



# **FIX Specifications**

Version 1.13

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Produced by:

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# Chapter 1 About this Document

This document provides guidelines for accessing all of the Direct Edge Stock Exchange platforms. It contains information regarding FIX connectivity and provides formats for submitting orders to the EDGX Exchange, EDGA Exchange, and MidPoint Match® Dark Pool.

## 1.1 Summary of Changes

A history of significant changes to this template is described in the table below.

Issue	Prepared By	Date	Changes
1.0	Bill Ciabattoni	Sept 22, 2009	First Version
1.1	Bill Ciabattoni	Dec 21, 2009	<p>Section 3.5.1:</p> <ul style="list-style-type: none"><li>Updated descriptions of tags 840 (PegScope), 388 (DiscretionInst), 9140 (DisplayInstruction), 59 (TimeInForce), 126 (ExpireTime), 110 (MinQty), 44 (Price), and 111 (MaxFloor).</li><li>Added new value "N =Regular Session Only" to tag 9206</li><li>Agency is now indicated as the Default in tag 47 (OrderCapacity) description.</li></ul> <p>Section 3.5.2 :</p> <ul style="list-style-type: none"><li>Added tags 9351 (BookedPrice) and 9352 (InitialDisplayPrice)</li><li>Changed tag 41 (OrigClOrdID) to Not Required and updated description.</li><li>Changed tags 31 (LastPx) and 32 (LastShares) to Not Required and updated description.</li><li>Added tag 114 (LocateReqd)</li></ul> <p>Section 3.5.3:</p> <ul style="list-style-type: none"><li>Added tags 9351 (BookedPrice) and 9352 (InitialDisplayPrice)</li><li>Added tags 114 (LocateReqd), 9206 (ExtedHrsEligible), and 9400 (RoutStrategy).</li></ul> <p>Section 3.6.1: Removed tag 18 (ExecInst)</p> <p>Section 3.6.2:</p> <ul style="list-style-type: none"><li>Removed tag 22 (IdSource)</li><li>Changed tag 44 (Price) and 47 (OrderCapacity) to Not Required</li></ul> <p>Chapter 4: Added "Required" column to all order types.</p>
1.2	Bill Ciabattoni	March 25, 2010	<p>Section 3.5.1: Added "(Regular Session Only)" in tag 40 next to Market Orders.</p> <p>Section 3.5.2:</p> <ul style="list-style-type: none"><li>Replaced reference to fee schedule and added actual liquidity flags in tag 9882.</li><li>Changed description of tag 9352 to include "Price Adjust" orders as a receiver of this tag.</li></ul> <p>Section 3.6.2: Removed tag 22 (IDSource) from Cancel/Replace Message format.</p>

1.3	Bill Ciabattoni	April 16, 2010	<p>Section 3.1: Changed TargetCompID to “DEX” and “DEA” from “EDGX” and “EDGA”.</p> <p>Section 3.5.1: Added IOC to all Directed ISO strategy descriptions in tag 9400.</p>
1.4	Bill Ciabattoni	April 26, 2010	<p>Section 3.5.1:</p> <ul style="list-style-type: none"> <li>Added translation table for values other than A, P, or R in Tag 47 (OrderCapacity)</li> <li>Added the following to Tag 9400: For all Directed ISO strategies, Tag 18 must be populated with “f” and Tag 59 must be “3” (IOC), or the order will be rejected.</li> </ul>
1.5	Bill Ciabattoni	July 19, 2010	<p>Removed “IOC” from the note at the bottom of the description for Tag 9303 in multiple places in the document.</p>
1.6	Bill Ciabattoni	Sept 1, 2010	<ul style="list-style-type: none"> <li>Auction process named Competition for Price Improvement<sup>SM</sup> (CPI).</li> <li>Dark Ping process named Comprehensive Liquidity Check<sup>SM</sup> (CLC).</li> <li>RoutDeliveryMethod default changed to RTI.</li> <li>18=o instruction on New Order Single changed from NOOP (Nasdaq Opening) to Listing Market Opening.</li> <li>Section 3.6.3 – Added side changes from Sell to Sell Short, or Sell Short to Sell Only to Cxl/Rep.</li> <li>Undid Changes made in Version 1.5 – Re-added IOC to description in Tag 9303, IOC Orders will default to Book Only.</li> <li>Tag 389: Clarification that sign may be entered on discretionary offsets but will be ignored.</li> </ul>
1.7	Bill Ciabattoni	Oct 1, 2010	<ul style="list-style-type: none"> <li>Sell Short Exempt added. Effective upon launch of new SS Circuit Breakers on November 10, 2010.</li> <li>Directed ISO Strategy (ISBY) added for BATS “Y” Exchange. Effective upon launch of BYX.</li> </ul>
1.8	Bill Ciabattoni	Oct 15, 2010	<ul style="list-style-type: none"> <li>Tag 9202 – Default for Book Only and Post Only orders was changed from Hide Not Slide to Price Adjust.</li> </ul>
1.9	Bill Ciabattoni	Nov 9, 2010	<ul style="list-style-type: none"> <li>Tag 9202 – For EDGA only - Default for Book Only and Post Only orders was changed back to Hide Not Slide.</li> </ul>
1.10	Bill Ciabattoni	Jan 3, 2011	<p>Section 3.5.1, Section 3.5.2, and Section 3.6.3:</p> <ul style="list-style-type: none"> <li>New Order Single, Execution Report, and Accept/Process Cancel message updated for new Anti-Internalization functionality. Tags 7928, 9207, 9208, 9209, and 9210 added. Please note that there will be new messages for full drop copy users of the new AI functionality.</li> </ul> <p>Above changes will be live in EDGA on 1/10/2011 and EDGX on 1/18/2011 and will only impact users of AI functionality.</p>

1.11	Bill Ciabattoni	Jan 20, 2011	<p>Section 3.5.1:</p> <ul style="list-style-type: none"> <li>SWPA, SWPB, IOCM, and ICMT Routing Strategies added to Tag 9400.</li> </ul> <p>Section 3.5.2:</p> <ul style="list-style-type: none"> <li>New "SW" Liquidity Flag added to Tag 9882.</li> <li>Tag 103 was incorrectly marked as Required and was updated to read Not Required.</li> </ul> <p>Section 3.6.3:</p> <ul style="list-style-type: none"> <li>Tags 31 and 32 were added to Accept/Process Cancel message for new AI functionality.</li> </ul> <p>Chapter 6:</p> <ul style="list-style-type: none"> <li>New chapter added that containing details on AI Functionality.</li> </ul>
1.12	Bill Ciabattoni	Feb 1, 2011	<p>Section 3.5.2:</p> <ul style="list-style-type: none"> <li>New RT and RX Liquidity Flags added to Tag 9882.</li> <li>Description on K Liquidity Flag updated in Tag 9882.</li> <li>Description on Z Liquidity Flag updated in Tag 9882.</li> </ul>
1.13	Bill Ciabattoni	Feb 3, 2011	<p>Section 3.5.1:</p> <ul style="list-style-type: none"> <li>ROOC and ROBY Routing Strategies added to Tag 9400</li> <li>Additional values added to Tag 18 for new ROOC Routing Strategy and Midpoint Discretionary Order Type</li> </ul> <p>Section 3.5.2:</p> <ul style="list-style-type: none"> <li>New 8, 9, BY, CL, and DM Liquidity Flags added to Tag 9882.</li> </ul>

## Chapter 2. Overview

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### 2.1 Hours of Operation

#### EDGX and EDGA Exchanges

Session	Start Time	End Time
Begin Order Acceptance – Pre-Market Orders <i>(Pre-Market orders will be accepted but will not begin trading until 8:00 AM.)</i>	6:00 AM	8:00 AM
Begin Order Acceptance – Regular Session Orders <i>(Regular Session orders will be accepted but will not begin trading until 9:30 AM.)</i>	6:00 AM	9:30 AM
Pre-Market Session	8:00 AM	9:30 AM
Regular Trading Session	9:30 AM	4:00 PM
Post Market Session	4:00 PM	8:00 PM

#### MidPoint Match Dark Pool

Session	Start Time	End Time
Begin Order Acceptance <i>(Midpoint Match orders will be accepted but will not begin trading until 9:30 AM.)</i>	6:00 AM	9:30 AM
Regular Trading Session	9:30 AM	4:00 PM

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### 2.2. Contact Information

Department	Email Address	Phone
Market Operations/FIX Support	<a href="mailto:ecnops@directedge.com">ecnops@directedge.com</a>	201-942-8220
Sales	<a href="mailto:sales@directedge.com">sales@directedge.com</a>	866-472-5267
Finance and Billing	<a href="mailto:billing@directedge.com">billing@directedge.com</a>	201-942-8247

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### 2.3. Connectivity and Testing

New order routing connections must pass certification testing before they are permitted to enter the production marketplace. Please call 201-942-8220 for more information.

