SPECTRUM

Lighting up the market

FIX Rules of Engagement Order/Quote Flow

Version 1.4

Version Control

Version	Date	Changes
1.1	04 Mar 2022	Re-versioned and separated the RoE containing just Order/Quote and Trade flow
1.2	13 Oct 2022	Consolidate changes; • Added new field (QuoteId) to QuoteRequest 35=R in response to member request. Clarified description of QuoteReqId (21-03-2022) • Add instrument lifecycle diagram and table of order/quote rejections due to instrument lifecycle (03-05-2022) • Added missing option field SecurityIDSource to Mass Quote Acknowledgement as if provided it will be returned (17-05-2022) • Add new Quote Status Report message type to support unsolicited mass quote cancelling (27-06-2022) • Add symbol to quoteRejectResponse as per implementation but omitted in this document, including some adjustments to wording of field descriptions based on feedback on quoteStatusReport from members, and remove unnecessary fields from QuoteStatusReport (15-09/2022) • Updated minor typos and corrections to requirements on TradeCaptureReport (13-10-2022)
1.3	22 Nov 2022	Re-versioned to align RoE and squashed version history. Updated changes to party block and TCR to allow supporting of additional meta data, including minor change to mandatory tag adjustment.
1.4	11 Jan 2023	The Trade Capture Report has new New Currency and Last liquidity indicator tags. Updated the Gateway Capacity section, to include Drop Copy Other minor changes include, the QuoteRejectReason(300) changed to conditional requirement and improved description for Short code usage and mass quote canceling convention.

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Definitions

Document Phrasing	Meaning
"Exchange"	The Multilateral Trading Facility (MTF), legally named as Spectrum MTF Operator GmbH
“Member”	Trading Participant directly connected into the Exchange and submitting orders to trade in the case of a Broker or executable quotes when a Market Maker
“Transactions”	Formed when a Broker Order matches and trades with either a Market Maker Quote or another Broker Order
"Issuer"	Listing entity of products traded on the Exchange

A - Introduction

Purpose

This document specifies the technical interaction between Spectrum MTF Operator GmbH (the "Exchange") and firms (the "Member") using Financial Information eXchange (FIX) protocol.

B - Connectivity

FIX Versions

The Exchange uses FIXT1.1 and FIX 5.0SP2 with extension packs. Custom tags will be used and specified. All tags denoted in the message table are included as required by FIXT1.1 and FIX 5.0SP2, and some optional tags may be marked as mandatory for proprietary uses.

FIX Connections

Members connect to the Exchange for the transmission of pre-trade, trade, and post-trade related data using the gateways provided by the Exchange (refer to Gateway Capabilities for supported messages).

Notations

- FIX message is denoted in Message (35=MsgType) format, e.g. Logon (35=A)
- FIX tag is denoted in TagName (TagNumber) format, e.g. SecurityTradingStatus (326)
- FIX value is denoted in Value = Description format, e.g. SubscriptionRequestType (263) has the value 1 = Snapshot and subscribe
- If a feature is tagged with PENDING, then the feature is not live yet
- If a feature is tagged with IN PROGRESS, then the feature is still being discussed and subject to change

C - Gateway Capabilities

Gateways	Members	Message Types
Order Entry	Liquidity Provider Market Maker	1. All transport-level message types (0, A, 5, 3, 2, 4, 1) 2. QuoteRequest (35=R) 3. MassQuote (35=i), MassQuoteAck (35=b) 4. QuoteRequestReject (35=AG) and Quote Status Report (35=AI) 5. Execution Report (35=8) 6. Trade Capture Report Request (35=AD) 7. Trade Capture Report Request Ack (35=AQ) 8. Trade Capture Report (35=AE)
	Broker	1. All transport-level message types (0, A, 5, 3, 2, 4, 1) 2. New Order – Single (35=D) 3. Execution Report (35=8) 4. Order Cancel Replace Request (35=G) 5. Order Cancel Reject (35=9) 6. Order Cancel Request (35=F) 7. Order Status Request (35=H) 8. Trade Capture Report Request (35=AD) 9. Trade Capture Report Request Ack (35=AQ) 10. Trade Capture Report (35=AE)
Drop Copy	All Members	1. All transport-level message types (0, A, 5, 3, 2, 4, 1) 2. Trade Capture Report Request (35=AD) 3. Trade Capture Report Request Ack (35=AQ) 4. Trade Capture Report (35=AE)

Rejection Messages

Unexpected message types or missing mandatory fields etc. will be rejected with a Reject(35=3).

Complex validation rejects will be rejected via BusinessMessageReject(35=j) (e.g. invalid combination of OrdType and TimeInForce on a NewOrderSingle(35=D))

In all other scenarios, rejection response messages sent by the Exchange will be appropriate to the incoming message

D - FIX Sessions

FIX session protocol adheres to standard FIX eg. Logon, Logout, TestRequest, Heartbeat, ResendRequest, SequenceReset etc.

Trading Hours

The Exchange is open for connectivity from Sunday 22:30 CE(S)T to Friday 23:15 CE(S)T, with each 24-hour trading session being punctuated on the hour at 23:00 CE(S)T by a 2 minute closed period to allow for instrument maintenance. The trading hours are defined per product, each product trading schedules can found here. Order and quote updates and entries outside their trading hours will be rejected.

Sequence Numbers / Reset

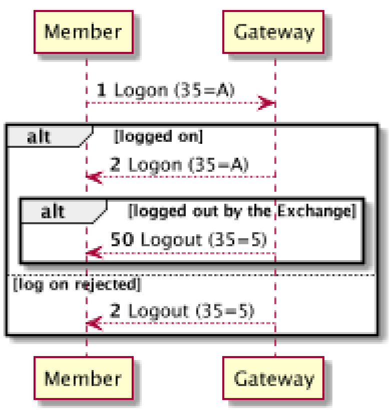
On both Market Data and Order Entry gateways, the Exchange gateway will send ResetSeqNumFlag (141) = Y and sequence number 1 on every logon.

On the Order Entry session, reset also takes place during the weekend downtime. On Sunday night / Monday morning start up, the Exchange gateway will connect with sequence number 1 and expect to receive sequence number 1.

Log On

The Member must be authenticated via the gateway by issuing a Logon (35=A) message. The user should pass the following validation to log on:

- The user is recognised and enabled
- The user has the permission to log on as the Member.

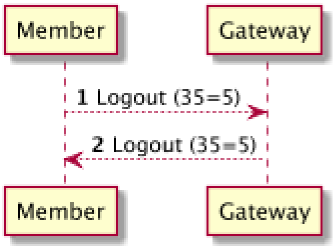


Logon (35=A)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
98	EncryptMethod	Y	• 0 = No encryption at the moment
108	HeartBtInt	Y	This tag is the heartbeat interval in seconds. It is determined by the user at login time. The Member's heartbeat interval should be greater than 5 seconds. If the user fails to respond to 3 test requests following missed "heartbeats", the gateway will disconnect the session an log out the user. The number of retries can be modified on a per session basis.
141	ResetSeqNumFlag	N	
553	Username	C	Required when initiating connection to the Exchange. The Member username in clear text.
554	Password	C	Required when initiating connection to the Exchange. Password in clear text
1137	DefaultApplVerID	Y	Always be 9 = FIX50SP2
	<Standard Message Trailer>		

Log Out

A Logout (35=5) can be sent by the Member or the Exchange, as a notification initiated by either side. If it was sent by the Member, the Exchange will respond with a Logout (35=5) message.

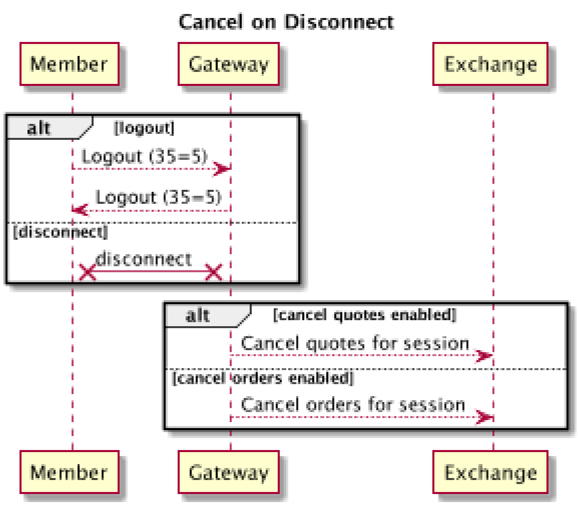


Logout (35=5)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
58	Text	N	Any reason given by the Exchange for rejected log on
	<Standard Message Trailer>		

Cancel on Disconnect

On gateway setup the Member can specify whether or not orders and/or quotes should be cancelled on session disconnect. In case of a session loss or a session logout and the gateway is configured to cancel orders/quotes on disconnect, all quotes and/or orders submitted through that disconnected FIX session will be cancelled.



