

Broker Algorithm eQuote

FIX Specification

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A reasonable effort has been made by the authors to represent the FIX protocol accurately. In particular, the description of messages incorporates extensive segments of the material obtained from the web site. This document, however, in no way should be taken as a final, full, and accurate representation of the material in question, but reference should be made to the original FIX Committee documents.

Contents

I. Introduction	6
II. eQuote Features	6
III. Supported FIX Application Messages	8
IV. Standard Header/Trailer	9
V. FIX Application Message Formats	10
1. Single Order	10
2. Order Acknowledgement	13
3. Order Cancel Request	14
4. Order Cancel Request Acknowledgment	14
5. Order Cancel Reject	16
6. Cancel/Replace Request	16
7. Cancel/Replace Acknowledgement	19
8. Execution Report	20
VI. FIX Format Validation and Error Messages	24
VII. FIX Message Examples	28
1. New Order Messages	28
2. Cancel and Cancel/Replace Messages	35
3. eQuote Execution Report Messages	36

About this Document

This document is based on the source material identified in the Reference Materials section and on the analysis of NYSE Business Planning, operations and corresponding algorithm vendor groups.

Document Audience

The audiences of this document include the NYSE Business Planning, Algorithm Vendors and associated development teams to enable the eBroker handhelds to execute orders through an external algorithm engine.

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Reference Materials

- NYSE Common Customer Gateway (CCG) FIX Specification and API Version 5.5
- Broker Algo Routing FIX Specifications v1.11

Document History

Date	Version	Revised
April 29, 2008	1.1	
May 13, 2008	1.2	Pg 5: Added Section IV Standard Header/Trailer messages; Pg 7: Tag 11 – Revised description, Tag 9452 – added uppercase requirement, Removed Tag 9529; Pg 10: Tag 11 – Revised description
May 14, 2008	1.3	Pg. 7: Tag 9451 and 9452 – Revised description
August 15, 2008	1.4	Pg 6: Added Tag 57, Pg. 15: Tag 438 – Modified format; Pg 7: Tag 9452 – expanded field description; Pg 11: Tag 47 – required field; Pg 23: Revised examples
November 4, 2008	1.5	Pg 6: Tags 11, 57 – additional information in description, Tag 44 – Required field; Pg 7: Tag 59 – Added Note in description, Tag 207 – new field; Pg 8: Tag 9487 – new field, Tags 9561- 9568 – additional information in description; Pg 9: Tag 30 and Tag 207 – new fields, Pg 10: Tag 9428 – Not a required field, Tag 207 – new field, Pg 12: Tag 40 – additional information in description; Pg 12: Tag 57 - additional information in description Tag 59, 9451, 9452, 9453 – New fields; Tag 207 – new field; Pg 13: Tag 9561 -9568 – additional information in description; Tag 9487 – new field; Pg 15: Tag 30 – additional value, Tags 37, 38, 40 – 54, and 59 - additional information in description , Pg 16: Tags 207, 375, 382, 437, 438, 9440, 9483 – additional information in description, Tags 439, 9436 – not required fields, Tags 9437, 9442 removed; Pg 17: 9560, 9570, 9578 – not required fields
December 29, 2008	1.6	Pg 7 & 12: Tags 9451 & 9453 – additional information in description; Pg 16 – Addition of Tags 9448 and 9478 to Execution Reports
January 16, 2009	1.7	Pg 9, 10, 14 & 15: Tag 17 – additional information in description; Pg 8 & 13: Tag 9479 – Removed tag from messages, and from examples in Appendix. Pg. 16 – Tag 438 – Revised description
January 23, 2009	1.8	Pg.16: Tag 438 – Modified format; Tag 17 – Revised description
March 20, 2009	1.9	Miscellaneous corrections