## Chapter 3. Supported Message Formats

Each FIX message will be preceded by the standard header and followed by the standard trailer.

### 3.1 Standard Header

A standard header precedes each message.

**Note:** The fields that are not included in the table are ignored by Direct Edge.

Tag	Field name	Required	Description
8	BeginString	Y	Supports FIX 4.2 (See FIX Protocol Specifications for more details.)
9	BodyLength	Y	Must be the second field in the message. (See FIX Protocol Specifications for more details.)
35	MsgType	Y	Must be the third field in the message. 0 = HeartBeat 1 = TestRequest 2 = Resend/Request 3 = Reject 4 = SequenceReset 5 = Logout 8 = ExecutionReport 9 = OrderCancelReject A = Logon D = NewOrderSingle F = OrderCancelRequest G = OrderCancelReplaceRequest j = BusinessMessageReject
49	SenderCompID	Y	ID of message sender as assigned by Direct Edge. (TargetCompID for messages sent from Direct Edge)
56	TargetCompID	Y	Clients should always set to "DEX" or "DEA". (SenderCompID for messages sent from Direct Edge.)
34	MsgSeqNum	Y	Message Sequence Number (See FIX Protocol Specifications for more details.)
50	SenderSubID	N	For Service Bureau use only. Enter End-Client ID as assigned by Direct Edge when sending order to Direct Edge.
57	TargetSubID	N	For Service Bureau use only. End-Client ID on messages sent from Direct Edge.
43	PossDupFlag	N	Conditional field. This field is required for resend messages. (See FIX Protocol Specifications for more details.)

97	PossResend	N	Indicates possible retransmission of message under a new sequence number.
52	SendingTime	Y	GMT Date/Time message was sent.
122	OrigSendingTime	N	Conditional field. This field is required for resend messages. If the data is not available, set the field to the same value as SendingTime.

## 3.2. Standard Trailer

A standard trailer terminates each message.

**Note:** The fields that are not included in the table are ignored by Direct Edge.

Tag	Field name	Required	Comments
10	Checksum	Y	Three-digit character. (See FIX Protocol Specifications for more details.)

## 3.3. Using the SenderSubID field to Route Orders

It is possible to route orders to Direct Edge on behalf of multiple members over a single FIX connection using the SenderSubID field (tag 50).

This feature is useful for service bureaus which are not Direct Edge members, but can route orders on behalf of Direct Edge members.

For a service bureau to route an order:

1. Direct Edge assigns a SenderSubID value to the service bureau.  
The value is based on the Direct Edge acronym for the member.
2. The service bureau opens one connection to the Direct Edge FIX engine.

## 3.4. Administrative Messages

### 3.4.1. Login – From Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	A
108	HeartBtInt	Y	Client Heartbeat Interval (in seconds)

### 3.4.2. Login – Response From Direct Edge

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	A



108	HeartBtInt	Y	Client Heartbeat Interval (in seconds)
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### 3.4.3. HeartBeat – From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	0
112	TestReqID	N	Required in response to a Test Request

### 3.4.4. TestRequest – From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	1
112	TestReqID	Y	Auto-Generated Request ID

### 3.4.5. ResendRequest – From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	2
7	BeginSeqNo	Y	
16	EndSeqNo	Y	0 means + infinity

### 3.4.6. Reject – From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	3
45	RefSeqNum	Y	MsgSeqNo of Rejected Message
371	RefTagID	N	
372	RefMsgType	N	
373	SessionRejectReason	N	
58	Text	N	

### 3.4.7. SequenceReset/GapFill - From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	4
36	NewSeqNo	Y	Next Expected Sequence Number
123	GapFillFlag	N	The use of "Y" is required for common re-sequencing. '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.
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### 3.4.8. Logout – From Direct Edge and Member

Tag	Field Name	Req'd	Comments/ Valid values
35	MsgType	Y	5
58	Text	N	Indicates reason for Logout.

## 3.5. Order Entry Messages

### 3.5.1. New Order Single – From Member to Direct Edge

Tag	Field Name	Req'd	Comments/ Valid values
	<b>Standard Header</b>	<b>Y</b>	<b>MsgType = D</b>
1	Account	N	Sent by client and returned on all Execution reports for this order. (20 character maximum)
11	ClOrdID	Y	Unique identifier of the order assigned by the client. (20 character maximum)
198	SecondaryOrderID	N	Secondary Order ID can be sent by clients and will be returned on all Execution Reports. (20 character maximum)
60	TransactTime	Y	Time of order creation.
55	Symbol	Y	Ticker Symbol
65	SymbolSfx	N	Stock Suffix (see Appendix A for Direct Edge Symbolology)
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Number of shares in the order.
111	MaxFloor	N	Displayed order quantity on a Reserve Order. Odd lot quantities entered in this field will be rounded up to the nearest round lot. Mixed lot quantities will be rounded down to the nearest round lot. A MaxFloor quantity of 0 will indicate a fully Hidden Order.
8020	DisplayRange	N	Used for random replenishment of Reserve Orders. See section 4.2 for details.
110	MinQty	N	Minimum Execution Quantity (Applicable to Hidden order types and IOC orders only; Round lot quantities only)

9500	MinQtyInstruction	N	Used in conjunction with MinQty(110): E = Each Execution (Default) F = First Execution Only
40	OrdType	Y	1 = Market (Regular Session Only) 2 = Limit 3 = Stop 4 = Stop Limit P = Pegged
44	Price	N	Limit Price Required for limit orders (tag 40 = 2). If populated for a market order, the order will be accepted as a limit order at the price indicated in this field.  This field is also used to specify an optional Cap Price for Pegged Orders.
99	StopPx	N	Required if OrdType (tag 40) is equal to 3 or 4.
388	DiscretionInst	N	Code to identify the price a Discretion Offset is related to and should be mathematically added to.  Valid value is: 0 = Related to displayed price (Default on all Discretionary orders)
389	DiscretionOffset	N	Amount added (Buy Order) or subtracted (Sell) from the "related to" price specified via DiscretionInst (tag 388). Valid values: -.99 through .99  Sign may be entered but will be ignored. Regardless of sign, offset will always be added to Buys and subtracted from Sells in relation to the limit price of the order.
9800	AbsoluteLimit	N	Y = Absolute Limit on Pegged Discretionary order If selected, the discretionary amount will decrease as pegged order approaches its Cap price. Pegged Discretionary orders with Absolute Limit selected will never be executed at a higher price than the Cap price.
59	TimeInForce	N	0 = Day (Default) 3 = IOC 4 = FOK 6 = Good Till Date (GTD) - Time and date must be specified in field 126
126	Expire Time	N	UTC Date/Time timestamp of order expiration. Required for GTD orders (59=6). Valid timestamp must have today's date and a time within trading hours. GTD orders will expire at the earlier of Expire Time or end of day.
9206	ExtedHrsEligible	N	N = Regular Session Only (Default if not specified) Y = Pre-Market and Regular Session Eligible A = Regular Session and Post Market Eligible B = All Sessions Eligible

