FIX Proxy Specification-v5.2.3
Programming Reference

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Contents

1 Introduction

1.1 Supported FIX Versions

HSFX FIX Gateway currently supports the FIX Protocol Version 4.2. *Note, however, that the values of tags 553 and 554 are actually those of FIX Protocol Version 4.3. Tags 39, 150, and 102 are actually those of FIX Protocol Version 4.4.*

HSFX Full Amount Maker Gateway currently supports the FIX Protocol Version 4.4. *Note, however, that tags 6997, 6998, 6999, 7000, 7001 are custom HSFX tags.*

1.2 Hours of Operation

All times are represented in Eastern Time (ET), which uses EST (UTC-05) during fall/winter and EDT (UTC-04) during spring/summer months when daylight saving time is observed. The window between disconnect and restart is approximate and is subject to change.

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
Disconnect	5:00PM	5:00PM	5:00PM	5:00PM	5:00PM	N/A	N/A
Restart	5:02PM	5:02PM	5:02PM	5:02PM	N/A	N/A	5:00PM

1.3 Network Connection

Cboe FX supports a number of connectivity options including the Internet, leased lines, VPN, and third party networks.

Third party networks include Radianz, GuavaTech, Yipes, and TNS. The client should be prepared to provide Cboe FX source IP addresses for all servers that will be establishing connectivity to Cboe FX. Cboe FX's connectivity team will help our clients establish connectivity through a standard on-boarding process.

1.4 Security and Encryption

HSFX require using secure socket layer (SSL) for any client that chooses to connect to HSFX FIX Gateway through the Internet.

1.5 Message Types

The Following FIX messages are understood by the system

Type	Description	Spot ECN	Full Amount
0	HeartBeat	Y	Y
1	TestRequest	Y	Y
2	ResendRequest	Y	Y
3	Reject	Y	Y
4	SequenceReset	Y	Y
5	Logout	Y	Y
8	ExecutionReport	Y	Y
9	OrderCancelReject	Y	N
A	Logon	Y	Y
D	NewOrderSingle	Y	Y
F	OrderCancelRequest	Y	N
G	OrderCancelReplaceRequest	Y	N
H	OrderStatusRequest	Y	N
R	QuoteRequest	N	Y
S	Quote	Y	Y
Z	QuoteCancel	Y	Y
b	QuoteAcknowledgement	Y	N
j	BusinessMessageReject	N	Y
AG	QuoteRequestReject	N	Y
AJ	QuoteResponse	N	Y

1.6 Data types used in all FIX messages

Type	Format	Example
Int	Integer	9999
Float	Numeric digits with optional decimal point and sign character.	-2000.00000000000 -2000 -2000.
Qty	Quantity: see float	
Price	Price: see float	
Price Offset	Price Offset: see float	
Amt	Amount: see float	
Char		
Boolean	Single Character Y or N	
String	Case Sensitive Alphanumeric characters with no terminating character	
UTC Date/Time	GMT Date/Time: YYYYMMDD-HH:MM:SS	20010101-22:30:00
UTC Date	GMT Date: YYYYMMDD	20010101
UTC Time	GMT Time: HH:MM:SS	22:30:00

2 General FIX Message Structure

The Standard Header and Standard Trailer are required on all FIX messages. MsgType (FIX 35) is part of the header.

2.1 Standard Header

TAG	FieldName	Contents	Comments
8	BeginString	FIX.4.2(.X)	Protocol Version
9	BodyLength	99999	Length of Message Body
35	MsgType	Accepted Message Types	0 = HeartBeat 1 = TestRequest 2 = ResendRequest 3 = Reject 4 = SequenceReset 5 = Logout 8 = ExecutionReport 9 = OrderCancelReject A = Logon D = NewOrderSingle F = OrderCancelRequest G = OrderCancelReplaceRequest H = OrderStatusRequest R = QuoteRequest S = Quote Z = QuoteCancel b = Quote Acknowledgement j = BusinessMessageReject AG = QuoteRequestReject AJ = QuoteResponse
34	MsgSeqNum		Message Sequence Number (Resets to 1 at the start of each trading day)
49	SenderCompID	BIGFUND SMALLFUND HSFX	Sender Company ID (MMID of message sender)
50	SenderSubID	User1 User2	HSFX User ID
56	TargetCompID	BIGFUND SMALLFUND HSFX	Target Company ID (MMID of message receiver)
43*	PossDupFlag		Indicates possible retransmission of this seq num
97*	PossResend		Indicates possible retransmission of msg under a New sequence number
52	SendingTime		GMT Date/Time Message was sent. This value should ideally contain milliseconds. It must be within 2 minutes of system time on the FIX Proxy in order for the message not to be rejected. Since the FIX Proxy is NTP synched, any sender should probably be NTP synched as well.

2.2 Standard Trailer

*Optional

TAG	FieldName	Contents	Comments
10	CheckSum		Integer byte count of message length without the CheckSum field

3 Administrative Messages

3.1 Logon - From Client

TAG	FieldName	Contents	Comments
35	MsgType	A	(Contained in header)
553	Username	(FIX 4.3 usage)	Cboe FX username (or Cboe FX collat)
554	Password	(FIX 4.3 usage)	Password for id in tag#553
98	EncryptMethod	0	None
108	HeartBtInt		Client Hearbeat Interval (In seconds)
141*	ResetSeqNumFlag	N	Indicates the intention to reset sequence numbers on both sides of the connection. Setting this field will prevent resequencing from occurring. Client Logon messages with 141=Y are HIGHLY discouraged other than on initial daily logon. The reason is that its possible for trades to be sent to but never received by a client during a network outage. If a client does not choose to manually ack trades (see section 7), HSFX will assume that those trades have been received by the client. If, in this scenario, a client resequences correctly on logon, they will be resent the missed trades. However, if the clients logon message contains 141=Y, resequencing will not occur and the missed trades will not be sent.

3.2 Logon - Response From Cboe FX

TAG	FieldName	Contents	Comments
35	MsgType	A	(Contained in header)
98	EncryptMethod	0	None
108	HeartBtInt	60	Clients should use a 30 second Heartbeat Interval.

3.3 HeartBeat - From Cboe FX and Client

TAG	FieldName	Contents	Comments
35	MsgType	0	(Contained in header)
112*	TestReqID		Required in response to a Test Request

3.4 TestRequest - From Cboe FX and Client

TAG	FieldName	Contents	Comments
35	MsgType	1	(Contained in header)
112	TestReqID		Auto-Generated Request ID

*Optional

3.5 Resend - From Cboe FX and Client

Clients should NEVER resend previously sent messages, including old prices, in response to a resend request. A GapFill message should be used instead.

TAG	FieldName	Contents	Comments
35	MsgType	2	(Contained in header)
7	BeginSeqNo		
16	EndSeqNo		0 means +infinity

3.6 Reject - From Cboe FX and Client

TAG	FieldName	Contents	Comments
35	MsgType	3	(Contained in header)
45	RefSeqNum		MsgSeqNo of Rejected Message
371*	RefTagID		
372*	RefMsgType		
373*	SessionRejectReason		
58*	Text		

3.7 Business Message Reject - From Cboe FX

Used in Full Amount only.

TAG	FieldName	Contents	Comments
35	MsgType	j	(Contained in header)
45	RefSeqNum		MsgSeqNum of rejected message
372	RefMsgType		The MsgType of the FIX message being references
380	BusinessRejectReason	0 = Other	
58	Text		Reject reason

3.8 SequenceReset/GapFill - From Cboe FX and Client

TAG	FieldName	Contents	Comments
35	MsgType	4	(Contained in header)
36	NewSeqNo		Next expected Sequence Number
123*	GapFillFlag	Y or N	The use of Y is required for common resequencing. N is not recommended, and should only be used in emergency situations that require manual intervention. N causes the SeqNo of the SequenceReset message to be ignored, creating a high possibility of message loss.

3.9 Logout - From Cboe FX and Client

*Optional

TAG	FieldName	Contents	Comments
35	MsgType	5	(Contained in header)
58*	Text		Indicates reason for logout

4 Streaming Quotes

4.1 Spot ECN

A client can be enabled to stream quotes to Cboe FX. Cboe FX will not send an acknowledgment to indicate the receipt of the quote.

4.1.1 Quote – From Client

Use this message to stream up to two orders (one per side) in the same symbol of LMT type at a time. A new quote in an HSFXQuoteLayer <7225> automatically cancels the orders from the previous submission on the same HSFXQuoteLayer before submitting new orders. The client manages the value of HSFXQuoteLayer. To cancel an individual layer of quote for a symbol, set BidPx and/or OfferPx to 0.

TAG	FieldName	Contents	Comments
117	QuoteID	Alphanumeric characters and underscores	Must be unique for each 35=S received. Cboe FX uses the value in this field to identify the order in a trade execution report (with <ClOrdID> field)
35	MsgType	S	(Contained in header)
55	Symbol	EUR/USD USD/JPY	CCY1/CCY2. One symbol per stream quotes message
7225	HSFXQuoteLayer	Integer = [1,n]	Indicate the layer into which the quote is streaming. Cboe FX entitles the client with a maximum layer n.
132*	BidPx	1.23456 or 0	Either tag pair 132+134 or tag pair 133+135 must be present, or both must be present. When value = 0, tag 134 is ignored; the previous bid for this quote id is pulled and no new bid is submitted
134*	BidSize		Quantity of CCY1
133*	OfferPx	1.23456 or 0	Either tag pair 132+134 or tag pair 133+135 must be present, or both must be present. When value = 0, tag 135 is ignored; the previous offer for this quote id is pulled and no new offer is submitted
135*	OfferSize		Quantity of CCY1

4.1.2 Quotes Acknowledgment - From Server

Server sends this message only to indicate errors. If a rejection occurs and Tag 295 is not present, the entire quote is rejected. The presence of tag 295 and its requisite members is used to indicate that rejection has occurred on one or more sides of a quote.

TAG	FieldName	Contents	Comments
117	QuoteID		Same as Tag 117 from 4.1.1 Quote Msg
35	MsgType	b (lower case)	(Contained in header)
297	QuoteAckStatus		5 rejected
300*	QuoteRejectReason	Value = 1,2,5,8,99	1 unknown symbol 2 symbol closed 5 unknown quote 8 invalid price or quantity 99 - other

*Optional

58*	Text	Free text	
295*	NoQuoteEntries	Integer >= 1	Only present in certain rejection messages.
54*	Side		Indicates the side(s) rejected. Only present in certain rejection messages.

