FIX 4.4 Trade /Quote Specification

Confidential and Proprietary

Version 1.12.0 – November 7, 2019 revision

Contents

Versions

FIX API Version Number	Date	Changes	Introduced In Build
1.0	2012-12-12	Initial Version	
1.1	2013-03-10	Added Text Descriptions for MDRequestReject Added Text Field to NewOrderSingle for User Comment Added A=Pending New (Received) to NewOrderSingle	
1.2	2013-03-19	Removed Username from Logon Message Modified MarketDataRequest comment that bid & offer must be subscribed to.	
1.3	2013-10-29	Updated Database mappings to reflect current OZ Bridge Schema Added SenderSubID to NewOrderSingle message.	
1.5.1	2013-12-31	Minor formatting /description changes. Removed Username references. Adjusted OrderType tag on NewOrderSingle and Execution Report. Adjusted ExecType tag on Execution Report. Removed references to Appendix A.	
1.5.2	2014-5-20	Added v1.0 of oneZero proprietary Administrative API (documented separately)	3.8.5
1.6	2014-3-18	NewOrderSingle: • For 54=Side, corrected the OZDB field map from RequestNew.TakerSymbol to RequestNew.TakerSide ExecutionReport: • 39=OrdStatus may now contain values of 1=Partially Filled • 32=LastShares changed to the correct field name, which is LastQty • For 54=Side, corrected the OZDB field map from RequestNew.TakerCommand to RequestNew.TakerSide • 37=OrderId, clarified that the orderID is unique to the order itself, not each execution that occurs for the order OrderCancelRequest: • For 54=Side, corrected the OZDB field map from RequestNew.TakerCommand to RequestNew.TakerSide	4.0.0
1.6.1	2014-3-21	NewOrderSingle: • 21=HandlInst: This field is no longer required • 44=Price: Clarified that this field is required for LIMIT orders, but ignored for MARKET orders OrderCancelReject: • 37=OrderID, documented this field, which has always been required	4.1.0
1.6.2	2015-3-18	• Added v3.0 of oneZero proprietary Administrative API (documented separately)	4.3.0

		• Market Data Snapshot Full Refresh: ○ Documented field 282=MDEntryOriginator	

1.6.3	2015-4-3	• Added v3.1 of oneZero proprietary Administrative API (documented separately)
		• XMLnonFIX:
		  ○ Documented this message
		• NewOrderSingle:
		  ○ Documented fields 212=XMDataLen and 213=XMLData
		• Added missing documentation for the QuoteCondition and QuoteEntryId fields in the MarketDataFullRefresh message, both of which have been present sine Build 4.0.0 and FIX API version 1.6
			4.4.0

1.6.4	2015-9-22	Added SecurityStatus message for Corporate Actions.	4.6.0
1.6.4	2015-12-17	Added v3.2 of oneZero proprietary Administrative API (documented separately)	5.0.0
1.6.5	2016-1-5	NewOrderSingle and ExecutionReport: • 40=OrdType may now contain a value of D=Previously Quoted For Security Status: • 10001=Liquidate Fractional Shares for CFD Splits	5.1.0
1.7.0	2016-3-3	Added the following messages: • RequestForPositions • CollateralInquiry messages. Corrected several references to oneZero DB fields that gave the incorrect field name. Clarified that Tag 17=ExecID in an Execution Report is unique per session (not across all sessions) and only for the duration of the session connection.	5.1.0
1.7.0	2016-08-15	RequestForPositions: • Documentation: added required tag 60=TransactTime Standard Header: • Documentation: corrected name and type on tag 52=SendingTime NewOrderSingle: • Documentation: corrected documented type on tag 60=TransactTime ExecutionReport: • Documentation: corrected type on tag 60=TransactTime OrderCancelRequest: • Documentation: corrected type on tag 60=TransactTime OrderCancelReject:	5.1.0

		• Documentation: corrected type on tag 60=TransactTime	
1.7.1	2016-07-17	Removed oneZero internal database field mappings from this document: • Bridge version 5.3.0 introduces a new, expanded DB schema known as the Trades View. This schema is documented separately. Added the following fields to CollateralReport (35=BA) messages: • 8883=OZUsedMargin • 8884=OZFreeMargin • 8885=OZUnrealizedProfitOrLoss • 8886=OZEquity Added the following fields to PositionReport (35=AP) messages: • 8880=OZAccountCurrency • 8883=OZUsedMargin • 8886=OZUnrealizedProfitOrLoss Documented requirements on Heartbeat intervals for connected client sessions.	5.3.0
1.7.2	2017-02-06	NewOrderSingle: • Documentation: added missing tag 117 as required tag when OrdType=D (Previously Quoted)	5.3.0
1.8.0	2017-1-17	NewOrderSingle: • Added new field OZTakerRequestedSpread (8887).	6.0.0
1.8.1	2017-1-18	PositionReport: • Added new field PosType (703).	6.0.0
1.8.2	2017-2-1	NewOrderSingle: • OrdType (40) set to Previously Quoted (D) with a TimeInForce (59) set to GTC (1) will be rejected.	6.0.0
1.8.3	2017-2-3	Documentation improvements: • Updated Order Type / Time In Force Chart to include FOK and reflect the fact that GTC is disallowed on PreviouslyQuoted orders • ExecutionReport: fixed FOK (4) missing from TimeInForce (59) field values • Added headers to table of contents for messages related to corporate actions	6.0.0
1.8.4	2017-02-06	Updated documentation to reflect NewOrderSingle changes made in 1.7.2 (those changes were accidentally omitted from documentation for versions 1.80 to 1.8.3)	6.0.0