November 30, 2009	1.10	Pgs 6 – 8; Changes in discretionary eQuote message formats
December 4, 2009	1.11	Clarification/examples for e-Quotes w/ discretion for the close.
October 4, 2010	1.12	Updated to reflect the removal of tags 9564 and 9569 and the addition of tag 110 to the Single Order and Cancel Replace messages. Updated to reflect that tags 9480 and 9568 must be specified in round lots.
October 26, 2010	1.13	Pgs 7 & 14 – Added Sell Short Exempt as a valid order side.
March 1, 2013	1.14	<ul style="list-style-type: none"> • Updated the Single Order and Cancel/Replace Request messages to reflect the new value for tag 9487 and new tag 9403 in support of the new Retail Price Improvement order type. • Added an example to Section VII for the new Retail Price Improvement order type. • Updated the Single Order and Cancel/Replace Request messages to reflect the new tags (109 and 7928) for the Self Trade Prevention order type. • Added an example to Section VII for the new Self Trade Prevention order type. • Added a note on page 4 that tag 9565 must be equal to zero for Discretion for the Close orders.
August 14, 2013	1.15	<ul style="list-style-type: none"> • Updated the Single Order and Cancel/Replace Request messages to reflect the requirements for tags 18, 9487 and 9568 in support of the new Mid-Point order type (implementation pending SEC approval). • Updated Execution Report message to reflect new tag 9426 [BillingRate].

I. Introduction

The following specification defines the FIX interface between an external vendor/proprietary Algorithmic Trading System and the NYSE's Common Customer Gateway (via the Broker Algo Gateway system (BAG)). This interface supports the routing of orders (eQuotes) to the NYSE market to facilitate the execution of a trading strategy initiated by the NYSE Floor Broker. The following eQuote types (Tag 9478) can be utilized by the Algo Trading System:

- EQAA – eQuote
- EQBB – Reserve eQuote
- EQDA – eQuote with discretion and/or pegging
- EQDB – Reserve eQuote with discretion and/or pegging

Note: This document describes only the relevant application messages which must be supported to process eQuotes, see the *NYSE Common Customer Gateway (CCG) FIX Specification and API* document for a complete description of the FIX message structure, format, message types, and data types implemented by CCG. Only FIX Protocol version 4.2 is supported for Broker Algo eQuotes.

II. eQuote Features

eQuotes were implemented as part of the NYSE Hybrid Market initiative to enable NYSE Floor Brokers to represent their interest in the market electronically. The following describes the general characteristics and features of eQuotes:

- eQuotes which establish the best bid or offer will have “setters” priority over subsequent DOT orders, eQuotes, and DMM interest
- eQuotes will be on parity with all other “parity groups” (e.g. DOT orders, other Brokers eQuotes, DMM interest)
- eQuotes can be displayed or not displayed to the DMM when away from the BBO
- eQuotes can be designated to not ship to better priced away market interest (eQuote will be canceled if required to ship)
- A Broker can “layer” the Book with eQuotes at multiple prices for a single customer order
- eQuotes may be sent in before the Open and during trading halts
- eQuotes received after the Close will be rejected

In addition, eQuotes can be specified with reserve and/or discretion and can peg to the NBBO. The following parameters have been defined to control the behavior of reserve, discretionary and pegging eQuotes:

Feature	eQuoteType [9478]	Field	Description
Reserve	EQBB or EQDB	ResPubQty [9480]	Reserve Publish Quantity – The share quantity of a reserve eQuote which should be displayed in the Market. Must be less than the OrderQty and in multiples of the UOT for the stock.
Pegging	EQDA or EQDB	PegInd [9561]	Peg Indicator - Indicates whether the eQuote should peg to the NBBO.
Pegging	EQDA or EQDB	Price [44]	Price – The initial file price of the order (e.g. price at which it will be displayed in the market). Establishes the lowest price (for buy orders) or the highest price (for sell orders) that the e-Quote can peg.
Pegging	EQDA or EQDB	CeilingFloorPrice [9562]	Ceiling/Floor Price - The highest price (for buy orders) <u>or</u> the lowest price (for sell orders) to which the eQuote can peg.
Pegging	EQDA or EQDB	MinPeg Qty [9563]	Minimum Peg Quantity –The smallest size quote to which the eQuote will peg.
Discretion	EQDA or EQDB	Price [44]	Price – The file price of the order (e.g. price