4.1.3 Quotes Cancel - From Server

Server sends this message only to indicate errors. If a rejection occurs and Tag 295 is not present, the entire quote is rejected. The presence of tag 295 and its requisite members is used to indicate that rejection has occurred on one or more sides of a quote.

TAG	FieldName	Contents	Comments
117	QuoteID		Same as Tag 117 from 4.1.1 Quote Msg
35	MsgType	b (lower case)	(Contained in header)
297	QuoteAckStatus		5 rejected
300*	QuoteRejectReason	Value = 1,2,5,8,99	1 unknown symbol 2 symbol closed 5 unknown quote 8 invalid price or quantity 99 - other
58*	Text	Free text	
295*	NoQuoteEntries	Integer >= 1	Only present in certain rejection messages.
54*	Side		Indicates the side(s) rejected. Only present in certain rejection messages.

4.1.4 Quotes Cancel - From Client

Quote Cancels initiated from the client will not receive a response from Cboe FX.

TAG	FieldName	Contents	Comments
117	QuoteID		Same as Tag 117 from 4.1.1 Quote Msg
35	MsgType	Z	(Contained in header)
55	Symbol	EUR/USD USD/JPY	CCY1/CCY2. One symbol per stream quotes message
298	QuoteCancelType	1,4	1 Cancel Symbols specified by 295 4 - Cancel all quotes
295*	NoQuoteEntries	Integer >= 1	Only present in certain rejection messages.

*Optional

4.2 Full Amount/Link Direct Maker

4.2.1 Full Amount/Link Direct Quote Request - From Cboe FX

TAG	FieldName	Contents	Comments
131	QuoteReqID		Unique Full Amount Quote Request Identifier
35	MsgType	R	(Contained in header)
Component Block <QuotReqGrp>			
146	NoRelatedSym	1	
Component Block <Instrument>			
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined as CCY1/CCY2
65	SymbolSfx	SPOT = Spot	
end Component Block <Instrument>			
54*	Side	1 = Buy 2 = Sell	Two-way if not specified. If specified, Side always indicates the direction of CCY1 from tag 55. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000. The side indicates the intent from clients (not market makers) perspective.
38*	OrderQty		The order amount in the currency specified in tag 15. This field is only required for Non-persistent Full Amount (Tag 7001 is not set).
64*	SettlDate		Value date.
15	Currency		Deal currency of the request. Can be CCY1 or CCY2 from tag 55. Example: EUR
Component Block <Parties>			Parties block is only required for Non-persistent Full Amount (Tag 7001 is not set)
453*	NoPartyIDs	2	
>> 448†*	PartyID	Cboe FX client identifier.	Case insentitive
>> 452†*	PartyRole	1 = Executing Firm (Client Prime Broker) 3 = Client ID	
end Component Block <Parties>			
end Component Block <QuotReqGrp>			
6997	NumberIn Competition		Number of makers you are competing with. If 0, you are the sole maker.
6999	ClientType	1 = GUI 2 = API	Indicates the clients connection type
7001*	Persistent	1	Indicates that this is a persistent stream request, if specified.
Component Block <MDEntries>			Parties block is only required for Persistent Full Amount (Tag 7001 is set)
268*	NoMDEntries		Number of requests
>> 269†*	MDEntryType	0 = Bid 1 = Offer	
>> 271†*	MDEntrySize		Tier size in Currency (Tag 15). Example: 25 million (Tag 271=25000000)
end Component Block <MDEntries>			

*Optional
†Part of a repeating group

4.2.2 Full Amount/Link Direct Quote Request Reject - From Market Maker

TAG	FieldName	Contents	Comments
131	QuoteReqID		Same as Tag 131 from Quote Request msg.
35	MsgType	AG	(Contained in header)
658	QuoteRequestReject Reason	1 = Unknown Symbol 2 = Exchange closed 3 = Quote Request exceeds limit 4 = Too late to enter 6 = Not authorized to request quote 7 = No match for inquiry 8 = No market for instrument 99 = Other	
146	NoRelatedSym	0	Required by FIX 4.4, but not used.
58*	Text		Indicates reason for rejection

4.2.3 Full Amount/Link Direct Quote - From Market Maker

TAG	FieldName	Contents	Comments
131	QuoteReqID		Same as Tag 131 from Quote Request msg.
35	MsgType	S	(Contained in header)
117	QuoteID		A string of printing ASCII characters. Must be unique within a trading day. '|', single-quote, double-quote, colon, semi-colin, and # characters cannot be used. Cannot exceed 20 characters.
Component Block <Instrument>			
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined as CCY1/CCY2
end Component Block <Instrument>			
132*	BidPx		Bid all-in rate for spot or forward. Required if QuoteRequest Side(54) = 2 or not specified. For spot quotes this value is the same as tag 188.
133*	OfferPx		Offer all-in rate for spot or forward. Required if QuoteRequest Side(54) =1 or not specified.
188*	BidSpotRate		Spot rate for spot quote or the spot component of a quote for a forward. Required if QuoteRequest Side(54) =2 or not specified.
190*	OfferSpotRate		Spot rate for spot quote or the spot component of a quote for a forward. Required if QuoteRequest Side(54) =1 or not specified.
189*	BidForwardPoints		Bid forward points for forward quotes. Example: 1.234 would mean 1.234 pips. Required if QuoteRequest SymbolSfx(65) = FWD and Side(54) =2 or not specified.

*Optional
*Optional

191*	OfferForwardPoints		Offer forward points for forward quotes. Example: 1.234 would mean 1.234 pips. Required if QuoteRequest SymbolSfx(65) = FWD and Side(54) = 1 or not specified.
Component Block <MDEntries>			Parties block is only required for Persistent Full Amount Stream (Tag 7001 is set in Quote Request message)
268*	NoMDEntries		Number of quotes
>> 269†*	MDEntryType	0 = Bid 1 = Offer	
>> 270†*	MDEntryPx		Quote price
>> 271†*	MDEntrySize		Quote size. Example: 25 million (Tag 271=25000000)
>> 299†*	QuoteEntryID		A string of printing ASCII characters. Must be unique within a trading day. '|', single-quote, double-quote, colon, semi-colin, and # characters cannot be used. Cannot exceed 20 characters.
end Component Block <MDEntries>			

4.2.4 Full Amount/Link Direct Quote Cancel - From Market Maker

TAG	FieldName	Contents	Comments
131	QuoteReqID		Same as Tag 131 from Quote Request msg.
35	MsgType	Z	(Contained in header)
298	QuoteCancelType	4	Required by FIX 4.4, but not used.

†Part of a repeating group

5 Order Entry Messages

5.1 Spot ECN

5.1.1 New Order Single - From Client

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this order.
35	MsgType	D	(Contained in header)
11	ClOrdID	Client ID (0 is not allowed)	Client Order ID Alphanumeric and Unique within a trading day. |, single-quote, and double-quote characters cannot be used. Validation is case insensitive, so reusing an ID differing in case only will cause a rejection. ClOrdID is case sensitive, so the same case must be used to cancel an order.
18*	ExecInst	MultipleValueString	Only used with pegged orders to specify peg type. Supported values: P = Market Peg: peg along opposite side of market R = Primary Peg: peg along same side of market
21	HandlInst	1	Required by FIX 4.2 but not used. Example val 2
15*	Currency		This represents the denomination of the quantity field. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000
38	OrderQty		If tag 15 is present: Qty of currency in tag 15. Qty of currency 1 otherwise
210*	MaxShow		Default to order qty. Other minimum value of this field depends on account setting
110*	MinQty		Minimum trade quantity. Must be at most the CCY1 quantity. If the OrderQty drops below this quantity due to a fill, the order will be automatically cancelled.
44	Price	1.51234	See Data Types for Maximum Precision. Price is ignored for market orders (OrdType=1/C). This also serves as a limit for pegged orders
54	Side		1 = Buy 2 = Sell
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined by CCY1/CCY2
40	OrdType		1 = Market (Market orders must have TimeInForce = 3) 2 = Limit C = Market (same as 1) F = Limit (same as 2) P = Pegged
59*	TimeInForce		0 = Day, Good through normal Market Hours. (5:30pm EST to 17:00 ET)(Default if Unspecified) 3 = Immediate Or Cancel

*Optional

60*	TransactTime		Time Order was Initiated
211*	PegDifference	Price	Difference (signed) in units of currency CCY1 added to best price in market. Added to Best Offer on Peg Market Buys and Peg Primary Sells. Added to Best Bid on Peg Primary Buys and Peg Market Sells. Default value is 0.00.

5.1.2 Day or IOC Orders

In order to submit a Day or IOC order, set tag 40 to either 2 or F and set tag 59 to either 0 or 3, depending on whether the order is meant to be a Day or IOC order, respectively. Tag 99 will be ignored if supplied.

5.1.3 Pegged Orders

Pegged orders are placed by supplying P in OrderType (40), either P or R in ExecInst (18) and an offset price in PegDifference (211). TimeInForce (59) must be DAY. If a nonzero Price (44) is submitted, the pegged price will not exceed this price. Note that pegged orders cannot be modified via OrderCancelReplaceRequests.

5.2 Full Amount/Link Direct

A Full Amount order is just a NewOrderSingle with OrdType=Q. A Link Direct order is a NewOrderSingle with OrdType=X. Full Amount entitlement is required and TimeInForce must be set to 3 for IOC order. Please see the FIX Spec doc about execution reports.

5.2.1 New Order Single - Full Amount/Link Direct - from Taker

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this order.
35	MsgType	D	(Contained in header)
11	ClOrdID	Client ID (0 is not allowed)	Client Order ID Alphanumeric and Unique within a trading day. |, single-quote, and double-quote characters cannot be used. Validation is case insensitive, so reusing an ID differing in case only will cause a rejection. ClOrdID is case sensitive, so the same case must be used to cancel an order.
21	HandlInst	1	Required by FIX 4.2 but not used. Example val 2
15*	Currency		This represents the denomination of the quantity field. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000
38	OrderQty		If tag 15 is present: Qty of currency in tag 15. Qty of currency 1 otherwise
44	Price	1.51234	See Data Types for Maximum Precision.
54	Side		1 = Buy 2 = Sell
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined by CCY1/CCY2
40	OrdType		’2’ and ’F’ require special entitlement to convert from Limit to Full Amount 2 = Limit F = Limit ’Q’ does not require special entitlement Q = Full Amount X = Link Direct
59	TimeInForce		3 = Immediate Or Cancel
60*	TransactTime		Time Order was Initiated
117†	QuoteID		Target QuoteID for Link Direct

5.2.2 Full Amount/Link Direct New Order Single - From Cboe FX to Maker

TAG	FieldName	Contents	Comments
11	ClOrdID		Unique Order Identifier
35	MsgType	D	(Contained in header)

*Optional

†QuoteID (117) is an optional field when quoted by one (1) Market Maker. The tag is required when being quoted by multiple (>1) Market Makers.

