASCII range 33-126 are allowed, except for comma, semicolon, pipe, at symbol (@) and double quotes.
549	<i>CrossType</i>	Type of auction order being submitted. This indicates the type of auction that will be initiated upon order entry. Currently, the following type is supported: 1 = Automated Improvement Mechanism (AIM)
60	<i>TransactTime</i>	Time order initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
54	<i>Side</i>	For Short Format only Represents Side of Agency Order 1 = Buy 2 = Sell
55	<i>Symbol</i>	For Short Format only Cboe Complex Instrument ID

38	<i>OrderQty</i>	Number of contracts for order, 1 to 999,999.
40	<i>OrdType</i>	Optional. Should be set to 2 (Limit). Any other value will be ignored.
44	<i>Price</i>	<p>Price is from the perspective of the Agency Side</p> <p>Short form request Net Auction price of the Strategy.</p> <p>Buy Orders: Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero)</p> <p>Sell Orders: Positive Value, Credit Negative Value, Debit Even Order - 0 (Zero)</p> <p>Long form request Net Auction price of the Strategy.</p> <p>Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero)</p> <p>Price must be in whole pennies for option-only spreads.</p>
552	<i>NoSides</i>	Indicates the number of sides for the cross order. Must be set to 2. The first side is the Agency side, the second side is the Contra side. 2 instances of the repeating group <i>CrossSideRptGroup</i> must follow.

Repeating Group *CrossSideRptGroup* must occur the number of times specified in *NoSides* (552)

78	<i>NoAllocs</i>	Indicates the number of repeating groups for contra-party responses. Should be set to 1 for Agency side. Max of 10 contra parties.
Repeating Group <i>AllocsRptGroup</i> must occur the number of times specified in <i>NoAllocs</i> (78)		
80	<i>AllocQty</i>	Required tag to start each repeated group. Number of contracts for this party.
11	<i>CIOrdID</i>	Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.
1	<i>Account</i>	Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). H: and C: prefix can be used to specify which CCP Account to use. If configured by Cboe: <i>House</i> or <i>Client</i> CCP account can be defaulted. <i>OrderCapacity</i> (47) is no longer used to determine which CCP account to use. The value supplied can be passed to the CCP and made available on the Drop feed.
47	<i>OrderCapacity</i>	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')
439	<i>ClearingFirm</i>	Firm that will clear trade.
440	<i>ClearingAccount</i>	Supplemental identifier. Optional. Recorded and returned in execution reports. Available via Drop.
581	<i>AccountType</i>	Type of account associated with the order 1 = Account is carried on customer side of the books. 3 = House Trader This field is required.
1031	<i>CustOrderHandlingInst</i>	Indicates the Execution Source Code on orders prior to their executions. Mandatory. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to Y (Electronic). Y = Electronic. (Default) W = Desk C = Vendor-provided Platform billed by Executing Broker (For complex) G = Sponsored Access via Exchange API or FIX provided by Executing Broker (For complex) H = Premium Algorithmic Trading Provider billed by Executing Broker (For complex) D = Other, including Other-provided screen (For complex)
1724	<i>OrderOrigination</i>	5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.

... continued ... part of Repeating Group *CrossSideRptGroup*

... continued ... part of Repeating Group *AllocsRptGroup*

8015	<i>OrderAttributeTypes</i>	<p>Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values:</p> <p>2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise.</p> <p>4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.</p>
22019	<i>LegPositionEffects</i>	<p>A string of position effects with one value per leg. For example, if five legs, then this field must have five position effects specified. Ordering of position effects matches the order specified in <i>LegRefID</i> (654) repeating group (below), or the instrument definition if using a short form request.</p> <p>O = Open C = Close N = None</p> <p>Orders with <i>AccountType</i> (581) = 3 (House Trader) are not required to specify <i>LegPositionEffects</i> or may specify a value of "N" for the leg. Otherwise, orders with <i>AccountType</i> (581) = 1 (Customer Account) must specify <i>LegPositionEffects</i>.</p>
453	<i>NoPartyIDs</i>	<p>Indicates the number of instances of the repeating group <i>NewOrderPartyRptGrp</i> to follow. Defaults to zero.</p>

... continued ... part of Repeating Group *CrossSideRptGroup*

... continued ... part of Repeating Group *AllocsRptGroup*

Repeating Group *NewOrderPtyRptGrp* must occur the number of times specified in *NoPartyIDs* (453)

448	<i>PartyID</i>	The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. For clients, the following values are reserved for applicable use: Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
447	<i>PartyIDSource</i>	Must always be P (Short code identifier)
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
2376	<i>PartyRoleQualifier</i>	Provides further qualification of the PartyRole value. Valid values are: 0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)

555	<i>NoLegs</i>	Indicates the number of legs in this complex order. Minimum of 2, maximum of 12 total legs.
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Repeating Group *LegsRptGroup* must occur the number of times specified in *NoLegs* (555)

654	<i>LegRefID</i>	Required tag to start each repeated group. Leg ID chosen by client. Five or fewer alphanumeric characters.
600	<i>LegSymbol</i>	Cboe Symbology Symbol. Not required for short form requests
623	<i>LegRatioQty</i>	Ratio of number of contracts in this leg per order quantity. All legs must be reduced (i.e. 2:2 must be sent as 1:1) in order to be accepted by the system when using this message type. Accepted values are 1 - 99,999. Not required for short form requests
624	<i>LegSide</i>	Side is from the Agency side's perspective: 1 = Buy 2 = Sell Not required for short form requests

9040	<i>AutoMatch</i>	<p>0 = Disabled 1 = Market 2 = Limit</p> <p>Better-priced responses will be automatically matched by the Contra side. Indicates the type of Auto Match the Contra Order will use. Mutually exclusive with <i>LastPriority</i> (9849).</p>
9044	<i>AutoMatchPrice</i>	<p>Required if <i>AutoMatch</i> (9040) is set to 2, ignored otherwise. Sets the limit price at which the Contra Order will Auto Match. Format is the same as <i>Price</i> (44).</p> <p>Required if <i>AutoMatch</i> is set to "2", ignored otherwise. Sets the limit price at which the Contra Order will AutoMatch. Format is the same as <i>Price</i> (44).</p> <p>AutoMatchPrice is from the perspective of the Contra Side.</p> <p>Short form request Net Auction price of the Strategy.</p> <p>Buy Orders: Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero)</p> <p>Sell Orders: Positive Value, Credit Negative Value, Debit Even Order - 0 (Zero)</p> <p>Long form request Net Auction price of the Strategy.</p> <p>Positive Value, Debit Negative Value, Credit Even Order - 0 (Zero)</p>
7928	<i>PreventParticipant Match</i>	<p>Participant Trade Prevention: 3 characters (not space separated). See Participant Trade Prevention (p. 5) for allowed values and explanations. PTP instructions on the AIM order will be used to prevent executions against AIM responses only; executions against resting or unrelated orders will still be permitted. Responses may only employ "Cancel Newest", in which case the response will be cancelled and the auction order will continue.</p> <p>Valid for Agency Side only. Ignored on Contra Side.</p>
9849	<i>LastPriority</i>	<p>0 = Disabled 1 = Enabled</p> <p>When enabled, allocation will go to other participants responses before requiring the Contra Order to satisfy remaining contracts of the Agency Order. Mutually exclusive with <i>AutoMatch</i> (9040).</p>
	Standard Message Trailer	

5.5 Security Definition Request(Options Only)

A Security Definition Request message is used to request that the system create a complex strategy option. The resulting symbol (if accepted by the system) will be returned in a Security Definition message with the Cboe symbol in *Symbol* (55). A minimum of two legs must be specified and a maximum of twelve option or future legs (12) will be accepted. At least one leg must be an option leg. No equity leg is allowed.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = c
97	<i>PossResend</i>	<p>N = indicates a new order (default) Y = indicates an application level resend and is not supported</p> <p>For reasons of economy, Cboe does not track (in primary storage), the <i>CIOrdID</i> (11) values of orders that are no longer live.</p> <p>For reasons of performance, Cboe does not access secondary storage to enforce unique <i>CIOrdID</i> (11) values against orders that are no longer live.</p> <p>Without full duplicate <i>CIOrdID</i> (11) value enforcement, it is not possible to safely implement the full behavior specified in the FIX 4.2 protocol for <i>PossResend</i> = Y.</p> <p>To remain economical, fast, and safe, all messages with <i>PossResend</i> = Y will be simply ignored.</p>
11	<i>CIOrdID</i>	<p>Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.</p> <p>A leading tilde(~) cannot be sent on any <i>CIOrdID</i> and will result in a reject. These are reserved for internal use by Cboe and could be received as a result of a system-generated <i>CIOrdID</i>.</p> <p>If the <i>CIOrdID</i> matches a live order, it will be rejected as duplicate (unless <i>PossResend</i> (97) = Y; see above).</p> <p>Note: Cboe only enforces the uniqueness of CIOrdID values among currently live orders. However, we strongly recommend that you keep your CIOrdID values day unique.</p>
60	<i>TransactTime</i>	Time order initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
115	<i>OnBehalfOfCompld</i>	<p>Optional. Specifies which clearing firm the security definition is applicable to.</p> <p>A complex instrument has to be requested by a Clearing firm before it can be used. In case where a firm has multiple clearing arrangements, this must be specified to indicate which Clearing firm this Security Definition Request refers to.</p>
555	<i>NoLegs</i>	Indicates the number of legs in this complex order. Minimum of 2, maximum of 12 total legs.

Repeating Group <i>LegsRptGroup</i> must occur the number of times specified in <i>NoLegs</i> (555)		
654	<i>LegRefID</i>	Required tag to start each repeated group. Leg ID chosen by client. Five or fewer alphanumeric characters.
600	<i>LegSymbol</i>	Cboe Symbology Symbol.
623	<i>LegRatioQty</i>	Ratio of number of contracts in this leg per order quantity. All legs must be reduced (i.e. 2:2 must be sent as 1:1) in order to be accepted by the system when using this message type. Accepted values are 1 - 99,999.
624	<i>LegSide</i>	Side is from the Agency side's perspective: 1 = Buy 2 = Sell
566	<i>LegPrice</i>	Reference price for the future leg of a Volatility Strategy. Mandatory for this case, otherwise ignored. See the Volatility Strategies section (p. 6) for more details.
	Standard Message Trailer	

5.6 Order Cancel Request

Request the cancellation of a single order or multiple orders (Mass Cancel) on the FIX session. Note that Order Cancel Requests do not apply to open orders across multiple sessions unless submitted on a Purge Port.

The system limits the rate at which identical Mass Cancel and Purge Request messages can be submitted to the system. Requests are restricted to ten (10) messages per second per port.

An identical Mass Cancel / Purge Request message is defined as a message having all of the same *CustomGroupID* (7699) (Purge Request only), *Symbol* (55), *OnBehalfOfCompld* (115), Lockout Instruction and Instrument Type Filter field values, as a previously received message.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = F
97	<i>PossResend</i>	N = indicates a new cancel (default) Y = indicates an application level resend. If <i>CIOrdID</i> (11) has not yet been seen, the cancel is treated as normal. If <i>CIOrdID</i> (a) already exists, the resent cancel is ignored.
1	<i>Account</i>	Optional. Reflected back on Pending Cancel Execution Report or Cancel Reject associated with this cancel. 16 characters or less (ASCII 33–126). Configurably available via Drop.
11	<i>CIOrdID</i>	Day-unique cancel ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe. A leading tilde (~) cannot be sent on any <i>CIOrdID</i> and will result in a reject. These are reserved for internal use by Cboe and could be received as a result of a system-generated <i>CIOrdID</i> . Duplicate <i>CIOrdIDs</i> will be rejected (or ignored if <i>PossResend</i> (97) = Y.
22	<i>IDSource</i>	Values supported by Cboe: 4 = ISIN Required if <i>Symbol</i> (55) is not set.