1.8.5	2017-03-07	NewOrderSingle: • Added new field OZTakerOrderType(8888). • Fixed documented type for OrdType.	6.0.0
1.8.5	2017-05-18	Adjusted Symbol field description in several places in this document, for consistency and clarity.	6.0.0
1.8.5	2017-05-26	Logon: • Fix incorrect ResetSeqNumFlag field name.	6.0.0
1.8.5	2017-06-23	NewOrderSingle: • Moved details of oneZero-proprietary tags 8887 and 8888 to separate document	6.0.0
1.8.6	2017-07-17	NewOrderSingle: • Added support for Standard Header field OnBehalfOfCompId(115)	6.1.0
1.8.6	2017-08-25	NewOrderSingle: • Updated OZTakerRequestedSpread to only reject if the value is non-zero when the feature is disabled.	6.1.0
1.8.7	2017-08-31	CollateralReport: • Added new field OZAccountCredit (8889)	6.1.0
1.8.7	2017-09-27	MarketDataSnapshot: • Added new MDEntryType Trade.	6.1.0
1.9.0	2018-08-14	ExecutionReport (35=8): • Added support for counterparty reporting via tags NoContraBrokers (Tag 382), ContraBroker (Tag 375) and ContraTradeQty (437)	7.0.0
1.9.0	2018-11-29	RequestForPositions: • Documented required field (60=TransactTime) Corrected typo in documentation of how clients stop an active streaming market data subscription.	7.0.0
1.9.0	2019-01-11	Position Report: • Fixed typo in description of field (702=NoPositions)	7.0.0
1.10.0	2019-05-28	MarketDataRequest (35=V): • Clarified non-support for Snapshot Only SubscriptionRequestType (263=0)	8.0.1
1.11.0	2019-11-07	ExecutionReport (35=8): • Added ContraLegRefID (Tag 655) • Added OZContraTradePrice (Tag 8890)	8.2.0
1.12.0	2019-11-07	ExecutionReport (35=8): • Added OZLastContraBroker (Tag 8891) • Added OZLastContraTradePrice (Tag 8892) • Added OZLastContraLegRefID (Tag 8893)	8.2.0

Introduction

Purpose

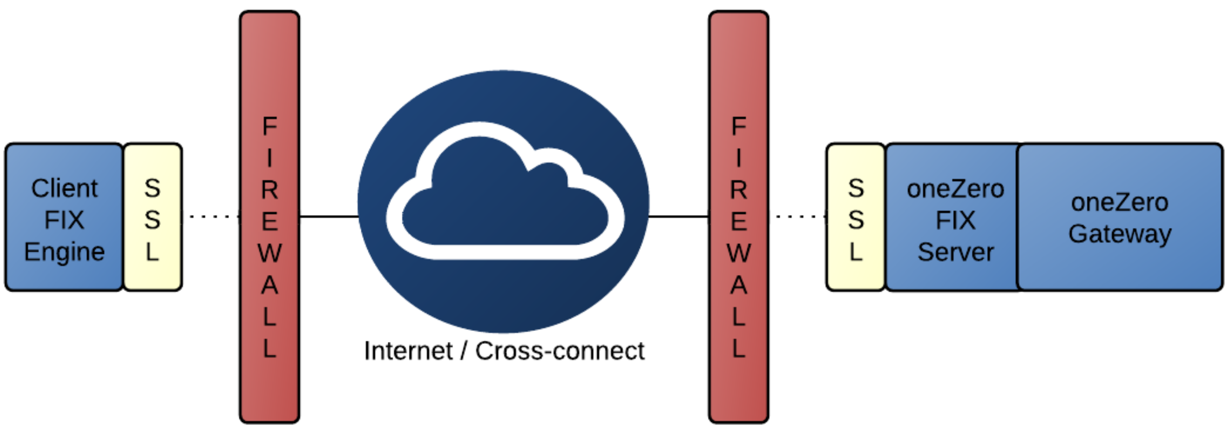
The purpose of this document is to outline the rules of engagement for interfacing with the oneZero Financial Systems Gateway via the Financial Information eXchange (FIX) protocol to receive quote data and trade.

Functionality

The oneZero FIX 4.4 API is designed specifically for spot markets, specifically foreign exchange (FX) and contracts for difference (CFDs). The FIX API into oneZero's quote/trade routing engine is designed for the following functionalities:

- Connectivity
- Quote Streaming (Subscription, Incremental Update)
- Order Execution

System Overview



References

More information on oneZero Financial Systems, LLC and the oneZero Financial Systems Gateway can be found at our website: www.onezero.com

Documentation and standards for the FIX Protocol are available from the FIX Protocol Limited organization via their website: www.fixprotocol.org

Connectivity

Introduction

Connecting to the oneZero FIX 4.4 API:

1) Client opens socket connection to oneZero FIX Server on pre-defined port.
2) Client sends FIX Logon Message (35=A)
3) oneZero Gateway sends FIX Logon Response (35=A)
4) oneZero / Client exchange Heartbeat (35=0)

Credentials

Customers connecting to the oneZero FIX API will receive the following information from oneZero which should remain configurable within their FIX Engine:

Quote Session	
IP Address	
Port	
SenderCompID	
TargetCompID	
Password	
Trade Session	
IP Address	
Port	
SenderCompID	
TargetCompID	
Password	

Prior to connecting to oneZero arrangements must be made to adjust the oneZero firewall to permit the IP from which the client will be connecting.