526	SecondaryClOrdID		Same as Tag 131 from Quote Request msg.
64	SettlDate	YYYYMMDD	Value Date.
Component Block <Parties>			
453	NoPartyIDs	2	
>> 448†	PartyID	Cboe FX client identifier.	Case insentitive
>> 452†	PartyRole	1 = Executing Firm (Client Prime Broker) 3 = Client ID	
end Component Block <Parties>			
Component Block <Instrument>			
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined as CCY1/CCY2
65	SymbolSfx	SPOT = Spot	
end Component Block <Instrument>			
54	Side	1 = Buy 2 = Sell	Side always indicates the direction of CCY1 from tag 55. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000. The side indicates the order direction from clients (not market makers) perspective.
60	TransactTime		Time Order was Initiated
38	OrderQty		The order amount in the currency specified in tag 15.
40	OrderType	D = Previously Quoted	
44	Price		Quoted price from Quote msg to deal on
15	Currency		Deal currency of the request. Can be CCY1 or CCY2 from tag 55. Example: EUR
117	QuoteID		Same as Tag 117 from Quote msg of a quote this order is attempting to deal on. May be ”unavailable” if an order is routed.
7000*	ConfirmDelay		Delay in milliseconds between the client selecting a quote and confirming the order. This tag is only supplied if Tag 6999=1 in QuoteRequest message.
377*	SolicitedFlag	Y	’Y’ when an order is routed to the market maker. Only present if the order has been routed.

†Optional
*Optional

6 Execution Report

6.1 Spot ECN

6.1.1 Execution Report – GENERIC EXECUTION REPORT

All possible fields that could be sent to the Client in an Execution Report. Not all fields are sent on all messages. Extra fields on all FIX messages should be ignored. The presence of fields beyond this API should not cause message rejects. New fields may be added to the API, and unnecessary fields may be removed from the API. For trades not initiated by the client, i.e. manual adjustment trades, tag 11 will be set to 0.

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanueric text field meant to contain 3rd-party account ID.
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs. For trades not directly initiated by the client (manual adjustment trades, etc) the field may be set to 0. For trades as a result from a quote, this field will be tag117 + L + tag7225 + Side. See "4.1.1 Quote - From Client" for specs on tag117 and tag7225
17	ExecID	ECN Execution ID	[a-zA-Z0-9_]
18*	ExecInst	MultipleValueString	Only used with pegged orders to specify peg type. Supported values: P = Market Peg R = Primary Peg
20	ExecTransType	Execution Report Type	0 = New 1 = Cancel (used to indicate cancel acknowledgements) 3 = Status
37	OrderID	ECN OrderId	Exchange Generated OrderID In response to a Cancel Request: ClOrdId of the order being cancelled, i.e. the same value as OrigClOrdID
39	OrdStatus	Current Order Status (FIX 4.4 usage)	0 = New 1 = Partially Filled 2 = Filled 3 = Average Trade 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected C = Expired (Deviation from FIX 4.4 populated on IOC misses) E = Pending Replace
41	OrigClOrdID	ClOrdId	In response to a Cancel Request: Original ClOrdID of the Initial Order. See "5.1.1 New Order Single" for specs, ClOrdID field.
38*	OrderQty		Order Quantity
44	Price/Rate		Limit Price specified

*Optional

59	TimeInForce		See ”5.1.1 New Order Single” for specs.
15*	Currency		Currency of Qty
54	Side		See ”5.1.1 New Order Single” for specs.
55	Symbol	CCY1/CCY2	See ”5.1.1 New Order Single” for specs.
76	ExecBroker	Y | N	Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
151	LeavesQty		0 for canceled, expired or rejected. Otherwise it is OrderQty-CumQty
14	CumQty		# of qty filled
110*	MinQty		See ”5.1.1 New Order Single” for specs.
192	OrderQty2		Amount of contra currency
64	FutSetlDate	YYYYMMDD	
75	TradeDate	YYYYMMDD	
119	SettlCurrAmount		Equivalent amount in USD
120	SettleCurrency	USD	Always in USD
167	SecurityType		FOR
210*	MaxShow		See ”5.1.1 New Order Single” for specs.
150	ExecType	Execution Type (FIX 4.4 usage)	0 = New 3 = Average Trade 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected C = Expired (Deviation from FIX 4.4 populated on IOC misses) E = Pending Replace F = Trade I = Status
6	AvgPx		Avg executed price (decimal portion has the same precision as tag 31)
32*	LastShares	ExeQty	Executed CCY or Cancelled CCY
31	LastPx	ExePrice	Executed Price
382	NoContraBrokers	1,2	Value usually is 1, can occasionally be 2 to indicate an extra ContraBroker field
375	ContraBroker	Contra	Set to Clearing Counterparty for bank connections, ”Not Available” otherwise. If this is a second ContraBroker field, it contains a numeric representation of counterparty collateral id, and is used to indicate that the counterparty collateral is the same as the trading collateral.
58	Text		Reject Reason from the list below, lastlook decline lastlook timeout MinQty LotSize Insufficient PB credit Insufficient Collat credit price no longer available
60	TransactTime		Time Order was Initiated

*Optional

211*	PegDifference	Price	Difference (signed) in units of currency CCY1 added to best price in market. Added to Best Offer on Peg Market Buys and Peg Primary Sells. Added to Best Bid on Peg Primary Buys and Peg Market Sells. Default value is 0.00.

6.1.2 Execution Report - New Order or Cancel/Replace - From Cboe FX

Generated As a result of a New Order Placement or Cancel/Replace Request Placement.

TAG	FieldName	Contents	Comments
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs.
41	OrigClOrdID		
37	OrderID	ECN OrderId	See "6.1.1 Execution Report" for specs.
17	ExecID	"None"	See "6.1.1 Execution Report" for specs.
18*	MultipleValueString	MultipleValueString	Only used with pegged orders to specify peg type. Supported values: P = Market Peg R = Primary Peg
20	ExecTransType	0	0 = New
150	ExecType	0	0 = New 5 = Replaced 8 = Rejected C = Expired (Deviation from FIX 4.4 populated on IOC misses) E = Pending Replace
39	OrdStatus	Current Order Status	0 = New 1 = Partially Filled 2 = Filled 5 = Replaced 8 = Rejected C = Expired (Deviation from FIX 4.4 populated on IOC misses) D = Accepted for Bidding E = Pending Replace
119	SettlCurrAmount		Equivalent amount in USD
120	SettleCurrency	USD	Always in USD
167	SecurityType		FOR
192*	OrderQty2		Optional
15*	Currency		Currency of tag #38
55	Symbol		See "5.1.1 New Order Single" for specs.
54	Side		See "5.1.1 New Order Single" for specs.
38*	OrderQty	Total	Order Quantity
210*	MaxShow		See "5.1.1 New Order Single" for specs.
110*	MinQty		See "5.1.1 New Order Single" for specs.
44	Price		Limit Price specified
59*	TimeInForce		See "6.1.1 Execution Report" for specs.
151	LeavesQty	Total	0 for canceled, expired or rejected
14	CumQty	0	# of qty filled

*Optional

6	AvgPx	0	Avg executed price (decimal portion has the same precision as tag 31)
32*	LastShares	ExeQty	Executed Qty
31	LastPx	ExePrice	Executed Price
58*	Text		Reject Reason from the list below, lastlook decline lastlook timeout MinQty LotSize Insufficient PB credit Insufficient Collat credit price no longer available
60	TransactTime		GMT Date/Time of Execution
76*	ExecBroker		Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
211*	PegDifference	Price	Difference (signed) in units of currency CCY1 added to best price in market. Added to Best Offer on Peg Market Buys and Peg Primary Sells. Added to Best Bid on Peg Primary Buys and Peg Market Sells. Default value is 0.00.

6.1.3 Execution Report - Filling Status From Cboe FX

TAG	FieldName	Contents	Comments
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs. For trades not directly initiated by the client (manual adjustment trades, etc) the field may be set to 0. For trades as a result from a quote, this field will be tag117 + L + tag7225 + Side. See "4.1.1 Quote - From Client" for specs on tag117 and tag7225
37	OrderID	ECN OrderId	See "6.1.1 Execution Report" for specs.
41*	OrigClOrdID	ClOrdID of Order	See "6.1.1 Execution Report" for specs.
17	ExecID	ECN Execution ID	See "6.1.1 Execution Report" for specs.
20	ExecTransType	0	0 = New
150	ExecType	Execution Type	0 = New 4 = Canceled 5 = Replace 6 = Pending Cancel 8 = Rejected C = Expired D = Accepted for Bidding E = Pending Replace F = Trade

*Optional

39	OrdStatus	Current Order Status	1 = Partially Filled 2 = Filled 4 = Canceled 5 = Replaced C = Expired E = Pending Replace
1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this order.
55	Symbol		See "5.1.1 New Order Single" for specs.
54	Side		See "5.1.1 New Order Single" for specs.
64	FutSetlDate	YYYYMMDD	
75	TradeDate	YYYYMMDD	
76*	ExecBroker		Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
119*	SettlCurrAmount		Equivalent amount in USD
120*	SettlCurrency		Always in USD
38*	OrderQty	Total	Order Quantity
210*	MaxShow		See "5.1.1 New Order Single" for specs.
110*	MinQty		See "5.1.1 New Order Single" for specs.
44	Price		Limit Price specified
59	TimeInForce		See "6.1.1 Execution Report" for specs.
126*	ExpireTime	GMT Date / Time of Order Expiration	See "6.1.1 Execution Report" for specs.
151	LeavesQty	Total	0 for canceled, expired, or rejected
14	CumQty	0	Quantity Filled
32*	LastShares	0	
15*	Currency		
6	AvgPx	0	Avg executed price (decimal portion has the same precision as tag 31)
31	LastPx	0 or value	Last exec price
167	SecurityType		FOR
192	OrderQty2		Amount of contra currency
382	NoContraBrokers		See "6.1.1 Execution Report" for specs.
375	ContraBroker		See "6.1.1 Execution Report" for specs.
58	Text		Rejection reason
60	TransactTime		GMT Date/Time of Execution
211*	PegDifference	Price	Difference (signed) in units of currency CCY1 added to best price in market. Added to Best Offer on Peg Market Buys and Peg Primary Sells. Added to Best Bid on Peg Primary Buys and Peg Market Sells. Default value is 0.00.