37	<i>OrderID</i>	Order identifier supplied by Cboe on the order acknowledgement. (Optional, but recommended for performance.)
38	<i>OrderQty</i>	Number of shares for the order. Must match original order.
41	<i>OrigCOrdID</i>	<i>COrdID</i> of the order to cancel.
48	<i>SecurityID</i>	ISIN if <i>IDSource</i> (22) is set. Only used for single order cancel
54	<i>Side</i>	1 = Buy 2 = Sell
55	<i>Symbol</i>	Security Symbol for single order cancel. Product Code for MassCancel.
60	<i>TransactTime</i>	Time cancel initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
77	<i>OpenClose</i>	Indicates status of client position. O = Open C = Close N = None Orders with <i>AccountType</i> (581) = 3 (House Trader) are not required to specify <i>OpenClose</i> or may optionally specify a value of "N". Otherwise, orders with <i>AccountType</i> (581) = 1 (Customer Account) must specify <i>OpenClose</i> .

7700	<i>MassCancelInst</i>	<p>At least one character must be provided (Trading Firm Filter). Contiguous characters must be specified up to total length. Truncated (unspecified) characters will default to values indicated below.</p> <p>1st Character : Trading firm Filter A = No filtering by trading firm is performed. F = All orders that were sent under the trading firm specified in <i>OnBehalfOfCompld</i> (115) will be cancelled. If "F" specified and <i>OnBehalfOfCompld</i> (115) is not provided, the Mass Cancel will be rejected.</p> <p>2nd Character : Acknowledgement Style M = (Default) Individual Execution Reports are sent for each cancelled order. S = Single summary Execution Report sent once all cancels have been processed. Single summary Execution Report will contain <i>MassCancelld</i> (7695) and <i>CancelledOrderCount</i> (7696). <i>MassCancelld</i> (7695) must be specified or the Mass Cancel will be rejected. B = Both individual Execution Reports and single summary Execution Report. Also requires <i>MassCancelld</i> (7695) to be specified or the Mass Cancel will be rejected.</p> <p>3rd Character : Lockout Instruction N = (Default) No lockout L = Lockout until corresponding Risk Reset received. Lockout can be used only with clearing firm Filter set to F, otherwise the Mass Cancel will be rejected. Lockout will apply to all new orders and cancel/replace orders for the clearing firm (and <i>Symbol</i> (55) or <i>CustomGroupld</i> (7699), if specified).</p> <p>4th Character : Instrument Type Filter B = (Default) Cancel both Simple and Complex orders S = Cancel Simple orders only C = Cancel Complex orders only</p> <p>If <i>Symbol</i> (55) is specified, it must contain a valid underlying symbol, in which case only orders underlying on that symbol will be cancelled. A self-imposed lockout can be released using the <i>RiskReset</i> (7692) field of the New Order Single message. If <i>Symbol</i> (55) is not specified and zero <i>CustomGroupld</i> (7699) are specified, a Clearing Firm level reset is required. If <i>Symbol</i> (55) is specified, a Symbol level reset is required. If one or more <i>CustomGroupld</i> (7699) values are provided, a CustomGroupID level reset is required.</p>
7695	<i>MassCancelld</i>	<p>This field will be echoed back in the resulting Execution Report when the second character of <i>MassCancelInst</i> (7700) is set to "S" or "B". Mass Cancel containing a <i>MassCancelld</i> that is currently outstanding will be rejected.</p>
	Standard Message Trailer	

5.7 Order Cancel/Replace Request

Only *Price* (44), *OrderQty* (38), *OrdType* (40), and *StopPx* (99) may be adjusted. Modifies will result in a loss of time priority unless the modification involves a decrease in *OrderQty*, or a change to *StopPx*. *OrdType* may be adjusted from Limit to Market.

Other fields will be ignored, and the value from the original order will be re-used.

Changes in *OrderQty* result in an adjustment of the current orders *OrderQty*. The new *OrderQty* does **not**

directly replace the current orders *LeavesQty*. Rather, a delta is computed from the current *OrderQty* and the replacement *OrderQty*. This delta is then applied to the current *LeavesQty* (151). If the resulting *LeavesQty* is less than or equal to zero, the order is cancelled. This results in safer behaviour when the replace request overlaps partial fills for the current order, leaving the user in total control of the share exposure of the order.

A Cancel/Replace should not be issued until the acknowledgment for the previous Cancel/Replace (or the acknowledgment for the first Cancel/Replace) for that order has been received. The FIX handler will reject a new Cancel/Replace if it has not seen the prior Cancel/Replace from the Matching Engine.

Cancel/Replace requests that merely reduce *OrderQty* may be overlapped if the existing *CIOrdID* is reused, as long as the trading identifier has not been opted-in to daily limit trading risk controls. This is the only case where reuse of the existing *CIOrdID* is allowed.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = G
97	<i>PossResend</i>	N = indicates a new cancel/replace (default) Y = indicates an application level resend. If the <i>CIOrdID</i> does not indicate an already pending cancel/replace, the cancel/replace is treated as normal. If <i>CIOrdID</i> does indicate an already pending cancel/replace, then the resent cancel/replace is ignored.
1	<i>Account</i>	Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). The value supplied can be passed to the CCP and made available on the Drop feed.
11	<i>CIOrdID</i>	Day-unique ID chosen by client. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe. If the <i>CIOrdID</i> matches a live order, it will be rejected as duplicate (unless <i>PossResend</i> (97) = Y; see above). Note: Cboe only enforces the uniqueness of CIOrdID values among currently live orders. However, we strongly recommend that you keep your CIOrdID values day unique.
22	<i>IDSource</i>	Values supported by Cboe: 4 = ISIN Required if <i>Symbol</i> (55) is not set.
37	<i>OrderID</i>	Order identifier supplied by Cboe on the order acknowledgement. In the case of multiple changes to a single order, this should be the <i>OrderID</i> from the most recent acknowledgement.
38	<i>OrderQty</i>	Number of shares for the order. This will modify the <i>OrderQty</i> of the current order, it does not directly set the remaining quantity.
40	<i>OrdType</i>	1 = Market 2 = Limit 3 = Stop (Options only) 4 = Stop Limit May replace Limit with Market. It may also replace Stop with Stop Limit and vice versa, but otherwise must match original order, if sent.
41	<i>OrigCIOrdID</i>	<i>CIOrdID</i> of the order to replace. In the case of multiple changes to a single order, this will be the <i>CIOrdID</i> of the most recently accepted change.
44	<i>Price</i>	Limit price.

48	<i>SecurityID</i>	ISIN if <i>IDSource</i> (22) is set.
54	<i>Side</i>	1 = Buy 2 = Sell
55	<i>Symbol</i>	Security symbol. See Symbology (p. 4) for additional notes.
60	<i>TransactTime</i>	Time cancel/replace initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
77	<i>OpenClose</i>	Ignored - value preserved from original order
99	<i>StopPx</i>	Optional. Defaults to original order if not set.
9619	<i>CancelOrigOnReject</i>	N = Leave original order alone (default) Y = Cancel original order if replacement fails Default may be configured per port.
	Standard Message Trailer	

5.8 Trade Capture Report

The Trade Capture Report is used to submit a Block Trade. The report must contain both sides of the trade (*NoSides* (552) = 2).

Trade reports in Complex Instruments are not supported. Instead, participants should submit individual trades for each leg, with the appropriate leg price/quantity.

The models supported are as described in the FIX 5.0 (SP2) specification in the *Two-Party Reporting*, *One-Party Report for Matching* and *Confirmed Trade Reporting* workflow diagrams of the Trade Capture Reporting section.

Whilst we make use of FIX 4.4 and FIX 5.0 messages/tags, these are handled as extensions and operate over a FIX 4.2 session. If a port is dedicated to the use of trade reporting, there is an option to utilise a FIX 4.4 session.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = AE
22	<i>IDSource</i>	Values supported by Cboe: 4 = ISIN Required if <i>Symbol</i> (55) is not set.
31	<i>LastPx</i>	Price of this fill. May be excluded if using <i>GrossTradeAmt</i> .
32	<i>LastShares</i>	Quantity of shares traded on this fill.
48	<i>SecurityID</i>	ISIN if <i>IDSource</i> (22) is set.
55	<i>Symbol</i>	Security symbol. See Symbology (p. 4) for additional notes.
60	<i>TransactTime</i>	Optional, when <i>TradeReportTransType</i> (487) = 0. Microsecond level resolution.
150	<i>ExecType</i>	Must be F = Trade
381	<i>GrossTradeAmt</i>	Total amount traded, expressed in units of currency. Only considered when <i>LastPx</i> is not specified.
487	<i>TradeReportTransType</i>	Specifies whether this trade report is new, a cancellation, an amendment or a release. Unilateral trades reported under the service may be cancelled or amended by the participant. Trades that are currently being delayed from publication can be released for immediate publication. Defaults to 'new' if unspecified. 0 = New 1 = Cancel 2 = Replace 3 = Release

571	<i>TradeReportID</i>	Day-unique ID chosen by client. Cboe will enforce port level day-uniqueness. 20 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe. If the <i>TradeReportID</i> matches a live trade report (one that has been acked, but not confirmed or declined), it will be rejected as duplicate.
574	<i>MatchType</i>	Where <i>VenueType</i> (1430) = 0 (off book), this field models the MMT Level 2 'Trading Mode' field, and must be 3 = Trade Reporting (On-Exchange).
820	<i>TradeLinkID</i>	Third Party Trade Identifier used for identifying trades coming from a complex package. 30 characters or less. Characters in ASCII range 33–126 are allowed, except for comma, semicolon, and pipe.
828	<i>TrdType</i>	This field corresponds to the MMT Level 3.1 field 'Transaction Category'. 0 = Regular Trade 2 = Exchange for Physical 65 = Package Trade
829	<i>TrdSubType</i>	This optional field corresponds to the MMT Level 3.3 field 'Crossing Trade Indicator'. Agency Cross trades may be indicated by setting <i>TrdSubType</i> (829) = 37. Other values are invalid.
855	<i>SecondaryTrdType</i>	This optional field corresponds to the MMT Level 3.5 field 'Benchmark Indicator'. Benchmark trades may be indicated by setting <i>SecondaryTrdType</i> (855) = 64. Other values are invalid.
856	<i>TradeReportType</i>	Must be 0 = (Submit)
1003	<i>TradeID</i>	Used to specify a previously reported trade to be amended or cancelled. Mandatory when <i>TradeReportTransType</i> (487) = 1, 2 or 3, must be absent when <i>TradeReportTransType</i> (487) = 0.
1115	<i>OrderCategory</i>	This field corresponds to the MMT Level 3.2 field 'Negotiated Transaction Indicator', and is used by the participant to indicate that the trade was a Negotiated Transaction as per the Cboe Rules. For all trade reports reported on-exchange, the value must be 3. 3 = Privately Negotiated Trade
1116	<i>NoRootPartyIDs</i>	Must be 1, if submitter is a third party.
Repeating Group <i>RootParties</i> must occur the number of times specified in <i>NoRootPartyIDs</i> (1116)		
1117	<i>RootPartyID</i>	An identifier for the third party submitting the trade (4 uppercase letters) known to Cboe.
1118	<i>RootPartyIDSource</i>	Acceptable values: D = Proprietary / Custom Code
1119	<i>RootPartyRole</i>	Must be 6 = IntroducingFirm
1123	<i>TradeHandlingInstr</i>	Used to specify the trade reporting model used. 0 (Confirmed Trade) 1 (Two-Party Report) 2 (One Party Report for Matching)
1390	<i>TradePublishIndicator</i>	This field corresponds to the MMT Level 4.1 field 'Publication Mode', and is used by the participant to request that the publication be delayed. Delayed publication/deferrals are ignored if the trade does not qualify for delayed publication. Trades currently being delayed may be released prior to their maximum delay duration using <i>TradeReportTransType</i> (487) = 3. Supported values: 1 = Publish Trade Immediately 2 = Deferred Publication