			at which it will be displayed in the market).
Discretion	EQDA or EQDB	MinQuantity [110]	Minimum Trade Size - The minimum execution size when using discretion.
Discretion	EQDA or EQDB	DiscPriceRng [9565]	Discretionary Price Range - The dollar amount of price discretion above (for buy orders) or below (for sell order) the Price [44] that will be utilized to trade with incoming order flow.
Discretion	EQDA or EQDB	DiscMaxVol [9566]	Discretionary Maximum Volume – The maximum number of shares that can be executed with discretion.
Discretion	EQDA or EQDB	ITSAllInd [9567]	ITS All Indicator – This indicator is used to specify if the eQuote should utilize its discretion to trade with away market interest.
Discretion	EQDA or EQDB	OppSideMinSize [9568]	Opposite Side Minimum Quantity – The minimum number of shares of an incoming opposite side order that the eQuote will use discretion to trade with.
Discretion for Close Only	EQDA or EQDB	Price [44]	Price – The file price of the order (e.g. price at which it will be displayed in the market) prior to the Close. This price should not be marketable.
Discretion for Close Only	EQDA or EQDB	DiscMaxVol [9566]	Discretionary Maximum Volume – The maximum number of shares that can be executed with discretion. Should equal OrderQty [38].
Discretion for Close Only	EQDA or EQDB	CeilingFloorPrice [9562]	Ceiling/Floor Price - The highest (for buy orders) or lowest (for sell orders) price the e-Quote can be executed on the Close. Note: PegInd [9561] must be = “N” to ensure the order does not execute prior to the Close.
Discretion for the Close Only	EQDA or EQDB	DiscPriceRng [9565]	Discretionary Price Range - The dollar amount of price discretion above (for buy orders) or below (for sell order) the Price [44] that will be utilized to trade with incoming order flow. Note: Must be = 0 for Discretion for the Close Only.

III. Supported FIX Application Messages

The following inbound FIX application messages are supported by the NYSE BAG/CCG systems:

FIX Msg Type	Description
D	New Order (eQuote) - Single
F	Order Cancel Request
G	Order Cancel/Replace Request

The following outbound application messages will be generated by the NYSE BAG/CCG systems:

FIX Msg Type	Description
8	Order Acknowledgement Cancel Acknowledgement Cancel/Replace Acknowledgement Execution Report
9	Order Cancel Reject

Note: The external Algo system must support the receipt of unsolicited Cancel and Cancel/Replace Acknowledgements. In addition, multiple acknowledgements may be generated in response to a single Order Cancel Request.

IV. Standard Header/Trailer

Message Header

Tag	Field Name	Req'd	Comments
8	BeginString	Y	FIX Protocol 4.2
9	BodyLength	Y	
34	MsgSeqNum	Y	Part of the FIX Session Protocol
35	MsgType	Y	
43	PossDupFlag	N	Always required for retransmitted messages, whether prompted by the sending system or as the result of a resend request. Handled locally by the FIX Engine.
49	SenderCompID	Y	SenderCompID is defined as an alphanumeric on input. Assigned by the NYSE Firm Testing and Connectivity Groups (e.g. ABC_DEFG01). On outbound messages defined as either "CCG" or "BAG"
52	SendingTime	Y	YYYYMMDD-HH:MM:SS (Always in GMT time)
56	TargetCompID	Y	Identifies the target application. On inbound messages it is defined as either "CCG" or "BAG".
97	PossResend	N	Required when message may be a duplicate of another message sent under a different sequence number.
115	OnBehalfOfCompID	Y	Entering Firm Mnemonic assigned by the NYSE.

Message Trailer

Tag	Field Name	Req'd	Comments
10	Checksum	Y	Last field in the message. 3 characters

V. FIX Application Message Formats

1. Single Order

Tag	Field Name	Req'd	Field Description
	Standard header	Y	MsgType = D
1	Account	N	32-character maximum account information field
11	ClOrdID	Y	<p>Unique identifier of the order as assigned by order originator. It has the format BBB^NNNN/MMDDYYYY. Values must be uppercase.</p> <p>Branch codes HMQ, YYY, RRR, ZZZ, TTT, QQQ, ZYY, ZYZ, or ZYX must not be used.</p> <p>Note: The same Branch Code and Sequence number combination for ClOrdID[11] must be unique within a given firm mnemonic within the same processing day. Violating this rule will cause the order to be rejected.</p>
18	ExecInst	N	Instructions for order handling on the exchange trading floor. M = Mid-Price Peg (MPL) indicator
38	OrderQty	Y	Share quantity of the order.
40	OrdType	Y	<p>Specifies the type of order. Order type is combined with price information.</p> <p>Valid Values: 2 = Limit</p>
44	Price	Y	<p>For eQuoteType [9478] = "EQAA" or "EQBB" this price represents the limit price of the order.</p> <p>For eQuoteType [9478] = "EQDA" or "EQDB" this price represents the initial file price of the order (e.g. price at which it will be displayed in the market). The ultimate limit of the order is the CeilingFloorPrice [9562] or the Price [44] plus (or minus) DiscPriceRng [9565].</p>
47	OrderCapacity	Y	Represents the Account Type, which reflects the type of trade as well as the relationship between the beneficial owner of the account and the member organization clearing the trade.
54	Side	Y	<p>Side of order.</p> <p>Valid Values: 1 = BUY 2 = SELL 3 = BUY MINUS (not valid for eQuoteType [9478] = "EQDA" or "EQDB") 4 = SELL PLUS (not valid for eQuoteType [9478] = "EQDA" or "EQDB") 5 = SELL SHORT 6 = SELL SHORT EXEMPT</p>
55	Symbol	Y	Ticker Symbol
57	TargetSubID	N	<p>Represents the valid NYSE routing codes.</p> <p>Valid Values: 7 = NYSE AutoEx</p> <p>All other values will be rejected.</p> <p>Message must have either Tag 57 or Tag 9487, or will be rejected. If Tag 57 is used, Tag 9487 (RoutingInstruction) cannot also be present.</p>
59	TimeInForce	N	<p>Absence of this field indicates a Day order.</p> <p>Valid Values: 0 = Day 2 = At the Opening</p>