E - Party

Parties Block

For most of the Order, Quote, and Trade operations, the gateway must resolve

- Member LEI. The unique identifier of the Member.

For each case, either the gateway retrieves the values from the repeating Party component block, or resolves the values from given information. The gateway is able to retrieve the Member type of the given Party ID (448), Party ID Source (447) ,Party Role (452) and optional PartyRoleQualifier(2376) .

High-Level Rules

Party	When capacity is prop trading	When capacity is broker	Mandatory or Optional
Identification of the entity submitting the Order	LEI of broker	LEI of broker	Mandatory
Trading capacity	DEAL	MTCH / AOTC	Mandatory
Execution Decision within the Member	National ID (or Algo ID) of Trader	National ID, Algo code or NORE	Mandatory
Client identification		LEI or National_ID (of the immediate client of broker)	Mandatory when capacity is broker
Investment Decision within the Member	National ID (or Algo ID) of Investment Decision Maker		Mandatory when capacity is prop trading

Capacity in which Broker can act

PartyRoleQualifier	Role	Example
0	Was Agency. Now Any Other Trading Capacity (AOTC)	
1	Was Principal. Now means Dealing on own account (DEAL)	Prop Trading and market making
2	Was Riskless principal. Matched principal (MTCH)	A broker interposes itself between the client and the Exchange without market risk

This block is used to identify the entities required for the financial transaction and information.

Tag		Name	Req'd	Notes
453		NoPartyIDs	Y	The number of parties contained
>	448	PartyID	Y	The unique identifier of the entity
>	447	PartyIDSource	Y	• D = The Member or End Client Account identifier • E = ISO Country Code • H = CSD Participant member • N = Legal Entity Identifier • Q = National ID • P = Short code identifier • S = Firm designated identifier

>	452	PartyRole	Y	The type of the entity • 1 = Executing Firm • 3 = Client ID • 12 = Executing Trader • 17 = Contra Firm • 24 = Customer Account • 26 = Corresponding Broker • 28 = Custodian • 29 = Intermediary (Broker) • 35 = Liquidity Provider • 75 = LocationID • 122 = Investment decision maker • 126 = Contra Customer Account
>	2376	PartyRoleQualifier	• C	• 0 = Agency • 1 = Principal • 2 = Riskless Principal • 22 = Algorithm

Examples

Case 1: When a trader at the Brokerage submits orders on their own account

Tag	Name	Value
453	NoPartyIDs	3
448	PartyID	LEI
447	PartyIDSource	N (LEI)
452	PartyRole	1 (Executing Firm)
2376	PartyRoleQualifier	1 (Principal)
448	PartyID	National ID
447	PartyIDSource	Q (NationalID)
452	PartyRole	12 (Executing Trader)
448	PartyID	National ID
447	PartyIDSource	Q(National ID)
452	PartyRole	122 (Investment Decision Maker)

Case 2: When an algorithm at the Brokerage submits orders on their own account

Tag	Name	Value
453	NoPartyIDs	3
448	PartyID	LEI
447	PartyIDSource	N =LEI
452	PartyRole	1 (Executing Firm)
2376	PartyRoleQualifier	1 (Principal)
448	PartyID	Algo ID
447	PartyIDSource	S (Firm designated identifier)
452	PartyRole	12 (Executing Trader)
2376	PartyRoleQualifier	22 (Algorithm)

448	PartyID	National ID
447	PartyIDSource	Q(National ID)
452	PartyRole	122 (Investment Decision Maker)

Case 3: Brokers Client when broker is agent and client is an institution

Tag	Name	Value				
453	NoPartyIDs	3				
448	PartyID	LEI				
447	PartyIDSource	N (LEI)				
452	PartyRole	1 (Executing Firm)				
2376	PartyRoleQualifier	0 (Agency) or 2 (Riskless principal)				
448	PartyID	National ID	OR	"NORE"	OR	Algo Id
447	PartyIDSource	Q (national id)		P (Short code identifier)		S (Firm designated identifier)
452	PartyRole	12 (Executing Trader)		12 (Executing Trader)		12 (Executing Trader)
2376	PartyRoleQualifier					22 (Algorithm)
448	PartyID	LEI				
447	PartyIDSource	N (LEI)				
452	PartyRole	3(ClientId)				

Case 4: Brokers Client (when broker is agent and client is direct person)

Tag	Name	Value				
453	NoPartyIDs	3				
448	PartyID	LEI				
447	PartyIDSource	N (LEI)				
452	PartyRole	1 (Executing Firm)				
2376	PartyRoleQualifier	0 (Agency) or 2 (Riskless principal)				
448	PartyID	National ID	OR	NORE	OR	Algo Id
447	PartyIDSource	Q (national id)		P (Short code identifier)		S (Firm designated identifier)
452	PartyRole	12 (Executing Trader)		12 (Executing Trader)		12 (Executing Trader)
2376	PartyRoleQualifier					22 (Algorithm)
448	PartyID	National ID				
447	PartyIDSource	Q (National ID)				
452	PartyRole	3(ClientId)				

Case 5: Market Maker trader submits Mass Quote or executes Order

Tag	Name	Value	Notes
453	NoPartyIDs	3	
448	PartyID	My Market_Maker	The Market Maker LE
447	PartyIDSource	N (LEI)	
452	PartyRole	1 (Executing Firm)	
2376	PartyRoleQualifier	1 (Principal)	
448	PartyID	National ID	
447	PartyIDSource	Q (NationalID)	
452	PartyRole	12 (Executing Trader)	
448	PartyID	National ID	
447	PartyIDSource	Q(National ID)	
452	PartyRole	122 (Investment Decision Maker)	

Case 6: Market Maker algorithm submits Mass Quote or executes Order

Tag	Name	Value	Notes
453	NoPartyIDs	3	
448	PartyID	My Market_Maker	The Market Maker LEI
447	PartyIDSource	N (LEI)	
452	PartyRole	1 (Executing Firm)	
2376	PartyRoleQualifier	1 (Principal)	
448	PartyID	Algo ID	
447	PartyIDSource	S (Firm designated identifier)	
452	PartyRole	12 (Executing Trader)	
2376	PartyRoleQualifier	22 (Algorithm)	
448	PartyID	National ID	
447	PartyIDSource	Q(National ID)	
452	PartyRole	122 (Investment Decision Maker)	

Case 7: Routers/Hubs

For Routers/Hub we consider this to be merely a means of the Exchange connection. All Party Groups supplied would be considered to be the same as in the Broker Cases 1-4 above.

See <Standard Message Header> for references to tags 115(OnBehalfOfCompID) and 128(DeliverToCompID)

Case 8: Short code

The short code identifier (447=P) can be used, if enabled, as an alternative to reference an agreed upon value on order/tradable quote entry for the purpose of reporting on the Execution Report and the Trade Capture Report. If not enabled or if the identifier is not resolvable, the order/quote will be rejected. To enable Short code and setup reference values, please contact the Exchange.

An example using short code on order and trade quote entry

Tag	Name	Value
448	PartyID	123
447	PartyIDSource	P (Short Code)
452	PartyRole	12 (Executing Trader)
2376	PartyRoleQualifier	22 (Aglo)

And the expected Execution or TCR reporting result

Tag	Name	Value
448	PartyID	qwertyuiop-qwertyuiop
447	PartyIDSource	D
452	PartyRole	12 (Executing Trader)
2376	PartyRoleQualifier	22 (Algo)

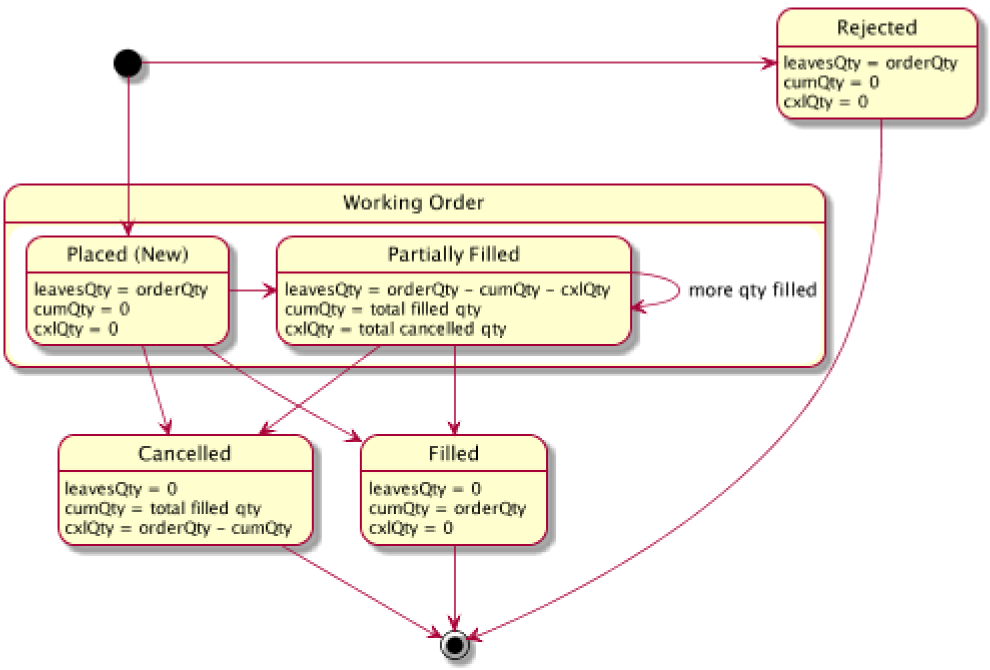
F - Trade

This section covers Trade application messages in the Order Entry Gateway

Order Lifecycle

Several quantity fields are use to describe the order status in details. In general,