1430	<i>VenueType</i>	Must be 0 = Off Book. This field models the MMT Level 1 field 'Market Mechanism'.
1838	<i>NoTradePriceConditions</i>	Optional. If present, indicates the number of <i>TradePriceCondition</i> (1839) fields.
Repeating Group <i>TradePriceConditionGrp</i> must occur the number of times specified in <i>NoTradePriceConditions</i> (1838)		
1839	<i>TradePriceCondition</i>	Optional. Used to indicate values in MMT v3 levels 3.2, 3.6 and 3.8 For MMT Level 3.2 'Negotiation Indicator', supported values are: 16 = Negotiated Trade Subject to Conditions Other than The current Market Price (PRIC) For MMT Level 3.6 'Special Dividend Indicator', supported values are: 0 = Cum Dividend (deprecated) 2 = Ex Dividend (deprecated) 13 = Special Dividend (SDIV) For MMT Level 3.8 'Contribution to Price Formation or the Price Discovery Process', supported values are: 15 = Non-Price Forming Trade (NPFT)
2405	<i>ExecMethod</i>	Optional. Used to indicate that the method by which the trade was executed. This field corresponds to the proposed MMT Level 3.7 'Offbook Automated Liquidity Indicator'. The following values are supported: 0 = Unspecified (default) 1 = Manual 2 = Automated
2667	<i>AlgorithmicTradeIndicator</i>	Indicates that the submitted trade was a result of an investment firm engaging in algorithmic trading. Optional. 0 = No algorithm was involved (the default). 1 = The trade was an algorithmic trade (ALGO).
9128	<i>Tolerance</i>	Maximum allowed delta (in terms of consideration, expressed in the traded currency), that the trade is prepared to match against counterparty. The tolerance should be specified by the seller in the traded currency of the stock and capped at 5,000 currency units (e.g. 5000 GBX). Sub-decimal tolerance is not allowed (e.g. 50.20).
552	<i>NoSides</i>	Must always be 2

Repeating Group <i>TrdCapRptSideGrp</i> must occur the number of times specified in <i>NoSides</i> (552)		
54	<i>Side</i>	Must be first field in repeating-group 1 = Buy 2 = Sell
1	<i>Account</i>	Optional. Returned on execution reports associated with this order. 16 characters or less (ASCII 33–126). The value supplied can be passed to the CCP and made available on the Drop feed.
47	<i>OrderCapacity</i>	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')
77	<i>OpenClose</i>	Indicates status of client position. O = Open C = Close N = None Orders with <i>AccountType</i> (581) = 3 (House Trader) are not required to specify <i>OpenClose</i> or may optionally specify a value of "N". Otherwise, orders with <i>AccountType</i> (581) = 1 (Customer Account) must specify <i>OpenClose</i> .
1031	<i>CustOrderHandlingInst</i>	Indicates the Execution Source Code on orders prior to their executions. Mandatory. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to Y (Electronic). Y = Electronic. (Default) W = Desk C = Vendor-provided Platform billed by Executing Broker (For complex) G = Sponsored Access via Exchange API or FIX provided by Executing Broker (For complex) H = Premium Algorithmic Trading Provider billed by Executing Broker (For complex) D = Other, including Other-provided screen (For complex)
581	<i>AccountType</i>	Type of account associated with the order 1 = Account is carried on customer side of the books. 3 = House Trader This field is required.
453	<i>NoPartyIDs</i>	Must always be 1.
Repeating Group <i>Parties</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
448	<i>PartyID</i>	The end-client responsible for the trade. Must be an identifier (4 uppercase letters) known to Cboe.
447	<i>PartyIDSource</i>	Must always be D (Proprietary / Custom Code)
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 1 = ExecutingFirm (if used, must be set on both sides. Is not permitted for bilateral trades, except for Trade Confirmations) 3 = Client ID (Drop only) 6 = IntroducingFirm (Drop only) 7 = EnteringFirm (the party reporting the trade. Should not be used in the second leg, except when <i>TradeHandlingInst</i> (1123) = 0) 14 = GiveupClearingFirm (Drop only) 17 = ContraFirm (the party the trade is alleged against)

	Standard Message Trailer	
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6 FIX Application Messages — Cboe to Participant

6.1 Execution Report

The *MultilegReportingType* (442) field can be used to determine whether a fill or partial fill corresponds to a complex options / spread futures instrument, a single-leg instrument that is part of a complex options / spread futures instrument execution, or a single-leg instrument fill only (field will not be present in this case). Similarly, the *SecondaryExecID* (527) field can be used to distinguish single-leg instrument executions from complex instrument executions and to identify single-leg instrument executions that comprise a complex instrument execution.

- If the *SecondaryExecID* (527) field is not present, the Execution Report is associated with a simple instrument.
- If the *SecondaryExecID* (527) field is present and is identical to the *ExecID* (17) field, the Execution Report represents a complex instrument execution for which associate individual leg Execution Reports will follow.
- If the *SecondaryExecID* (527) field is present and not identical to the *ExecID* (17) field, the Execution Report represents a single-leg execution that comprises a complex execution and the *SecondaryExecID* (527) field is set to the *ExecID* (17) field of the associated complex execution.

For complex order executions, Execution Reports (i.e. fills) will be generated for the complex order (*MultilegReportingType* (442) = 3) followed by Execution Reports for each leg (*MultilegReportingType* (442) = 2). In addition, the symbology used on executions for complex orders, including the legs, will always be Cboe symbology.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = 8
1	<i>Account</i>	Copied from order, if present. (Available on Drop via optional port configuration)
6	<i>AvgPx</i>	Average fill price.
11	<i>CIOrdID</i>	<i>CIOrdID</i> of the order being accepted, executed, or rejected. –or– <i>CIOrdID</i> of the cancel or replace request . –or– <i>CIOrdID</i> of the order subject to unsolicited cancel (<i>OrigCIOrdID</i> (41) will not be present).
14	<i>CumQty</i>	Cumulative quantity of contracts (or complex instruments) executed for this order over the life of the order.
17	<i>ExecID</i>	Day-unique ID of execution message.
20	<i>ExecTransType</i>	0 = New 3 = Status
22	<i>IDSOURCE</i>	Copied from order, if present.
29	<i>LastCapacity</i>	Broker capacity in order execution. 1 = Agent (maps to 'AOTC') 3 = Cross as Principal (maps to 'MTCH') 4 = Principal (maps to 'DEAL')
30	<i>LastMkt</i>	Populated with the segment MIC of this fill.
31	<i>LastPx</i>	Price of this fill (zero for non-fills).
32	<i>LastShares</i>	Quantity of contracts (or complex instruments) traded on this fill (zero for non-fills).
37	<i>OrderID</i>	Order identifier supplied by Cboe.
38	<i>OrderQty</i>	Copied from order.

39	<i>OrdStatus</i>	State of order. 0 = New 1 = Partially Filled 2 = Filled 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected A = Pending Ack E = Pending Replace
41	<i>OrigClOrdID</i>	<i>ClOrdID</i> of the order being canceled or replaced (for a solicited cancel or cancel/replace, otherwise not present).
44	<i>Price</i>	Copied from order.
48	<i>SecurityID</i>	Copied from order, if present.
54	<i>Side</i>	Copied from order or trade report.
55	<i>Symbol</i>	Copied from order, if present.
58	<i>Text</i>	If present, indicates reason for the message. Format is one letter reason code followed by colon and space followed by free form text message. See Reason Codes (§ 12.1, p. 74) for a list of possible reasons.
59	<i>TimeInForce</i>	Copied from order.
60	<i>TransactTime</i>	Time transaction occurred. Microsecond level resolution.
77	<i>OpenClose</i>	Copied from order.
99	<i>StopPx</i>	Copied from order.
103	<i>OrdRejReason</i>	Optionally set when <i>ExecType</i> (150) = 8 (Rejected). 0 = Broker Option 1 = Unknown Symbol 2 = Exchange Closed 3 = Order Exceeds Limit 5 = Unknown Order 6 = Duplicate Order 8 = Stale Order
110	<i>MinQty</i>	Copied from order.
126	<i>ExpireTime</i>	Copied from order if <i>TimeInForce</i> (59) = 6 (GTD).

150	<i>ExecType</i>	Reason for this execution report. 0 = New (acknowledgement of new order) 1 = Partial Fill 2 = Fill 4 = Canceled 5 = Replaced 8 = Rejected D = Restated M = Mass Cancel Complete For Drop only , if optionally configured, the following value is also supported: F = Trade When responding to a Mass Cancel request, <i>ExecType</i> (150) is set to a value of "M". This indicates the only tags present in this message are the following: <i>Standard Message Header</i> (35) <i>ExecTransType</i> (20) <i>ExecType</i> (150) <i>MassCancelID</i> (7695) <i>CancelledOrderCount</i> (7696)
151	<i>LeavesQty</i>	Quantity of shares still open for further execution. Will be zero if order is dead, otherwise will be <i>OrderQty</i> – <i>CumQty</i> . Note: It is possible for <i>LeavesQty</i> to be zero when <i>ExecType</i> (150) = 5 indicating that the order is dead.
198	<i>SecondaryOrderID</i>	Must request opt-in at firm or port level to receive this field. Present on Prevent Participant Match triggered cancel/restatement. Denotes the Cboe <i>OrderID</i> (37) of contra side of prevented match. Present on a restatement execution report for reload of a reserve (iceberg) order. Denotes the new Cboe OrderID which will be present on the Cboe market data feeds.
375	<i>ContraBroker</i>	Only present on trades. Indicates the market of execution, always CEDX. Markets are identified by their ISO Market Identification Code (MIC) ²
378	<i>ExecRestatement Reason</i>	Required when <i>ExecType</i> (150) = D (Restated). 4 = Set when an aggressively held order is released to the Order Book. The reason is also indicated in <i>Text</i> (58). For Cboe Europe Derivatives, this is currently the only reason restatements are sent.
382	<i>NoContraBrokers</i>	Only present on trades. Always 1.
439	<i>ClearingFirm</i>	Copied from order, if present.
440	<i>ClearingAccount</i>	Copied from order, if present.

