

base

EXCHANGE

Alo Protocol - FIX



ALO Protocol - FIX

This document provides essential information regarding the **FIX Order Entry Protocol**, referred to as the **ALO FIX Protocol**.

Authorized market participants will send orders to buy or sell through **ALO FIX**. Accepted orders are subject to matching conditions according to their parameters. Orders that cannot be executed immediately will be posted to our order book following price-time priority to be executed in appropriate market conditions.

By these gateways, market participants will be able to send New Order or Cancel and Replace requests of previously sent Orders as well as receive the related executions. For a better understanding of Execution Rules please refer to the Operations Procedure Guide. For Information on Market Data, please refer to ALI Protocol (available separately).

Base Exchange provides FIX 4.4 order entry gateways that convert messages into its native ALO messages and back again. Session layer follows the standard FIX 4.4 protocol (administrative messages: Logon/Logout, etc), standard message header and trailer are expected in inbound messages according to the FIX 4.4 protocol rules. Fields that are only required by the protocol may not be validated on the exchange side, unsupported tags in inbound messages will be ignored.

Disclaimer: This document is a work in progress and should not be considered as final. It is subject to further revisions and modifications pending approval from regulatory agencies. Any information contained herein is preliminary and may be subject to change.

Last updated: November 8, 2024

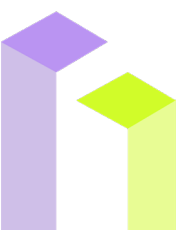


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1. Summary

Each FIX Order Entry has at least one physical ALO host associated. If the client desires a fault-tolerant configuration, additional physical ALO hosts can be bound to a same FIX Order Entry instance, which will then work as replicas generating the same outbound messages.

2. FIX User setup

It is the Trading Member's responsibility to request the creation of its FIX Sessions, each one is identified by a unique UserId assigned on the User creation.

2.1 Parameters

1. Password

2. Network

- The exchange shall provide the IP address, port, SenderCompId and TargetCompId where each FIX session listens for client applications to connect
- Note: each FIX session can have only one active connection at a time

3. Connection Origin

- Trading member, Technology Provider or Investor

4. Cancel on Disconnect

- Optional

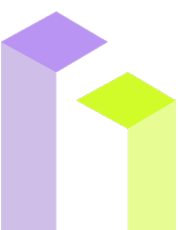
3. Inbound Messages

3.1 New Order Single <D>

Tag	FieldName	Required	Comment
11	ClOrdID	Y	Unique identifier for Order as assigned by the client. Uniqueness must be guaranteed within a single trading day. Must be 14 characters or less.
54	Side	Y	Valid values: 1 = Buy

2 = Sell

38	OrderQty	Y	Total number of shares.
55	Symbol	Y	Stock symbol. Must be 8 characters or less.
40	OrdType	Y	Valid values: 1 = Market 2 = Limit
60	TransactTime	Y	Required by the FIX protocol.
453	NoPartyIDs	Y	1. Used to identify entering trader
448	PartyID	Y	Entering trader code.
447	PartyIDSource	Y	D = proprietary code.
452	PartyRole	Y	36 = EnteringTrader.
44	Price	C	Required for limit orders.
432	ExpireDate	C	Date of order expiration (last day the order can trade), always expressed in terms of the local market date.
59	TimeInForce	N	Absence of this field indicates Day order (0). Valid values: 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD)
1	Account	N	If provided it must be an integer.
111	MaxFloor	N	Maximum quantity within an order to be shown on the exchange floor at any given time.
2362	SelfMatchPreventionID	N	Analogous to ALO STPKey, is the trigger to Self Trade Prevention. Absence of this field indicates no Self Trade Prevention for this order. If provided it must be an integer (note the value 0 also means no STP for this order).



3.2 Order Cancel/Replace Request <G>

Tag	FieldName	Required	Comment
41	OrigCLOrdID	Y	CLOrdID of the previous non-rejected order.
11	CLOrdID	Y	Unique ID of the replace request as assigned by the client. Must be 14 characters or less.
38	OrderQty	Y	Total number of shares.
44	Price	Y	Required for limit orders (note: market orders cannot be replaced).
55	Symbol	Y	Required by the FIX protocol.
54	Side	Y	Required by the FIX protocol.
60	TransactTime	Y	Required by the FIX protocol.
40	OrdType	Y	Required by the FIX protocol.
453	NoPartyIDs	Y	1. Used to identify entering trader
448	PartyID	Y	Entering trader code.
447	PartyIDSource	Y	D = proprietary code.
452	PartyRole	Y	36 = EnteringTrader.
432	ExpireDate	C	Date of order expiration (last day the order can trade), always expressed in terms of the local market date. Note: this field is ignored for orders that do not have Good Till Date time in force.
111	MaxFloor	N	Maximum quantity within an order to be shown on the exchange floor at any given time. Note: this field is ignored for orders created without MaxFloor.

