

# POSIT FIX Specification

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For more information please review the Form ATS-N extract document available at  
<https://www.virtu.com/about/transparency/> or consult your POSIT relationship manager.**

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# Introduction to Virtu Americas POSIT FIX Protocol



This document sets forth the information needed to access POSIT, Virtu America's registered alternative trading system in the US, using the FIX protocol.

## **FIX 4.0, 4.2 and 4.4 Support**

The standard FIX protocol as published by the FIX Trading Community forms the basis of the document. Virtu Americas is FIX 4.0, FIX 4.2 and FIX 4.4 compliant. Virtu Americas systems use the standard FIX protocol published by the FIX trading Community, unless otherwise specified. To download and view the FIX specifications, visit [www.fixtrading.org](http://www.fixtrading.org). This document assumes familiarity with these general FIX specifications.

## **Supported Interactions**

### *Continuous Crossing*

POSIT supports continuous intraday crossing. DAY and PEG orders participate in continuous intraday crossing until the order is either filled, expired, or cancelled. IOC orders are crossed immediately and any unexecuted shares are cancelled.

### *POSIT Alert*

Following notification of a potential match from Virtu America's indications matching system, POSIT Alert, Alert participants can submit firm orders to POSIT's Alert destination.

*Default Behavior*

POSIT users may request default behaviors for their POSIT orders. Instructions sent with individual orders would override applicable user-level default setting(s).

*Cancellation and Correction*

POSIT users can cancel orders. Limited correction of orders is allowed, as summarized in the “Cancel Replace FIX Message (35=G)” section below.

*POSIT “Direct Subscribers”*

POSIT users who submit orders directly to POSIT through a FIX connection dedicated exclusively to POSIT are considered POSIT “Direct Subscribers”. Direct Subscribers can request that all outstanding orders be automatically cancelled upon a FIX session disconnect.

Virtu Americas encourages you to review POSIT’s Form ATS-N, which is posted on its website at [www.virtu.com/about/transparency](http://www.virtu.com/about/transparency) for further information concerning POSIT’s operations and matching logic.

**Single Order FIX message (35=D)**

This section describes the FIX OrderSingle (35=D) message as it applies to POSIT. Listed below are required fields as well as those that are optional for POSIT.

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	D	D = Single Order
ClOrdID	11	Yes		Unique identifier of the order, assigned by the user. Maximum 60 characters long.
HandlInst	21	Yes		
ExDestination	100	No	TCT1	Controls target destination: TCT1=POSIT

Currency	15	No	USD	
Symbol	55	Yes		U.S. Ticker Symbol. Any NMS stock, as that term is defined in Rule 600(b)(47) of Regulation NMS, using the CMS convention. Alternative security identifiers can be requested and must be tested with Virtu Americas.
Side	54	Yes	1, 2, 5, 6	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (available for broker-dealer users only)
TransactTime	60	Yes (except FIX 4.0)		
Rule80A	47	No	A, P	FIX 4.4 connections should use tag 528. Users must indicate (“P”) when trading in a principal capacity or (“A”) when trading in an agency capacity. The absence of a tag in this field will be treated as agency. Clients may request Virtu Americas to use a fixed capacity for all their orders or otherwise accommodate special needs.
Price	44	No		Value must be > 0 if OrdType(40) = Limit (2) Value will be ignored for Market orders (40=1)
OrderQty	38	Yes		
OrdType	40	Yes	1, 2, P	1 =Market 2 = Limit P = Pegged (required if providing peg instructions)

TimeinForce	59	Yes	0, 3	0 = Day 3= Immediate or Cancel
MinQty	110	No		Minimum execution quantity for a single cross.
LocateReq'd	114	No	N, Y	Tag required from all customers except U.S. broker- dealers for short sell (54=5) and Short Sell Exempt (54=6) orders. N = No (Virtu Americas is not required to locate) Y = Yes
LocateBroker	5700	No	MPID of locate broker (4 characters)	Required from all customers except U.S. broker-dealers when LocateReq'd (114) = No (N).
ExecInst	18	No	R, M, P	Values will be honored only when OrdType(40) = Pegged(P): R = Primary Peg (buy@bid, sell@offer) M = MidPrice Peg P = Market peg  *All POSIT Orders are considered Not Held