²ISO 10383, see <http://www.iso15022.org/MIC/homepageMIC.htm> for details

Repeating Group <i>NewOrderPtyRptGrp</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
448	<i>PartyID</i>	The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. For clients, the following values are reserved for applicable use: Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
447	<i>PartyIDSource</i>	Must always be P (Short code identifier)
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
2376	<i>PartyRoleQualifier</i>	Provides further qualification of the PartyRole value. Valid values are: 0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)
442	<i>MultilegReportingType</i>	1 = Single-leg / Simple instrument execution 2 = Individual leg of a multi-leg instrument (Options), or Simple instrument execution that is part of a Spread instrument execution (Futures) 3 = Multileg / Spread Instrument execution
527	<i>SecondaryExecID</i>	Field indicates whether a fill or partial fill <i>ExecType</i> (150) = 1 or 2) is a complex / Spread instrument fill or a single-leg / simple instrument fill that comprises a complex / Spread execution. If <i>SecondaryExecID</i> (527) is not present, the fill is a single- leg / simple instrument fill only. If <i>SecondaryExecID</i> (527) is present and is the same as the <i>ExecID</i> (17), the fill represents a complex / Spread execution for which associated single-leg / simple instrument fills will follow. Single-leg / Simple instrument fills associated with a complex / spread execution will contain a <i>SecondaryExecID</i> (527) of the associated complex / Spread execution.
534	<i>NoAffectedOrders</i>	Indicates the number of repeating <i>AffectedOrigClOrdIDs</i> (1824) included in this message resulting from an AIM order reject. Value of 0 to 10. Must request opt-in at firm or port level to receive this field.

Repeating Group <i>CIOrdIDs</i> must occur the number of times specified in <i>NoAffectedOrders</i> (534)		
1824	<i>AffectedOrigCIOrdID</i>	CIOrdID of the Agency / Contra sides of a AIM rejected order. Must request opt-in at firm or port level to receive this field.
548	<i>CrossID</i>	Copied from order.
549	<i>CrossType</i>	Copied from order.
550	<i>CrossPrioritization</i>	Copied from order.
555	<i>NoLegs</i>	Indicates the number of legs in this complex order. Minimum of 2, maximum of 12 total legs.
Repeating Group <i>LegsRptGroup</i> must occur the number of times specified in <i>NoLegs</i> (555)		
654	<i>LegRefID</i>	Required tag to start each repeated group. Copied from order.
600	<i>LegSymbol</i>	Copied from order, if present.
623	<i>LegRatioQty</i>	Copied from order, if present.
624	<i>LegSide</i>	Copied from order, if present.
564	<i>LegPositionEffect</i>	Copied from order, if present.
581	<i>AccountType</i>	Copied from order.
1031	<i>CustOrderHandlingInst</i>	Copied from order, if present.
1724	<i>OrderOrigination</i>	5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.
6253	<i>DrillThruProtection</i>	Copied from order.
6438	<i>CrossExclusionIndicator</i>	N = Contracts were executed in auction against contra party, or against a resting order when auction was initiated. Y = Contracts were executed in auction against another party.
7695	<i>MassCancelID</i>	Copied from the incoming Mass Cancel.
7696	<i>CancelledOrderCount</i>	Number of orders cancelled from a Purge Request with the specified <i>Mass-CancelID</i>
7772	<i>CentralCounterparty</i>	Only present on trades. The CCP handling the trade: ECCP = European Central Counterparty EuroCCP NONE = Clearing Suppressed Returned on trades if the participant has selected a Preferred CCP. The FIX port can be configured to always return this optional field.
8013	<i>TrdRegPublicationReasons</i>	If present, indicates the post-trade waiver derived by Cboe for this trade. Valid values are: 4 = Pre-Trade Transparency Waiver for Illiquid Instrument (for SI only) (ILQD) 5 = Pre-Trade Transparency Waiver for Above Standard Market Size (for SI only) (SIZE) Pre-Trade Transparency Waivers ILQD and SIZE can be requested individually or together by specifying one or more value separated by a space (e.g. 4 5). Based upon what is requested, the system calculates which of these are valid. The business confirmation contains the waiver(s) that have been applied.

8015	<i>OrderAttributeTypes</i>	<p>Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values:</p> <p>2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise.</p> <p>4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.</p>
9303	<i>RoutingInst</i>	Copied from order.
9370	<i>AuctionID</i>	For Options only: Exposed order identifier supplied by Cboe. This identifier corresponds to the identifiers used in Cboe market data products.
9730	<i>TradeLiquidityIndicator</i>	<p>Present for acknowledgements (150=0) and fills (150=1 or 150=2). For cross orders, present for fills only. Can be requested opt-in port level for restatements following the release of aggressively held orders.</p> <p>1st Character</p> <p>A = Added Liquidity R = Removed Liquidity C = Auction</p> <p>2nd Character</p> <p>b = Automated Improvement Mechanism (AIM) U = Qualifying Market Turner order. Only set when the order added liquidity. g = Aggressive Hold. Order held by speed bump.</p> <p>Must request opt-in port level to receive the 2nd characters in this field. The 2nd character will be absent if none of them applies. To allow for future expansion of this field, please ignore values with an unknown character in the 2nd position.</p>
9882	<i>FeeCode</i>	Specific fee code associated with the trade. See the Fee Schedule for the respective market for possible values.
22058	<i>SubreasonText</i>	If present, indicates addition detail for the reject or cancel. Format is one letter code followed by colon and space followed by free form text. See Subreason Codes (§ 12.2, p. 75) for a list of possible reasons.
	Standard Message Trailer	

6.2 Cancel Reject

Rejects a Cancel or Cancel/Replace request.

When a Cancel/Replace is rejected, by default, the original order is left alive. A Cancel Reject should not be used as a sign that the original order has been canceled. Even if the CancelOrigOnReject (9619) = Y option is being used, a separate “unsolicited” cancel will be sent to close out the original order.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = 9
1	<i>Account</i>	Copied from Cancel or Cancel/Replace request.
11	<i>CIOrdID</i>	<i>CIOrdID</i> from the Cancel or Cancel/Replace request.
37	<i>OrderID</i>	<i>OrderID</i> of the order that failed to be canceled or replaced. NONE if <i>CxlRejReason</i> (102) = 1 (Unknown Order).
39	<i>OrdStatus</i>	State of order that failed to be canceled or replaced.
41	<i>OrigCIOrdID</i>	<i>CIOrdID</i> of the order that failed to be canceled or replaced.
58	<i>Text</i>	Free-form text message.
102	<i>CxlRejReason</i>	0 = Too Late to Cancel 1 = Unknown Order 3 = Already Pending Cancel or Pending Replace
434	<i>CxlRejResponseTo</i>	1 = Cancel 2 = Cancel/Replace
	Standard Message Trailer	

6.3 Trade Cancel/Correct

Trade Cancel/Correct (UCC) is an optional message that must be enabled at the port level. It may be enabled for current-day only or for all cancels and corrections. Only the price and/or size of a trade may be corrected, all other details remain the same. Trade cancels and corrections do not alter live order state.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = UCC
11	<i>CIOrdID</i>	<i>CIOrdID</i> of the order whose trade is being canceled or corrected.
17	<i>ExecID</i>	Day-unique ID of execution message.
19	<i>ExecRefID</i>	Refers to the <i>ExecID</i> (17) of the execution being canceled or corrected.
20	<i>ExecTransType</i>	1 = Cancel 2 = Correct
22	<i>IDSource</i>	Copied from order being canceled or corrected, if present.
30	<i>LastMkt</i>	<i>LastMkt</i> on the original trade being canceled or corrected, if the port is configured to send this tag.
31	<i>LastPx</i>	Price on the original trade being canceled or corrected.
32	<i>LastShares</i>	Quantity of contracts on the original trade being canceled or corrected.
37	<i>OrderID</i>	<i>OrderID</i> of the order whose trade is being canceled or corrected.
42	<i>OrigTime</i>	Date and time of the original trade, in GMT. Microsecond level resolution.
48	<i>SecurityID</i>	Copied from original order being canceled or corrected if <i>IDSource</i> (22) = 4 (ISIN) was used.
54	<i>Side</i>	Copied from trade being canceled or corrected.
55	<i>Symbol</i>	Copied from original order being canceled or corrected.
60	<i>TransactTime</i>	Date and time of the cancel or correction. Microsecond level resolution.
77	<i>OpenClose</i>	Copied from original trade being cancelled/corected.
439	<i>ClearingFirm</i>	Copied from trade being canceled or corrected, if present.
440	<i>ClearingAccount</i>	Copied from trade being canceled or corrected, if present.
730	<i>SettlPrice</i>	Drop only. <i>SettlPrice</i> on the original trade being canceled or corrected, if relevant.
6655	<i>CorrectedSize</i>	The corrected size of the trade. Only set if <i>ExecTransType</i> (20) = 2 (Trade Correct).
9620	<i>CorrectedPrice</i>	The corrected price of the trade. Only set if <i>ExecTransType</i> (20) = 2 (Trade Correct).
9730	<i>TradeLiquidity Indicator</i>	Copied from trade being canceled or corrected.
	Standard Message Trailer	

6.4 Trade Capture Report Ack

The Trade Capture Report Ack is sent by Cboe to acknowledge the receipt of a Trade Capture Report. It is a technical-level ack, the Trade is not considered to have fully succeeded until a Trade Capture Report is sent with with *TradeReportType* (856) of 2 (Accept).

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = AR
22	<i>IDSource</i>	Copied from the incoming TradeCaptureReport, if present.
31	<i>LastPx</i>	Copied from the incoming TradeCaptureReport, if present. If <i>GrossTradeAmt</i> was used instead of <i>LastPx</i> , the value here will be indicative. Price is adjusted for allowed precision.
32	<i>LastShares</i>	Copied from the incoming TradeCaptureReport.
48	<i>SecurityID</i>	Copied from the incoming TradeCaptureReport, if present.
55	<i>Symbol</i>	Copied from the incoming TradeCaptureReport, if present.
58	<i>Text</i>	If present, indicates reason for the message. Format is one letter reason code followed by colon and space followed by free form text message. See Reason Codes (§ 12.1, p. 74) for a list of possible reasons.
60	<i>TransactTime</i>	Copied from the TradeCaptureReport if present, or defaulted by Cboe.
150	<i>ExecType</i>	Copied from the incoming TradeCaptureReport.
381	<i>GrossTradeAmt</i>	Copied from the incoming TradeCaptureReport, if present and valid.
487	<i>TradeReportTransType</i>	Copied from the incoming TradeCaptureReport.
571	<i>TradeReportID</i>	Copied from the incoming TradeCaptureReport.
572	<i>TradeReportRefID</i>	Unique identifier for the trade report as provided by Cboe
574	<i>MatchType</i>	Copied from the incoming TradeCaptureReport.
820	<i>TradeLinkID</i>	Copied from the incoming TradeCaptureReport, if present.
828	<i>TrdType</i>	Copied from the incoming TradeCaptureReport.
829	<i>TrdSubType</i>	Copied from the incoming TradeCaptureReport, if present.
855	<i>SecondaryTrdType</i>	Copied from the incoming TradeCaptureReport, if present.
856	<i>TradeReportType</i>	Copied from the incoming TradeCaptureReport.
939	<i>TrdRptStatus</i>	Will be 0 (Accepted) or 1 (Rejected)
1003	<i>TradeID</i>	Copied from the incoming TradeCaptureReport, if present.
1115	<i>OrderCategory</i>	Copied from the incoming TradeCaptureReport, if present.
1116	<i>NoRootPartyIDs</i>	Copied from the incoming TradeCaptureReport, if present.
Repeating Group <i>RootParties</i> must occur the number of times specified in <i>NoRootPartyIDs</i> (1116)		
1117	<i>RootPartyID</i>	Applicable when <i>TradeHandlingInst</i> (1123) = 0, the third party responsible for submitting the pre-matched trade. Will be 'LISX' for the LISX service.
1118	<i>RootPartyIDSource</i>	Applicable when <i>TradeHandlingInst</i> (1123) = 0. Possible values: D = Proprietary / Custom Code G = MIC (Drop only)
1119	<i>RootPartyRole</i>	Applicable when <i>TradeHandlingInst</i> (1123) = 0. Specifies the role of the third party to the trade. Possible values: 6 = IntroducingFirm 64 = MultilateralTradingFacility (Drop only)
1123	<i>TradeHandlingInstr</i>	Copied from the incoming TradeCaptureReport.
1390	<i>TradePublishIndicator</i>	Copied from the incoming TradeCaptureReport.