Verification

Prior to testing FIX API conformance all clients connecting to oneZero via FIX should run a network connectivity test using a TELNET protocol client application. In Microsoft Windows, open the COMMAND PROMPT and enter (for both quotes and trades):

TELNET <IP Address> <Port>

A blank screen indicates success, for any error contact oneZero IT.

Connection Keepalive Requirements

Clients connected to oneZero are required to send a Heartbeat (35=0) message to oneZero, on each connected FIX session, at least once every 30 seconds. Sessions that do not fulfill this requirement may be disconnected for lack of communication.

FIX Messaging

Standard Header

The standard header included on all FIX Messages sent/received by oneZero.

Standard Header					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
8	BeginString	Y	FIX.4.4	String	Always first field in message.
9	BodyLength	Y	-	Int	Always second field in message.
35	MessageType	Y	-	String	Always third field in message.
34	MsgSeqNum	Y	-	Int	The sequence number of the message, can be embedded outside of header.
49	SenderCompID	Y	-	String	The SenderCompID supplied to the client by oneZero.
52	Timestamp	Y	-	String	UTC time message was sent. (Include Milliseconds)
56	TargetCompID	Y	-	String	The TargetCompID supplied to the client by oneZero.
115	OnBehalfOfCompID	N	-	String	Broker / User coordinated client id. This can be used to assign specific trades to different accounts on the bridge.

Logon

A logon message is sent by the client to initiate a FIX session. The oneZero FIX implementation includes the Password for authentication purposes in the original Logon message.

Logon (MsgType, 35=A)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
98	EncryptMethod	Y	0	Int	Must be type 0 (None)
108	HeartBtInt	Y	-	Int	How often the client would like to receive a periodic heartbeat from oneZero, in seconds. **This value should be 60 or less.**
141	ResetSeqNumFlag	C	-	Boolean	Forces automatic reset of sequence # for both sides. Must be set to Y for quoting sessions
554	Password	Y	-	String	The password supplied to the client by the broker.

Heartbeat

A Heartbeat message is sent by oneZero to the client, or the client to oneZero as a keep-alive and means of verifying FIX connectivity. A Heartbeat is sent in response to a Test Request.

NOTE: see Connection Keepalive Requirements section above for additional heartbeat requirements oneZero places on client sessions.

Client connections should send a Test Request to oneZero, at a minimum, every 30 seconds.

Heatbeat (MsgType, 35=0)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
112	TestReqID	N	-	String	If responding to a Test Request, the Test Request ID.

Test Request

A Test Request message is sent by oneZero to the client, or the client to oneZero as a means of verifying two-way FIX connectivity. A Heartbeat is sent in response to a Test Request.

Test Request (MsgType, 35=1)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
112	TestReqID	N	-	String	If responding to a Test Request, the Test Request ID.

Resend Request

The resend request is sent by the receiving application to initiate the retransmission of messages. This function is utilized if a sequence number gap is detected, if the receiving application lost a message, or as a function of the initialization process.

Resend Request (MsgType, 35=2)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
7	BeginSeqNo	Y	-	Int	The first sequence number from this session to resend.
16	EndSeqNo	Y	-	Int	The last sequence number from this session to resend. Set to 0 to resend all message following the BeginSeqNo.

Reject

A Reject message is sent in response to an unsupported or badly formed FIX message from the client to oneZero. When possible, a reason and explanation for the rejection is supplied.

Note: A FIX level reject is different than a trade level reject, which would be sent via an ExecutionReport. The Reject message is only for administrative / system level message rejects.

Reject (MsgType, 35=3)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
371	RefTagID	N	-	Int	The FIX tag of the field which caused the FIX reject.
372	RefMsgType	N	-	Int	The MsgType of the message that caused the FIX Reject.
373	SessionRejectReason	N	-	Int	An enumerated reason for the FIX Reject.
45	RefSeqNum	Y	-	Int	The MsgSeqNum of the message causing the FIX Reject.
58	Text	N	-	String	Text explaining the FIX Reject.

Logout

A logout message is sent by oneZero to the client, or the client to oneZero, to terminate a FIX session. Most FIX engines will automatically generate the Logout message and response. When applicable, the oneZero FIX engine will provide a reason for the Logout in the Text (58) field.

Logout (MsgType, 35=5)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
35	MsgType	Y	5	String	Tag 35=5 Indicates Logout
58	Text	N	-	Text	Reason for the logout, if available

XMLnonFIX

An XMLnonFIX message can be sent from the client to oneZero. The contents and purpose of these messages is documented separately in the Administrative API.