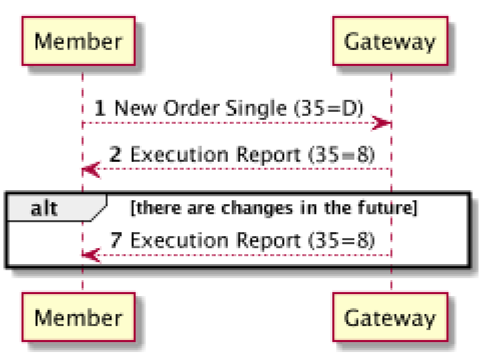
```
ordQty = cumQty + leavesQty + cxlQty
```



Submit New Order

An Order is used to create or reduce exposure to an instrument. It is requested by the Member submitting a New Single (35=D) message to the OE gateway. The tag Client Order ID (11) should be unique within the trading session.

Message Flow



New Order – Single (35=D)

Tag	Name	Req'd	Notes
			<Standard Message Header>
11	ClOrdID	Y	The unique (within a trading session) identifier of the order, assigned by the Member
526	SecondaryClOrdID	N	The bespoke Pre Trade Controls relief (bypass) code
			<Parties Block>
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)
60	TransactTime	Y	Time this request was initiated / released by the trader or trading system.
38	OrderQty	Y	Quantity ordered. Integer values only.
40	OrdType	Y	• 1 = Market • 2 = Limit • R = Stop on Bid or Offer • S = Stop Limit on Bid or Offer
44	Price	C	Price per unit of quantity. Required if OrdType (40) is 2 = Limit or S = Stop Limit on Bid or Offer
59	TimeInForce	Y	• 0 = Day • 1 = Good Till Cancel (GTC) • 3 = Immediate Or Cancel (IOC) • 4 = Fill Or Kill (FOK) • 6 = Good Till Date (GTD)
432	ExpireDate	C	The Date of order expiration. Required if TimeInForce(59) is 6= Good Till Date (GTD)
99	StopPx	C	The price at which the Stop should be triggered. Required if OrdType (40) is R = Stop on Bid or Offer or S = Stop Limit on Bid or Offer
1107	TriggerPriceType	C	The type of price that the trigger is compared to. • 1 = Best Offer • 3 = Best Bid Default values if not provided: • if Side (54) is 1 = Buy, default will be 1 = Best Offer • if Side (54) is 2 = Sell, default will be 3 = Best Bid
			<Standard Message Trailer>

Supported combinations of OrdType(40) and TimeInForce(59)

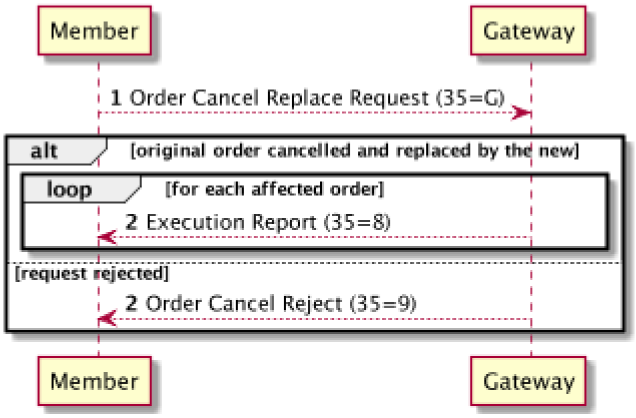
	0 = Day	1 = Good Till Cancel (GTC)	3 = Immediate Or Cancel (IOC)	4 = Fill or Kill (FOK)	**6 = Good Till Date (GTD)**
1 = Market	✗	✗	✓	✓	✗
2 = Limit	✓	✓	✓	✓	✓
R = Stop on Bid or Offer	✓	✓	✗	✗	✓
S = Stop Limit on Bid or Offer	✓	✓	✗	✗	✓

Note: Once Triggered, An OrdType(40)=Stop on Bid or Offer(R) will behave like an OrdType(40)=Market(1) and TimeInForce(59)=IOC(3)

Order Cancel Replace Request

The Member may request to amend a submitted order by cancelling the original and replacing it with the new order.

An Order Cancel Replace Request (35=G) message should be sent for the purpose. A new ClOrdID (11) should be provided in the request.
The OrigClOrdID (41) should refer to the ClOrdID (11) of the order to be amended.



Supported amendments

The Exchange supports the amendments to the following attributes of an order:

1. Price (44)
2. OrderQty (38) if LeavesQty (151) >0
3. ExpireDate (432)
4. StopPx (99) - so long as Stop Order is not triggered

Attempts to amend any other attributes will be rejected

Description	Original OrderQty	Original LeavesQty	CumQty	**Amend Description**	Requested New OrderQty	Result	Amended OrderQty	Amended LeavesQty	**Amended CumQty**
Unfilled order of qty=100.	100	100	0	reduce qty to 66	66	Accepted	66	66	0
Partially filled order with 25qty filled	100	75	25	reduce qty to 66	66	Accepted	66	41	25
Partially filled order with 25qty filled	100	75	25	reduce qty to 24	24	Rejected as the requested OrderQty is smaller than CumQty			

Note: CumQty (14) always remains unchanged

Place in the Book

The order will retain its TimePrice priority in the book only if being amended

1. To a smaller Quantity
   or
2. To a different Expire Date.

That is, all other cases will result in losing its original place in the book.

The new order will be re-prioritised.

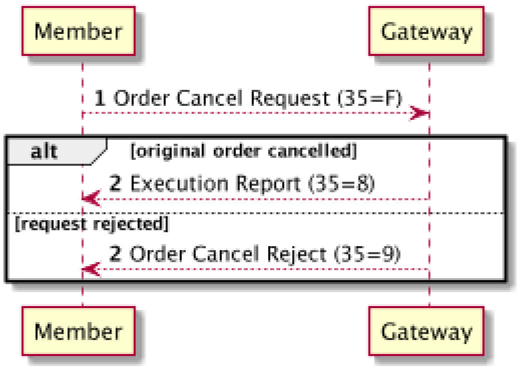
Upon a successful amendment, an Execution Report (35=8) message will be sent to the Member to detail the latest state of the object. Otherwise an Order Cancel Reject (35=9) message will be sent and the order will remain unchanged by the request.

Order Cancel Replace Request (35=G)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
	<Parties>		
41	OrigClOrdID	Y	The Client Order ID (11) of the original or previously amended order
11	ClOrdID	Y	The new unique identifier of the order
526	SecondaryClOrdID	N	The bespoke Pre Trade Controls relief (bypass) code
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)
60	TransactTime	Y	Time this request was initiated/released by the trader or trading system.
38	OrderQty	Y	The new order quantity. Integer values only.
40	OrdType	Y	• 2 = Limit • R = Stop on Bid or Offer • S = Stop Limit on Bid or Offer
44	Price	C	The new order price. Required if OrdType (40) is 2 = Limit or S = Stop Limit on Bid or Offer
59	TimeInForce	Y	• 0 = Day • 1 = Good Till Cancel (GTC) • 6 = Good Till Date (GTD)
432	ExpireDate	C	The Date of order expiration. Required if TimeInForce(59) is 6= Good Till Date (GTD)
99	StopPx	C	The price at which the Stop should be triggered. Required if OrdType (40) is R = Stop on Bid or Offer or S = Stop Limit on Bid or Offer
1107	TriggerPriceType	C	The type of price that the trigger is compared to. • 1 = Best Offer • 3 = Best Bid Default values if not provided: • if Side (54) is 1 = Buy, default will be 1 = Best Offer • if Side (54) is 2 = Sell, default will be 3 = Best Bid
	<Standard Message Trailer>		

Order Cancel Request

The Member may request to cancel a submitted order by sending an Order Cancel Request (35=F) message. A new ClOrdID(11) should be provided in the request. The OrigClOrdID (41) should refer to the ClOrdID(11) of the order to be cancelled.



Upon successful cancellation an Execution Report (35=8) message will be sent to the Member to detail the latest state of the order. Otherwise an Order Cancel Reject (35=9) message will be sent and the order will remain unchanged by the request.