1430	<i>VenueType</i>	Copied from the incoming TradeCaptureReport.
1838	<i>NoTradePriceConditions</i>	Copied from the incoming TradeCaptureReport.
Repeating Group <i>TradePriceConditionGrp</i> must occur the number of times specified in <i>NoTradePriceConditions</i> (1838)		
...	...	Entire block copied from incoming TradeCaptureReport, although order may be adjusted
2405	<i>ExecMethod</i>	Copied from the incoming TradeCaptureReport, if present.
2667	<i>AlgorithmicTradeIndicators</i>	Copied from the incoming TradeCaptureReport, if present.
9128	<i>Tolerance</i>	Copied from the incoming TradeCaptureReport, if present.
552	<i>NoSides</i>	Copied from the incoming TradeCaptureReport. Drop only. When <i>TradeHandlingInst</i> (1123) = 0 and the configured third party requires counterparty anonymisation, will be limited to the number of sides your Drop profile permits you access.
Repeating Group <i>TrdCapRptSideGrp</i> must occur the number of times specified in <i>NoSides</i> (552)		
...	...	Entire block copied from incoming TradeCaptureReport, although order may be adjusted
453	<i>NoPartyIDs</i>	The number of parties involved in the trade. Conventionally, will be copied from the incoming TradeCaptureReport with a value of 1. On Drop only , may be 2, 3 or 4.
Repeating Group <i>Parties</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
...	...	Generally, entire block copied from incoming TradeCaptureReport. Potential exceptions detailed below
448	<i>PartyID</i>	The end-client responsible for the trade. Will be an identifier (4 or 5 (Drop only)) uppercase letters, except when <i>PartyRole</i> (452) = 14, where it may be up to 16 characters (Drop only).
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 1 = ExecutingFirm 3 = Client ID (Drop only) 6 = IntroducingFirm (Drop only) 7 = EnteringFirm 14 = GiveupClearingFirm (Drop only) 17 = ContraFirm
9688	<i>OrigCompID</i>	Drop only. <i>TargetCompID</i> (56) of original FIX TradeCaptureReport from Cboe to the Participant. Drop port must be configured to send this optional field.
9689	<i>OrigSubID</i>	Drop only. <i>TargetSubID</i> (57) of original FIX TradeCaptureReport from Cboe to the Participant. Drop port must be configured to send this optional field.
	Standard Message Trailer	

6.5 Trade Capture Report

The Trade Capture Report is sent from Cboe to the participant in order to confirm that a Trade Capture Report has been fully processed. It is a business-level confirmation as distinct from the technology level acknowledgement sent as a Trade Capture Report Ack.

The majority of the fields in this message are copied from the incoming TradeCaptureReport. When using the *One-Party Report for Matching* model, it is important to note that the majority of these fields will be sourced from the party reporting the sell leg. Also on this model, the *Account1* field for the contra leg will not be populated.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = AE
22	<i>IDSource</i>	Copied from the incoming TradeCaptureReport, if present.
30	<i>LastMkt</i>	Populated with the segment MIC of this fill.
31	<i>LastPx</i>	Traded Price.
32	<i>LastShares</i>	Copied from the incoming TradeCaptureReport.
48	<i>SecurityID</i>	Copied from the incoming TradeCaptureReport, if present.
55	<i>Symbol</i>	Copied from the incoming TradeCaptureReport, if present.
58	<i>Text</i>	If present, indicates reason for the message. Format is one letter reason code followed by colon and space followed by free form text message. See Reason Codes (§ 12.1, p. 74) for a list of possible reasons.
60	<i>TransactTime</i>	Copied from the TradeCaptureReport if present, or defaulted by Cboe.
150	<i>ExecType</i>	Copied from the incoming TradeCaptureReport.
375	<i>ContraBroker</i>	Only present on trades. Indicates the market of execution, always CEDX. Markets are identified by their ISO Market Identification Code (MIC) ³
487	<i>TradeReportTransType</i>	Copied from the incoming TradeCaptureReport.
571	<i>TradeReportID</i>	Unique identifier for the trade report confirm as provided by Cboe.
572	<i>TradeReportRefID</i>	Contains the <i>TradeReportID</i> (571) of the original trade capture report to which this message relates
573	<i>MatchStatus</i>	Will be 0 (Matched) for confirm, and 1 (Unmatched) for a decline
574	<i>MatchType</i>	Copied from the incoming TradeCaptureReport.
820	<i>TradeLinkID</i>	Copied from the incoming TradeCaptureReport, if present.
828	<i>TrdType</i>	Copied from the incoming TradeCaptureReport.
829	<i>TrdSubType</i>	Copied from the incoming TradeCaptureReport, if present.
855	<i>SecondaryTrdType</i>	Copied from the incoming TradeCaptureReport, if present.
856	<i>TradeReportType</i>	Will be 2 (Accept) for a confirm, 3 (Decline) for a decline and 0 (Submit) for an unsolicited change.
1003	<i>TradeID</i>	ID representing the trade, as seen on outbound market data. Allocated by Cboe. Required to amend, cancel or release a report. To derive TVTIC (Trading Venue Transaction Identification Code) from an <i>ExecID</i> as needed in Cboe Transaction Reporting, please refer to the Cboe Participant Manual.
1115	<i>OrderCategory</i>	Copied from the incoming TradeCaptureReport, if present.
1116	<i>NoRootPartyIDs</i>	Copied from the incoming TradeCaptureReport, if present.
Repeating Group <i>RootParties</i> must occur the number of times specified in <i>NoRootPartyIDs</i> (1116)		
	...	Entire block copied from incoming TradeCaptureReport, although order may be adjusted
1123	<i>TradeHandlingInst</i>	Copied from the incoming TradeCaptureReport.

³ISO 10383, see <http://www.iso15022.org/MIC/homepageMIC.htm> for details

1390	<i>TradePublishIndicator</i>	Will be 2 (Deferred Publication) if deferment is requested and the trade is eligible for such. Otherwise, copied from the incoming TradeCaptureReport.
1430	<i>VenueType</i>	Copied from the incoming TradeCaptureReport.
1838	<i>NoTradePriceConditions</i>	Indicates the number of <i>TradePriceCondition</i> (1839) fields, if present.
Repeating Group <i>TradePriceConditionGrp</i> must occur the number of times specified in <i>NoTradePriceConditions</i> (1838)		
1839	<i>TradePriceCondition</i>	<p>Mostly copied from the incoming TradeCaptureReport, with exceptions. (see below) Indicate values in MMT v3 levels 3.6 and 3.8</p> <p>For MMT Level 3.6 'Special Dividend Indicator', supported values are:</p> <p>0 = Cum Dividend (deprecated) 2 = Ex Dividend (deprecated) 13 = Special Dividend (SDIV)</p> <p>For MMT Level 3.8 'Contribution to Price Formation or the Price Discovery Process', supported values are:</p> <p>15 = Non-Price Forming Trade (NPFT)</p> <p>If the value 16 is used in the incoming TradeCaptureReport, then it will not be in this confirm message. Instead, <i>TrdRegPublicationReasons</i> (8013) = 2 will be set if appropriate.</p>
2405	<i>ExecMethod</i>	Copied from the incoming TradeCaptureReport, if present.
2667	<i>AlgorithmicTradeIndicator</i>	Copied from the incoming TradeCaptureReport, if present.
8013	<i>TrdRegPublicationReasons</i>	<p>If present, indicates the pre-trade waiver or deferral derived by Cboe for this trade.</p> <p>Valid values are:</p> <p>0 = Negotiated Trade in Liquid Instrument (NLIQ) 1 = Negotiated Trade in Illiquid Instrument (OILQ) 2 = Negotiated Trade Subject to Conditions Other Than the Current Market Price (PRIC) 6 = Deferral for Large in Scale (LRGS) 9 = Large In Scale (Pre-Trade Transparency Waiver)</p> <p>Multiple values in this field will be separated by spaces.</p>
7570	<i>RptTime</i>	Indicates the time at which a deferred trade report will be automatically published. Where <i>RptTime</i> falls outside of the systems operating time, the report will be published during operating hours on the next trading day. When no deferral is requested, or when the trade does not qualify for a deferral, any time returned will match <i>TransactTime</i> (60). Microsecond level precision.
9688	<i>OrigCompID</i>	Drop only. <i>TargetCompID</i> (56) of original FIX TradeCaptureReport from Cboe to the Participant. Drop port must be configured to send this optional field.
9689	<i>OrigSubID</i>	Drop only. <i>TargetSubID</i> (57) of original FIX TradeCaptureReport from Cboe to the Participant. Drop port must be configured to send this optional field.
552	<i>NoSides</i>	<p>Copied from the incoming TradeCaptureReport.</p> <p>Drop only. When <i>TradeHandlingInst</i> (1123) = 0 and the configured third party requires counterparty anonymisation, will be limited to the number of sides your Drop profile permits you access.</p>

Repeating Group <i>TrdCapRptSideGrp</i> must occur the number of times specified in <i>NoSides</i> (552)		
...	...	Entire block copied from incoming TradeCaptureReport, although order may be adjusted
1427	<i>SideExecID</i>	Available on an opt-in basis. Side unique version of the day-unique <i>TradeID</i> (1003).
9882	<i>FeeCode</i>	Specific fee code associated with the trade. See the Fee Schedule for the respective market for possible values.
453	<i>NoPartyIDs</i>	The number of parties involved in the trade. Conventionally, will be copied from the incoming TradeCaptureReport with a value of 1. On Drop only , may be 2, 3 or 4.
Repeating Group <i>Parties</i> must occur the number of times specified in <i>NoPartyIDs</i> (453)		
...	...	Generally, entire block copied from incoming TradeCaptureReport. Potential exceptions detailed below
448	<i>PartyID</i>	The end-client responsible for the trade. Will be an identifier (4 or 5 (Drop only)) uppercase letters, except when <i>PartyRole</i> (452) = 14, where it may be up to 16 characters (Drop only).
452	<i>PartyRole</i>	Specifies the role of the party to the trade. At this time, only the following values are valid: 1 = ExecutingFirm 3 = Client ID (Drop only) 6 = IntroducingFirm (Drop only) 7 = EnteringFirm 14 = GiveupClearingFirm (Drop only) 17 = ContraFirm
802	<i>NoPartySubIDs</i>	Drop only . Only relevant when <i>PartyRole</i> (452) = 3. The number of sub-parties involved. If set, must always be 1
Standard Message Trailer		

6.6 Security Definition (Options Only)

This message is a response to a Security Definition Request where the Security Definition Request is accepted or rejected.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = d
11	<i>CIOrdID</i>	CIOrdID from the Security Definition Request.
55	<i>Symbol</i>	Cboe Symbol ID of created instrument.
58	<i>Text</i>	Free form text message.
323	<i>SecurityResponseType</i>	<p>1 = Accept As-Is (legs were not modified) 2 = Accept With Revisions (legs were modified) 5 = Reject Security Proposal</p> <p>Accept As-Is only applies if the input legs matches exactly the complex security definition. Any re-ordering of legs, reduction of ratios, or other changes will result in a value of Accept with Revisions.</p>
555	<i>NoLegs</i>	Copied from the Security Definition Request. Note ordering of legs may be different if 323 (<i>SecurityResponseType</i>) = 2.
Repeating Group <i>LegsRptGroup</i> must occur the number of times specified in <i>NoLegs</i> (555)		
654	<i>LegRefID</i>	Copied from Security Definition Request.
600	<i>LegSymbol</i>	Copied from Security Definition Request.
623	<i>LegRatioQty</i>	Copied from the Security Definition Request. Note ratio may be reduced if 323 (<i>SecurityResponseType</i>) = 2.
624	<i>LegSide</i>	Copied from Security Definition Request.
566	<i>LegPrice</i>	Copied from Security Definition Request.
8641	<i>NoOfSecurities</i>	NUmber of complex strategies created by sender for this underlying.
	Standard Message Trailer	

7 Purge Port Protocol — Participant to Cboe

7.1 Purge Request

Request to cancel a group of orders across all of the firm's sessions. A Purge Request is accepted only on dedicated FIX Purge Ports. This differs from a mass cancel request sent via a Order Cancel Request message as the purge request is applied across all the firm's sessions, not just the session on which the Order Cancel Request was received.