XMLnonFIX (MsgType, 35=n)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
212	XmlDataLen	N	-	Length	Administrative API-related Tag
213	XmlData	N	-	Data	Administrative API-related Tag

Quoting

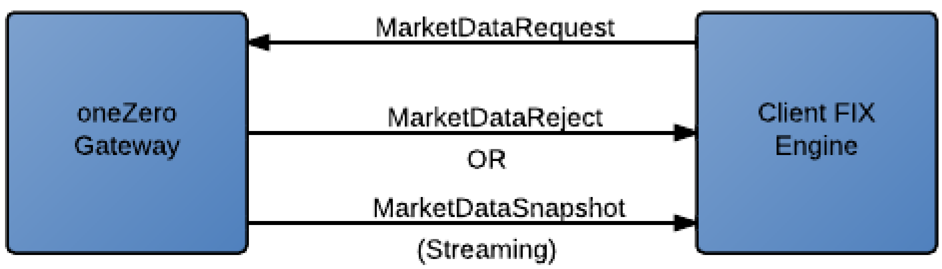
Summary

Once connected to the oneZero FIX API Quote Session, the client can subscribe to streaming quote updates from oneZero using a MarketDataRequest message. The oneZero FIX engine will respond with a MarketDataRequestReject for a request with any invalid symbols. It is recommended to use a single MarketDataRequests per symbol. For any valid MarketDataRequest, the oneZero FIX API will respond with a MarketDataSnapShot/Full Refresh for each symbol and continue streaming quote updates for the duration of the FIX session. Client can cancel streaming for any particular symbol, or a group of symbols, using a MarketDataRequest with SubscriptionRequesType (263) set to Disable Previous Update (2).

oneZero does not support MarketDataRequest with SubscriptionRequesType (263) set to Snapshot Only (0). Prior to version 1.10.0, requests of this type will be treated as Subscribe (Snapshot + Update) (1). Starting with version 1.10.0 and later, requests of this type will be rejected.

Messaging Sequence

1. Client Sends MarketDataRequest Message(s)
2. oneZero responds with Market Data Request Reject;
   or a single MarketDataSnapShot messages. (if 263=0);
   or streaming MarketDataSnapShot messages (if 263=1)
3. Client sends MarketDataRequest with 2 to cancel streaming (if 263=2);
   or all streaming stops upon Logout



MarketDataRequest

MarketDataRequest (35=V)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
262	MDReqID	Y	-	String	A unique (per session) ID for the Market Data Request. It's recommended a timestamp is included in this field to ensure uniqueness per request.

263	SubscriptionRequestType	Y	-	Int	Request type enumeration.
264	Market Depth	Y	-	Int	The depth of market (number of price layers) to be quoted for the symbol(s)
265	MDUPdateType	Y	0	Int	Must be set to 0 (Full Refresh). All layers will be updated in each MarketDataSnapshot.
267	NoMDEntryTypes	Y	-	Int	Number of MDEntryTypes (269) requested. Must be 2
>269	MDEntryType	Y	-	Int	Type (side) of quote requested. 0 = Bid 1 = Offer
146	NoRelatedSym	Y	-	Int	Number of instrument Symbols (55) requested.
>55	Symbol	Y	-	String	Instrument symbol to be quoted (for FX, use CCY1CCY2 format)

MarketDataRequestReject

MarketDataRequest Reject					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
262	MDReqID	Y	-	String	The MDReqID of the MarketDataRequest being rejected.
281	MDReqRejReason	N	-	Int	An enumerated reason for the rejection of the MarketDataRequest.
58	Text	N	-	String	Additional reason for the rejection, if available.

MarketDataSnapshot / Full Refresh

MarketDatasnapshot/FullRefresh (35=W)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
262	MDReqID	Y	-	String	The MDReqID of the originating MarketDataRequest message.
55	Symbol	Y	-	String	Symbol being quoted (in CCY1CCY2 format for FX)
268	NoMDEntries	Y	-	Int	Number of MDEntries following.
->269	MDEntryType	Y	-	Int	Type (side) of quote: 0 = Bid 1 = Offer 2 = Trade – This is the last price that was traded on the Symbol, typically only used in exchanges.
->270	MDEntryPx	Y	-	Price	The price for the MDEntry
->271	MDEntrySize	N	-	Size	The quantity (tradeable volume) of the market data entry.

-> 276	QuoteCondition	N	-	String	A = Tradeable Quote I = Indicative Quote
->282	MDEntryOriginator	N	-	String	The originator of the quote
->299	QuoteEntryID	N	-	String	UniqueID for Quote

Quote Cancel

Quote Cancels are only sent for 1...<NoQuoteEntries> symbols or for all quotes.

Quote Cancel (35=Z)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
117	QuoteID	Y	-	String	Unique Quote ID in ref to the Cancel msg
298	QuoteCancelType	Y	-	Int	• Cancel All Quotes (4) • Cancel Symbol (1)
295	NoQuoteEntries	N	-	String	Only sent on Cancel Symbol.
>55	Symbol	N	-	String	Symbol (in CCY1CCY2 Format for FX)

Trading

Summary

Once connected to the oneZero FIX API Trade Session, the client can request a trade by sending a NewOrderSingleMessage. The oneZero FIX API will respond immediately with an ExecutionReport with a ExecType (150) of "PendingNew" (A). An order never made working due to credit or other failures will receive an ExecType "Rejected" (8). In the case an order is partially filled, individual ExecutionReports will be sent for EACH partial fill with OrderStatus "Partially Filled" (1). Once an order is completely filled, an ExecutionReport with ExecType "Fill" (2) will be sent. In the case the order times out, or is canceled by the user an ExecutionReport with ExecType "Canceled" (4) will be sent. The CumQty (14) field in the Canceled report will reflect any partial fills that happened for the canceled order.