Order Cancel Request (35=F)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
41	OrigClOrdID	Y	The Client Order ID (11) of the original or previously amended order
11	ClOrdID	Y	The new unique identifier of the order
	<Parties>		
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)
60	TransactTime	Y	Time this request was initiated / released by the trader or trading system.
	<Standard Message Trailer>		

Order Cancel Rejection

The Order Cancel Reject (35=9) message is a response to either an Order Cancel Replace Request (35=G) or an Order Cancel Request (35=F).

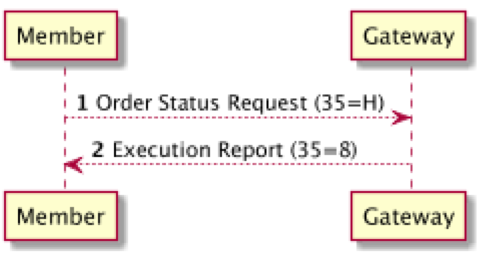
Order Cancel Reject (35=9)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
37	OrderID	Y	The Exchange assigned identifier of the order. "NONE" if CxlRejReason (102) = 1(Unknown order).
11	ClOrdID	Y	The identifier of the order provided in the request
41	OrigClOrdID	N	ClOrdID(11) which could not be cancelled/replaced.

39	OrdStatus	Y	The current status of the orders. • 0 = New Order • 1 = Partially Filled • 2 = Filled • 4 = Cancelled • 5 = Replaced • 6 = Pending Cancel • 8 = Rejected • A = Pending New Order
434	CxlRejResponseTo	Y	Identifies the type of request that a Cancel Reject is in response to, • 1 = Order Cancel Request (35=F) • 2 = Order Cancel Replace request (35=G)
102	CxlRejReason	N	Code to identify reason for cancel rejection • 0 = Too late to enter • 1 = Unknown order • 2 = Exchange option • 6 = Duplicate Client Order ID • 18= Invalid price increment • 99 = Other
60	TransactTime	N	Time this OrderCancelReject transaction occurred
58	Text	N	Any message from the Exchange
	<Standard Message Trailer>		

Order Status

The Member could recover the status of an Order by submitting an Order Status Request (35=H) Message. The Exchange will send an Execution Report (35=8) for the specific order.



Order Status Request (35=H)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
11	ClOrdID	Y	The unique identifier of the order as assigned by the Member
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
	<Parties>		
54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)
	<Standard Message Trailer>		

G - Post-Trade

The Execution Report (35=8) message is a detailed report on the status of an Order. It is sent by the OE Gateway as the notification of the change in an order. An Execution Report will be produced in the following situations:

- An order matched
- As a response to messages, New Order Single (35=D), Order Cancel Replace Request (35=G), Order Cancel Request (35=F) Tradable Quote (35=i) and OrderStatusRequest(35=H)
- A stop order is triggered
- An MTF operator cancelling (busting) an existing trade
- An MTF operator cancelling an order.
- The Exchange initiated cancellation due to a change in instrument status (e.g. instrument is knocked out, delisted, redeemed, etc.)

Only the Member who submits an order to OE Gateway will receive the Execution Report (35=8) for that order.

Case Examples

The Execution Type (150) and Order Status (39) in the Execution Report (35=8) message represent a number of cases related to an order.

Case Example	Tag	Name	Value	Notes
Order Placed without a Trade	150	ExecType	0 = New	Order Ready for Execution
	39	OrdStatus	0 = New	
Order Rejected	150	ExecType	8 = Rejected	Order Rejected due to Trading Session closed
	39	OrdStatus	8 = Rejected	
	103	OrdRejReason	2 = Exchange Closed	
	58	Text	Trading Session Closed	
Order Partially Filled	150	ExecType	F = Trade	Order of 40 size, filled 15 and leaving 25 for further execution
	39	OrdStatus	1 = Partially Filled	
	38	OrderQty	40	
	151	LeavesQty	25	
	14	CumQty	15	
Order Filled	150	ExecType	F = Trade	Order of 40 size, filled 40 and there is no more execution
	39	OrdStatus	2 = Filled	
	38	OrderQty	40	
	151	LeavesQty	0	
	14	CumQty	40	
Order Cancel Replaced by Request	11	ClOrdID	CxlRplcReq_281	Order (OrderReq_235) cancelled and replaced by the request ClOrdID (CxlRplcReq_281).
	41	OrigClOrdID	OrderReq_235	
	150	ExecType	5 = Replaced	
	39	OrdStatus	**[NO_CHANGE]**	
Order Expired	150	ExecType	4 = Cancelled	Order of 40 size, filled 20 and the rest expired
	39	OrdStatus	4 = Cancelled	
	38	OrderQty	40	
	151	LeavesQty	0	
	14	CumQty	20	

Order Cancelled by Exchange	11	ClOrdID	CxlReq_312	No OrigClOrdID (41) unless it was amended by request before cancelled by the Exchange
	150	ExecType	4 = Cancelled	Order of 40 size, filled 20 and the rest cancelled
	39	OrdStatus	4 = Cancelled	
	38	OrderQty	40	
	151	LeavesQty	0	
	14	CumQty	20	
	84	CxlQty	20	
Order Cancelled by Request	11	ClOrdID	CxlReq_312	Order (OrderReq_255) cancelled by the request ClOrdID (CxlReq_312). Original size 40, filled 20 and the rest cancelled
	41	OrigClOrdID	OrderReq_235	
	150	ExecType	4 = Cancelled	
	39	OrdStatus	4 = Cancelled	
	38	OrderQty	40	
	151	LeavesQty	0	
	14	CumQty	20	
	84	CxlQty	20	
Trade Cancel (Trade Busted)	150	ExecType	H = Trade Cancel	
	39	OrdStatus	0|1|2|4	Status of the order after removing this trade
	32	LastQty	5	LastQty on the Execution that was cancelled
	38	OrderQty	20	Current OrderQty at the time of the cancellation
	14	CumQty	10	New CumQty on the order following the cancellation
	151	LeavesQty	10	New LeavesQty following the cancellation
	17	ExecId	BustId	Generated Id for the Trade Bust
	19	ExecRefId	Exec_17	Execution Id of the Execution that was busted
	11	ClOrdId	Exec_ClOrdId	Current (latest) clOrdId of the order that the cancelled execution relates to
	6	AvgPx	4.56	The new AvgPx after cancelling the Execution
	84	CxlQty	0	Quantity Cancelled. May be 0
Restatement (following Trade Bust of a Working Order)	150	ExecType	D = Restatement	
	378	Restatement Reason	5 = Partial Decline of OrderQty	
	39	OrdStatus	0|1|2	Status of the order after removing this trade
	38	OrderQty	15	New OrderQty after removing the Qty on the cancellation
	14	CumQty	10	New CumQty on the order following the cancellation
	151	LeavesQty	5	LeavesQty following the cancellation
	17	ExecId	XXXXXX	Generated
	11	ClOrdId	Exec_ClOrdId	Current (latest) clOrdId of the order
	6	AvgPx	4.56	Calculated from the remaining executions on the Order
Stop Order Placed	150	ExecType	0 = New	Stop order is on the stop book

	39	OrdStatus	0 = New	
	40	OrdType	R or S	
Stop Order Cancelled	150	ExecType	4 = Cancelled	Stop order removed from the stop book
	39	OrdStatus	4 = Cancelled	
	40	OrdType	R or S	
Stop Order Triggered	150	ExecType	D = Restated	Stop order is now an active order on the book
	378	ExecRestatementReason	99 = Other	
	1823	Triggered	2 = Stop order triggered	
	39	OrdStatus	0 = New	
	40	OrdType	R or S	
Stop Order Rejected on Triggering	150	ExecType	8 = Rejected	Stop order rejected due to Pre Trade Controls validation failure
	39	OrdStatus	8 = Rejected	
	40	OrdType	R or S	
	1823	Triggered	2 = Stop order triggered	
	103	OrdRejReason	99 = Other	
	58	Text	order value exceeds allowed maximum: orderValue=105000000.000000, maxOrderValue=50000000.000000	
Stop Order Cancel Replaced by Request	11	ClOrdID	CxlRplcReq_201	Stop Order (OrderReq_200) cancelled and replaced by the request ClOrdID (CxlRplcReq_201).
	41	OrigClOrdID	OrderReq_200	
	150	ExecType	5 = Replaced	
	40	OrdType	R or S	
	39	OrdStatus	**[NO_CHANGE]**	
Order Status Requested	150	ExecType	I = Order Status	
Order Status Requested for unknown order	150	ExecType	I = Order Status	
	11	ClOrdId	<value supplied in OrderStatusRequest>	
	39	OrderStatus	8=Rejected	
	37	OrderID	"NONE"	
	17	ExecId	0	
	14	CumQty	0	
	38	OrderQty	0	
	151	LeavesQty	0	
	40	OrdType	LIMIT	
	48	Security	<value supplied in OrderStatusRequest>	
	54	Side	<value supplied in OrderStatusRequest>	
	55	Symbol	<value supplied in OrderStatusRequest>	
	59	TimeInForce	1=GTC	
	103	OrdRejReason	5=UnkownOrder	