6.1.4 Execution Report - Order Status from Cboe FX

As a Result of Order Status Request

TAG	FieldName	Contents	Comments

*Optional

1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this order.
35	MsgType	8	(Contained in header)
11	ClOrdId	Client ID	See ”5.1.1 New Order Single” for specs.
37	OrderID	ECN OrderId	See ”6.1.1 Execution Report” for specs.
41*	OrigClOrdID	ClOrdID of Order	See ”6.1.1 Execution Report” for specs.
17	ExecID	ECN Execution ID	See ”6.1.1 Execution Report” for specs.
20	ExecTransType	3	Status
39	OrdStatus	Current Order Status	0 = New 1 = Partially Filled 6 = Pending Cancel E = Pending Replace
150	ExecType	Execution Type	I = Status
38*	OrderQty	Total	Order Quantity
210*	MaxShow		See ”5.1.1 New Order Single” for specs.
110*	MinQty		See ”5.1.1 New Order Single” for specs.
54	Side		See ”5.1.1 New Order Single” for specs.
55	Symbol		See ”5.1.1 New Order Single” for specs.
151	LeavesQty	Total	0 for canceled, expired, or rejected
14	CumQty	0	Quantity Filled
32*	LastShares	0	
15*	Currency		
6	AvgPx	0	Avg executed price (decimal portion has the same precision as tag 31)
31	LastPx	0 or value	Last exec price
44	Price		Limit Price specified
59	TimeInForce		See ”6.1.1 Execution Report” for specs.
58	Text		Rejection reason
60	TransactTime		GMT Date/Time of Execution
211*	PegDifference	Price	Difference (signed) in units of currency CCY1 added to best price in market. Added to Best Offer on Peg Market Buys and Peg Primary Sells. Added to Best Bid on Peg Primary Buys and Peg Market Sells. Default value is 0.00.

6.2 Full Amount/Link Direct

6.2.1 Full Amount/Link Direct Execution Report (Trade, Reject) - From Both

TAG	FieldName	Contents	Comments
37	OrderID		OrderID is required to be unique for each chain of orders.
35	MsgType	8	(Contained in header)
526	SecondaryClOrdID		Same as Tag 131 from Quote Request msg.
11	ClOrdID		Same as Tag 11 from Order Single msg.

*Optional

17	ExecID		Market Maker Trade ID. A string of printing ASCII characters. Must be unique. '|', single-quote, and double-quote characters cannot be used. Cannot exceed 20 characters.
150	ExecType	F =Trade 8 = Rejected	
39	OrdStatus	2 = Filled 8 = Rejected	
Component Block <Instrument>			
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined as CCY1/CCY2
end Component Block <Instrument>			
64	SettlDate	YYYYMMDD	Value date. Same as Tag 64 tag from Order Single msg.
54	Side	1 = Buy 2 = Sell	Side always indicates the direction of CCY1 from tag 55. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000. The side indicates the clients trade direction and must be the same as in tag 54 of New Order Single msg.
15	Currency		Deal currency. Same as Tag 15 from Order Single msg.
38	OrderQty		The order amount in the currency specified in tag 15.
40	OrdType	D = Previously Quoted	
44	Price		Same as Tag 44 from New Order Single msg.
6	AvgPx		Same as Tag 44.
14	CumQty		Same as Tag 38.
151	LeavesQty	0	Partial Full Amount trades are not supported.
6998*	ContraQty		Quantity of the other currency in the trade. For example, if 55=EUR/USD, 54 = 1, 15 = EUR, 38 = 1000000, 44 = 1.33080 then this tag would be the USD quantity or 1330800, but if 15 = USD then this tag would be the EUR quantity or 751427.71. This tag is required when the Execution Report is for a trade (if Tag 150 = F)
58*	Text		Rejection reason if Tag 150 = 8
60*	TransactTime		Time of trade/rejection

6.2.2 Full Amount/Link Direct Execution Report (Timeout) - From Cboe FX

TAG	FieldName	Contents	Comments
37	OrderID		ClOrdID (Tag 11 in New Order Single) of the expired order
35	MsgType	8	(Contained in header)
526	SecondaryClOrdID		Same as Tag 131 from Quote Request msg.
11	ClOrdID		ClOrdID (Tag 11 in New Order Single) of the expired order

*Optional

17	ExecID		ClOrdID (Tag 11 in New Order Single) of the expired order
150	ExecType	C = Expired	
39	OrdStatus	C = Expired	
Component Block <Instrument>			
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined as CCY1/CCY2
end Component Block <Instrument>			
64	SettlDate	YYYYMMDD	Value date. Same as Tag 64 tag from New Order Single msg.
54	Side	1 = Buy 2 = Sell	Side always indicates the direction of CCY1 from tag 55. For example, to sell 1M USD against EUR: 55=EUR/USD, 54=1, 15=USD, 38=1000000. The side indicates the clients trade direction and must be the same as in tag 54 of New Order Single msg.
15	Currency		Deal currency. Same as Tag 15 from Order Single msg.
38	OrderQty		The order amount in the currency specified in tag 15.
40	OrdType	D = Previously Quoted	
44	Price		Same as Tag 44 from Order Single msg.
6	AvgPx		Same as Tag 44.
14	CumQty	0	
151	LeavesQty	0	
60	TransactTime		

7 Trade Confirmation

Since the FIX protocol (when sequence numbers and resend requests are used correctly) already guarantees the delivery of all trade messages to clients, by default the FIX Order Gateway automatically sends a trade acknowledgement to the HSFX ECN immediately after it sends a client an Execution Report for a trade.

However, as an extra protective feature, HSFX offers clients the option to generate this ECN acknowledgement themselves. Clients who want to confirm trades themselves must be configured by HSFX to do so. If not configured, all trades a client receives will be acknowledged automatically by the HSFX FIX Order Gateway.

In order to send trade confirmation messages manually, simply send the FIX Order Gateway an identical copy of the execution report it sent for each trade. This must be done within a short amount of time (please contact HSFX production support for the specific time amount).

7.1 Trade Confirmation Execution Report – To Client

Clients configured to make use of the "Trade Confirmation" functionality will receive ExecutionReports describing trades.

TAG	FieldName	Contents	Comments
1*	Account	3rd-party account ID	Free-text field meant to contain 3rd-party account ID.
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs.
17	ExecID	ECN Execution ID	"None" on an Execution Report for a new order. 20 char max len
20	ExecTransType	Execution Report Type	0 = New
37	OrderID	ECN OrderId	Exchange Generated OrderID In response to a Cancel Request: ClOrdId of the order being cancelled, i.e. the same value as OrigClOrdID
39	OrdStatus	Current Order Status (FIX 4.4 usage)	1 = Partially Filled 2 = Filled
41	OrigClOrdID	ClOrdId	In response to a Cancel Request: Original ClOrdID of the Initial Order. See "5.1.1 New Order Single" for specs., ClOrdID field.
38*	OrderQty		Order Quantity
40	OrdType		2 = Limit F=Limit (same as '2')
44	Price/Rate		Limit Price specified
59	TimeInForce		See "5.1.1 New Order Single" for specs.
15*	Currency		Currency of Qty
54	Side		See "5.1.1 New Order Single" for specs.
55	Symbol	CCY1/CCY2	See "5.1.1 New Order Single" for specs.
76	ExecBroker	Y — N	Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
151	LeavesQty		0 for canceled, done for day, expired or rejected. Otherwise it is OrderQty-CumQty
14	CumQty		# of qty filled

*Optional

110*	MinQty		See "5.1.1 New Order Single" for specs.
192	OrderQty2		Amount of contra currency
64	FutSetlDate	YYYYMMDD	
75	TradeDate	YYYYMMDD	
119	SettlCurrAmount		Settlement amount
120	SettleCurrency	USD	
167	SecurityType	FOR	
210*	MaxShow		See "5.1.1 New Order Single" for specs. MaxFloor and DisplayInstruction are not returned.
150	ExecType	Execution Type FIX 4.4 usage)	F = Trade
6	AvgPx		Avg executed price
32*	LastShares	ExeQty	Executed CCY or Cancelled CCY
31	LastPx	ExePrice	Executed Price
382	NoContraBrokers	1	
375	ContraBroker	Contra	Set to Clearing Counterparty for bank connections, "Not Available" otherwise.
60	TransactTime		Time Order was Initiated

7.2 Trade Confirmation and Rejection - From Client

In order to indicate that you wish to accept a trade, send a copy of the ExecutionReport for the trade in question. In order to indicate that you wish to reject a trade, send a copy of the ExecutionReport for the trade in question with ExecType (150) set to Rejected (8).

TAG	FieldName	Contents	Comments
1*	Account	3rd-party account ID	Free-text field meant to contain 3rd-party account ID.
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs.
17	ExecID	ECN Execution ID	"None" on an Execution Report for a new order. 20 char max len
20	ExecTransType	Execution Report Type	0 = New
37	OrderID	ECN OrderId	Exchange Generated OrderID In response to a Cancel Request: ClOrdId of the order being cancelled, i.e. the same value as OrigClOrdID
39	OrdStatus	Current Order Status (FIX 4.4 usage)	1 = Partially Filled 2 = Filled
41	OrigClOrdID	ClOrdId	In response to a Cancel Request: Original ClOrdID of the Initial Order. See "5.1.1 New Order Single" for specs., ClOrdID field.
38*	OrderQty		Order Quantity
40	OrdType		2 = Limit F=Limit (same as '2')
44	Price/Rate		Limit Price specified
59	TimeInForce		See "5.1.1 New Order Single" for specs.