If a client wishes to cancel the processing of a trade, a FIX Order Cancel Message can be sent. If the order cannot be canceled, an OrderCancelReject message will be sent in response. Alternatively, the oneZero FIX API will return a ExecutionReport with type Canceled once the order completes, with any filled quantity indicated as described above.

Messaging Sequence

1. Client Sends NewOrderSingle Message
2. oneZero responds with ExecutionReport ExecType = "Pending New" (A)
3. oneZero responds with 0..n ExectutionReport OrderStatus = "Partially Filedl" (1), ExecType = "Trade" (F)
4. oneZero responds with an ExecutionReport ExecType = "Trade" (F)
   or with an ExecutionReport ExecType = "Canceled" (4)
   or with an ExecutionReport ExecType = "Rejected" (8)

Order Type / Time In Force Chart

	IOC	GTC	FOK
Market	Only makes 1 pass to fill the order. Will use best price for volume requested.	Will attempt to fill the order until the Bridge market timeout value is reached. Will use best price for volume requested.	Only makes 1 pass to fill the order. Must match a quote whose volume that meets or exceeds the requested volume; will not sweep the book.
Limit	Only makes 1 pass to fill the order.	Will attempt to fill the order until the Bridge	Only makes 1 pass to fill the order.

	Must match a quote whose price is as good or better than requested price.	market timeout value is reached. Must match a quote whose price is as good or better than requested price.	Must match a volume that meets or exceeds the requested volume; will not sweep the book. Must match a quote whose price is as good or better than requested price.
Previously Quoted	Only makes 1 pass to fill the order. Order must **specify** a specific quote that was previously received from the maker; if that quote is unknown or no longer valid the order will be canceled.	<not supported>	Only makes 1 pass to fill the order. Must match a quote whose volume that meets or exceeds the requested volume; will not sweep the book. Order must **specify** a specific quote that was previously received from the maker; if that quote is unknown or no longer valid the order will be canceled.

NewOrderSingle

NewOrderSingle (35=D)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
1	Account	N	-	String	User defined account name. For retail systems, should be a unique identifier for the underlying trader. For individual traders, can be set to any value or omitted.
50	SenderSubID	N	-	String	Broker / User coordinated client group identifier. For retail systems, should be a unique identifier for the underlying trade group. For individual traders, should be set to a coordinated value with broker.
11	ClOrdID	Y	-	String	An ID for the trade. Must be universally unique across all prior trading sessions.

21	HandlInst	Y	-	Int	This field is ignored. Execution is always treated as if supplied value was 1 = Automated execution order, private, no Broker intervention
55	Symbol	Y	-	String	Instrument symbol (for FX, use CCY1CCY2 format)
54	Side	Y	-	Int	The side (buy or sell) of the request. 1 = Buy 2 = Sell
38	OrderQty	Y	-	Qty	Order amount (for FX orders, this is the CCY1 amount)
40	OrdType	Y	-	Char	Enumeration for the Type of Order. 1 = Market 2 = Limit D = Previously Quoted
44	Price	Y/N	-	Price	The price for LIMIT orders, or reference price for MARKET orders. **Required** for LIMIT orders. Ignored for MARKET orders.
58	Text	N	-	String	User comment field.
59	TimeInForce	Y	-	Int	Enumeration of order duration. 1 = Good Till Cancel (GTC) 3 = Immediate Or Cancel (IOC) 4 = Fill Or Kill (FOK) GTC is not supported for OrdType = Previously Quoted.
60	TransactTime	Y	-	Time	Time of order creation in UTC format.
117	QuoteID	Y/N	-	String	Unique Quote ID for the specific quote being traded on. **Required only** for PREVIOUSLY QUOTED (40=D) orders. **Ignored** for all other order types.
212	XmlDataLen	N	-	Length	Administrative API-related Tag
213	XmlData	N	-	Data	Administrative API-related Tag

8887	OZTakerRequested Spread	N	-	Qty	Proprietary field. Contact oneZero support for more information. Use of this field is disabled by default. Messages containing non-zero values for this field will be rejected until it is enabled.
8888	OZTakerOrderType	N	-	Int	Proprietary field. Contact oneZero support for more information.

ExecutionReport

Execution Report (35=8)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
11	ClOrdID	Y	-	String	The Unique ID sent by the client in Tag 11 of the corresponding NewOrderSingle message.
37	OrderID	Y	-	String	A Unique Order ID assigned to the original order by the FIX Engine.
17	ExecID	Y	-	String	A unique ID assigned to the specific Execution Report by oneZero. These ExecIDs are only guaranteed to be unique within a single session, and only for the duration of that session’s connection. IDs may repeat after a session reconnects, and IDs are not guaranteed to be unique across multiple simultaneously connected sessions.
39	OrdStatus	Y	-	Int	Describes the current state of the order corresponding to this execution report. A=Pending New (Received) 1=Partially Filled (Open, with some fills but is not completely filled) 2=Fill (Completely Filled) 4=Canceled (Cancelled, can have fills but is not a complete fill.) 8=Rejected (Rejected, no fills)
150	ExecType	Y	-	Int	The enumerated type of this ExecutionReport: A=Pending New (Received) 4=Canceled (Cancelled, can have fills but is not a complete fill.)