18	ExecInst	N	<p>Single Character, Valid Values:</p> <p>f = ISO</p> <p>R = Primary Peg</p> <p>P = Market Peg</p> <p>M = Midpoint Peg (valid for EDGA only)</p> <p>o = Listing Market Opening</p> <p>c = Listing Market Close (for ROOC strategy only)</p> <p>a = Both Listing Market Open and Close (for ROOC strategy only)</p> <p>d = Midpoint Discretionary Order (EDGA only)</p> <p>Direct Edge will reject order if multiple values are entered in this field.</p>
211	PegDifference	N	Valid values: -0.99 thru 0.99
840	PegScope	N	2 = National (Default on all Pegged Orders)
9140	DisplayInstruction	N	<p>Y = Displayed (Default on Displayed Orders)</p> <p>N = Hidden (same as MaxFloor = 0, Default on Midpoint Match and Midpoint Pegged Order types)</p>
9202	SpecialOrdType	N	<p>M = Midpoint Match (see section 4.9 for details)</p> <p>Re-pricing Options:</p> <p>P = Price Adjust (Default for Book Only or Post Only orders on EDGX)</p> <p>S = Hide Not Slide (Default for Book Only or Post Only orders on EDGA)</p> <p>R = Single Re-Price</p> <p>C = Cancel Back</p> <p>See section 4.8 for descriptions of each re-pricing option.</p>
9303	RoutingInst	N	<p>Y = Routable (Default if not specified)</p> <p>N = Book Only (Not routable but will remove from EDGX/A book)</p> <p>P = Post Only (Not Routable/Add Liquidity Only)</p> <p>S = Super Aggressive - Cross or Lock (Order will be removed from book and routed to any quote that is crossing or locking the order)</p> <p>X = Aggressive - Cross only (Order will be removed from book and routed to any quote that is crossing)</p> <p>Note: FOK, IOC, IOC/ISO, Day/ISO, Midpoint Match, and all Pegged Order types will default to "N" (Book Only).</p>

9350	RoutDeliveryMethod	N	<p>RTI = Route to Improve (Default if not specified)  RTF = Route to Fill  RTC = Route to Comply</p> <p><i>Route to Improve:</i> Ability to receive price improvement will take priority over speed of execution.  <i>Route to Fill:</i> Speed of execution will take priority over potential price improvement.  <i>Route to Comply:</i> Sweep tops of Protected Markets up to or including the order's limit price for the displayed size. Any remainder will post to the EDGX/EDGA book.</p>
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9400	RoutStrategy	N	<p>ROUT = Book + CPI + CLC + Street (Default if not specified)</p> <p>ROUD= Book + CLC</p> <p>ROUE = Book + CLC + Street</p> <p>ROUX = Book + Street</p> <p>ROUZ = Book + CPI + CLC</p> <p>ROUQ = Book + CPI</p> <p>RDOT = Book + CPI + CLC + DOT</p> <p>RDOX = Book + DOT</p> <p>ROPA = Book + IOC ARCA</p> <p>ROBA = Book + IOC BATS</p> <p>ROBX = Book + IOC Nasdaq BX</p> <p>ROBY = Book + IOC BYX</p> <p>ROUC = Book + CPI + CLC + BYX+ EDGX MPM+Nasdaq BX + DOT+ PSX+ Posts to EDGX***</p> <p>ROLF = Book + LavaFlow</p> <p>ROOC = Listing Mkt Open+Book+CPI+CLC+Street+List Mkt Close****</p> <p>INET = Book + Nasdaq</p> <p>SWPA = IOC ISO Sweep of All Protected Markets</p> <p>SWPB = IOC ISO Sweep of All Protected Markets**</p> <p>IOCT = EDGA/X Book + CPI + CLC + Other EDGA/X Book</p> <p>IOCX = EDGA/X Book + Other EDGA/X Book</p> <p>IOCM = EDGA Book + IOC MPM to EDGX</p> <p>ICMT = EDGA Book + CPI + CLC+ IOC MPM to EDGX</p> <p>ISAM = Directed IOC ISO routed to AMEX*</p> <p>ISPA = Directed IOC ISO routed to ARCA*</p> <p>ISBA = Directed IOC ISO routed to BATS*</p> <p>ISBX = Directed IOC ISO routed to Nasdaq BX*</p> <p>ISCB = Directed IOC ISO routed to CBSX*</p> <p>ISCX = Directed IOC ISO routed to CHSX*</p> <p>ISCN = Directed IOC ISO routed to NSX*</p> <p>ISGA = Directed IOC ISO routed to EDGA*</p> <p>ISGX = Directed IOC ISO routed to EDGX*</p> <p>ISLF = Directed IOC ISO routed to LavaFlow*</p> <p>ISNQ = Directed IOC ISO routed to Nasdaq*</p> <p>ISNY = Directed IOC ISO routed to NYSE*</p> <p>ISPX = Directed IOC ISO routed to PHLX*</p> <p>ISTR = Directed IOC ISO routed to TRAC*</p> <p>ISBY = Directed IOC ISO routed to BYX*</p> <p>Please note:</p> <p>CPI = Competition for Price Improvement</p> <p>CLC = Comprehensive Liquidity Check</p> <p>* For all Directed ISO strategies, Tag 18 must be populated with "f" and Tag 59 must be "3" (IOC), or the order will be rejected.</p> <p>** SWPB orders will be canceled immediately if the order quantity is not enough to clear all protected quotes at or better than the specified price on the order.</p> <p>*** ROUC only accesses EDGX MPM for orders originating from EDGA.</p> <p>****Book Only version of ROOC will not access CPI, CLC, and Street</p>
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7928	PreventMemberMatch	N	<p>1<sup>st</sup> character – AI Method</p> <p>A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced)* F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)*</p> <p>2<sup>nd</sup> character – AI Identifier</p> <p>A = MPID Level B = Member ID Level C = MPID and AI Group ID Level**</p> <p>Members must specify both the AI Method and the AI Identifier or the order will be rejected.</p> <p>*If the larger order has a Minimum Execution Qty specified, both orders will be fully canceled. **Tag 9209 must also be populated when using AI Group ID.</p>																																																									
9209	AIGroupID	N	User can select any two alpha-numeric characters to use for as an Anti-Internalization Identifier. This is a required tag for members that select option “C” as the 2 <sup>nd</sup> character in Tag 7928.																																																									
47	OrderCapacity	N	<p>A = Agency (Default) P = Principal R = Riskless Principal</p> <p>Additional values will be accepted by Direct Edge and will be converted to A, P, or R according to the table below.</p> <table><tr><th>User Value</th><th>Description</th><th>DE Value</th></tr><tr><td>B</td><td>Short exempt transaction</td><td>A</td></tr><tr><td>C</td><td>Program Order, non-index arb, for Member firm/org</td><td>A</td></tr><tr><td>D</td><td>Program Order, index arb, for Member firm/org</td><td>A</td></tr><tr><td>E</td><td>Registered Equity Market Maker trades</td><td>P</td></tr><tr><td>F</td><td>Short exempt transaction</td><td>A</td></tr><tr><td>H</td><td>Short exempt transaction</td><td>A</td></tr><tr><td>I</td><td>Individual Investor, single order</td><td>A</td></tr><tr><td>J</td><td>Program Order, index arb, for individual customer</td><td>A</td></tr><tr><td>K</td><td>Program Order, non-index arb, for individual customer</td><td>A</td></tr><tr><td>L</td><td>Short exempt transaction for member competing market-maker affiliated with the firm clearing the trade</td><td>P</td></tr><tr><td>M</td><td>Program Order, index arb, for other member</td><td>P</td></tr><tr><td>N</td><td>Program Order, non-index arb, for other member</td><td>P</td></tr><tr><td>O</td><td>Competing dealer trades</td><td>P</td></tr><tr><td>S</td><td>Specialist trades</td><td>P</td></tr><tr><td>T</td><td>Competing dealer trades</td><td>A</td></tr><tr><td>U</td><td>Program Order, index arb, for other agency</td><td>A</td></tr><tr><td>W</td><td>All other orders as agent for other member</td><td>A</td></tr><tr><td>X</td><td>Short exempt transaction for member competing market-maker not affiliated with the firm clearing the trade</td><td>P</td></tr></table>	User Value	Description	DE Value	B	Short exempt transaction	A	C	Program Order, non-index arb, for Member firm/org	A	D	Program Order, index arb, for Member firm/org	A	E	Registered Equity Market Maker trades	P	F	Short exempt transaction	A	H	Short exempt transaction	A	I	Individual Investor, single order	A	J	Program Order, index arb, for individual customer	A	K	Program Order, non-index arb, for individual customer	A	L	Short exempt transaction for member competing market-maker affiliated with the firm clearing the trade	P	M	Program Order, index arb, for other member	P	N	Program Order, non-index arb, for other member	P	O	Competing dealer trades	P	S	Specialist trades	P	T	Competing dealer trades	A	U	Program Order, index arb, for other agency	A	W	All other orders as agent for other member	A	X	Short exempt transaction for member competing market-maker not affiliated with the firm clearing the trade	P
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			<table><tr><td>Y</td><td>Program Order, non-index arb, for other agency</td><td>A</td></tr><tr><td>Z</td><td>Short exempt transaction for non-member competing market-maker</td><td>P</td></tr></table>	Y	Program Order, non-index arb, for other agency	A	Z	Short exempt transaction for non-member competing market-maker	P
Y	Program Order, non-index arb, for other agency	A							
Z	Short exempt transaction for non-member competing market-maker	P							
114	LocateReqd	N	For Sell Short orders only.  N = Client affirms ability to borrow. (Default if not specified) Y = Client cannot affirm ability to borrow.  All orders with LocateReqd=Y will be rejected by Direct Edge.						
58	Text	N	Free Format Text String						
	Standard Trailer	Y							