A firm may choose to implement one or more filters:

- Trading Firm Filter - optionally cancel based on trading Firm. This is required for any self-imposed lockouts or for service bureaus. Set using first character of *MassCancelInst* (7700) and sending *OnBehalfOfCompld* (115).
- Symbol Filter - optionally cancel based on underlying symbol. Set by sending a valid underlying symbol in the *Symbol* (55) field. Mass cancellations are always performed at the underlying level. Cannot be combined with CustomGroupID filter.
- CustomGroupID Filter - optionally cancel based on *CustomGroupID* (7699). A maximum of 10 custom group IDs may be included on a single Purge Request message. Set by populating *CustomGroupIDCnt* (7698) to a non-zero value. Cannot be combined with Symbol filter.

A firm may use the second character of *MassCancelInst* (7700) to set the acknowledgement style. If a single Purge Acknowledgement is selected, then *MassCancelID* (7695) must be sent. A firm may also impose a lockout using the third character of *MassCancelInst* (7700), which cancels any open orders and causes inbound orders received after the lockout to be rejected. A self-imposed lockout requires an MPID (115) to be sent. The firm may also choose to lockout by *Symbol* (55) or *CustomGroupID* (7699) but not by both in the same message.

The system limits the rate at which identical Purge Request messages can be submitted to the system. Requests are restricted to ten (10) messages per second per port.

An identical purge message is defined as a message having all of the same *CustomGroupID* (7699), *Symbol* (55), *OnBehalfOfCompld* (115), Lockout Instruction and Instrument Type Filter field values, as a previously received message.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = F
97	<i>PossResend</i>	N = indicates a new cancel (default) Y = indicates an application level resend. If <i>CIOrdID</i> (11) has not yet been seen, the cancel is treated as normal. If <i>CIOrdID</i> (a) already exists, the resent cancel is ignored.
60	<i>TransactTime</i>	Time cancel initiated/released. Required by FIX 4.2 but not used by Cboe. Microsecond level resolution.
55	<i>Symbol</i>	Product Code for Symbol Filter

7700	<i>MassCancelInst</i>	<p>At least one character must be provided (Trading Firm Filter). Contiguous characters must be specified up to total length. Truncated (unspecified) characters will default to values indicated below.</p> <p>1st Character : Trading firm Filter A = No filtering by trading firm is performed. F = All orders that were sent under the trading firm specified in <i>OnBehalfOfCompld</i> (115) will be cancelled. If "F" specified and <i>OnBehalfOfCompld</i> (115) is not provided, the Purge Request will be rejected.</p> <p>2nd Character : Acknowledgement Style M = (Default) Individual Execution Reports are sent for each cancelled order. S = Single Purge Acknowledgement sent once all cancels have been processed. Single Purge Acknowledgement will contain <i>MassCancelld</i> (7695) and <i>CancelledOrderCount</i> (7696). <i>MassCancelld</i> (7695) must be specified or the Purge Request will be rejected. B = Both individual Execution Reports and single Purge Acknowledgement. Also requires <i>MassCancelld</i> (7695) to be specified or the Purge Request will be rejected.</p> <p>3rd Character : Lockout Instruction N = (Default) No lockout L = Lockout until corresponding Risk Reset received. Lockout can be used only with clearing firm Filter set to F, otherwise the Purge Request will be rejected. Lockout will apply to all new orders and cancel/replace orders for the clearing firm (and <i>Symbol</i> (55) or <i>CustomGroupld</i> (7699), if specified).</p> <p>4th Character : Instrument Type Filter B = (Default) Cancel both Simple and Complex orders S = Cancel Simple orders only C = Cancel Complex orders only</p> <p>If <i>Symbol</i> (55) is specified, it must contain a valid underlying symbol, in which case only orders underlying on that symbol will be cancelled. A self-imposed lockout can be released using the <i>RiskReset</i> (7692) field of the New Order Single message. If <i>Symbol</i> (55) is not specified and zero <i>CustomGroupld</i> (7699) are specified, a Clearing Firm level reset is required. If <i>Symbol</i> (55) is specified, a Symbol level reset is required. If one or more <i>CustomGroupld</i> (7699) values are provided, a CustomGroupID level reset is required.</p>
7695	<i>MassCancelld</i>	This field will be echoed back in the resulting Purge Acknowledgement when the second character of <i>MassCancelInst</i> (7700) is set to "S" or "B". Purge Request containing a <i>MassCancelld</i> that is currently outstanding will be rejected.
7698	<i>CustomGroupIDCnt</i>	Number of custom group IDs. Must be between 1 and 10.
Repeating Group <i>CustomGroupIDs</i> must occur the number of times specified in <i>CustomGroupIDCnt</i> (7698)		
7699	<i>CustomGroupID</i>	Custom identifier for a group of orders.
Standard Message Trailer		

8 Purge Port Protocol — Cboe to Participant

8.1 Purge Acknowledgement

A response to a Purge Request will only be sent when the *MassCancelID* (7695) is populated on a Purge Request. This includes cases where the Acknowledgement Style of *MassCancelInst* is S or B.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = 8
20	<i>ExecTransType</i>	3 = Status
150	<i>ExecType</i>	M = Mass Cancel Complete
7695	<i>MassCancelID</i>	Copied from the incoming Purge Request.
7696	<i>CancelledOrderCount</i>	Number of orders cancelled from a Purge Request with the specified <i>MassCancelID</i>
	Standard Message Trailer	

8.2 Purge Reject

Rejects a Purge Request.

Tag	Name	Description
	Standard Message Header	<i>MsgType</i> (35) = 9
39	<i>OrdStatus</i>	8 = Rejected
434	<i>CxlRejResponseTo</i>	1 = Cancel
102	<i>CxlRejReason</i>	2 = Broker Option
58	<i>Text</i>	Free-form text message.
7695	<i>MassCancelID</i>	Copied from the incoming Purge Request.
	Standard Message Trailer	

9 Example Messages and Message Flow

9.1 New Trade Capture Reports

Below illustrates an example of key elements of the message flow for a new trade capture report.

Participant to Cboe:

- *MsgType* (35) = AE - Trade Capture Report
- *TradeReportID* (571) = CLIENTID111 - Day-unique ID chosen by client
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 0 - Submit

Cboe to Participant (Technical Ack) - if accepted:

- *MsgType* (35) = AR
- *TrdRptStatus* (939) = 0 - Accepted
- *TradeReportID* (571) = CLIENTID111 - Day-unique ID chosen by client copied from the incoming trade capture report.
- *TradeReportRefID* (572) = WXYZ1234 - Unique identifier for the trade capture report provided by Cboe.
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 0 - Submit

Cboe to Participant (Business Ack)

- *MsgType* (35) = AE
- *TradeReportID* (571) = WXYZ1234 - Unique identifier for the trade report confirm as provided by Cboe.
- *TradeReportRefID* (572) = CLIENTID111 - Contains the TradeReportID of the original trade capture report to which this message relates.
- *TradeID* (1003) = ABCD1234 - Represents the trade as seen on outbound market data allocated by Cboe. Requires to amend, cancel or release a report
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 2 - Accept

TradeID (1003) = is a Cboe allocated ID as per the MiFID II definition of a Transaction Identification Code. This is the ID seen on outbound market data (Trade Message, Extended Trade Message and Trade Message Unknown).

9.2 Deferred Publication Trade Reports

Below illustrates an example of key elements of the message flow for deferred publication of trades captures.

Participant to Cboe:

- *MsgType* (35) = AE - Trade Capture Report
- *TradePublishIndicator* (1390) = 2 - Deferred Publication
- *TransactTime* (60) = Time of Trade - As long as this is within the acceptable deferment period, the trade will not be regarded as late

Cboe to Participant (Technical Ack) - if rejected:

- *MsgType* (35) = AR
- *TrdRptStatus* (939) = 1 - Rejected
- *Text* (58) = Reason for reject

Cboe to Participant (Technical Ack) - if accepted:

- *MsgType* (35) = AR
- *TrdRptStatus* (939) = 0 - Accepted

Cboe to Participant - if report is declined:

- *MsgType* (35) = AE
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 3 - Decline
- *Text* (58) = Reason for decline

Cboe to Participant - if report is confirmed and deferment permitted:

- *MsgType* (35) = AE
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 2 - Accept
- *TradePublishIndicator* (1390) = 2 - Deferred Publication

Cboe to Participant - if report is confirmed and deferment is not permitted:

- *MsgType* (35) = AE
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 2 - Accept
- *TradePublishIndicator* (1390) = 1 - Publish trade Immediately
- *Text* (58) = A: Trade accepted, but ineligible for deferment - Exact text may vary

Then, once the Participant would like the deferred trade released to the market (note - this may be immediately if the Participant has held onto the trade for the deferment period).

Participant to Cboe:

- *MsgType* (35) = AE - Trade Capture Report
- *TradeID* (1003) = ABCD1234 - The TradeID for the confirmed trade report
- *TradeReportTransType* (487) = 3 - Release

Cboe to Participant (Technical Ack) - if rejected:

- *MsgType* (35) = AR
- *TrdRptStatus* (939) = 1 - Rejected

- *Text* (58) = Reason for reject

Cboe to Participant (Technical Ack) - if accepted:

- *MsgType* (35) = AR
- *TrdRptStatus* (939) = 0 - Accepted

Cboe to Participant - if release is declined:

- *MsgType* (35) = AE
- *TradeReportTransType* (487) = 3 - Release
- *TradeReportType* (856) = 3 - Decline
- *Text* (58) = Reason for decline

Cboe to Participant - if release is confirmed:

- *MsgType* (35) = AE
- *TradeReportTransType* (487) = 3 - Release
- *TradeReportType* (856) = 2 - Accept

9.3 ETR Matched Trade Report

Below illustrates an example of an ETR submitted for matching with a counterparty. In this case, you might be the ABCD party.