					8=Rejected (Rejected, no fills) F = Trade (this report indicates a full or notification of partial fillled volume)
55	Symbol	Y	-	String	The instrument symbol from the original order request.
54	Side	Y	-	Int	The side (by or sell) of the original request. 1 = Buy 2 = Sell
38	OrderQty	Y	-	Qty	Original order quantity. Does not indicate a filled amount, only for reference.
40	OrdType	Y	-	Int	Enumerated Order Type from the original request. For reference. 1 = Market 2 = Limit D = Previously Quoted
44	Price	N	-	Price	The original requested price for the order.
59	TimeInForce	Y	-	Int	Enumeration of order duration for the original request. 1 = Good Till Cancel (GTC) 3 = Immediate Or Cancel (IOC) 4 = Fill Or Kill (FOK)
31	LastPx	N	-	Price	If ExecType is Trade, this will be set to the price of the fill.
32	LastQty	N	-	Qty	If ExecType is Trade, this will be set to the quantity bought or sold.
151	LeavesQty	Y	-	Qty	The remaining quantity to fill from the original requested amount.
14	CumQty	Y	-	Qty	The total quantity filled for original request, including this fill.
6	AvgPx	Y	-	Price	The Average Price of all fills for this request, including this fill. This will be 0 if ExecType is Pending New.
64	SettlDate	N	-	Date	If ExecType is Trade, this will be set to the UTC Settlement Date for the fill in YYYYMMDD format.
75	TradeDate	N	-	Date	If ExecType is Trade, this will be set to the UTC Trade Date for the fill in YYYYMMDD format.
103	OrdRejReason	N	-	Int	The reason the order was rejected, if ExecType is Rejected.
58	Text	N	-	String	If ExecType is Rejected or Canceled, and the reason is known, will be set to a text explanation of the reason.

60	TransactTime	N	-	Date	Time of the original order creation in UTC Format. Not sent when ExecType is Pending New
382	NoContraBrokers	N	> 0	Int	Number of ContraBroker repeating instances to follow. If specified, must be > 0.
=> 375	ContraBroker	C	-	String	Name of the underlying trade counterparty. Required if NoContraBrokers > 0, in which case it must be first field in the repeating group.
=> 437	ContraTradeQty	N	-	Qty	Quantity of the trade attributable to the ContraBroker specified in tag 375.
=> 655	ContraLegRefID	N	-	String	The trade ID of the trade attributable to the ContraBroker specified in tag 375.
=> 8890	OZContraTradePrice	N	-	Price	Price of the trade attributable to the ContraBroker specified in tag 375.
8891	OZLastContraBroker	N	-	String	Name of the underlying trade counterparty for the fill in this ER.
8892	OZLastContraTradePrice	N	-	Price	Price for the underlying trade counterparty for the fill in this ER.
8893	OZLastContraLegRefID	N	-	Price	Trade ID for the underlying trade counterparty for the fill in this ER.

Order Cancel Request

OrderCancelRequest (35=F)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
41	OrigClOrdID	Y	-	String	The ClOrdID from the original order the client wishes to cancel.
11	ClOrdID	Y	-	String	A unique ID to identify this cancel request specifically.
54	Side	Y	-	Int	The side (buy or sell) of the request. 1 = Buy 2 = Sell
60	TransactTime	Y	-	Date	Time this order request was initiated/released by the trader or trading system.

Order Cancel Reject

OrderCancelReject (35=9)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					

37	OrderID	Y	-	String	A Unique Order ID assigned to the original accepted order by the FIX Engine. Will be ‘NONE’ if CxlRejReason=1
41	OrigClOrdID	Y	-	String	The ClOrdID from the original order the client wishes to cancel
11	ClOrdID	Y	-	String	The unique ID to identify the originating cancel request.
39	OrdStatus	Y	-	Int	Enumeration indicating the status of the order that was attempted canceled.
102	CxlRejReason	Y	-	Int	Enumeration indicating the reason why the cancel was rejected. 0=TooLateToCancel – Order has already been canceled or filled. 1=UnknownOrder – Order ID not found in FIX engine.
434	CxlRejResponseTo	Y	-	Int	Enumeration indicating the type of request this reject is in response to.
60	TransactTime	Y	-	Date	The time the last action on the order was transacted.