### 3.5.2. Execution Report (All Possible Fields) – From Direct Edge to Member

This Execution Report section contains all possible fields that are sent in Execution Reports. Not all fields are sent on each Execution Report. Additional or unexpected FIX fields on all FIX messages should be ignored. Please see additional status specific Execution Reports in the following sections of this document.

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = 8
17	ExecID	Y	Unique Identifier of the execution report message generated by Direct Edge. (20 character max)
19	ExecRefID	N	Reference identifier used with Trade Cancel and Trade Correct execution types.
18	ExecInst	N	Same as original order.
20	ExecTransType	Y	Identifies Transaction Type. Valid values are: 0 = New 1 = Cancel (Busted Trade) 2 = Correct (Adjusted Trade)
150	ExecType	Y	Valid Values: 0 = New 1 = Partially Filled 2 = Filled 4 = Canceled 5 = Replace 6 = Pending Cancel 8 = Rejected C = Expired D = Restated E = Pending Replace
11	ClOrdID	Y	ClOrdID of the new order or cancel request.
41	OrigClOrdID	N	Original ClOrdID of the initial order. (Required on Pending Cancels, Pending Replace, Cancelled, and Replaced messages.)
37	OrderID	Y	Direct Edge assigned order ID. (20 character max)
198	SecondaryOrderID	N	Same as original order.
76	ExecBroker	N	MPID from the Direct Edge Member Configuration.
439	ClearingFirm	N	Firm that will clear trade.
1	Account	N	Same as original order. Sent by client and returned on all Execution Reports.
39	OrdStatus	Y	Current status of the order. Valid values are: 0 = New 1 = Partially Filled 2 = Filled 4 = Canceled

			5 = Replaced 6 = Pending Cancel 8 = Rejected C = Expired E = Pending Replace
103	OrdRejReason	N	0 = Exchange Option 1 = Unknown Symbol 2 = Exchange Closed 3 = Order Exceeds Limit 4 = Too Late To Enter 5 = Unknown Order 6 = Duplicate Order 8 = Stale Order 11 = Unsupported Order Characteristic 13 = Incorrect Quantity 99 = Other  (Only populated when Tag 150 = 8)
60	TransactTime	Y	Time of execution.
55	Symbol	Y	Same as original order.
65	SymbolSfx	N	Same as original order.
54	Side	Y	Same as original order.
38	OrderQty	Y	The original size of the order.
111	MaxFloor	N	Same as original order.
8020	DisplayRange	N	Same as original order.
110	MinQty	N	Same as original order.
9500	MinQtyInstruction	N	Same as original order.
32	LastShares	N	Number of shares executed in last fill. (Populated on Fills, Partial Fills, AI Cancels/Restatements, and Trade Corrections only)
14	CumQty	Y	Currently executed quantity for the order.
151	LeavesQty	Y	Quantity remaining open for further execution. If the OrdStatus (39) is Canceled or Rejected (in which case the order is no longer active) then LeavesQty could be 0, otherwise LeavesQty = OrderQty (38) – CumQty (14).
40	OrdTyp	N	Same as original order.
44	Price	N	Same as original order.
9351	Booked Price	N	Will be different from original order price if order was re-priced to avoid crossing the NBBO.
9352	InitialDisplayPrice	N	Initial display price of a "Hide Not Slide" or "Price Adjust" order if original order price would lock or cross NBBO.
99	StopPX	N	Same as original order.
388	DiscretionInst	N	Same as original order.
389	DiscretionOffset	N	Same as original order.
9800	AbsoluteLimit	N	Same as original order.
31	LastPx	N	Price of shares executed in last fill.

			(Populated on Fills, Partial Fills, AI Cancels/Restatements, and Trade Corrections only)								
6	AvgPx	Y	Average Price								
59	TimeInForce	N	Same as original order.								
126	ExpireTime	N	Same as original order.								
211	PegDifference	N	Same as original order.								
840	PegScope	N	Same as original order.								
9140	DisplayInstruction	N	Same as original order.								
9202	SpecialOrdType	N	Same as original order.								
9206	ExtedHrsEligible	N	Same as original order.								
9303	RoutingInst	N	Same as original order.								
9350	RoutDeliveryMethod	N	Same as original order.								
9400	RoutStrategy	N	Same as original order.								
7928	PreventMemberMatch	N	Same as original order.								
9207	ContraMemberID	N	Member ID on the contra order that caused the cancellation.  (Populated on Anti-Internalization cancel or restatement only.)								
9208	ContraOrderID	N	ClOrderID or Token of contra order that caused an Anti-Internalization cancel or restatement.  (Populated on Anti-Internalization cancel or restatement only.)								
9209	AIGroupID	N	Same as original order.								
9210	AIAdditionalInfo	N	1 <sup>st</sup> character – AI Method used for cancel process. May not be the same Method that was specified on the order being canceled.  A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced) F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)  2 <sup>nd</sup> character – Order State at time of AI cancellation  I = Inbound P = Posted  (Populated on Anti-Internalization cancel or restatement only.)								
9882	TradeLiquidityIndicator	Y	Liquidity Flag from Execution Liquidity flags may contain up to five characters. <table><tr><th>Flag</th><th>Description</th></tr><tr><td>A</td><td>Routed to Nasdaq, Adds Liquidity</td></tr><tr><td>B</td><td>Add liquidity to our Book (Tape B)</td></tr><tr><td>C</td><td>Routed to Nasdaq BX (Tapes A &amp; C), Removes Liquidity</td></tr></table>	Flag	Description	A	Routed to Nasdaq, Adds Liquidity	B	Add liquidity to our Book (Tape B)	C	Routed to Nasdaq BX (Tapes A & C), Removes Liquidity
Flag	Description										
A	Routed to Nasdaq, Adds Liquidity										
B	Add liquidity to our Book (Tape B)										
C	Routed to Nasdaq BX (Tapes A & C), Removes Liquidity										