*Optional

15*	Currency		Currency of Qty
54	Side		See "5.1.1 New Order Single" for specs.
55	Symbol	CCY1/CCY2	See "5.1.1 New Order Single" for specs.
76	ExecBroker	Y — N	Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
151	LeavesQty		0 for canceled, done for day, expired or rejected. Otherwise it is OrderQty-CumQty
14	CumQty		# of qty filled
110*	MinQty		See "5.1.1 New Order Single" for specs.
192	OrderQty2		Amount of contra currency
64	FutSetlDate	YYYYMMDD	
75	TradeDate	YYYYMMDD	
119	SettlCurrAmount		Settlement amount
120	SettleCurrency	USD	
167	SecurityType	FOR	
210*	MaxShow		See "5.1.1 New Order Single" for specs. MaxFloor and DisplayInstruction are not returned.
150	ExecType	Execution Type FIX 4.4 usage)	8 = Rejected F = Trade
6	AvgPx		Avg executed price
32*	LastShares	ExeQty	Executed CCY or Cancelled CCY
31	LastPx	ExePrice	Executed Price
382	NoContraBrokers	1	
375	ContraBroker	Contra	Set to Clearing Counterparty for bank connections, "Not Available" otherwise.
60	TransactTime		Time Order was Initiated

7.3 Trade Final Status - To Client

Client can be configured to receive the final status of a trade as known by Cboe FX. This message will simply be a copy of the trade information with the HSFXTradeStatus (tag 7226) populated.

TAG	FieldName	Contents	Comments
1*	Account	3rd-party account ID	Free-text field meant to contain 3rd-party account ID.
35	MsgType	8	(Contained in header)
11	ClOrdID	Client ID	See "5.1.1 New Order Single" for specs.
17	ExecID	ECN Execution ID	"None" on an Execution Report for a new order. 20 char max len
20	ExecTransType	Execution Report Type	0 = New
37	OrderID	ECN OrderId	Exchange Generated OrderID In response to a Cancel Request: ClOrdId of the order being cancelled, i.e. the same value as OrigClOrdID
39	OrdStatus	Current Order Status (FIX 4.4 usage)	1 = Partially Filled 2 = Filled

*Optional

41	OrigClOrdID	ClOrdId	In response to a Cancel Request: Original ClOrdID of the Initial Order. See ”5.1.1 New Order Single” for specs., ClOrdID field.
38*	OrderQty		Order Quantity
40	OrdType		2 = Limit F=Limit (same as ’2’)
44	Price/Rate		Limit Price specified
59	TimeInForce		See ”5.1.1 New Order Single” for specs.
15*	Currency		Currency of Qty
54	Side		See ”5.1.1 New Order Single” for specs.
55	Symbol	CCY1/CCY2	See ”5.1.1 New Order Single” for specs.
76	ExecBroker	Y — N	Y Indicates aggressive trade N Indicates passive trade HSFX - otherwise
151	LeavesQty		0 for canceled, done for day, expired or rejected. Otherwise it is OrderQty-CumQty
14	CumQty		# of qty filled
110*	MinQty		See ”5.1.1 New Order Single” for specs.
192	OrderQty2		Amount of contra currency
64	FutSetlDate	YYYYMMDD	
75	TradeDate	YYYYMMDD	
119	SettlCurrAmount		Settlement amount
120	SettleCurrency	USD	
167	SecurityType	FOR	
210*	MaxShow		See ”5.1.1 New Order Single” for specs. MaxFloor and DisplayInstruction are not returned.
150	ExecType	Execution Type FIX 4.4 usage)	F = Trade
6	AvgPx		Avg executed price
32*	LastShares	ExeQty	Executed CCY or Cancelled CCY
31	LastPx	ExePrice	Executed Price
382	NoContraBrokers	1,2	Value usually is 1, can occasionally be 2 to indicate an extra ContraBroker field
375	ContraBroker	Contra	Set to Clearing Counterparty for bank connections, ”Not Available” otherwise. If this is a second ContraBroker field, it contains a numeric representation of counterparty collateral id, and is used to indicate that the counterparty collateral is the same as the trading collateral.
60	TransactTime		Time Order was Initiated
7226	HSFXTradeStatus	1 client accepted with no error 2 client declined 3 ECN expired the trade 4 error in client acceptance	Presence of this field indicates a ”Trade Final Status” message.

*Optional

8 Averaging Trades Request

8.1 Averaging Trades Request – From Client

TAG	FieldName	Contents	Comments
35	MsgType	D	(Contained in header)
11	ClOrdID	Client ID	Client Order ID. Alphanumeric and Unique within a trading day. ':' character cannot be used. Validation is case insensitive, so reusing an ID differing in case only will cause a rejection. ClOrdID is case sensitive, so the same case must be used to cancel an order.
21	HandlInst	1	Required by FIX 4.2 but not used.
38	OrderQty	0	Required by FIX 4.2 but not used.
40	OrderType	1	Required by FIX 4.2 but not used.
44	Price	0	Required by FIX 4.2 but not used.
54	Side		1 - buy or 2 - sell
55	Symbol	EUR/USD USD/JPY EUR/JPY	The symbol is defined by CCY1/CCY2
59	TimeInForce	0	0 = Day, Good through normal Market Hours
60	TransactTime	UTC	Time when the Order was Initiated
820	TradeLinkIDs	String	Array of trade IDs to be averaged. Comma separated. Example value:'66284,66278,66274' or 'TRD_66284,TRD_66278,TRD_66274' The original Trade ID is reported in Tag 17 (ExecID).

8.2 Averaging Execution Report – From Cboe FX

8.2.1 Averaging Trades Request Acknowledgement

TAG	FieldName	Contents	Comments
35	MsgType	8	(Contained in header)
6	AvgPx	0	
11	ClOrdID	Client orderId	See "5.1.1 New Order Single" for specs.
14	CumQty	0	
17	ExecID	64979a	The Average ID. Example values: '64979a' for multiple average or '64979' for single average
20	ExecTransType	0	0 = New
37	OrderID	ECN OrderId	The Average ID. Example values: '64979a' for multiple average or '64979' for single average
39	OrdStatus	0	0 = New
54	Side		1 - buy or 2 - sell
55	Symbol	CCY1/CCY2	See "5.1.1 New Order Single" for specs.
58	Text	String	"Averaging request received"
59	TimeInForce	0	See "6.1.1 Execution Report" for specs.
60	TransactTime	UTC	Time when the Order was Initiated
76	ExecBroker	String	HSFX
150	ExecType	0	0 = New
151	LeavesQty	0	Required by FIX 4.2 but not used.
167	SecurityType	String	FOR
192	OrderQty2	0	

	TradeLinkIDs	String	Array of trade IDs to be averaged. Comma separator. Example value: ’66284,66278,66274’ or ’TRD_66284,TRD_66278,TRD_66274’ The original Trade ID is reported in Tag 17 (ExecID).

8.2.2 Averaging Trades Request Reject

TAG	FieldName	Contents	Comments
35	MsgType	8	(Contained in header)
6	AvgPx	0	
11	ClOrdID	Client ID	See ”5.1.1 New Order Single” for specs.
14	CumQty	0	
17	ExecID	64979a	The Average ID. Example values: ’64979a’ for multiple average or ’64979’ for single average
20	ExecTransType	0	0 = New
37	OrderID	ECN OrderId	The Average ID. Example values: ’64979a’ for multiple average or ’64979’ for single average
39	OrdStatus	8	8 = Rejected
54	Side		1 - buy or 2 - sell
55	Symbol	CCY1/CCY2	See ”5.1.1 New Order Single” for specs.
58	Text	String	Reason for rejection
59	TimeInForce	0	See ”6.1.1 Execution Report” for specs.
60	TransactTime	UTC	Time when the Order was Initiated
76	ExecBroker	String	HSFX
150	ExecType	8	8 = Rejected
151	LeavesQty	0	Required by FIX 4.2 but not used.
167	SecurityType	String	FOR
192	OrderQty2	0	
820	TradeLinkIDs	String	Array of trade IDs to be averaged. Comma separator. Example value: ’66284,66278,66274’ or ’TRD_66284, TRD_66278, TRD_66274’ The original Trade ID is reported in Tag 17 (ExecID).

8.2.3 Averaging Trades Response

TAG	FieldName	Contents	Comments
35	MsgType	8	(Contained in header)
6	AvgPx	1.23456	Average Price (considered to be accurate)
11	ClOrdID	Client ID	See ”5.1.1 New Order Single” for specs.
14	CumQty		Total quantity of the deal currency
17	ExecID	64979a	The Average ID. Example values: ’64979a’ for multiple average or ’64979’ for single average
20	ExecTransType	0	0 = New
37	OrderID	ECN OrderId	The Average ID. Example values: ’64979a’ for multiple average or ’64979’ for single average
39	OrdStatus	3	3 = Done For Day
54	Side		1 - buy or 2 - sell
55	Symbol	CCY1/CCY2	See ”5.1.1 New Order Single” for specs.
58	Text	String	average request was processed successfully
59	TimeInForce	0	See ”6.1.1 Execution Report” for specs.

60	TransactTime	UTC	Time when the Order was Initiated
76	ExecBroker	String	HSFX
150	ExecType	3	3 = Done For Day
151	LeavesQty	0	Required by FIX 4.2 but not used.
167	SecurityType	String	FOR
192	OrderQty2		Total quantity of the counter currency
820	TradeLinkIDs	String	Array of trade IDs to be averaged. Comma separator. Example value: '66284,66278,66274' or 'TRD_66284,TRD_66278,TRD_66274' The original Trade ID is reported in Tag 17 (ExecID).

9 Order Cancel Messages

The HSFX FIX Gateway supports mass order cancellation requests. The two rules for mass cancel requests are as follows:

- To cancel all orders for all ccypairs for a trader. You need to set tags 41=0 and 55=CANCEL
- To cancel all orders for a single ccypair for a trader. You need to set tags 41=0 and 55=CCY1/CCY2

9.1 Order Cancel – From Client

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this request.
35	MsgType	F	
11	ClOrdID	Client ID	Client Order ID of the Cancel Request. Must be unique amongst all ClOrdId for the trading day.
41	OrigClOrdID		Original Client Order ID of the Initial Order. Must be unique within a trading day.
55	Symbol		Required for Confirmation. Must match the original order. See "5.1.1 New Order Single" for specs.
54*	Side		See "5.1.1 New Order Single" for specs.
60*	TransactTime		GMT Date/Time Order was initiated
15*	Currency		

9.2 Order Cancel Replace Request – From Client

Order Cancel Replace Request is used to change parameters of a pre-existing order. The three parameters which can currently be changed are OrderQty, Price, and MaxShow.