Execution Report (35=8)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
37	OrderID	Y	The Exchange assigned identifier of the order. This ID will typically be used in all subsequent messages relating to this order. The Member is expected to manage the association between this ID and their ClOrdID (11).
526	SecondaryClOrderID	C	The unique identifier of the order as assigned by the Member. If it is a quote, it refers to QuoteEntryID (299) which is the less unique identifier of the Mass Quote message
11	ClOrdID	Y	The unique identifier of the order as assigned by the Member. If it is a quote, it refers to QuoteID (117) which is the more unique identifier of the Mass Quote message
41	OrigClOrdID	C	Original Client Order ID sent back in response to a Cancel or Cancel Replace request by the Member. If the order has been cancelled by the Exchange this will not be set.
	<Parties>		
880	TrdMatchID	C	Required only if ExecType (150) = (F = Trade). The unique identifier of this trade. The same ID is given to the Execution Report (35=8) of the counterparty.
17	ExecID	Y	The unique identifier of this execution report.
19	ExecRefID	C	Execution Id of the Execution that was busted
150	ExecType	Y	The purpose of the message. • 0 = New Order • 4 = Cancelled • 5 = Replaced • 8 = Rejected • C = Expired • D = Restated • F = Trade • G = Trade Correct • H = Trade Cancel • I = Order Status
39	OrdStatus	Y	The current status of the orders. • 0 = New Order • 1 = Partially Filled • 2 = Filled • 4 = Cancelled • 5 = Replaced • 8 = Rejected • C = Expired
103	OrdRejReason	C	The reason why the order was rejected. Required only if ExecType (150) is 8 = Rejected. • 0 = Exchange option • 1 = Unknown symbol • 2 = Exchange closed • 3 = Order exceeds limit • 4 = Too late to enter • 5 = Unknown Order • 6 = Duplicate Order (e.g. duplicate ClOrdID) • 8 = Stale Order • 11 = Unsupported Order characteristics • 13 = Incorrect quantity • 15 = Unknown account • 18 = Invalid price increment • 99 = Other
378	ExecRestatementReason	C	Required if ExecType (150) is D = Restated
64	SettlDate	C	Required only if ExecType (150) = (F = Trade). Specific date of trade settlement (SettlementDate) in YYYYMMDD format.
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
202	StrikePrice	C	Required only if ExecType (150) = (F = Trade). The Strike price of the instrument at the time of this trade.
54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)

38	OrderQty	Y	The original quantity of the order
40	OrdType	Y	• 1 = Market • 2 = Limit
44	Price	C	The current price of the order. Required if OrdType (40) is 2 = Limit
377	SolicitedFlag	N	Indicate if the order was submitted via FIX or by the Exchange. • Y = Order submitted via FIX (default) • N = Order submitted by the Exchange
59	TimeInForce	Y	The current Time-in-force of the order. • 0 = Day • 1 = Good Till Cancel (GTC) • 3 = Immediate Or Cancel (IOC) • 4 = Fill Or Kill (FOK) • 6 = Good Till Date (GTD)
432	ExpireDate	C	The Date of order expiration. Required if TimeInForce(59) is 6= Good Till Date (GTD)
1057	AggressorIndicator	C	Required only if ExecType (150) = (F = Trade). • Aggressor • Passive
32	LastQty	C	Required only if ExecType (150) = (F = Trade). The executed quantity of the last trade
31	LastPx	C	Required only if ExecType (150) = (F = Trade). The executed price of the last trade
30	LastMkt	C	Required only if ExecType (150) = (F = Trade)
151	LeavesQty	Y	The order quantity available for further execution. If the OrdStatus (39) is Cancelled, Expired, Calculated, or Rejected (in which case the order is no longer active) then LeavesQty (151) could be 0, otherwise LeavesQty = OrderQty - CumQty.
14	CumQty	Y	The cumulative traded quantity
6	AvgPx	N	The average traded price
84	CxlQty	C	The order quantity cancelled. Required if OrdStatus (39) is 4 = Cancelled
75	TradeDate	C	Required only if ExecType (150) = (F = Trade). Business date of trade YYYYMMDD format.
60	TransactTime	Y	Time the transaction represented by this Execution Report occurred
58	Text	N	Any message from the Exchange
851	LastLiquidityInd	C	Required only if ExecType (150) = (F = Trade). Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity • 1 = Added Liquidity • 2 = Removed Liquidity
15	Currency	C	Required only if ExecType (150) = (F = Trade)
	<Standard Message Trailer>		

H - Trade Capture Reporting

The Exchange offers its Members the possibility to request a historical snapshot of their trades from a specific period of time with a maximum coverage of 24-hrs. The Member can also subscribe to receive a trade capture report for each trade executed on the Exchange where one of the contra-party is the Member in addition to the execution reports they receive for every fill.

TradeCaptureReportRequest (35=AD)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
	<Parties Block>		
568	TradeRequestID	Y	The unique (within a trading session) identifier of the trade request, assigned by the Member
569	TradeRequestType	Y	• 0 = All Trades (when 263=0, then limited to last 24 hours) • 1 = Matched Trades matching criteria provided on request
263	SubscriptionRequestType	Y	• 0 = Snapshot • 1 = Updates (Subscribe) • 2 = Disable previous update request (Unsubscribe)
580	NoDates	C	• Only applicable when 263=0. • Maximum number of elements is 2 • 1st element is treated as "FROM" datetime • 2nd element is treated as "TO" datetime • The maximum allowed period between FROM and TO is 24 hours. • If only 1 element supplied, then TO is assumed to be current time. • If no dates are provided, FROM is assumed to be from Midnight of current day , TO is assumed to be current time
> 60	TransactTime	C	Used to request trades for a specific time (expressed in UTC) period. Must be provided if NoDates > 0
	<Standard Message Trailer>		

TradeCaptureReportRequestAck (35=AQ)

Tag	Name	Req'd	Notes
	<Standard Message Header>		
568	TradeRequestID	Y	The unique (within a trading session) identifier of the trade request, provided by the Member
569	TradeRequestType	Y	• 0 = All Trades • 1 = Matched Trades matching criteria provided on request
263	SubscriptionRequestType	Y	• 0 = Snapshot • 1 = Updates (Subscribe) • 2 = Disable previous update request (Unsubscribe)
749	TradeRequestResult	Y	• 0 = Successful • 8 = TradeRequestType not supported • 99 = Other
750	TradeRequestStatus	Y	• 0 = Accepted • 1 = Completed (Only for an empty response in case of SubscriptionRequestType = 0 (Snapshot)) • 2 = Rejected
748	TotNumTradeReports	C	Only set (and will be 0) when 263 = 0 (Snapshot) and no trades are found
	<Standard Message Trailer>		

TradeCaptureReport (35=AE)

Tag		Name	Req'd	Notes
		<Standard Message Header>		
568		TradeRequestID	Y	The unique (within a trading session) identifier of the trade request, provided by the Member
571		TradeReportID	Y	The unique identifier of the trade capture report assigned by the Exchange
1003		TradeID	Y	The unique identifier of the trade in the Exchange. The same ID is used in the Execution Report (35=8) of the counterparty in this trade.
17		ExecID	Y	The unique identifier of this report.
19		ExecRefID	C	Execution Id of the Execution that was busted
31		LastPx	Y	The executed price of the last trade
32		LastQty	Y	The executed quantity of the last trade
30		LastMkt	Y	Market of execution of the trade
75		TradeDate	Y	Business date of trade YYYYMMDD format.
60		TransactTime	Y	Time of the trade transaction shown in this report
64		SettleDate	Y	Specific date of trade settlement (SettlementDate) in YYYYMMDD format.
55		Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48		SecurityID	Y	The Exchange assigned identifier of the instrument.
202		StrikePrice	C	The Strike price of the instrument at the time of this trade. Required only if ExecType (150) = (F = Trade)
150		ExecType	Y	• D = Restated • F = Trade • H = Trade Cancel
15		Currency	C	Required only if ExecType (150) = (F = Trade)
851		LastLiquidityInd	C	Required only if ExecType (150) = (F = Trade). Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity • 1 = Added Liquidity • 2 = Removed Liquidity
912		LastRptRequested	C	Indicates whether this message is the last report message in response to a trade capture report request (35=AD) Y = Last message
552		NoSides		indicates the number of side in the report, currently always return "1"
>	54	Side	Y	• 1 = Buy (Bid) • 2 = Sell (Offer)
>	37	OrderID	Y	The Exchange assigned identifier of the order. This ID will typically be used in all subsequent messages relating to this order. The Members are normally expected to manage the association between this ID and their ClOrdID (11)
	11	ClOrdID	Y	The unique identifier of the order as assigned by the Member. If it is a quote, it refers to QuoteEntryID (299).
	526	SecondaryClOrderID	C	It refers to QuoteID (117). Required only if it is a quote
	39	OrdStatus	Y	The current status of the orders. • 0 = New Order • 1 = Partially Filled • 2 = Filled • 4 = Cancelled • 5 = Replaced • 8 = Rejected • C = Expired
1116		NoRootPartyIDs	Y	The number of RootPartyIds contained. This block is analogous to the standard party block defined in <Parties>
>	1117	RootPartyID	C	
>	1118	RootPartyIDSource	Y	
>	1119	RootPartyRole	Y	
		<Standard Message Trailer>		