			D	Routed or Re-routed to NYSE, Removes Liquidity
			E	Customer Internalization
			F	Routed to NYSE, Adds Liquidity
			G	Routed to ARCA (Tapes A & C), Removes Liquidity
			H	Hidden Orders
			I	Routed to EDGA (for EDGX orders) or to EDGX (for EDGA orders)
			J	Routed to Nasdaq, Removes Liquidity
			K	Routed to BATS using ROBA Order Type (EDGA + BATS) or Routed to Nasdaq PSX using ROUC Order Type
			L	Routed to Nasdaq using INET Order Type, Removes Liquidity (Tapes A & C)
			M	Add Liquidity on LavaFlow
			N	Remove Liquidity from our Book (Tapes B & C)
			O	Listing Market Opening Cross
			P	Add Liquidity on EDGX via an EDGA originated ROUC Order Type
			Q	Routed using ROUQ or ROUC Order Types
			R	Re-routed by Exchange
			S	Directed ISO Order
			T	Routed using ROUD/ROUE Order Type
			U	Remove Liquidity from LavaFlow
			V	Add Liquidity to our Book (Tape A)
			W	Remove Liquidity from our Book (Tape A)
			X	Routed
			Y	Add Liquidity to our Book (Tape C)
			Z	Routed using ROUZ Order Type or Executed in CPI or CLC process using ICMT Order Type
			2	Routed to Nasdaq using INET Order Type, Removes Liquidity (Tape B)
			3	Add Liquidity – Pre & Post Market (Tapes A & C)
			4	Add Liquidity – Pre & Post Market (Tape B)
			5	Customer Internalization – Pre & Post Market
			6	Remove Liquidity – Pre & Post Market (All Tapes)
			7	Routed – Pre & Post Market
			8	Routed to AMEX using ROOC, Adds Liquidity
			9	Routed to ARCA using ROOC, Adds Liquidity
			AA	Midpoint Match Cross (same MPID)
			BY	Routed to BYX using ROBY or ROUC Order Type
			CL	Listing Market Close, excluding NYSE ARCA
			DM	Midpoint Discretionary Order (EDGA only)
			MM	Midpoint Match Maker
			MT	Midpoint Match Taker
			OO	Direct Edge Opening
			RT	Routed using ROUT Order Type (EDGA Only)
			RX	Routed using ROUX Order Type (EDGA Only)
			SW	Routed using SWPA/SWPB (All mkts except NYSE)

47	OrderCapacity	Y	Same as original order.
114	LocateReqd	N	Same as original order. (Will always be sent back on Short Sells)
58	Text	N	Free Format Text String. Same as sent on original NewOrderSingle.
	Standard Trailer	Y	

### 3.5.3. Order Acknowledgement - From Direct Edge to Member

Message type 8 (Execution Report), with OrderStatus New, will be used for the order acknowledgement. The following table defines the tag values that are specific to the Order Acknowledgement message. In addition to the tags listed below, Direct Edge will return all tags sent on the original order in the Order Acknowledgment message.

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = 8
37	OrderID	Y	Unique identifier assigned by Direct Edge
17	ExecID	Y	Unique identifier assigned by Direct Edge
76	ExecBroker	N	MPID from the Direct Edge Database
439	ClearingFirm	N	Firm that will clear trade
20	ExecTransType	Y	Valid value for acknowledgement: 0 = New
150	ExecType	Y	Valid Value: 0 = New
39	OrdStatus	Y	Current status of the order. Valid Value: 0=New
14	CumQty	Y	"0" on acknowledgement
151	LeavesQty	Y	Full order qty on acknowledgement
6	AvgPx	Y	"0.00" on acknowledgement
9351	Booked Price	N	Will be different from original order price if order was re-priced to avoid crossing the NBBO.
9352	InitialDisplayPrice	N	Initial display price of a "Hide Not Slide" order if original order price would lock or cross NBBO.
114	LocateReqd	N	Same as original order. (Will always be sent back on Short Sells)

### 3.5.4. Reject Order Message – From Direct Edge to Member

Message type 8 (Execution Report) is used for the order reject. The following table defines the tag values used in the reject order message. In addition to the tags listed below, Direct Edge will return all tags sent on the original order in the Reject Order message.

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = 8
20	ExecTransType	Y	Identified Transaction Type. Valid value for reject order: 0 = New
150	ExecType	Y	Valid Value: 8 = Rejected
39	OrdStatus	Y	Current status of the order. For reject order, the valid value is 8=Rejected.
58	Text	N	Rejection Reason
103	OrdRejReason	Y	Code to identify reason for order rejection. Valid values: 0 = Broker / Exchange option 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order (e.g. dupe ClOrdID (11)) 8 = Stale Order 11 = Unsupported order characteristic 13 = Incorrect quantity 99 = Other
151	LeavesQty	Y	0 (zero) for Rejected Order.

## 3.6. Order Cancel Messages

### 3.6.1 Order Cancel Request – From Member to Direct Edge

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = F
11	ClOrdID	Y	Unique identifier of the cancel request assigned by the originator.
41	OrigClOrdID	Y	ClOrdID of the order to be cancelled.
60	TransactTime	N	The time request was sent.
55	Symbol	Y	Must be same as the original order.
65	SymbolSfx	N	Must be same as the original order.
54	Side	Y	Must be same as the original order.
58	Text	N	Free Format Text String.
	Standard Trailer	Y	

### 3.6.2 Order Cancel/Replace Request - From Member to Direct Edge

Direct Edge supports FIX Cancel and Replace orders but limits changes to the following FIX fields:

Tag	Field Name	Comments
38	Quantity	May be increased or decreased. Increased quantities result in lost Orderbook priority.
44	Price	Price may be increased or decreased. All price changes result in lost Orderbook priority.
40	OrderType	An order may be converted from a limit order to a market order or a market order to a limit order.
54	Side	Sell-Sell Short-SS Exempt Only. Book priority is not lost unless a price change or quantity increase is also made.
99	Stop Price	The price that will trigger an order election may be changed.
111	Max Floor	The displayed quantity of a Reserve Order may be changed.
211	Peg Difference	The offset amount on a Pegged Order may be changed.
389	Discretionary Offset	The discretionary offset may be changed. This does not impact the displayed price of an order. As such, it has no impact on order book priority.

- Attempts to Cancel/Replace any other criteria not listed above will be ignored by Direct Edge.
- Do not use this message to cancel the remaining quantity of an outstanding order, use the Cancel Request message for this purpose.
- Do not use this message to change special order type characteristics. For example, Cancel/Replace cannot be used to change a Pegged Order into a Reserve Order.
- An Execution Report with ExecType=Pending Replace will be sent unless the Order Modification Request can be immediately accepted (ExecutionRpt with ExecType=Replaced) or rejected (Order Cancel Reject message).
- The Cancel/Replace request will only be accepted if the original order can be successfully removed. Requests which cannot be processed will be rejected using the Cancel Reject message. The Cancel Reject message will provide the ClOrdID and OrigClOrdID values which were specified on the Cancel/Replace Request message for identification.
- Direct Edge checks the following fields to make sure that they match the original order - if they do not, Direct Edge will reject the Order Modification Request: Symbol, ExecInst, TimeInForce.
- Tag 9202 is required for MPM order modification.

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = G
11	ClOrdID	Y	Unique identifier of this order modification request assigned by the client.

			Note that this identifier will be used in ClOrdID field of the Cancel Reject message if the modification request is rejected.
41	OrigClOrdID	Y	ClOrdID of the order to be modified. This is <b>not</b> the original order of the day.
18	ExecInst	N	Must be same as the original order.
37	OrderID	N	As previously supplied by Direct Edge on the Order Acknowledgment of the Order to be modified.
60	TransactTime	Y	The time request was sent.
55	Symbol	Y	Must be same as the original order.
65	SymbolSfx	N	Must be same as the original order.
54	Side	Y	Sell/Sell Short/SS Exempt Only
38	OrderQty	Y	Should be the "Total Intended Order Quantity" (including the amount already executed for this order chain).
111	MaxFloor	N	
40	OrdType	Y	Can only change from Market to Limit, or Limit to Market on Cancel/Replace message. Otherwise, it should be same as original order.
44	Price	N	
99	StopPx	N	
389	DiscretionaryOffset	N	
59	TimeInForce	N	Must be same as the original order.
211	PegDifference	N	
9202	SpecialOrdType	N	Must be same as the original order.
9206	ExtedHrsEligible	N	Required for Pre- and Post-Market Eligible Market Orders. N = Regular Session Only (Default) Y = Pre-Market Eligible A = Post Market Eligible B = Eligible for both Pre-Market and Post-Market
47	OrderCapacity	N	Must be same as the original order.
58	Text	N	Free Format Text String. Same as sent on original NewOrderSingle. Cannot be modified.
	Standard Trailer	Y	



### 3.6.3 Accept/Process Cancel - From Direct Edge to Member

The following table defines the tag values used in the accepted/ processed cancel message.