- *MsgType* (35) = AE - Trade Capture Report
- *TradeReportID* (571) = 1234
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 0 - Submit
- *TradeHandlingInstr* (1123) = 2 - ETR Matching
- *TradePublishIndicator* (1390) = 1 - Publish Trade Immediately
- *NoSides* (552) = 2
- *Side* (54) = 1 - Buy
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = ABCD
- *PartyRole* (452) = 7 - EnteringFirm
- *Side* (54) = 2 - Sell
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = XYZZ
- *PartyRole* (452) = 17 - ContraFirm

Then, the counterparty (XYZZ in this case), would enter a similar report, but with party information reversed (except for PartyRoles):

- *MsgType* (35) = AE - Trade Capture Report
- *TradeReportID* (571) = 1234
- *TradeReportTransType* (487) = 0 - New
- *TradeReportType* (856) = 0 - Submit
- *TradeHandlingInstr* (1123) = 2 - ETR Matching
- *TradePublishIndicator* (1390) = 1 - Publish Trade Immediately
- *NoSides* (552) = 2
- *Side* (54) = 2 - Sell
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = XYZZ
- *PartyRole* (452) = 7 - EnteringFirm
- *Side* (54) = 1 - Buy
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = ABCD
- *PartyRole* (452) = 17 - ContraFirm

9.4 ETR Matched Trade Report with Consideration and Tolerance

Below illustrates an example of an ETR submitted for matching with a counterparty, where a consideration is specified instead of a price and a tolerance is allowed.

- *MsgType* (35) = AE - Trade Capture Report
- *TradeReportID* (571) = 1234
- *TradeReportTransType* (487) = 0
- *TradeReportType* (856) = 0
- *VenueType* (1430) = 0 - Off Book
- *MatchType* (574) = 3 - trade reporting (on-exchange)
- *TradePriceCondition* (1839) = 16 - Trade not contributing to the Price Discovery Process
- *TradeHandlingInstr* (1123) = 2 - ETR Matching
- *Currency* (15) = GBX
- *LastShares* (32) = 100000
- *GrossTradeAmt* (381) = 10000000000 - GBX 10B or GBP 100M
- *Tolerance* (9128) = 1000 - GBX 1000 or GBP 10
- *NoSides* (552) = 2
- *Side* (54) = 1 - Buy
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = ABCD
- *PartyRole* (452) = 7 - EnteringFirm
- *Side* (54) = 2 - Sell
- *NoPartyIDs* (453) = 1
- *PartyID* (448) = XYZZ
- *PartyRole* (452) = 17 - ContraFirm

9.5 ETR Matched Trade Report with Price and Tolerance

Below illustrates an example of an ETR submitted for matching with a counterparty, where a price is specified rather than consideration and a tolerance is allowed.

- *TradeHandlingInstr* (1123) = 2 - ETR Matching
- *Currency* (15) = GBX
- *LastShares* (32) = 100000
- *LastPrice* (31) = 100000 - yielding consideration of GBP 100M
- *Tolerance* (9128) = 1000 - GBX 1000 or GBP 10

9.6 Third Party Confirmed Trades

Below illustrates an example of key elements of the message flow when confirmed trades are reported via a third party (whether a broker or a vendor). Generally, participants will only see these variants of messages if utilising ODROP as the original incoming message will be sent by the third party.

Information on sides of the trade that the customer does not have authorisation to view may be anonymised should the third party require such.

Participant to Cboe:

- *MsgType* (35) = AE
- *TradeHandlingInstruction* (1123) = 0 - Confirmed
- *NoRootPartyIDs* (1116) = 1
- *RootPartyID* (1117) = 3PBV - A code that identifies the third party
- *RootPartyIDSource* (1118) = D - Proprietary / Custom Code
- *RootPartyRole* (1119) = 6 - IntroducingFirm
- *NoSides* (552) = 2
- *Side* (54) = 1 - Buy
- *PartyID* (448) = PTY1 - A code that identifies the 1st party to the trade
- *Side* (54) = 2 - Sell
- *PartyID* (448) = PTY2 - A code that identifies the 2nd party to the trade

Cboe to Participant - if confirmed:

- *MsgType* (35) = AE
- *TradeHandlingInstruction* (1123) = 0 - Confirmed
- *TradeReportType* (856) = 2 - Accept
- *TradeID* (1003) = ABCD1234 - The TradeID for the confirmed trade report
- *NoRootPartyIDs* (1116) = 1
- *RootPartyID* (1117) = 3PBV - A code that identifies the third party
- *RootPartyIDSource* (1118) = D - Proprietary / Custom Code
- *RootPartyRole* (1119) = 6 - IntroducingFirm
- *NoSides* (552) = 2
- *Side* (54) = 1 - Buy
- *PartyID* (448) = PTY1 - A code that identifies the 1st party to the trade
- *Side* (54) = 2 - Sell
- *PartyID* (448) = PTY2 - A code that identifies the 2nd party to the trade
- *MsgType* (35) = AE

10 Common Session Level Issues

Cboe uses FIX 4.2 as specified by the FPL Document Version 4.2 (with Errata 20010501) with business level extensions as described in this document. The session level of the FPL specification is followed as closely as possible.

The version with errata cleared up many session level ambiguities present in the earlier version 4.2 (March 1, 2000). The following sections emphasize a few common problem areas in implementations of the FIX session protocol.

Typographical conventions:

- Anchor locations in the FPL document are shown in blue.
- Text in **bold** was emphasized in the original FPL specification.
- Emphasis added by Cboe is shown in purple.
- Notes added by Cboe are shown in green.

10.1 Ordered Message Processing

From [Financial Information Exchange Protocol/FIX Message Format and Delivery/Ordered Message Processing](#):

The FIX protocol assumes complete ordered delivery of messages between parties. Implementers should consider this when designing message gap fill processes. Two options exist for dealing with gaps, either request all messages subsequent to the last message received or ask for the specific message missed while maintaining an ordered list of all newer messages. For example, if the receiver misses the second of five messages, the application could ignore messages 3 through 5 and generate a resend request for messages 2 through 5, or, preferably 2 through 0 (where 0 represents infinity). Another option would involve saving messages 3 through 5 and resending only message 2. In both cases, messages 3 through 5 should not be processing before message 2.

10.2 Logon

From [Financial Information Exchange Protocol/Session Protocol/Logon](#):

After the initiator has been authenticated, the acceptor will respond immediately with a confirming *Logon* message.

10.3 Message Recovery

From [Financial Information Exchange Protocol/Session Protocol/Message Recovery](#):

When the incoming sequence number does not match the expected number, corrective processing is required. Note that the SeqReset-Reset message ([Cboe: this refers only to *GapFillFlag* (123) = N] used only to recover from a disaster scenario vs. normal resent request processing) is an exception to this rule as it should be processed without regards to its *MsgSeqNum* (34). **If the incoming message has a sequence number less than expected and the PossDupFlag (43) is not set, it indicates a serious error. It is strongly recommended that the session be terminated and manual intervention be initiated.** If the incoming sequence number is greater than expected, it indicates that messages were missed and retransmission of the messages is requested via the *Resend Request* (see earlier section, *Ordered Message Processing*).

...

If there are consecutive administrative messages to be resent, it is suggested that only one *SeqReset-GapFill* message be sent in their place. The sequence number of the *SeqReset-GapFill* message is the next expected outbound sequence number. The *NewSeqNo* (36) field of the *GapFill* message contains the sequence number of the highest administrative message in the group plus 1. For example, during a Resend operation there are 7 sequential administrative messages waiting to be resent. They start with sequence number 9 and end with sequence number 15. Instead of transmitting 7 *GapFill* messages (which is perfectly legal, but not network friendly), a *SeqReset-GapFill* message may be sent. **The sequence number of the Gap Fill message is set to 9 because the remote side is expecting that as the next sequence number.** The *NewSeqNo* (36) field of the *Gap Fill* message contains the number 16, because that will be the sequence number of the next message to be transmitted.

Sequence number checking is a vital part of FIX session management. However, a discrepancy in the sequence number stream is handled differently for certain classes of FIX messages. The table below lists the actions to be taken when the incoming sequence number is greater than the expected incoming sequence number.

NOTE: In all cases except the Sequence Reset – Reset message, the FIX session should be terminated if the incoming sequence number is less than expected and the PossDupFlag (43) is not set. A Logout message with some descriptive text should be sent to the other side before closing the session.

Response by Message Type

Message Type	Action to Be Taken on Sequence # Mismatch
Logon	Must always be the first message transmitted. Authenticate and accept the connection. After sending a <i>Logon</i> confirmation back, send a <i>ResendRequest</i> if a message gap was detected in the <i>Logon</i> sequence number.

...

10.4 Resend Request

From [Financial Information Exchange Protocol/Administrative Messages/Resend Request](#):

Note: the sending application may wish to consider the message type when resending messages; e.g., if a new order is in the resend series and a significant time period has elapsed since its original inception, the sender may not wish to retransmit the order given the potential for changed market conditions. (The *Sequence Reset-Gap Fill* message is used to skip message that a sender does not wish to resend.)

10.5 Sequence Reset – Gap Fill

From [Financial Information Exchange Protocol/Administrative Messages/Sequence Reset \(Gap Fill\)](#):

The sequence reset message is used by the sending application to reset the incoming sequence number on the opposing side. This message has two modes: “Sequence Reset – Gap Fill when *GapFillFlag* (123) is 'Y' and “Sequence Reset – Reset” when *GapFillFlag* (123) is 'N' or not present. The “Sequence Reset – Reset” mode should **only** be used to recover from a disaster situation which cannot be otherwise recovered via “Gap Fill” mode. The sequence reset message can be used in the following situations:

- During normal resend processing, the sending application may choose not to send a message (e.g., an aged order). The *Sequence Reset – Gap Fill* is used to mark the place of that message.

- During normal resend processing, a number of administrative messages are not resent, the Sequence Reset – Gap Fill message is used to fill the sequence gap created.

...

The sending application will initiate the sequence reset. **The message in all situations specifies the NewSeqNo (36) to reset as the value of the next sequence number immediately following the messages and/or sequence numbers being skipped.**

...

If the *GapFillFlag* (123) field is present (and equal to 'Y'), the *MsgSeqNum* (34) should conform to standard message sequencing rules (i.e., the *MsgSeqNum* (34) of the SeqReset-GapFill message should represent the beginning *MsgSeqNum* (34) in the gap fill range because the remote side is expecting that next message).

The sequence reset can only increase the sequence number. If a sequence reset is received attempting to decrease the next expected sequence number, the message should be rejected and treated as a serious error. It is possible to have multiple resend requests issued in a row (i.e., 5 to 10 followed by 5 to 11). If sequence number 8, 10, and 11 represent application messages while 5–7 and 9 represent administrative messages, the series of messages as a result of the resend request may appear as SeqReset-GapFill with *NewSeqNo* (36) of 8, message 8, SeqReset-GapFill with *NewSeqNo* (36) of 10, and message 10. This could then be followed by SeqReset-GapFill with *NewSeqNo* (36) of 8, message 8, SeqReset-GapFill with *NewSeqNo* (36) of 10, message 10, and message 11. One must be careful to ignore the duplicate SeqReset-GapFill which is attempting to lower the next expected sequence number. This can be detected by checking to see if its *MsgSeqNum* (34) is less than expected. If so, the SeqReset-GapFill is a duplicate and should be discarded.