Corporate Actions

Security Status

SecurityStatus (35=f)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
55	Symbol	Y	-	String	The instrument for the corporate action. For FX, use CCY1CCY2 format.
292	CorporateAction	Y	-	MultipleValueString	Currently required to be either “A” for CFD Dividends or “J” for CFD Splits.
15	Currency	C	-	Currency	Required for 292=“A”, will be the currency of the dividend.
332	HighPx	C	-	Price	Required for 292=“A”, will be the Long Dividend.
333	LowPx	C	-	Price	Required for 292=“A”, will be the Short Dividend.
330	BuyVolume	C	-	Qty	Required for 292=“J”, will be the Result Shares for a CFD Split
331	SellVolume	C	-	Qty	Required for 292=”J”, will be the Initial Shares for a CFD Split
10001	Liquidate Fractional Shares	C	-	Boolean	Required for 292=“J”. 0 = Round Fraction. 1.4->1.0, 1.5->2.0 1 = Liquidate Fraction. 1.6->1.0, 0.6 is paid out at top of book prices from the side the client executed on.
58	Text	N	-	String	The comment for the corporate action

Account Inquiries

Querying Positions

Querying of aggregate per-symbol positions for one or more Margin accounts is achieved through the use of the “Request For Positions” message and the related “Request For Positions Ack” and “Position Report” messages. The expected interaction for requesting positions is as follows:

1. Client sends a 35=AN “Request For Positions” message requesting one or more Margin accounts to query
2. Client will **always** will receive back a 35=AO “Request For Positions Ack” acknowledgement of the request, which will indicate whether or not the request was successful and the number of 35=AP “Position Report” messages to follow. Please note that the number of position reports may be zero, such as if the request failed or there were no non-zero positions in the queried Margin account(s).
3. Client receives **zero** or more 35=AP “Position Report” messages, as indicated in the 35=AO “Request For Positions Ack” message. Each of these reports contains information about the aggregate position of a single symbol in a specific Margin account; symbols with a position of 0 will not generate a report. Therefore, as an example, if three margin accounts were specified in the initial request wherein the first account had 2 non-zero positions, the second had 7 non-zero position, and the third had no non-zero positions, then 9 separate position reports would be received.

Request For Positions

RequestForPositions (35=AN)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
60	TransactTime	Y	-	Time	Time of request in UTC format.
710	PosReqID	Y	-	String	Unique identifier for this request, chosen by the sender
724	PosReqType	Y	0	Int	Type of report being requested. Value must be: 0 = Positions
453	NoPartyIDs	Y	-	NumInGroup	Number of PartyIDs (448) being supplied. Must be 1 or greater.
>448	PartyID	Y	-	String	Must be the Margin Account ID for the account whose positions are being requested. Alternately, the special value “*” (without quotes) may be specified,

					which requests positions from all Margin Accounts that the requesting connection is authorized to access.

Request For Positions Ack

RequestForPositionsAck (35=AO)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
710	PosReqID	Y	-	String	Contains the value of field 710=PosReqID provided in the associated 35=AN message.
721	PosMaintRptID	Y	-	String	Unique identifier for this message, chosen by the sender
727	TotalNumPosReports	Y	-	Int	Total number of Position Report messages that will be forthcoming after this message. This will be a value of 0 or greater.
728	PosReqResult	Y	-	Int	Result of the request. 0=Valid Request 1=Invalid or Unsupported Request 2=No positions found that match criteria
729	PosReqStatus	Y	-	Int	Status of the request. 0=Completed 2=Rejected
58	Text	N	-	String	If present, contains additional information related to the contents of this report (e.g., if 728=1 then this field may explain why)

Position Report

PositionReport (35=AP)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
710	PosReqID	Y	-	String	Contains the value of field 710= PosReqID provided in the associated 35=AN message.
715	ClearingBusiness Date	Y	<Current UTC	LocalMktDate	Always set to the UTC date at the time the

			Date>		report was generated.
721	PosMaintRptID	Y	-	String	Unique identifier for this message, chosen by the sender
728	PosReqResult	Y	0	Int	Result of the request. Value will always be: 0=Valid Request
453	NoPartyIDs	Y	1	NumInGroup	Number of PartyIDs (448) being supplied. Will always be 1.
>448	PartyID	Y	-	String	Will be set to the Margin Account ID for the account corresponding to the position in this report.
55	Symbol	Y	-	String	The symbol for the position being reported. Please see "Notes on Symbols in Position Reports" below for important information about this field.
702	NoPositions	Y	1	NumInGroup	Number of Positions being specified in fields 703 and 704. Will always be 1.
>703	PosType	Y	TOT	String	Type of the position. Will always be total transaction quantity "TOT".
>704	LongQty	Y	-	Qty	Size of the net Long (i.e. "Buy") position in the Symbol. Will always be 0 or greater.
>705	ShortQty	Y	-	Qty	Size of the net Short (i.e. "Sell") position in the Symbol. Will always be 0 or greater.
>8883	OZUsedMargin	N	-	Qty	The amount of margin currently in use by this position, specified in the

					account deposit currency. Will not be present if unavailable (e.g. if lack of pricing prevents conversion of used margin to account currency)
>8885	OZUnrealizedProfitOrLoss	N	-	Qty	The current unrealized profit (if positive) or loss (if negative) for this position, specified in the account deposit currency. Will not be present if unavailable (e.g. if lack of pricing prevents conversion of used margin to account currency)
8880	OZAccountCurrency	Y	-	Currency	The Margin account deposit currency.