Note that an OrderCancelReject message sent in response to an OrderCancelReplaceRequest does not indicate that the original order is cancelled, only that the attempted replacement was rejected. If the original order is cancelled as a side-effect of a cancel-replace rejection, an unsolicited cancel notification in the form of an ExecutionReport will be sent as well.

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID. This will be returned with any ExecutionReport generated by this request.
35	MsgType	G	
11	ClOrdID	ClientID	See "9.1 Order Cancel" for specs. for specs.
41	OrigClOrdID		See "9.1 Order Cancel" for specs. for specs.
21	HandlInst	1	
38	OrderQty	Qty	Total Order Quantity desired, including the part already executed.
210*	MaxShow		If not supplied, MaxShow specified by a previous New Order Single or Order Cancel Replace Request is assumed.

*Optional

110*	MinQty		Minimum trade quantity. Must be at most the OrderQty. If the OrderQty drops below this quantity due to a fil, the order will be automatically cancelled. If not supplied, MinQty specified by a previous New Order Single or Order Cancel Replace Request is assumed.
44	Price	Price	New Limit Price.
55*	Symbol		See ”5.1.1 New Order Single” for specs.
40*	OrdType		See ”5.1.1 New Order Single” for specs.
54*	Side		
60*	TransactTime		GMT Date/Time Order was initiated

9.3 Order Cancel Reject - From Cboe FX

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID.
35	MsgType	9	
11	ClOrdID		See ”9.1 Order Cancel” for specs.
37	OrderID	ECN OrderId	Exchange Generated OrderID In response to a Cancel Request: OrderId of the original order 20 chars maximum length.
41	OrigClOrdID		See ”9.1 Order Cancel” for specs.
55	Symbol		See ”5.1.1 New Order Single” for specs.
434	CxlRejResponseTo	Reject Response to	1 = Order Cancel Request 2 = Order Cancel/Replace Request
102*	CxlRejReason	Predefined Reason	0 = Too Late 1 = Unknown Order 3 = Order Already in Pending Cancel or Pending Replace Status 6 = Duplicate ClOrdID Received 99 = Other
39*	OrdStatus		2 = Filled 4 = Canceled
58*	Text	String	Textual description
60*	TransactTime		GMT Date/Time Order was canceled

*Optional

10 Informative Messages

10.1 Order Status Request – From Client

TAG	FieldName	Contents	Comments
1*	Account	Alphanumeric characters and underscores	Alphanumeric text field meant to contain 3rd-party account ID
35	MsgType	H	(Contained in header)
11	ClOrdID		See "5.1.1 New Order Single" for specs.
55*	Symbol		See "5.1.1 New Order Single" for specs.
54*	Side		1 = Buy 2 = Sell
60*	TransactTime		GMT Time Status Request was initiated

*Optional

11 Operational Sequence

11.1 Logon Process

1. The client establishes a TCP connection to Cboe FX on specified TCP port
2. The client should send a FIX-Login Message that includes their Company/CollatId in the SenderCompID field, HSFX in the TargetCompID field, Login/userId in the SenderSubID and Username fields, their password in the Password field.
3. Cboe FX will Respond immediately with a confirming Login Message if the client Authenticates. If the Client fails to Authenticate a Logout Message will be sent with a Text field indicating the Reason the Client was rejected and the Connection will be terminated immediately by Cboe FX. Cboe FX will Reject Incoming Logins with MsgSeqNum less than expected: This means that if there had been a previously established and terminated FIX connection and the client tries to re-establish a connection, it must do so with a MsgSeqNum > than the last MsgSeqNum that it had sent out.

   (Sequence Numbers return to 1 at the start of each day.)
4. At this point both the Client and server should synchronize, if necessary. If the MsgSeqNum of the Logon Message was greater than expected, Cboe FX will send a Sequence Resend Request for the missed messages. The Client should never resend old messages. If the Client Sends a Resend Request, their request is processed by Cboe FX.
5. Cboe FX will send any executions that occurred while the client was not connected to the system.

   (This will occur as soon as a heartbeat with the generated TestReqID is received)

11.2 Regular FIX Communications

Whenever a message cannot be understood a Reject Message is sent with a description of the problem in the Text Field. (I.e. Invalid Checksum or Missing Field)

Notes about Gap Fills:

> Whenever a gap is detected Cboe FX will disregard the most recently received message and issue a Resend Request from the MsgSeqNum Cboe FX was expecting to infinity (0 in FIX 4.2). The Client is advised not to resend old messages, but use a Gap Fill instead. When Cboe FX receives a ResendRequest, it processes the requests and sends the response all at once.

Notes about StatusRequest Responses:

> The Result of Issuing a status request for any filled or partially filled order will be a retransmission a single execution report. If the order has not been traded and has been canceled, it will return unknown in tag 55 and no such order or trade for [ClientOrderID] in tag 58.

11.3 Logout Process

A client that wishes to terminate their FIX connection should send a Logout message to Cboe FX. Cboe FX will try to cancel all pending orders then close the TCP connection. Cboe FX will not send a logout confirmation to the client.

11.4 Cancel / Replace Logic

OrderQty in a C/R request should be the total quantity desired on the order including any previously executed quantity. The OrderQty or the Price is required on all Cancel Replace requests.

The response to a C/R request is a Pending Replace Execution Report with ExecType=PendingReplace and OrdStatus=PendingReplace. The Pending Replace Execution Report will have all the order information from the original order, including Price, OrderQty, LastShares, and CumQty. Once the order is replaced, a Replacement Execution Report will be sent with the replacement information taking into account the already executed quantity. If the OrderQty <= CumQty, the CumQty is used on the Execution Reports returning to the client, with OrdStatus = Filled, ExecType = Replace.

If an execution is pending when a C/R request is received and the original order is filled the C/R request will be rejected (tag #39=8) with CumQty and OrderQty equal to the executed quantity if this is greater than the C/R request quantity.

12 FIX Conversation Examples

All of the following conversations are for a single user/connection setup. As noted above, the only difference in a multiple-user/connection setup would be that tag 116 would contain the trader's userid.

Key:

"<<" means client sends the following message

">>" means client receives the following message

12.1 Login

```
<< 8=FIX.4.2 9=106 35=A 34=1 49=U1par 50=U1fix 52=20090206-21:13:36.887
56=FixServer 98=0 108=30 141=Y 553=U1fix 554=hotspot 10=061

>> 8=FIX.4.2 9=84 35=A 34=1 49=FixServer 52=2009020621:13:37.293
56=U1par 57=U1fix 98=0 108=30 141=Y 10=087
```

12.2 Logoff

```
<< 8=FIX.4.2 9=102 35=5 34=861 49=U1par
56=HSFX-FIX-BRIDGE 52=20090209-14:20:41.234 50=U1fix 369=880 58=Shutdown request 10=192

>> 8=FIX.4.2 9=74 35=5 34=880
49=HSFX-FIX-BRIDGE 52=20090209-14:20:41.247 56=U1par 57=U1fix 10=244
```

12.3 NewOrderSingle

```
<< 8=FIX.4.2 9=138 35=D 34=2 49=U1par 50=U1fix 52=20090206-21:13:59.324
56=FixServer 11=1233954839232 15=EUR 21=1 38=10000 40=F 44=1.25 54=1 55=EUR/USD 59=0 10=054

>> 8=FIX.4.2 9=302 35=8 34=2 49=FixServer 52=20090206-21:13:59.356
56=U1par 57=U1fix 6=0 11=1233954839232 14=0 15=EUR 17=1630 09101\_REQID\_ACK\_302 20=0 31=0
32=0 37=163009101 38=10000 39=D 44=1.25 54=1 55=EUR/USD 58=bid/offer request was processed
successfully 59=0 60=20090206-21:13:59.356 76=HSFX 150=0 151=10000 167=FOR 10=067
```

12.4 OrderCancelRequest

```
<< 8=FIX.4.2 9=145 35=F 34=4 49=U1par 50=U1fix 52=20090206-21:14:17.590 56=FixServer
11=1233954857593 38=10000 41=1233954851045 55=EUR/USD 60=20090206-21:14:17.590 10=241

>> 8=FIX.4.2 9=281 35=8 34=5 49=FixServer 52=20090206-21:14:17.606 56=U1par 57=U1fix
6=0 11=1233954857593 14=0 15=EUR 17=1233 954857593\_ClOrdID\_C\_ER\_6 20=0 32=0
37=1233954857593 38=0 39=6 41=1233954851045 54=1 55=EUR/USD 58=cancel pending 59=0
60=2009020621:14:17.606 76=HSFX 150=6 151=10000 167=FOR 10=141

>> 8=FIX.4.2 9=332 35=8 34=6 49=FixServer 52=20090206-21:14:17.637 56=U1par 57=U1fix
6=0 11=1233954851045 14=0 15=EUR 17=163009102\_REQID\_C\_302 20=1 31=0 32=0 37=163009102
38=10000 39=4 44=1.2500554=1 55=EUR/USD 58=cancel request was processed successfully
59=0 60=20090206-21:14:17.637 64=20081125 76=HSFX 119=0 120=USD 150=4 151=10000 167=FOR
192=0 10=065
```

12.5 OrderCancelReplaceRequest

```
<< 8=FIX.4.2 9=176 35=G 34=3 49=U1par 50=U1fix 52=20090206-21:14:11.043 56=FixServer
11=1233954851045 21=1 38=10000 40=F 41=1233954839232 44=1.25005 54=1 55=EUR/USD 59=0
60=20090206-21:14:11.043 10=064

>> 8=FIX.4.2 9=295 35=8 34=3 49=FixServer 52=20090206-21:14:11.074 56=U1par 57=U1fix
6=0 11=1233954851045 14=0 15=EUR 17=1233 954851045\_ClOrdID\_CR\_ER\_E 20=0 32=0
37=1233954851045 38=10000 39=E 41=1233954839232 44=1.25 54=1 55=EUR/USD 58=replace
pending 59=0 60=20090206-21:14:11.074 76=HSFX 150=E 151=10000 167=FOR 10=126

>> 8=FIX.4.2 9=324 35=8 34=4 49=FixServer 52=20090206-21:14:11.106 56=U1par 57=U1fix
6=0 11=1233954851045 14=0 15=EUR 17=1630 09102\_REQID\_CR\_1 20=0 31=0 32=0 37=163009102
38=10000 39=0 41=123395483 9232 44=1.25005 54=1 55=EUR/USD 58=Cancel/Replace request was
processed successfully 59=0 60=20090206-21:14:11.106 76=HSFX 150=5 151=10000 167=FOR 10=021
```