Examples

Case 1: Trade Capture Report request – subscribe to all trades (35=AD)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_001
569	TradeRequestType	0
263	SubscriptionRequestType	1
	<Standard Message Trailer>	

Case 1a: Trade Capture Report request ack – subscribe to all trades (35=AQ)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_001
569	TradeRequestType	0
263	SubscriptionRequestType	1
749	TradeRequestResult	0
>750	TradeRequestStatus	0
	<Standard Message Trailer>	

Case 2: Trade Capture Report request – unsubscribe to all trades (35=AD)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_001
569	TradeRequestType	0
263	SubscriptionRequestType	2
	<Standard Message Trailer>	

Case 2a: Trade Capture Report request ack – unsubscribe to all trades (35=AQ)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_001
569	TradeRequestType	0
263	SubscriptionRequestType	2
749	TradeRequestResult	0
>750	TradeRequestStatus	0
	<Standard Message Trailer>	

Case 3: Trade Capture Report request – snapshot of trades from a specific time period (e.g. trades from 20210728-10:48:18.537 UTC)

Mode 1 (only From Date provided)

Tag		Name	Value
		<Standard Message Header>	
568		TradeRequestID	TradeReq20210730_002
569		TradeRequestType	1
263		SubscriptionRequestType	0
580		NoDates	1
>	60	TransactTime	20210728-10:48:18.537
		<Standard Message Trailer>	

Mode 2 (Both From and To Datetime provided)

Tag		Name	Value
		<Standard Message Header>	
568		TradeRequestID	TradeReq20210730_002
569		TradeRequestType	1
263		SubscriptionRequestType	0
580		NoDates	2
>	60	TransactTime	20210728-10:48:18.537
>	60	TransactTime	20210729-10:48:18.536
		<Standard Message Trailer>	

Case 3a: Trade Capture Report request ack – snapshot of trades from a specific time period (e.g. trades from 20210728-10:48:18.537 UTC) (35=AQ)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_002
569	TradeRequestType	1
263	SubscriptionRequestType	0
749	TradeRequestResult	0
>750	TradeRequestStatus	0
	<Standard Message Trailer>	

Case 4: Trade Capture Report Ack - Rejected (35=AQ)

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	as provided by the Member
569	TradeRequestType	as provided by the Member
263	SubscriptionRequestType	as provided by the Member
749	TradeRequestResult	0
>750	TradeRequestStatus	2

	<Standard Message Trailer>

Case 5: Trade Capture Report - Trade

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_002
571	TradeReportID	TradeReq20210730_002_REPORT00001
1003	TradeID	T1T21627647683904001701
17	ExecID	E1T21627647683908004860
31	LastPx	5.725
32	LastQty	50
6	AvgPx	5.725
30	LastMkt	SPEX
75	TradeDate	20210728
60	TransactTime	20210728-10:48:21.253
64	SettleDate	20210730
55	Symbol	DEUATXU00381
48	SecurityID	U0000GPKE
202	StrikePrice	40.1454
150	ExecType	F
552	NoSides	1
> 54	Side	1
> 37	OrderID	O1T21627647683896001086
11	ClOrdID	UATEST:1276961~42
39	OrdStatus	1
	<RootParties>	
	<Standard Message Trailer>	

Case 6: Trade Capture Report - Trade Cancel

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_002
571	TradeReportID	TradeReq20210730_002_REPORT00001
1003	TradeID	T1T21627647683904001701
17	ExecID	E1T41626438895610006908
31	LastPx	2.056
32	LastQty	1
6	AvgPx	2.056
30	LastMkt	SPEX
75	TradeDate	20210728
60	TransactTime	20210728-10:48:22.424
64	SettleDate	20210730
55	Symbol	DE2101U01277

48	SecurityID	U0000GJVW
202	StrikePrice	6787.5
150	ExecType	H
552	NoSides	1
> 54	Side	1
> 37	OrderID	OV00000U0000GJVW00000690348ON
11	ClOrdID	0
39	OrdStatus	1
	<RootParties>	
	<Standard Message Trailer>	

Case 7: Trade Capture Report - Final Message

Tag	Name	Value
	<Standard Message Header>	
568	TradeRequestID	TradeReq20210730_002
571	TradeReportID	TradeReq20210730_002_REPORT00004
1003	TradeID	T1T11627647684493002465
17	ExecID	E1T11627647684498007123
31	LastPx	1.257
32	LastQty	500
6	AvgPx	1.257
30	LastMkt	SPEX
75	TradeDate	20210728
60	TransactTime	20210728-10:48:23.813
64	SettleDate	20210730
55	Symbol	DEUATXU00110
48	SecurityID	U0000GMY3
202	StrikePrice	3733.7385
150	ExecType	F
912	LastRptRequested	Y
552	NoSides	1
> 54	Side	2
> 37	OrderID	O1T11627647684485001812
11	ClOrdID	UATEST:1277960~64
39	OrdStatus	2
	<RootParties>	
	<Standard Message Trailer>	

I - Pre-Trade

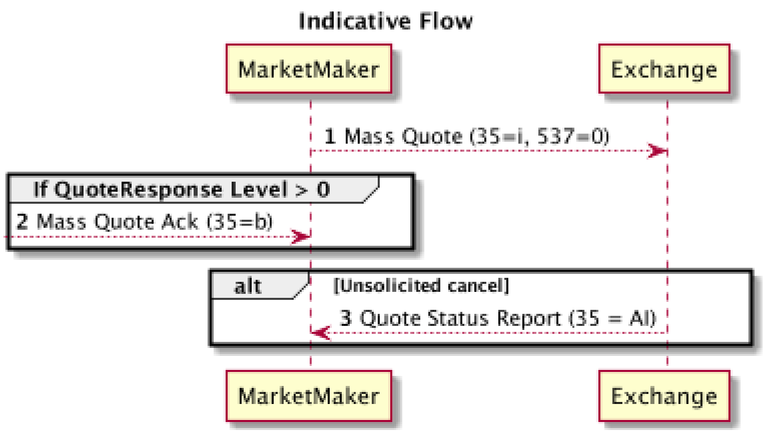
Quoting

A Market Maker submits quotes using Mass Quotes (35=i). Two models of execution are supported according to the Market Makers Obligation. Either Continuous Trading (i.e. always executable quotes) or Request for Execution (RfE) (i.e. indicative quotes combined a with request for executable quote)

The Market Maker can submit quotes across multiple instruments in a single Mass Quote, as the Mass Quote is not bound to an underlying, it can contain any instrument set. The Exchange will limit the number of quotes in a single Mass Quote to 64. The Market Maker is expected to implement its own batch strategy. The Market Maker must track the current values of its submitted quotes to the Exchange.

For the RfE flow, tradable quotes are solicited by the Exchange using a Quote Request and issued by the Market Maker using a Mass Quote. The Quote Status Report cannot be used in conjunction with the RfE flow to indicate where residual from a tradable quote is demoted to indicative, as this behaviour is explicitly agreed in the Market Maker Model.

Quoting capacity limits will be agreed per Session and across all Sessions between the Exchange and the Market Maker.