Notes on Symbols in Position Reports

The Symbol (field 55) in a Position Report message will be the common root taker symbol in the event that multiple price feeds correspond to the same symbol. For example, consider a scenario wherein the product is configured to quote EUR/USD on two different feeds accessible to the same Margin account, where one feed quotes it as "|EURUSD.inst" and the other as "|EURUSD.mkt". When querying positions on the account the resulting Position Report would contain the sum of the positions executed on both "|EURUSD.inst" and "|EURUSD.mkt", and the Symbol field in that report would be set to the root symbol of "|EURUSD".

Querying Collateral and Margin Utilization

Querying of collateral and margin information for one or more Margin accounts is achieved through the use of the "Collateral Inquiry" message and the related "Collateral Inquiry Ack" and "Collateral Report" messages. The information that can be retrieved includes per-currency account sub-balances, account deposit currency, total account balance in the deposit currency, and the current account margin utilization percentage.

The expected interaction for requesting positions is as follows:

1. Client sends a 35=BB "Collateral Inquiry" message requesting one or more Margin accounts to query
2. Client will **always** will receive back a 35=BG "Collateral Inquiry Ack" acknowledgement of the request, which will indicate whether or not the request was successful and the number of 35=BA "Collateral Report" messages to follow. Please note that the number of position reports may be zero, such as if the request failed or there were no non-zero positions in the queried Margin account(s).
3. Client receives **zero** or more 35=BA "Collateral Report" messages, as indicated in the 35=BG "Collateral Inquiry Ack" message. Each of these reports contains information about (A) a sub-balance in a specific currency in a specific Margin account, and also (B) information about the Margin account itself (margin utilization percentage, deposit currency, total account balance in deposit currency, current used and free margin amounts specified in the deposit currency, and the current unrealized profit or loss in the account, specified in the deposit currency). The information in (A) will be unique for each Collateral Report, but the information in (B) will be the same for all Collateral Reports sharing the same inquiry identifier (909=CollInquiryID) and that Margin Account (448=PartyID). Accounts with no sub-balances in any currency will not generate a report. As an example, if three margin accounts were specified in the initial request wherein the first account had balances in USD and EUR, the second had balances in CNY, and the third had no balances, then 3 separate position reports would be received and all three would contain the same values in tags 909=CollInquiryID, 8880=OZAccountCurrency, 8881=OZAccountBalance, 8882=OZMarginUtilizationPercentage, 8883=OZUsedMargin, 8883=OZFreeMargin, 8885=OZUnrealizedProfitOrLoss, and 8886=OZEquity

CollateralInquiry

CollateralInquiry (35=BB)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
909	CollInquiryId	Y	-	String	Unique identifier for this request, chosen by the sender
453	NoPartyIDs	Y	-	NumInGroup	Number of PartyIDs (448) being supplied. Must be 1 or greater.
>448	PartyID	Y	-	String	Must be the Margin Account ID for the account whose information is being requested. Alternately, the special value "*" (without quotes) may be specified, which requests information from all Margin Accounts that the requesting connection is authorized to access.

Collateral Inquiry Ack

CollateralInquiryAck (35=BG)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
909	CollInquiryId	Y	-	String	Contains the value of field 909=CollInquiryId provided in the associated 35=BB message.
911	TotNumReports	Y	-	Int	Total number of Collateral Report messages that will be forthcoming after this message. This will be a value of 0 or greater.
946	CollInquiryResult	Y	-	Int	Result of the request. 0=Successful 99=Other
945	CollInquiryStatus	Y	-	Int	Status of the request. 2=Completed 4=Rejected
58	Text	N	-	String	If present, contains additional information related to the contents of this report (e.g., if 946=99 then this field may explain why)

Collateral Report

CollateralReport (35=BA)					
Tag	**Field Name**	**Required**	**Value**	**Type**	**Comments**
<Standard Header>					
909	CollInquiryId	Y	-	String	Contains the value of field 909=CollInquiryId provided in the associated 35=BB message.
908	CollRptID	Y	-	String	Unique identifier for this message, chosen by the sender
453	NoPartyIDs	Y	1	NumInGroup	Number of PartyIDs (448) being supplied. Will always be 1.
>448	PartyID	Y	-	String	Will be set to the Margin Account ID for the account corresponding to the information in this report.
15	Currency	Y	-	Currency	The currency corresponding to the account sub-balance

					specified in field 53
53	Quantity	Y	1	Qty	Quantity of this account sub-balance, in the currency specified in field 15
8880	OZAccountCurrency	Y	-	Currency	The Margin account deposit currency.
8881	OZAccountBalance	Y	-	Qty	The total account balance, in the account deposit currency specified in field 8880. This represents the sum of all sub-balances in the account after conversion to the account deposit currency.
8882	OZMarginUtilization Percentage	Y	-	Percentag e	The current account margin utilization percentage, represented as a fraction (i.e. 0.5 represents 50% utilization).
8883	OZUsedMargin	Y	-	Qty	The amount of margin currently in use, specified in the account deposit currency.
8884	OZFreeMargin	Y	-	Qty	The amount of margin still available for use, specified in the account deposit currency.
8885	OZUnrealizedProfitO rLoss	Y	-	Qty	The current unrealized profit (if positive) or loss (if negative) for the account, specified in the account deposit currency.
8886	OZEquity	Y	-	Qty	The current equity available in the account, specified in the deposit currency
8889	OZAccountCredit	Y	-	Qty	The amount of credit extended to the account, in the account deposit currency.