OrderCapacity	528	No		<p>FIX 4.4 only</p> <p>Users must indicate (“P”) when trading in a principal capacity or (“A”) when trading in an agency capacity. The absence of a tag in this field will be treated as agency. Clients may request Virtu Americas to use a fixed capacity for all their orders or otherwise accommodate special needs.</p>
ExecOptOut	9137	No	A, B	<p>A – Block interaction against the move away segment</p> <p>B – Block interaction against the move towards segment</p> <p>Default is to interact with all segments</p>
NoExecInLockedMarket	9007	No	N, Y	<p>Y – Order will not execute if the market is locked</p> <p>Default is to execute in a locked market</p>
AddLiqOnly	9135	No	N, Y	<p>Y – Order will not execute if the execution would result in the order removing liquidity</p> <p>Default is to interact with all orders</p>
ClientSegment ID	9141	No	1,2,3,4	<p>Available on client request. Used in Conjunction with POSIT Moniker to identify a specific client defined order flow type for Liquidity Profile for segmentation purposes.</p> <p>Valid values:  1 = Segment1  2 = Segment2  3 = Segment3  4 = Segment4</p>

## Cancel/Replace FIX message (35=G)

Only a limited number of fields (shown in the below table) can be changed using the FIX Cancel/Replace message. All other FIX fields included in the above Single Order FIX message section must be retransmitted as sent in the original order. Only DAY (59=0) orders may be corrected. Filled orders may not be corrected upward unless requested by the user and certified by Virtu Americas.

Do not use this message to cancel the remaining quantity of an outstanding order. To cancel the remaining quantity of an outstanding order, use the Cancel Request (35=F).

POSIT responds to the Cancel Replace with a standard FIX Replaced report.

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	G	G = CancelReplace
ClOrdID	11	Yes		New Client Order ID
OrigClOrdID	41	Yes		Tag 11 from the last order or CancelReplace message
HandlInstr	21	Yes		
TransactTime	60	Yes (Except FIX 4.0)		
Only the following order attributes are correctable:				

Price	44	No		Value must be > 0 if OrdType (40) = Limit (2). Value will be ignored for Market orders (40=1).
OrderQty	38	Yes		
OrdType	40	Yes	1, 2, P	1 =Market 2 = Limit P = Pegged (required if providing peg instructions) Only changes allowed are from 40=1 to 40=2 and from 40=2 to 40=1.
MinQty	110	No		Minimum execution quantity for a single cross.
ExecOptOut	9137	No	A, B	A – Block interaction against the move away segment B – Block interaction against the move towards segment Default is to interact with all segments
NoExecInLockedMarket	9007	No	N, Y	Y – Order will not execute if the market is locked Default is to execute in a locked market
AddLiqOnly	9135	No	N, Y	Y – Order will not execute if the execution would result in the order removing liquidity Default is to interact with all orders



## Cancel FIX message (35=F)

Pass only the standard FIX Order Cancel message, as defined in the FIX specifications.

## Responses from POSIT

POSIT only responds to inbound FIX messages with either (1) an ExecutionReport (35=8) message or (2) a CancelReject (35=9) message.