11 FIX Drop

Cboe offers two types of FIX Drop ports (Standard FIX Drop and Order by Order FIX Drop). Both port types do not accept orders. Their purpose is to provide real time information about order flow. They may be configured to send order flow based on various combinations of information relating to specific Participants, trading firm identifiers, and/or sessions. With proper authorisation (e.g., clearing or sponsored relationships), a single FIX Drop session can be used to obtain information about multiple Participants.

11.1 Standard FIX Drop

Standard FIX drop ports only send execution information on fills (i.e., execution reports where *ExecType* (150) = 1 (Partially Filled) or 2 (Filled)). It can also be configured to send execution reports for trades resulting from Trade Capture Reports (where *ExecType* (150) = F (Trade)) and Trade Cancel/Correction messages (where *MsgType* (35) = UCC) resulting from cancels/amends.

11.2 Order By Order FIX Drop

Order by Order FIX Drop ports are designed to send more than execution information. Order by Order drop ports function by watching the traffic that is returned over the associated FIX/BOE order entry ports. As a result, if a specific field is not enabled to be sent on a message from Cboe to the FIX/BOE client, then that field will also not be present on the Order by Order FIX Drop.

All order message types are supported including, but not limited to:

- *ExecType* (150) = 0: Acknowledgments
- *ExecType* (150) = 1 or 2: Partially Filled, Filled
- *ExecType* (150) = 4: Canceled
- *ExecType* (150) = 5: Replaced
- *ExecType* (150) = 8: Rejected
- *MsgType* (35) = 9: Order Cancel Reject
- *MsgType* (35) = UCC: Trade Cancel/Correction (optionally, if configured at the port level)
- *MsgType* (35) = AE: Trade Capture Report (optionally, if configured at the port level)
- *MsgType* (35) = AR: Trade Capture Report Ack (optionally, if configured at the port level)

Quotes sent over BOE Bulk Quoting ports as well as all BOE rejects are not available on Order by Order FIX DROP. Quote execution messages are available over ODROP, but will be returned more efficiently and with less latency over FIXDROP.

If rejects or Cancels are due to incomplete or incorrect clearing information, they may be unavailable on Order by Order FIX Drop ports.

Users of Order by Order FIX Drop must always be prepared to receive new/unknown FIX tag and FIX tag values for BOE/FIX ports being monitored. Cboe reserves the right to add new FIX tags and to update values distributed on Order by Order FIX Drop with no notice.

11.3 Port Options

Both types of FIX Drop ports can be optionally configured with the following features:

1. Choice of various Cboe supported symbology types.

2. Sending of Trade Cancel/Correction (*MsgType* (35) = UCC) messages. Please note that enabling these messages will be dependent on enabling of trade cancels/corrections on the corresponding FIX order entry ports.
3. Enable unique wash execution identifiers.

12 Reason Codes

12.1 Order Reason Codes

The following is a list of all reason codes used related to orders and trade capture reports. These reason codes are used in a variety of contexts (order cancellations, order rejections, modify rejections, etc.). All reasons are not valid in all contexts. The reason code will be followed by free form text. Cboe may add additional reason codes without notice. Members must gracefully ignore unknown values.

A = Admin
D = Duplicate Identifier (e.g., *CIOrdID*)
H = Halted
I = Incorrect Data Center
J = Too late to cancel
K = Order Rate Threshold Exceeded
L = Price Exceeds Cross Range
M = Liquidity Available Exceeds Order Size
N = Ran Out of Liquidity to Execute Against
O = *CIOrdID* Doesn't Match a Known Order
P = Can't Modify an Order That is Pending Fill
Q = Waiting For First Trade
U = User Requested
V = Would Wash
W = Add Liquidity Only Order Would Remove
X = Order Expired
Y = Symbol Not Supported
Z = Unforeseen Reason
f = Risk Management Trading Firm Level
m = Market Access Risk Limit Exceeded
o = Max Open Orders Count Exceeded
r = Reserve Reload
s = Risk Management Symbol Level
x = Crossed Market
y = Order Received by Cboe During Replay
+ = Risk Management Trading Firm Group Level

12.2 Order Subreason Codes

The following is a list of subreason codes used to indicate additional detail for the order rejections or cancellations. The specific text the system delivers may vary from the text listed below, to provide clarification of the reject reason. Cboe may add additional values without notice. Members must gracefully ignore unknown values.

- A = Purge/Mass Cancel Trading Firm Level by user
- B = Purge/Mass Cancel Symbol Level by user
- D = Purge/Mass Cancel Custom Group ID Level by user
- E = Trading Firm Level lockout by Cboe Trade Desk Admin
- J = Firm disconnect
- K = Matching engine disconnect
- T = Cboe Trade Desk admin
- f = Risk Management Trading Firm Level by rule
- s = Risk Management Symbol Level by rule
- + = Risk Management Trading Firm Group Level by rule

13 FIX Differences between US and Europe Derivatives

This section describes, in detail, the differences between the FIX implementations of the Cboe US Futures/Options exchanges and Cboe Europe Derivatives. The FIX session level implementation and supported messages are mostly identical between the US and Europe.

Trade Capture Reports

All messaging related to the use of Trade Capture Reports is only available in Europe.

Persistence

GTC Orders are not supported in the Cboe Europe system. As such, all participant created complex instruments will be purged at the EOD.

Order Routing

Futures and Options Trading on Cboe Europe Contracts can only be undertaken on the Cboe Europe Venue. As such, this environment will have no Order Routing capability.

Iceberg Orders

Iceberg orders will not be supported for any Derivatives in Cboe Europe.

Order/Quote Attribution

The identity of the contra firm/trader to an execution is exposed on US Options. This information will not be available on the European Execution Reports.

Cross Mechanisms

CrossType (549) in the US Options Systems can be used to specify one of three Auction Types.

- Automated Improvement Mechanism (AIM)
- Qualified Contingent Cross (QCC)
- Solicited Cross (SAM)

Cboe Europe Options will only support the AIM Auction Type.

Order Entry

Symbology

In the US Systems, Symbols can be specified using a Product Identifier, such as OSI Root and associated information like *MaturityMonth* (200) and *MaturityDay* (205), *StrikePrice* (202) and *PutOrCall* (201). In the European system, products must be specified using the 6-Character Cboe Symbol as taken from the Symbol File provided in *Symbol* (55), or the ISIN Code provided in *SecurityID* (48). Complex Instruments can be identified by defining each leg with a Cboe Symbol or ISIN, or the 6-Character Identifier for the Complex Instrument as a whole. Complex Instruments will not have an ISIN. *SecurityType* is also not required in Cboe Europe, and is instead inferred from the provided *Symbol* (55) and Message Type.

Capacity

In Europe, *OrderCapacity* (47) values must conform to the MiFID II defined values of:

- A = AOTC (Agency)
- P = DEAL (Principal)
- R = MTCH (Riskless)

MiFID II

MiFID II requires that Cboe Europe process the following fields for record keeping obligations:

- Client ID
- Executing Trader
- Investor ID

These fields should be supplied in the *NewOrderPtyRptGrp*.

Market Making Activity and Algorithmic Orders should be highlighted using *OrderAttributeTypes* (8015):

- 2 = Liquidity Provision (Market Making Activity)
- 4 = Algorithmic Order

If an order is entered due to both, then both values should be provided: *OrderAttributeTypes* (8015) = 2 4

DEA Activity should also be flagged to Cboe Europe using *OrderOrigination* (1724) = 5.

This information will also need to be provided on a per Contra basis for AIM Auction Orders sent using the New Order Cross message.

OpenClose/LegPositionEffect

The *OpenClose* (77)/*LegPositionEffect* (564) fields must be specified for all Orders where the participant is trading on a client account. This must be provided on a per leg basis for all Complex Order Entry Messages.

AccountType (581) will be used to determine if the account is Client or House and should be provided on New Order Single Messages, and per Contra on New Order Cross Messages.

CustOrderHandlingInst

CustOrderHandlingInst (1031) must be specified for all New Order Messages, and also on a per contra basis for all Cross Order Messages. If this information is missing, the Order will be rejected. A default value can be set using the 'Default Customer Order Handling Instruction' port attribute. The port attribute is defaulted to *CustOrderHandlingInst* (1031) = Y (Electronic).

Complex Order Entry

In Cboe Europe, due to the requirement to provide *OpenClose* (77), its equivalent *LegPositionEffect* (564) is required for Complex Instruments. Therefore, unlike US Futures, the New Order Single (D) Message is exclusively for Simple Instruments. Complex Instruments must be submitted using the New Order Multileg (AB) message.

14 Support

Please email questions or comments regarding this specification to tradedeskeurope@cboe.com.

Revision History

8 April 2020	1.0 Initial draft version.
15 June 2020	1.1 Added new section, § 13, p. 76, highlighting key differences between the US and EU Derivatives Systems.
26 June 2020	1.2 Added <i>AccountType</i> , and clarify if <i>OpenClose</i> and <i>LegPositionEffects</i> are mandatory. Added <i>MassCancel</i> in Order Cancel Request, and added <i>InstrumentTypeFilter</i> in <i>MassCancelInst</i> .
1 July 2020	1.3 Added FIX DROP ports section.
13 July 2020	1.4 Added <i>NoLegs</i> and <i>LegsRptGroup</i> to Execution Reports.
31 July 2020	1.5 Added <i>NoOfSecurities</i> to Security Definition response and clarified <i>AtTheOpen</i> for <i>TimelnForce</i> .
18 August 2020	1.6 Added info on Default Customer Order Handling Instruction port attribute. Clarified the use of <i>NoLegs</i> in New Order Multileg for House Traders.
22 September 2020	1.7 Added <i>FixCustOrderHandlingInst</i> (1031) and <i>AccountType</i> (581) to <i>TrdCapRptSideGrp</i> for the Trade Capture messages. Removed <i>FIXSettlType</i> (63) and <i>FIXSettlDate</i> (64) from Trade Capture messages
10 November 2020	1.8 Removed <i>At The Close</i> as a valid <i>TimelnForce</i> (59) value
21 December 2020	1.9 Updated supported values for <i>Participant Trade Prevention</i> ; Added support for <i>DrillThruProtection</i> (6253); Clarified TCR support for complex instruments. Added support for <i>RoutingInst</i> (9303) for complex options.
8 January 2021	1.10 Added Volatility Strategies section. Added optional <i>LegPrice</i> (566) to <i>NoLegs</i> repeating group.
14 January 2021	Version 1.11 Updated and clarified usage of Product Code for <i>Symbol</i> (55) in Mass Cancel and Purge requests.
2 February 2021	Version 1.12 Updated values supported in <i>RiskReset</i> (7692) and added support for <i>Subreason-Text</i> (22058); Changed description for <i>TradeLinkID</i> (820).
9 February 2021	Version 1.13 Updated values in <i>TradeLiquidityIndicator</i> (9730); Clarified values supported in <i>TimelnForce</i> (59) for complex orders.
3 March 2021	Version 1.14 Updated values in <i>TradeReportTransType</i> (487).
8 March 2021	Version 1.15 Added <i>DisplayIndicator</i> (9479) support in New Order Multileg message.

16 March 2021	Version 1.16 Added description for <i>TradeReportRefID</i> (572).
24 March 2021	Version 2.0 Removed Draft Watermark.
1 April 2021	Version 2.1 Clarified <i>OrdType</i> (40) being optional for Cross orders.
7 April 2021	Version 2.2 Updated <i>ExecRestatementReason</i> (378) on Execution Report following the release of an aggressively held order.
4 May 2021	Version 2.3 Updated <i>TrdType</i> (828) with values for Exchange For Physical and Package Trade.