12.6 OrderStatusRequest

```
<< 8=FIX.4.2 9=102 35=H 34=16 49=U1par 52=2009020621:40:06.767
56=FixServer 11=ORD0822115 54=1 60=2009020621:40:06.767 10=114

>> 8=FIX.4.2 9=294 35=8 34=21 49=FixServer 52=20090206-21:40:06.767
56=U1par57=U1fix 6=0 11=ORD0822115 14=0 15=EUR 17=0 20=3 31=0 32=0 37=1630010120 38=1000000
39=4 44=1.56445 54=2 55=EUR/USD 58=s tatus of order ORD0822115 59=0 60=20090206-21:40:06.767
64=20081125 76=HSFX 119=0 120=USD 150=I 151=0 167=FOR 192= 0 10=030
```

12.7 Averaging Trades Request

```
<< 8=FIX.4.2 9=602 35=D 49=U1par 50=U1fix 56=HSFX-FIXBRIDGE 34=4443 52=20090209-17:03:41
115=47758 11=200902081000000Y 21=3 55=EUR/USD 54=1 38=0 210=0 60=20090209-17:03:41
40=F 44=0 59=0 820=TRD_14696320,TRD_14696346,TRD_14696376,TRD_14696380,TRD_14696406,
TRD_14696440,TRD_14696462,TRD_14696474,TRD_146964 84,TRD_14696490,TRD_14696542,TRD_14696546,
TRD_14696548,TRD_14696566,TRD_14696592,TRD_14696596,TRD_14696622,TRD_14696628,TRD_14696670,
TRD_14696672,TRD_14696688,TRD_14696690,TRD_14696700,TRD_14696714,TRD_14696758,TRD_14696776,
TRD_14696806,TRD_14696814,TRD_14696830,TRD_14696902,TRD_14696916,TRD_14696954,TRD_14696984 10=062

>> 8=FIX.4.2 9=683 35=8 34=4494 49=HSFX-FIX-BRIDGE 52=2009020917:03:40.983 56=U1par 57=U1fix
6=0 11=200902081000000Y 14=0 17=14696320 a 20=0 37=14696320a 39=0 54=1 55=EUR/USD 58=Averaging
request received 59=0 60=20090209-17:03:40.983 76=HSFX 150=0 151=0 167=FOR 192=0 820=TRD_14696320,
TRD_14696346,TRD_14696376,TRD_14696380,TRD_14696406,TRD_14696440,TRD_14696462,TRD_14696474,
TRD_14696484,TRD_14696490,TRD_14696542,TRD_14696546,TRD_14696548,TRD_14696566,TRD_14696592,
TRD_14696596,TRD_14696622,TRD_14696628,TRD_14696670,TRD_14696672,TRD_14696688,TRD_14696690,
TRD_14696700,TRD_14696714,TRD_14696758,TRD_14696776,TRD_14696806,TRD_14696814,TRD_14696830,
TRD_14696902,TRD_14696916,TRD_14696954,TRD_1469698410=139

>> 8=FIX.4.2 9=725 35=8 34=4495 49=HSFX-FIX-BRIDGE 52=2009020917:03:41.561 56=U1par 57=U1fix
6=1.3064719231 11=200902081000000Y 14=26 000000 17=14696320a 20=0 37=14696320a 39=3 54=1
55=EUR/USD 58=average request was processed successfully. 59=0 60=20090209-17:03:41.561 76=HSFX
150=3 151=0 167=FOR 192=33968270 820=TRD_14696320,TRD_14696346,TRD_14696376,TRD_14696380,
TRD_14696406,TRD_14696440,TRD_14696462,TRD_14696474,TRD_14696484,TRD_14696490,TRD_14696542,
TRD_14696546,TRD_14696548,TRD_14696566,TRD_14696592,TRD_14696596,TRD_14696622,TRD_14696628,
TRD_14696670,TRD_14696672,TRD_14696688,TRD_14696690,TRD_14696700,TRD_14696714,TRD_14696758,
```

```
TRD_14696776,TRD_14696806,TRD_14696814,TRD_14696830,TRD_14696902,TRD_14696916,TRD_14696954,
TRD_14696984 10=040
```

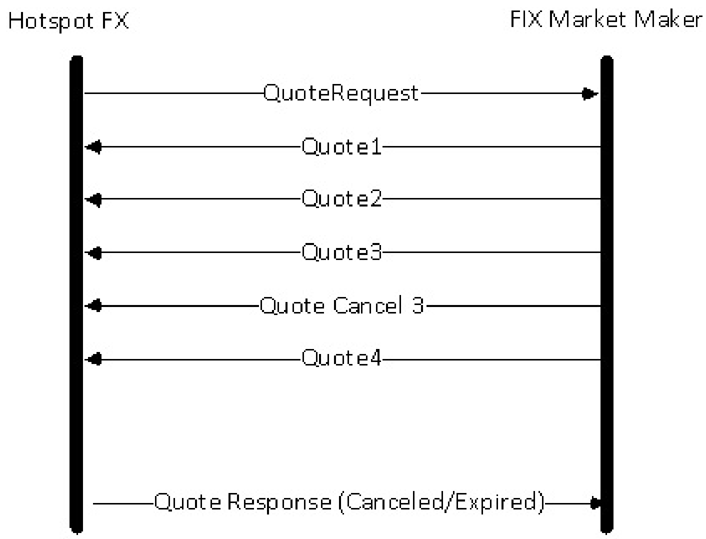
12.8 Trade

```
<< 8=FIX.4.2 9=351 35=8 34=171550 49=HSFX-FIX-BRIDGE 52=2009020915:46:09.648 56=U1par 57=U1fix
6=1.30695 11=h69RZE 14=306027 15=EUR 17=TRD\_14695554 20=0 31=1.30695 32=306027 37=4923456801
38=306027 39=2 44= 1.30695 54=1 55=EUR/USD 59=3 60=20090209-15:46:09.648 64=20090211 75=20090209
76=Y 119=399961.99 120=USD 150=F 151=0 167=FOR 192=399961.99 382=1 375=Not Available 10=235
```

13 Full Amount/Link Direct Examples

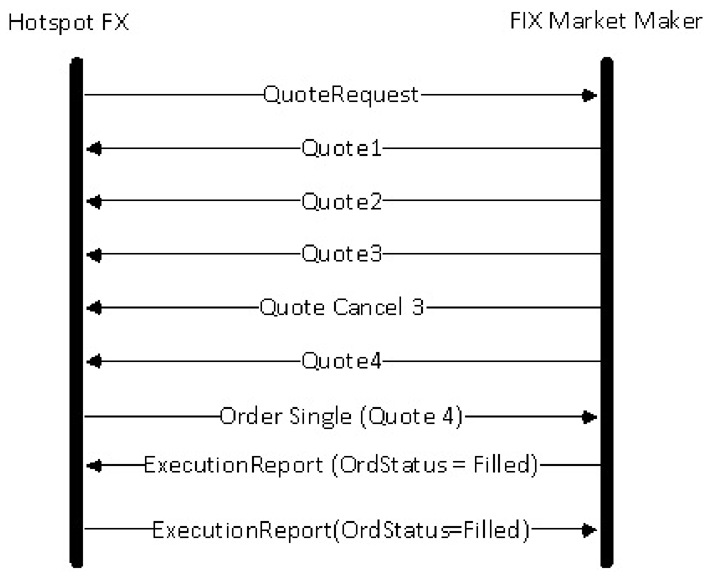
13.1 Expiration/cancelation

The quote stream session will terminate if it expires or the client choses to cancel the stream session.



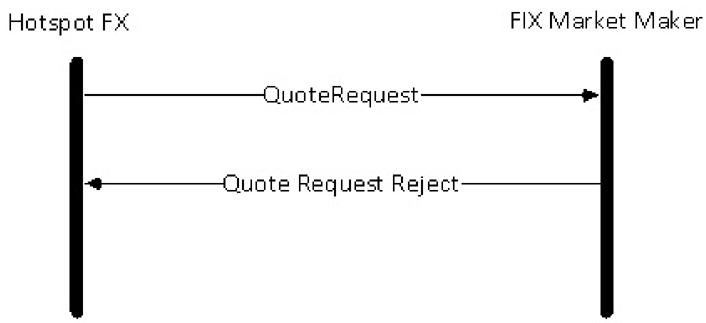
13.2 Trade

In case of a successful trade, Cboe FX will respond with a copy of the ExecutionReport for the trade in question.



13.3 Full Amount/Link Direct RFQ Rejection

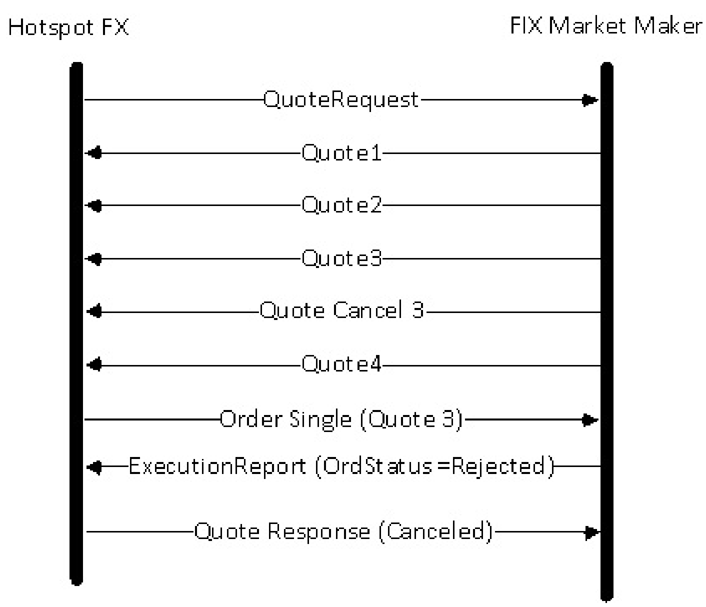
The market maker can reject an Full Amount RFQ request from a client. This action ends the quote stream session.