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = 8
20	ExecTransType	Y	Identified Transaction Type. Valid value for execution report: 0 = New
150	ExecType	Y	Valid Values: 4 = Cancelled
17	ExecID	Y	Unique Identifier of this message generated by Direct Edge.
18	ExecInst	N	Same as original order.
11	ClOrdID	Y	Unique identifier of the cancel request assigned by the originator.
41	OrigClOrdID	Y	ClOrdID of the original order to be cancelled.
37	OrderID	Y	Unique identifier for the order. Represents the originating/initial order in an order chain.
198	SecondaryOrderID	N	Same as original order.
1	Account	N	Same as original order.
39	OrdStatus	Y	Valid Value: 4 = Cancelled
6	AvgPx	Y	Calculated average price of all fills or partial fills on this order. 0 if no fills have occurred.
38	OrderQty	Y	The original size of the order.
14	CumQty	Y	Currently executed quantity for the order.
151	LeavesQty	Y	0
55	Symbol	Y	Same as original order.
65	SymbolSfx	N	Same as original order.
54	Side	Y	Same as original order.
40	OrdType	N	Same as original order.
44	Price	N	Same as original order.
59	TimeInForce	N	Same as original order.
126	ExpireTime	N	Same as original order.
9202	SpecialOrdType	N	Same as original order.
9400	RoutStrategy	N	Same as original order.
31	LastPx	N	Populated on Anti-Internalization cancel or restatement only. Will show price shares would have executed at if they had not been canceled.
32	LastShares	N	Populated on Anti-Internalization cancel or restatement only. Will show number of shares prevented from trading.
7928	PreventMemberMatch	N	Same as original order.
9207	ContraMemberID	N	Member ID on the contra order that caused the cancellation.

			(Populated on Anti-Internalization cancel or restatement only.)
9208	ContraOrderID	N	CIOOrderID or Token of contra order that caused an Anti-Internalization cancel or restatement.  (Populated on Anti-Internalization cancel or restatement only.)
9209	AIGroupID	N	Same as original order.
9210	AIAdditionalInfo	N	1 <sup>st</sup> character – AI Method used for cancel process. May not be the same Method that was specified on the order being canceled.  A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced) F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)  2 <sup>nd</sup> character – Order State at time of AI cancellation  I = Inbound P = Posted  (Populated on Anti-Internalization cancel or restatement only.)
47	OrderCapacity	N	Same as original order.
58	Text	N	Free Format Text String.
	Standard Trailer	Y	

### 3.6.4 Order Cancel Reject - From Direct Edge to Member

The following fields shall be supported in an order cancel reject message:

Tag	Field Name	Req'd	Comments/ Valid values
	Standard Header	Y	MsgType = 9
11	ClOrdID	Y	Unique identifier of the cancel reject message.
37	OrderID	Y	Unique identifier for the order. Represents the originating/initial order in an order chain.
39	OrdStatus	Y	Order Status after Cancel Reject.
41	OrigClOrdID	Y	ClOrdID of the order that cannot be cancelled.
55	Symbol	Y	Same as original order.
65	SymbolSfx	N	Same as original order
102	CxlRejReason	N	Reason for rejection. Valid values are: 0 = Too late to cancel 1 = Unknown order 2 = Exchange/Broker Option 3 = Order already in Pending Cancel status 4 = Unable to Process Mass Cancel Request 6 = Duplicate ClOrdID 99 = Other
434	CxlRejResponseTo	Y	1 = This reject is in response to Cancel Request 2=This reject is in response to a Cancel/Replace Request
58	Text	N	Reason for rejecting the request.
	Standard Trailer	Y	

## Chapter 4. Order Types

The following provides clarifying information that will enable members to successfully enter orders on the Direct Edge Stock Exchange.

This is not meant to be an exhaustive list of all FIX tags that accompany that order type but an effort to identify the key tags.

### 4.1 Regular Order

This is the standard order type for the EDGX or EDGA platforms.

FIX Tag	Description	Req'd	Supported Values
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
8	OrderQty	Y	Total Order Quantity
40	OrdType	Y	1 = Market (Regular Session Only) 2 = Limit
44	Price	N	Required if tag 40 =2
59	TimeInForce	N	0 = Day ( Default) 3 = IOC 4 = FOK 6 = Good Till Time (GTT)
126	Expire Time	N	GMT Time (Required for GTT orders)
9303	RoutingInst	N	Y = Routable (Default if not specified) N = Book Only (Not routable but will remove from EDGX/A book) P = Post Only (Not Routable/Add Liquidity Only) S = Super Aggressive - Cross or Lock (Order will be removed from book and routed to any quote that is crossing or locking the order) X = Aggressive - Cross only (Order will be removed from book and routed to any quote that is crossing)  Note: FOK, IOC, IOC/ISO, Day/ISO, Midpoint Match, and all Pegged Order types will default to "N" (Book Only).
9350	RoutDeliveryMethod	N	RTI = Route to Improve (Default if not specified) RTF = Route to Fill RTC = Route to Comply
9400	RoutStrategy	N	See Tag 9400 in Section 4.6.1 for available strategies.

## 4.2. Reserve Order

Reserve orders are orders having both a displayed quantity and a non-visible, reserve quantity that is replenished when the displayed quantity is fully executed. The display quantity must be at least one round lot.

Users may specify the precise amount of the order to be replenished once the displayed size is fully executed. Alternatively, they may elect a Random Replenishment option by supplying Display Range on the order. Random Replenishment establishes a range of possible values for the shares that are to be displayed. For example, if MaxFloor = 2000 and the Display Range = 200, the displayed quantity will be selected randomly from any of the following values: 1800, 1900, 2000, 2100 and 2200.

FIX Tag	Description	Req'd	Supported Values
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Total Order Quantity
111	MaxFloor	Y	Display Quantity
8020	DisplayRange	N	Required for Random Reserve Orders. This is the Random Replenishment amount in round lots.
40	OrdType	Y	2 = Limit
44	Price	Y	
59	TimeInForce	N	0 = Day ( Default) 6 = GTT
126	Expire Time	N	GMT Time (Required for GTT orders)
9202	SpecialOrdType	N	P = Price Adjust (Default for Book Only or Post Only orders on EDGX) S = Hide Not Slide (Default for Book Only or Post Only orders on EDGA) R = Single Re-Price C = Cancel Back
9303	RoutingInst	N	Y = Routable (Default if not specified) N = Book Only (Not routable but will remove from EDGX/A book) P = Post Only (Not Routable/Add Liquidity Only) S = Super Aggressive - Cross or Lock (Order will be removed from book and routed to any quote that is crossing or locking the order) X = Aggressive - Cross only (Order will be removed from book and routed to any quote that is crossing) Note: FOK, IOC, IOC/ISO, Day/ISO, Midpoint Match, and all Pegged Order types will default to "N" (Book Only).

9350	RoutDeliveryMethod	N	RTI = Route to Improve (Default if not specified) RTF = Route to Fill RTC = Route to Comply
9400	RoutStrategy	N	See Tag 9400 in Section 4.6.1 for available strategies.

### 4.3. Discretionary Orders

Discretionary Orders are orders that have both a display price and a hidden (discretionary) price. The discretionary order provides a range of prices at which the owner is willing to trade should an opportunity present itself. The display price determines the order's ranking within the orderbook.