ExecutionReport (35=8) message is used for:

- Order acknowledgement
- Order rejection
- Trade information (Partial)
- Trade information (Filled)
- Correction acknowledgement and confirmation
- Cancel acknowledgement and confirmation
- Done for Day
- Trade Bust
- CancelReject (35=9) message is used for:
  - Cancel rejection
  - Correction rejection

## FIX Execution Report (35=8)

Field Name	FIX Tag	Always Sent	Comments
<b>Standard Header MsgType = 8</b>			
ExecTransType	20	Y (FIX4.0 & FIX4.2)	Identifies transaction type. Possible Values: 0 = New  1 = Cancel (Trade Bust) 2 = Correct
OrdStatus	39	Y	Describes the current state of a user order Possible Values: 0 = New (Ack on new orders, or on a trade bust with no executed shares) 1 = Partial Fill (on trade report, or on a trade bust with executed shares) 2 = Filled 3 = Done (Done for day) 4 = Cancelled 5 = Replaced (FIX4.0 and FIX4.2) 6 = Pending Cancel 8 = Rejected (order only, will use message 35=9 for rejecting cancels and corrections) E = Pending Replace (FIX4.2 and FIX4.4)
ExecType	150	Y (FIX4.2 and FIX4.4)	Describes the type of execution report. Possible Values: 0 = New  1 = Partial Fill (FIX4.0 and FIX4.2) 2 = Filled (FIX4.0 and FIX4.2) 3 = Done 4 = Cancelled 5 = Replaced 6 = Pending Cancel 8 = Rejected E = Pending Replace (FIX4.2 and FIX4.4)  The below values only apply for FIX4.4:  F = Trade (formerly 150=1 and 2) H = Trade Cancel (formerly 20=1)
ClOrdID	11	Y	As specified by user
OrigClOrdID	41	Y (FIX4.2 and FIX4.4)	ClOrdID of the previous order (not the initial order of the day) when cancelling or replacing an order.

OrderID	37	Y	OrderID, assigned by Virtu Americas, unique for each user order within a single trading day.
TransactTime	60	Y	Transaction time (expressed in GMT). Trade reports provide millisecond granularity. Users may request receiving milliseconds on other report types.
ExecID	17	Y	Unique report message identifier within a single trading day.
ExecRefID	19	N	Sent for trade bust report
LastShares	32	Y	Quantity of shares bought/sold on this (last) fill.
LastPx	31	Y	Price of this (last) fill.
LeavesQty	151	Y (For FIX 4.2 and 4.4)	Number of shares remaining.
CumQty	14	Y	Total executed shares for the order.
AvgPx	6	Y	Calculated average price of all trades on this order.
ExecBroker	76	N	Available by request
Rule80A	47	N (FIX 4.0 and FIX 4.2)	POSIT will send back an “A” value for agency capacity and a “P” value for principal capacity. Note: For legacy users sending in a “Y” or “U,” the same will be echoed back. A user’s provided value can be echoed back upon request. For FIX4.4 this is replaced with OrderCapacity (tag 528).
LastCapacity	29	N	Available upon request. 1=Agent 2=Cross as agent 3=Cross as principal 4=Principal
Text	58	N	Reason string sent on Cancelled/Rejected report.
TimeInForce	59	Y	As specified by user
Symbol	55	Y	As specified by user
Side	54	Y	As specified by user
OrderQty	38	Y	As specified by user
OrderType	40	N	User’s provided value can be echoed back upon request.
Limit price	44	N	As specified by user
MinQty	110	N	As specified by user
Liquidity indicator	851	N	Available by request
LastMkt	30	N	Available by request

Account	1	N	As specified by user
ExecInst	18	N	As specified by user
OrderCapacity	528	N (FIX4.4)	Replacement of Rule80A for FIX4.4. Will echo back user's original input.
NoPartyIDs	453	N (FIX4.4)	Party's repeating groups. Sent on trade reports.
=> PartyID	448	C	Same content as ExecBroker (tag 76) in prior FIX versions.
=> PartyRole	452	C	1 = ExecBroker

## **FIX CancelReject (35=9)**

Will include only the standard FIX CancelReject message as defined in the FIX specifications.

## **Self-Cross Prevention**

Orders entered in to POSIT can be subject to self-cross. POSIT does offer the ability to prevent self- crossing on both IOC and Day orders, to enable this on your session(s) please reach out to the ESG team at [esg@virtu.com](mailto:esg@virtu.com) or 888-302-9197

**To learn more, contact your sales representative or call our desk at**

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