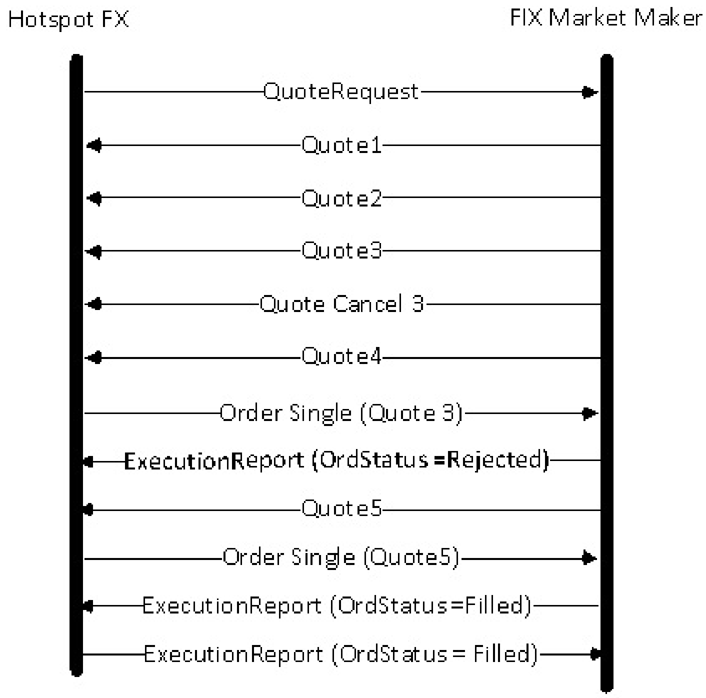
13.4 Full Amount/Link Direct Order Rejection

The market maker can reject a clients order if, for example, the client is attempting to deal on a stale quote. The market maker may continue streaming quotes after the order rejection. The client may cancel the quote stream (13.4.1) or submit another order on a quote (13.4.2) following an order rejection.

13.4.1 Order Rejection and Cancel

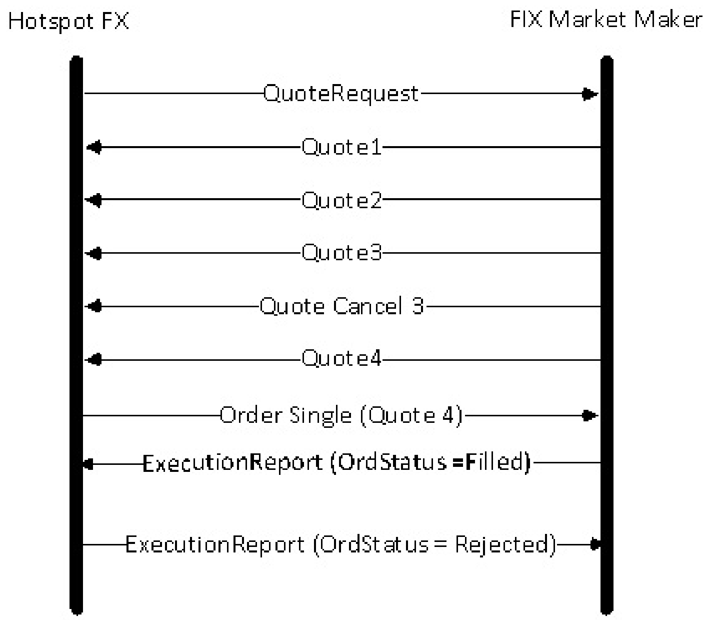


13.4.2 Order Rejection and Retry



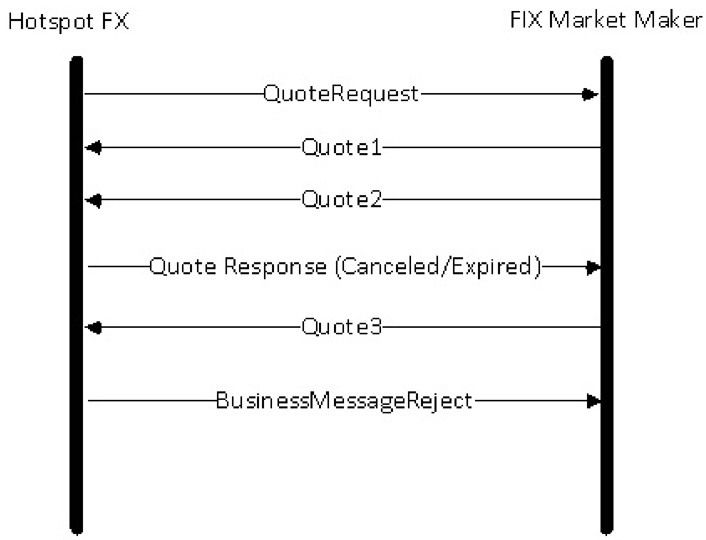
13.5 Trade Rejection

Cboe FX may reject a trade if the trade cant be booked or if it fails validation checks. The Market maker is then expected to cancel the trade. In order to indicate a rejected trade, Cboe FX will respond with a copy of an ExecutionReport for the trade in question with ExecType (150) set to Rejected (8) and OrdStatus (39) set to Rejected (8).

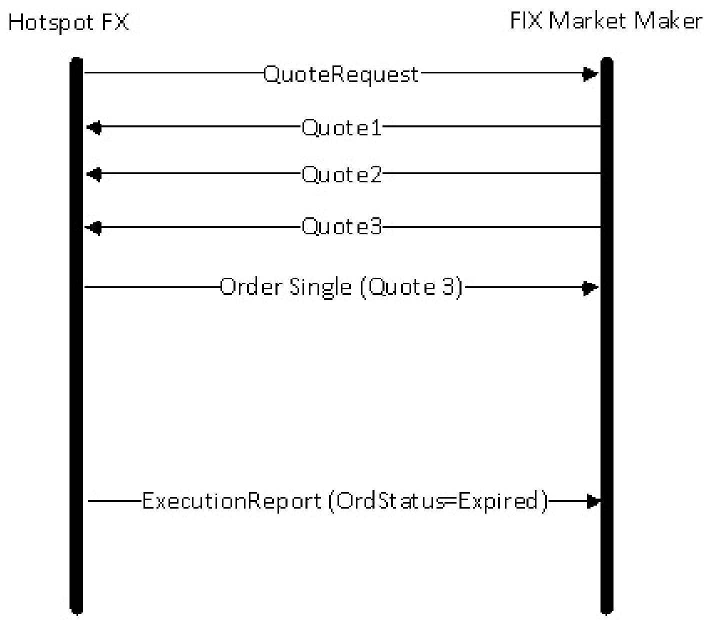


13.6 Quote sent after Expiration

A BusinessMessageReject message may be sent if a quote from the market maker arrives after the stream is canceled/expired/filled.



13.7 Order Expiration



14 Revision History

2008-03-25 – Internal corrections prior to publishing first version

2008-05-22 – Added Migration Guide, performed various cleanup and proofreading

2008-06-09 – Sketched out Averaging section

2008-06-10 – Completed the Averaging section

2008-06-16 – Revised Migration Guide to disambiguate setup of single user/connection from multiple user/connection.

2008-06-26 – Revised handling of Account (1) tag

2008-07-01 – Removed any mention of Market orders from the spec

2008-07-03 – Removed ClOrdId / OrigClOrdId length restrictions

2008-07-03 – Clarified ExecBroker's meaning

2008-08-13 – Fixed various typos

2008-08-22 – Fixed OrderStatus Execution Report's tag 150 – only valid value is "I" 2008-08-29 – Fixed NewOrderSingle MinQty – there is no restriction either upper or lower.

2008-09-08 – Fixed CxlRejReason values, as well as various typos and errors

2008-09-09 – OrdType should not be in any ExecutionReports

2008-09-09 – Removed all references to tag 103 from ExecutionReports – it is not sent.

2008-10-03 – Clarified the case when 20=1

2008-10-10 – Clarified MinQty behavior

2008-10-16 – Updated possible values for tags 39 and 150

2008-11-06 – Updated illegal characters in tag 11

2008-11-11 – Clarified value of SendingTime in FIX header

2008-11-25 – Clarified tags needed for cancel operations

2008-12-03 – Added OrdType=1 to Averaging Requests to make it FIX 4.2 compliant.

2008-12-05 – Explained tags 119 and 120

2008-12-18 – Clarified section 5 with regard to trade confirmation mechanism.

2008-12-22 – Clarified meaning of Tag 31

2008-12-23 – Clarified use of 141=Y

2009-01-07 – Indicated that Tag 102 is FIX 4.4, not 4.2 2009-01-28 – Corrected MinQty behavior

2009-02-04 – Added "Rejected" to OrdStatus ExecutionReport

2009-03-24 – Added Market order type to New Order Single

2009-04-02 – Removed erroneous references to test requests from section 9.1 2009-04-02 – Indicated that MinQty may cause auto-cancellation

2009-05-08 – Added descriptions for LMT/IOC and PEG order in section 4.1

2009-06-08 – Added text describing Cancel/Replace rejections' role in OrderCancelReplace operations to section 7.2

2009-06-19 – Indicated that Account (Tag 1) can only contain alphanumeric characters or underscores 2009-08-13 – Fixed typo in section 7.2 concerning tags 11 and 41.

2010-03-01 – Corrected example for tag 15 (Currency) in NewOrderSingle section

2010-10-25 – 150 can be "C", i.e. expired, for IOC misses

2011-10-18 – Explained tag 210 MaxShow

2011-11-14 – Revised semantics of tags 382/375 in Section 4.2

2012-03-01 – Changed FXi to FX

2012-03-27 – updated hours of operation in section 1.2

2012-03-30 – added clarification regarding Resend requests

2012-05-15 – added clarification for 11=0

2013-11-08 – Updated descriptions of tags 382/375 to be consistent within Chapter 4

2013-11-13 – Added clarification for Pegged Orders in Section 4.1

2016-3-16 – Added Cboe FX Full Amount Stream information

2017-2-13 – Corrected some inconsistencies throughout the fix spec

2017-2-14 – Updated Trade Confirmation Section

2017-2-22 – Added Full Amount Market Maker Sections

2017-3-09 – Reorganized sections

2017-6-19 – Added Reject Reasons to execution report.

2017-7-17 – Changed Cboe FX Logo.

2017-9-29 – Updated execution report for trades from quotes.

2017-11-21 – Removed inaccurate section.

2018-1-05 – Added Link Direct.

2018-1-24 – Removed Full Amount Quote Response message, as it is no longer used. Adjusted Full Amount Quote Cancel message to remove unused tags.

2018-1-26 – Fix incorrect NoRelatedSym tag in Full Amount Quote Request message to be 146, as implemented.

2018-3-21 – Clarify usage of QuoteID tag in New Order Single - Full Amount/Link Direct - from Taker.