FIX Tag	Description	Req'd	Supported Values
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Total Order Quantity
40	OrdType	Y	2 = Limit
44	Price	Y	This is the display price.
388	DiscretionInst	N	0 = Related to displayed price (Default) Identifies the price a DiscretionOffset is related to and should be added to.
389	DiscretionOffset	Y	Amount added (Buy Order) or subtracted (Sell) from the "related to" price specified via DiscretionInst (tag 388). Valid values: -.99 through .99  Sign may be entered but will be ignored. Regardless of sign, offset will always be added to Buys and subtracted from Sells in relation to the limit price of the order.
59	TimeInForce	N	0 = Day( Default)
9140	DisplayInstruction	N	Y = Displayed (Default) N = Hidden (same as MaxFloor = 0) A Hidden Discretionary order will be ranked and hidden at its limit price but can be executed within a specified discretionary price range if necessary.
9202	SpecialOrdType	N	P = Price Adjust (Default for Book Only or Post Only orders on EDGX) S = Hide Not Slide (Default for Book Only or Post Only orders on EDGA) R = Single Re-Price C = Cancel Back
9303	RoutingInst	N	Y = Routable (Default if not specified)

			N = Book Only (Not routable but will remove from EDGX/A book) P = Post Only (Not Routable/Add Liquidity Only) S = Super Aggressive - Cross or Lock (Order will be removed from book and routed to any quote that is crossing or locking the order) X = Aggressive - Cross only (Order will be removed from book and routed to any quote that is crossing) Note: FOK, IOC, IOC/ISO, Day/ISO, Midpoint Match, and all Pegged Order types will default to "N" (Book Only).
9350	RoutDeliveryMethod	N	RTI = Route to Improve (Default if not specified) RTF = Route to Fill RTC = Route to Comply
9400	RoutStrategy	N	See Tag 9400 in Section 4.6.1 for available strategies.

#### 4.4. Pegged Orders

Direct Edge will support three types of Pegged Orders: Primary Pegs, Market Pegs, and Midpoint Pegs (EDGA only). Pegged Orders are not eligible for routing to other market centers.

A Primary Pegged Order is an order whose price tracks the same side of the NBBO (i.e. buy orders track the bid).

A Market Pegged Order is pegged to the opposite side of the market of the NBBO. (i.e. buy orders track the offer).

A Midpoint Pegged Order is a non-displayed order that is pegged to the midpoint of the NBBO. The order type is available on EDGA only.

FIX Tag	Description	Req'd	Supported Values
18	ExecInst	Y	R = Primary Peg P = Market Peg M = Midpoint Peg (valid for EDGA only)
840	PegScope	N	2 = National (Default)
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Total Order Quantity
40	OrdType	Y	P = Pegged
44	Price	N	Optional Cap Price
59	TimeInForce	N	0 = Day (Default)
211	PegDifference	N	Offset value. Valid Values: -0.99 thru 0.99

			Pegged orders entered with offsets that would create a locked or crossed condition will be either re-priced to a penny away from the locking price or canceled back depending what is specified in tag 9202.
9140	DisplayInstruction	N	Y = Displayed (Default for Primary and Market Pegs) N = Hidden (Default for Midpoint Pegs; same as MaxFloor = 0)
9202	SpecialOrdType	N	R = Re-Price (Default – Pegged orders will continually re-priced to avoid locking or crossing as necessary) C = Cancel Back (Cancels if order Locks/Crosses)
9303	RoutingInst	N	N = Book Only (Not routable but will remove from EDGX/A book; Default for Pegged Orders) P = Post Only (Not Routable/Add Liquidity Only)

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#### 4.5. Pegged Discretionary Order

A Pegged Discretionary order is an order whose price is pegged to the NBBO price. It also has a discretionary price component.



FIX Tag	Description	Req'd	Supported Values
18	ExecInst	Y	R = Primary Peg P = Market Peg M = Midpoint Peg (valid for EDGA only)
840	PegScope	N	2 = National (Default)
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Total Order Quantity
40	OrdType	Y	P = Pegged
44	Price	N	This is the optional Cap price.
388	DiscretionInst	N	0 = Related to displayed price. (Default) Identifies the price a DiscretionOffset is related to and should be mathematically added to.
389	DiscretionOffset	Y	Amount added (Buy Order) or subtracted (Sell) from the "related to" price specified via DiscretionInst (tag 388). Valid values: -.99 through .99  Sign may be entered but will be ignored. Regardless of sign, offset will always be added to Buys and subtracted from Sells in relation to the limit price of the order.
9800	AbsoluteLimit	N	Y If selected, the discretionary amount will decrease as pegged order approaches its Cap price. Pegged Discretionary orders with Absolute Limit selected will never be executed at a higher price than the Cap price.
211	PegDifference	N	Offset value. Valid Values: -0.99-thru 0.99 Pegged orders entered with offsets that would create a locked or crossed condition will be either re-priced to a penny away from the locking price or canceled back depending what is specified in tag 9202.
59	TimeInForce	N	0 = Day( Default)
9202	SpecialOrdType	N	R = Re-price (Default – Pegged orders will continually re-priced to avoid locking or crossing as necessary) C = Cancel Back (Cancels if order Locks/Crosses)
9303	RoutingInst	N	N = Book Only (Not routable but will remove from EDGX/A book; Default for Pegged Orders) P = Post Only (Not Routable/Add Liquidity Only)

## 4.6. Stop Order

All Stop orders at Direct Edge will be triggered off of the Last Sale price of the specified security.

**Stop:** A Stop order is an order that will be held away from the orderbook until its specified trigger price (stop price) is reached. Once the trigger price is reached, the order will be elected (activated). Election results in a Market order sent to the book.

**Stop Limit:** A Stop Limit order is an order with both a specified limit price and a trigger price. This order is also held outside of the orderbook until the stop price is reached. Once the trigger price is reached, it will be elected. The activated order is sent to the orderbook as a limit order at the specified limit price.

FIX Tag	Description	Red'd	Supported Values
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Must be at least one round lot.
40	OrdType	Y	3 = Stop Market 4 = Stop Limit
44	Price	N	Must be present if tag 40 = 4
99	StopPx	Y	Trigger Price
59	TimeInForce	N	0 = Day ( Default)
9202	SpecialOrdType	N	P = Price Adjust (Default for Book Only or Post Only orders on EDGX) S = Hide Not Slide (Default for Book Only or Post Only orders on EDGA) R = Single Re-Price C = Cancel Back
9303	RoutingInst	N	Y = Routable (Default if not specified) N = Book Only (Not routable but will remove from EDGX/A book) P = Post Only (Not Routable/Add Liquidity Only) S = Super Aggressive - Cross or Lock (Order will be removed from book and routed to any quote that is crossing or locking the order) X = Aggressive - Cross only (Order will be removed from book and routed to any quote that is crossing) Note: FOK, IOC ISO, Day ISO, Midpoint Match, and all Pegged Order types will default to "N" (Book Only).
9350	RoutDeliveryMethod	N	RTI = Route to Improve (Default if not specified) RTF = Route to Fill RTC = Route to Comply
9400	RoutStrategy	N	See Tag 9400 in New Order Single for available strategies.

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## 4.7. Intermarket Sweep Orders (ISO)

An Intermarket Sweep Order is an order type introduced in conjunction with Reg NMS. This order type allows the receiving exchange to immediately execute an order against any resting orders without checking other Market Centers for better prices. It conveys that the broker has taken responsibility for sending orders directly to Market Centers to access their better-priced, posted quotes.

FIX Tag	Description	Req'd	Supported Values
18	ExecInst	Y	f ( lower case F )
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
38	OrderQty	Y	Total Order Quantity
40	OrdType	Y	2 = Limit
44	Price	Y	
59	TimeInForce	Y	0 = Day 3 = IOC
9303	RoutingInstructions	N	N = Book Only (Not routable but will remove from EDGX/A book) P = Post Only (Not Routable/Add Liquidity Only)

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## 4.8. Re-Priced Orders

Under Reg NMS, exchanges must avoid posting orders that intentionally lock or cross other protected market center quotes. To comply with this provision of the rule, Direct Edge offers four alternatives for non-routable orders:

- Hide not Slide – If at the time of entry an order locks or crosses an away market quotation, the order will be hidden and ranked at the locking price, but will be displayed one penny away from the locking price. The displayed price will be adjusted to the ranked price as soon as market conditions permit.
- Price Adjust – If at the time of entry an order locks or crosses an away market quotation, the order will be displayed and ranked one penny away from the locking price. If market conditions allow the order to be displayed at the original locking price, it will be moved to that price.
- Single Re-Price – If at the time of entry an order locks or crosses an away market quotation, the order will be displayed and ranked one penny away from the locking price. This is a one time re-pricing of the order.
- Cancel Back – If at the time of entry an order locks or crosses an away market quotation, the order will be immediately canceled back to the member.