Mass Quote (35=i)

A Mass Quote can contain Quotes against multiple unrelated Instruments (unrelated by underlying or otherwise). An Issuer can submit multiple quotes in an instrument at the same time, but it is their responsibility to control the book, adding or cancelling individual Quote levels against an Instrument as required, using the QuoteEntryId

Quote Sets can not span messages, so a single Mass Quote message must contain all Quotes for the Quote Set

Tag	Name	Req'd	Notes
	<Standard Message Header>		
131	QuoteReqID	C	Required when quote is in response to a Quote Request message
117	QuoteID	Y	A unique identifier for this Mass Quote message for the Member's FIX session. A Member using multiple FIX Sessions might want to keep QuoteID unique across FIX Sessions if updates for the same Instrument are sent across sessions Any executions will use this identifier as Client Order ID (198) in the Execution Report (35=8). Maximum length 63 bytes
537	QuoteType	N	• 0 = Indicative, • 1 = Tradable. • Default is 0

301		QuoteResponseLevel	N	• 0 = No Acknowledgement. Will not get a response • 1 = Negative Ack. Will get a response only if one or more Quotes in the Quote Set are rejected. Will return per Quote details for rejected Quotes • 2 = Positive Ack. Only allowed by Liquidity Providers on RFE flow if the Quote is Tradable (in response to a Request For Quote) • 3 = Summary. Will get a summary response, plus any per Quote rejections, as per 1 = Negative Ack • Default 1. Negative ACK only
2403		QuoteModelType	N	• 1 = Quote Entry • 2 = Quote Modification (this is a dynamic alternative to a Quote Issuer speed bump, i.e. match up to X in Y seconds, which must be reset by the market maker) • Default 1, Quote Entry
293		DefBidSize	N	Default Bid Size for quote contained within this quote message - if not explicitly provided.
294		DefOfferSize	N	Default Offer Size for quote contained within this quote message - if not explicitly provided
		<Parties>	N	Not required on IOI Required on executable quote
296		NoQuoteSets	Y	The number of quote sets in the message, must be 1
302		QuoteSetID	N	Sequential number for the Quote Set. Must be fixed to 1. Quote entries in this set can span underlyings as the Quote Set is not bound to an underlying
295		NoQuoteEntries	Y	The number of quote entries in this quote set. NoQuoteEntries <= 64
>	299	QuoteEntryID	C	Defaulted to "1" (in which case last Quote is replaced) for single level quoting. However, when multiple levels are quoted on an instrument, this is used to identify the specific Quote so should be given (recommended count up by 1 per level, i.e. per 2 sided Quote) Will be used on subsequent executions as Secondary Client Order ID (11) in the Execution Report (35=8) (Note: for Market Makers: Security ID, Secondary Client Order ID (11) and Client Order ID (198) combine to identify the Quote of execution) Must be unique per SecurityID QuoteEntryID <= 255
>	48	SecurityID	Y	The Exchange assigned identifier of the instrument
>	22	SecurityIDSource	N	• 8 = Exchange Symbol
Price and size are optional, however for each side one must be present				
>	132	BidPx	C	Must be omitted if BidSize=0 (cancellation)
>	133	OfferPx	C	Must be omitted if OfferSize=0 (cancellation)
>	134	BidSize	C	If not given DefBidSize will be used (if given). If Quote Model Type = 2, will be adjusted accordingly A zero size will cancel the side
>	135	OfferSize	C	If not given DefOfferSize will be used (if given). If Quote Model Type = 2, will be adjusted accordingly A zero size will cancel the side where an Indicative quote is specified (QuoteType=0) **only**. Where a Tradable quote is specified (QuoteType=1) the matching model of the Exchange would have already cancelled the indicative quotes present in the book after an RfE is triggered and thus there would be nothing to cancel on a Tradable quote if a zero size was specified. This would result in a rejected Tradable quote.
		<Standard Message Trailer>		

Mass Quote Acknowledgement (35=b)

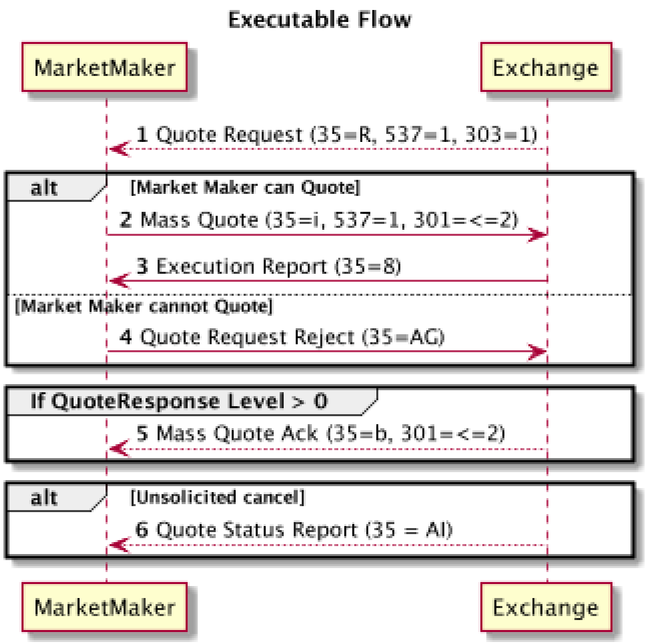
A Mass Quote Acknowledgement is only sent after the message has been fully processed in the Matcher(s)

The Mass Quote Acknowledgement allows a mixture of accepted and rejected Quotes

Mass Quote Acknowledgement will only be sent if QuoteResponseLevel = 3 (from Mass Quote), QuoteResponseLevel = 1 (from Mass Quote) and at least one Quote was rejected, or QuoteResponseLevel = 2 (from Mass Quote) and a Liquidity Provider is quoting an executable Quote in an RFE model

Tag		Name	Req'd	Notes
		<Standard Message Header>		
117		QuoteID	Y	As per Mass Quote
537		QuoteType	N	As per Mass Quote
297		QuoteStatus	N	• 0 = Accepted, • 5 = Rejected. Only rejected if full MassQuote rejected (possible reject reasons specified in 300). Otherwise individual Quote entries and/or summary details must be interrogated to discover per Quote rejections In response to a Quote Response Level = 2: • 11 = Pass • 21 = Traded
300		QuoteRejectReason	C	Possible reasons for Mass Quote rejection. Valid values are: • 80 = Invalid Short Code (where specified in the party detail for which no short code mapping has been agreed) • 99 = Other
296		NoQuoteSets	Y	As per Mass Quote
302		QuoteSetID	N	As per Mass Quote
1168		TotNoCxldQuotes	C	Only if QuoteResponseLevel=3 on Mass Quote
1169		TotNoAckQuotes	C	Only if QuoteResponseLevel=3 on Mass Quote
1170		TotNoRejQuotes	C	Only if QuoteResponseLevel=3 on Mass Quote
The below is provided only if 1+ Quotes are rejected				
295		NoQuoteEntries	Y	1 per rejection
>	299	QuoteEntryID	C	As per Mass Quote
>	1167	QuoteEntryStatus	N	• 5 = Rejected
>	368	QuoteEntryRejectReason	Y	A coded reason for rejection. Should reflect Instrument lifecycle as required • 1 = Unknown symbol • 4 = Too late to enter • 7 = Invalid bid ask spread (if required by Liquidity obligation) • 8 = Invalid price (if required by Liquidity obligation) • 9 = Not authorised to quote security • 10 = Stale quote (if required to protect Market Maker in Continuous Trading Model) • 99 = Other • 100 = Quote entries but contain bid and/or offer • 101 = Size could not be parsed • 102 = Price could not be parsed • 103 = Price without size • 104 = Prices must have a maximum precision of 6 decimal places • 105 = SecurityIdSource must be 8 (Exchange Symbol) • 106 = Unexpected quote type for security • 107 = Tradeable quote without size • 108 = Price must be unset or zero when size is zero (quote cancel) • 109 = Quote cannot cross the touch when book halted • 110 = Price does not conform to tick size • 111 = Book closed • 112 = Book suspended • 113 = Book strike under adjustment • 114 = Incorrect quote req ID • 115 = Market maker not permitted to quote on instrument
>	48	SecurityID	Y	As per Quote

>	22	SecurityIDSource	N	As per Quote
>	55	Symbol	C	The Exchange assigned human-readable symbol of the instrument.(Packed on quoteReject messages QuoteStatus=5)
>	132	BidPx	C	As per Quote
>	133	OfferPx	C	As per Quote
>	134	BidSize	C	As per Quote
>	135	OfferSize	C	As per Quote
		<Standard Message Trailer>		



QuoteRequest (35=R)

The Member quoting is initiated by the Exchange using a QuoteRequest (35=R) message. The Exchange will solicit an Executable Quote. The absence of Side (54) assumes a 2-way Quote

Tag	Name	Req'd	Notes
	<Standard Message Header>		
131	QuoteReqId	Y	A unique identifier generated by the Exchange for this Quote Request. Any subsequent execution will use this identifier as Secondary Client Order ID (198) in the Execution Report (35=8)
117	QuoteID	N	The QuoteID of the Mass Quote provided by the Member who's quote the Exchange are soliciting a response from
537	QuoteType	N	• 1 = Tradable
303	QuoteRequestType	N	• 4 = Non-streaming. Single Quote only accepted
48	SecurityID	Y	The Exchange assigned identifier of the instrument
22	SecurityIDSource	N	• 8 = Exchange Symbol

QuoteRequestReject (35=AG)

The Member can reject a Request for Executable Quote by sending a Quote Request Reject to clearly and quickly terminate a matching phase and to communicate any problems with the Quote Request. The Exchange does not expect a rejection in normal running. A valid reject reason is expected