3.3 Order Cancel Request <F>

Tag	FieldName	Required	Comment
41	OrigCLOrdID	Y	CLOrdID of the previous non-rejected order.
11	CLOrdID	Y	Unique ID of the cancel request as assigned by the client. Must be 14 characters or less.

55	Symbol	Y	Required by the FIX protocol.
54	Side	Y	Required by the FIX protocol.
60	TransactTime	Y	Required by the FIX protocol.
38	OrderQty	Y	Required by the FIX protocol.
453	NoPartyIDs	Y	1. Used to identify entering trader
448	PartyID	Y	Entering trader code.
447	PartyIDSource	Y	D = proprietary code.
452	PartyRole	Y	36 EnteringTrader.

4. Outbound Messages

4.1 Execution Report <8>

Tag	FieldName	Required	Comment
37	OrderID	Y	
11	ClOrdID	Y	
17	ExecID	Y	
150	ExecType	Y	
39	OrdStatus	Y	
55	Symbol	Y	
38	OrderQty	Y	
54	Side	Y	
151	LeavesQty	Y	
14	CumQty	Y	
6	AvgPx	Y	
44	Price	C	

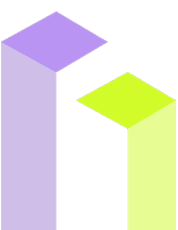
40	OrdType	N	
59	TimeInForce	N	
1	Account	N	
111	MaxFloor	N	
2362	SelfMatchPreventionID	N	
432	ExpireDate	N	
103	OrdRejReason	N	
378	ExecRestatementReason	N	Required for unsolicited cancel reports
19	ExecRefID	N	Required for ExecType <150>=Trade Cancel.
41	OrigClOrdID	N	Required for a response to a Cancel or Cancel/Replace request.
382	NoContraBrokers	N	Required for ExecType <150>=Trade.
375	ContraBroker	N	Required for ExecType <150>=Trade.
32	LastQty	N	Note this field is nested in a repeating group. Required for ExecType <150>=Trade.
31	LastPx	N	Required for ExecType <150>=Trade.
851	LastLiquidityInd	N	Required for ExecType <150>=Trade.
58	Text	N	Free format

4.2 Order Cancel Reject <9>

Tag	FieldName	Required	Comment
37	OrderID	Y	Unique identifier for Order as assigned by the exchange.
41	OrigClOrdID	Y	ClOrdID which could not be canceled/replaced.
11	ClOrdID	Y	Unique identifier for the Order Cancel Request or the Order Cancel Replace Request, as assigned by the client.
39	OrdStatus	Y	Order status value after this cancel reject is applied.

434	CxlRejResponseTo	Y	Identifies the type of request being replied.
102	CxlRejReason	N	Code to identify reason for cancel rejection. Codes: same as ALO +1000
103	OrdRejReason	N	Code to identify reason for new order rejection. Codes: same as ALO +1000
58	Text	N	Free format.

Reason Number	Code
2	ExchangeClosed
6	Duplicate
99	Other
1007	Halted
1009	InvalidSide
1014	NoRefPrice
1015	AccountNotAuthorized
1019	InvalidQuantity
1010	InternalGTError
1020	PriceOutsideRange
1021	PostOnly
1022	MaximumNumOrders
1023	InvalidSymbol
1029	InvalidPrice
1041	PortMessageRateRestriction
1048	MaxVolumeExceeded
1050	InvalidTimeInForce
1051	InvalidPostOnly
1052	InvalidAttributable
1101	AggregateExposure
1102	FirmExposure
1104	AccountExposure
1105	SecurityExposure



4.3 Business Message Reject <j>

Tag	FieldName	Required	Comment
372	RefMsgType	Y	The MsgType <35> of the FIX message being referenced.
380	BusinessRejectReason	Y	3 = Unsupported Message Type 4 = Application not available