Tag	Field Name	Comments/ Valid values
9202	SpecialOrdType	P = Price Adjust (Default for Book Only or Post Only orders on EDGX) S = Hide Not Slide (Default for Book Only or Post Only orders on EDGA) R = Single Re-Price C = Cancel Back

## 4.9. MidPoint Match Order (EDGX Only)

MidPoint Match (MPM) orders are non-displayed orders that always match at the market midpoint provided the limit price is not exceeded. MPM may be for any size greater than or equal to one round lot.

MPM Order Attributes:

FIX Tag	Description	Req'd	Supported Values
9202	SpecialOrderType	Y	M = MPM Order
54	Side	Y	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (Effective 2/28/2011)
40	OrdType	Y	1 = Market 2 = Limit
44	Price	N	Boundary Price: Not to be exceeded when executing at the NBBO midpoint.
38	OrderQty	Y	Total Order Quantity
110	MinQty	N	Minimum Execution Quantity
9500	MinQtyInstruction - with MinQty(110)	N	E = Each Execution (Default) F = First Execution Only
59	TimeInForce	N	0 = Day( Default) 3 = IOC 4 = FOK

## Chapter 5. Drop Copy

Drop copies are available from Direct Edge in two different forms:

- Partial Drop Copy - Executions, Busts, and Corrections only
- Full Drop Copy – All outbound messages from Direct Edge in response to an order

All drop copy messages will contain the same information that was sent to the order originator. In addition to that information, a Session ID indicator (Tag 9600) will be included on all messages.

## Chapter 6. Anti-Internalization Functionality

### 6.1 AI Features

Direct Edge's Anti-Internalization (AI) functionality assists Members from trading with their own orders.

#### **AI Methods**

The following AI methods are supported:

- Cancel Newest
- Cancel Oldest
- Cancel Both
- Cancel Smallest
- Decrement Largest and Cancel Smallest (OrderQty and LeavesQty reduced)
- Decrement Largest and Cancel Smallest (Only LeavesQty reduced)

#### **AI Identifiers**

Direct Edge will only apply the Anti-Internalization logic to orders that have the same AI Identifier. Members will be allowed to specify one of the following three identifiers:

- MPID - All orders with the same MPID will be prevented from trading. This option will allow the user to be protected across all sessions. This option can be specified at both the session level and order level.
- Member ID - This refers to the Direct Edge Member ID assigned to each session. All orders with the same Member ID will be prevented from trading. This option will only prevent trades from occurring on the same session and will not prevent trading across multiple sessions. This option can be specified at both the session level and order level.
- Anti-Internalization Group ID – This is a two character (alpha-numeric) ID that the member can specify themselves on each individual order. When using this identifier, both orders must have the same MPID and AI Group ID to be prevented from trading. The AI Group ID must be included on each individual order sent by the member for it to be applied. This option is only available at the order level and is not available at the session level.

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## 6.2 Setting AI Instructions at the Session Level

With the exception of AI Group ID, all AI functionality can be applied by Direct Edge directly to your FIX Sessions. If set up at the Session Level the AI instructions will be applied to all orders sent through that session.

Please contact the FIX Support Desk at Direct Edge to have this set up at 201.942.8240 or [fixsupport@directedge.com](mailto:fixsupport@directedge.com).

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## 6.3 Setting AI Instructions at the FIX Order Level

Setting AI instructions at the FIX Order Level is an optional feature for members that want to control their AI instructions for each individual order. Members can Order Level instructions in conjunction with the Session Level settings, whereby instructions on the order will always override any Session Level settings.

### New Order Single Tags for AI

Tag 7928 will be used to specify both the AI Method and the AI Identifier. When using this tag, Members must specify both the AI Method and the AI Identifier or the order will be rejected.

Tag	Field Name	Values
7928	PreventMemberMatch	<p>1<sup>st</sup> character – AI Method</p> <p>A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced)* F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)*</p> <p>2<sup>nd</sup> character – AI Identifier</p> <p>A = MPID Level B = Member ID Level C = MPID and AI Group ID Level</p> <p>Members must specify both the AI Method and the AI Identifier or the order will be rejected.</p> <p>*If the larger order has a Minimum Execution Qty specified, both orders will be fully canceled.</p>

Tag 9209 (AIGroupID) may be included on the order if you want to specify your own two character AI Identifier. This will be used in conjunction with MPID to determine whether the order is canceled or not.

Tag	Field Name	Values
9209	AIGroupID	User can select any two alpha-numeric characters to use for as an Anti-Internalization Identifier. This is a required tag for members that select option "C" as the 2 <sup>nd</sup> character in Tag 7928.

### **Cancel and Restatement Message Changes**

When an order is canceled due to Anti-Internalization a FIX Cancel message or Restatement Message will be sent back to the member.

For the following AI Methods a Cancel Message will be sent to members when their order is Anti-Internalized with ExecType = 4 (Canceled) and OrdStatus = 4 (Canceled):

- Cancel Newest
- Cancel Oldest
- Cancel Both
- Cancel Smallest

For the following AI Methods a Cancel or a Re-Statement message will be sent to members:

- Decrement Larger and Cancel Smaller (Reduce OrderQty and LeavesQty)
- Decrement Larger and Cancel Smaller (Reduce LeavesQty only)

For the above AI Methods, the smaller order will always receive a Cancel message with ExecType= 4 (Canceled) and OrdStatus = 4 (Canceled).

Restatement messages will always be sent for the larger order with an ExecType = D (Restated). OrdStatus will be set to either 0 (New), 1 (Partially Filled), 6 (Pending Cancel), or E (Pending Replace) depending on the state of the order.

### **AI Tags for Cancel and Restatement Messages**

The following tags will be included on all Cancel and Restatement messages that occur due to AI:

Tag	Field Name	Values
31	LastPx	Price trade would have occurred at if it was not prevented from trading.
32	LastShares	Number of shares prevented from trading.
7928	PreventMemberMatch	1 <sup>st</sup> character – AI Method  A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced) F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)



		<p>2<sup>nd</sup> character – AI Identifier</p> <p>A = MPID Level B = Member ID Level C = MPID and AI Group ID Level</p>
9207	ContraMemberID	Member ID on the contra order that caused the cancellation.
9208	ContraOrderID	CIOrderID or Token of contra order that caused the cancellation.
9209	AIGroupID	AIGroupID (Optional)
9210	AIAdditionalInfo	<p>1<sup>st</sup> character – AI Method used for cancel process. May not be the same Method that was specified on the order being canceled.</p> <p>A = Cancel Newest B = Cancel Oldest C = Cancel Both D = Cancel Smallest E = Decrement Larger and Cancel Smaller (OrderQty and LeavesQty reduced) F = Decrement Larger and Cancel Smaller (Reduce LeavesQty only)</p> <p>2<sup>nd</sup> character – Order State at time of cancellation</p> <p>I = Inbound P = Posted</p>

## Chapter 7. Appendices

### 7.1 Appendix A: Direct Edge Symbolology

For Tape A and B securities, Direct Edge supports the use of CMS symbol suffixes.

Suffixes may be added to the end of a symbol and entered entirely in Tag 55 (symbol) or the symbol and suffix may be broken out between Tag 55 and Tag 65 (symbol suffix).

Tape C securities do not require use of suffixes or Tag 65.

The table below describes all Direct Edge supported suffixes for Tape A and B securities.

Symbol Type	SIAC Suffix (Not Supported)	Comstock Suffix (Not Supported)	CMS / Direct Edge Supported Suffix
Class A (Class B-T and V-Z also allowed)	/A	.A	A
Class A When Issued	/Aw	.A*	AWI
Preferred	p	-	PR
Preferred Class A	pA	-A	PRA
Preferred Class A When Issued	pAw	-A*	PRAWI
Preferred When Distributed	p/WD	-W or WD	PRWD
Preferred When Issued	pw	.*	PRWI
Rights	r	.R or .RT	RT
Rights When Issued	rw	.R* or .RT*	RTWI
Units	/U	.U	U
Warrants	/WS	.WS or +	WS
Warrants Class A	/WS/A	.WS.A or +A	WSA
Warrant When Issued	/WSw	.WS* or +*	WSWI
When Distributed	/WD	.W or .WD	WD
When Issued	w	*	WI