Tag	Name	Req'd	Notes
	<Standard Message Header>		
131	QuoteReqID	Y	Must correlate to opening QuoteReqId
658	QuoteRequestRejectReason	Y	A coded reason for rejection
537	QuoteType	N	• 1 = Tradable
48	SecurityID	Y	The Exchange assigned identifier of the instrument
22	SecurityIDSource	N	• 8 = Exchange Symbol
1328	RejectText	Y	The reason for cancellation (Max length 100 characters)
	<Standard Message Trailer>		

QuoteStatusReport (35= AI)

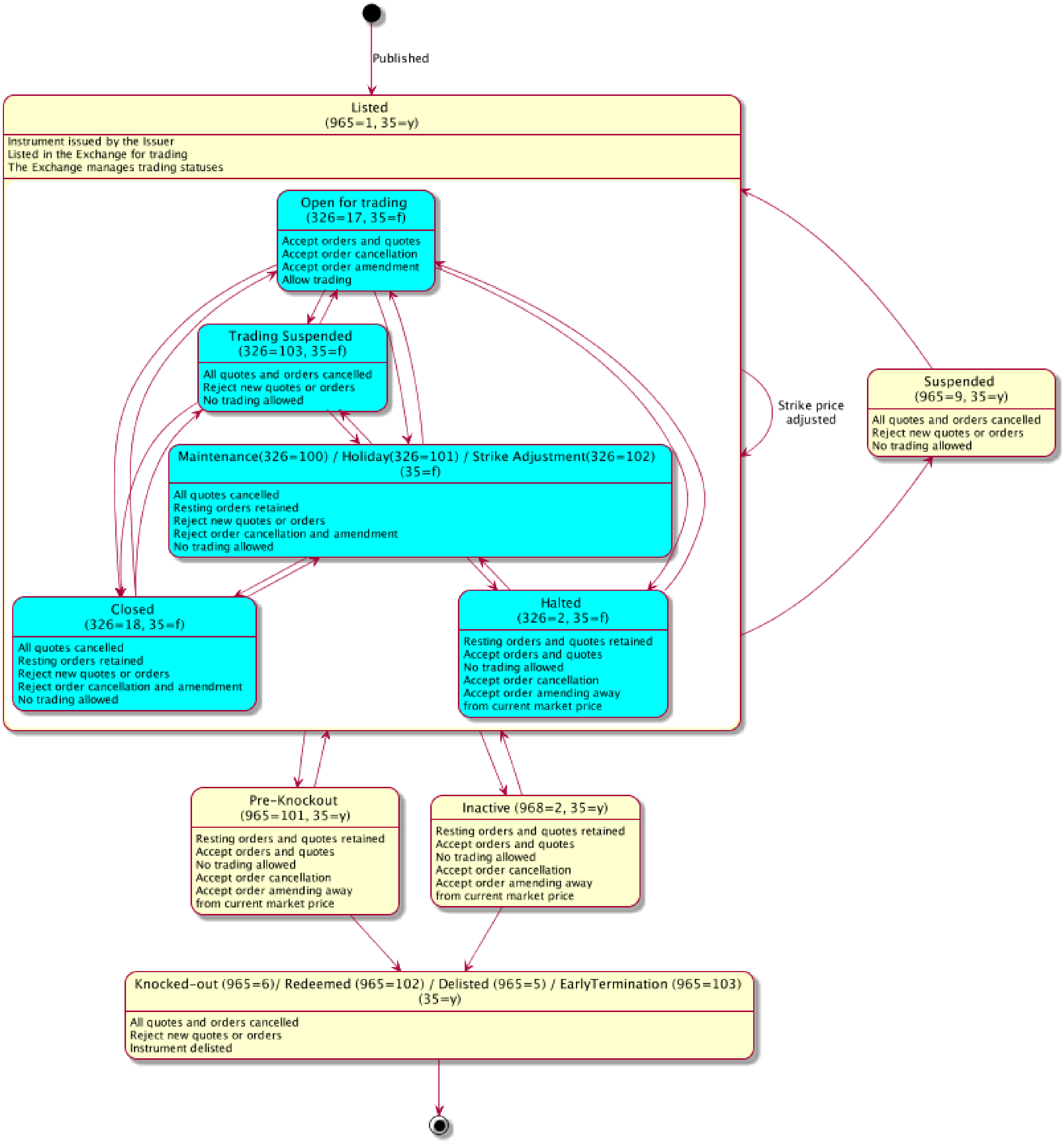
A quote status report is initiated by the Exchange using a QuoteStatusReport (35=AI) message. These are unsolicited messages generated by the Exchange in response to internal operations, such as circuit break events, where we need to notify Members that their quotes are now cancelled

Tag	Name	Req'd	Notes
	<Standard Message Header>		
117	QuoteID	Y	The QuoteID of the Mass Quote provided by the Member who's quote the Exchange are soliciting a response from
537	QuoteType	Y	The QuoteType of the Mass Quote provided by the Member's. • 0 = Indicative • 1 = Tradable
	<Parties>	C	Only populated for executable quotes, and should persist only when QuoteType=1(Tradable Quote)
55	Symbol	Y	The Exchange assigned human-readable symbol of the instrument.
48	SecurityID	Y	The Exchange assigned identifier of the instrument.
22	SecurityIDSource	Y	• 8 = Exchange Symbol
297	QuoteStatus	Y	Identifies the status of the quote acknowledgement. • 0 = Accepted • 1 = Cancelled for specific securities • 4 = Cancelled all • 5 = Rejected • 9 = Quote not found • 14 = Cancelled due to Lock Market • 17 = Cancelled
60	TransactTime	Y	Time when this transaction occurred
58	Text	N	Any reason given by the Exchange for the change of Quote status
	<Standard Message Trailer>		

J - Instrument Lifecycle

Instrument status is determined via a combination of the SecurityStatus (tag 965) on the SecurityList (35=y) and SecurityTradingStatus (tag 326) on the SecurityStatusMessage (35=f).

The below diagram shows SecurityStatus(965) in yellow and SecurityTradingStatus(326) in blue



Trading Status to Order/Quote Reject Code

Trading Status	Quote (MassQuoteAck)	Order (ExecutionReport)
Closed	QuoteEntryRejectReason=110	OrdRejReason=99
Suspended	QuoteEntryRejectReason=111	OrdRejReason=99
Halted	QuoteEntryRejectReason=109 (Only rejected if quote will trade)	OrdRejReason=99 (Only rejected if order will trade)
Maintenance/Holiday/Strike Adjustment	QuoteEntryRejectReason=112	OrdRejReason=99

Appendix – Common Message Blocks

Standard Message Header

The message header identifies the source and destination to route the message and replies. Additionally, it specifies the message type and provides integrity checks. To properly support timestamp validations, all parties must synchronise system clocks to standard references.

Tag	Name	Req'd	Notes
8	BeginString	Y	Must be FIXT.1.1
9	BodyLength	Y	Must be second tag in message
35	MsgType	Y	Must be third tag in message
1128	ApplVerID	N	Must be 9 = FIX50SP2
1129	CstmApplVerID	N	Not used
49	SenderCompID	Y	Assigned value used to identify sender of message
56	TargetCompID	Y	Assigned value used to identify receiver of message
115	OnbehalfOfCompID	N	Trading partner company ID used when sending messages via a third party
128	DeliverToCompID	N	Trading partner company ID used when sending messages via a third party
90	SecureDataLen	N	Not supported
91	SecureData	N	Not supported
34	MsgSeqNum	Y	Message sequence number
50	SenderSubID	N	Not used
142	SenderLocationID	N	Sender's LocationID (i.e. geographic location and/or desk)
57	TargetSubID	N	Not used
143	TargetLocationID	N	Trading partner's geographic location and/or desk
116	OnBehalfOfSubID	N	Trading partner SubID used when delivering messages via a third party.
144	OnBehalfOfLocationID	N	Trading partner LocationID (i.e. geographic location and/or desk) used when delivering messages via a third party.
129	DeliverToSubID	N	Trading partner SubID used when delivering messages via a third party.
145	DeliverToLocationID	N	Trading partner's geographic location and/or desk. Used when delivering messages via a third party.
43	PossDupFlag	N	Always required for retransmitted messages, whether prompted by the sending system or as the result of a resend request.
97	PossResend	N	Required when message may be duplicate of another message sent under a different sequence number.
52	SendingTime	Y	Expressed in GMT
122	OrigSendingTime	N	Required for message resent as a result of a Resend Request (2) message. If data is not available set to same value as SendingTime (52)
347	MessageEncoding	N	Not supported
369	LastMsgSeqNumProcessed	N	The last MsgSeqNum (34) value received and processed. Can be specified on every message sent. Useful for detecting a backlog with counterparty.

Standard Message Trailer

Tag	Name	Req'd	Notes
93	SignatureLength	N	Not supported
89	Signature	N	Not supported
10	Checksum	Y	Three byte, simple checksum