			3 = Immediate or Cancel
60	TransactTime	Y	Time in UTC format. YYYYMMDD-HH:MM:SS
65	SymbolSfx	N	Additional information about the security (e.g. preferred, warrants, etc.).
109	ClientID	N	Contains the Sending Firm's Market Participant ID (MPID). Required when designating an order with Self Trade Prevention (Tag 7928).
110	MinQuantity	N	Minimum trade size. The minimum execution size when using discretion. Must be specified in round lots. Valid only if eQuoteType [9478] = EQDA or EQDB.
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
439	Clearing Firm	Y	Specifies the clearing member designated for settlement of its Exchange transactions. (Pass through the value from the order received from Broker.)
7928	SelfTradeType	N	Used to prevent the order from trading against another order with the same ClientID (MPID). Valid values: N = Cancel newest (arriving order) O = Cancel oldest (resting order)
9403	OffsetPrice	N	Offset (minimum price improvement) from current bid/offer. Must be greater than or equal to \$0.001 and must be in multiples of \$0.001. Required if tag 9487 = RPI
9448	IntroducingBadgeID	Y	Initiating Broker Badge ID (1 – 4 numeric characters). (Pass through the value from the order received from Broker.)
9449	BillTo	Y	Firm mnemonic identifying the Firm to be billed for resulting NYSE trades. If the Broker will be billed for all NYSE transaction fees set value to "ALGO". Otherwise, it should be set to the mnemonic assigned to the Algo Vendor.
9451	ParentFirmOrdID	Y	Unique identifier of the Broker's customer order. It has the format BBB^NNNN/MMDDYYYY. Branch code is 2 to 3 alphas, 1 space delimiter; sequence number is up to 4 numerics. (Pass through the value from the order received from Broker.)
9452	NYSETANum	Y	The NYSE TA number assigned to the Brokers customer order. (Pass through the value from the order received from Broker.) All characters must be uppercase values, and 3 to 6 characters in length.
9453	ParentFirm	Y	Valid NYSE Member Firm Mnemonic. (Pass through the value from the order received from Broker.) 1 to 4 alpha characters.
9478	eQuote Type	Y	Valid values: EQAA = Simple eQuote EQBB = Reserve eQuote EQDA = eQuote with Discretion or Pegging EQDB = Reserve eQuote with Discretion or Pegging

9479	DisplayInd	Y	Indicates if reserve eQuote should be displayed to the DMM. Valid values = Y or N
9480	ResPubQty	N	The quantity, in shares, to be published in the NYSE BBO. Must be specified in round lots. Can be equal to zero. Required if eQuote Type = EQBB or EQDB.
9487	RoutingInstruction	N	Valid values: DNS = Do Not SHIP – A DNS order is a limit order to buy or sell that is to be quoted or executed in whole or in part only at the NYSE. SOC = SEC IOC - Non-shipping IOC order. Will execute up until the point it would be required to ship and then cancels the remaining balance. Only valid if Tag 59 [TimeinForce] = 3. RPI = Retail Price Improvement order. Order which will only trade with incoming retail order flow. Not valid for NASDAQ listed securities. ALO = Add Liquidity Only. Only valid if Tag 18 [ExecInst] = M. Note: When using this tag, Tag 57 cannot also be present.
9561	PegInd	N	This indicator specifies whether the eQuote should peg to the NBBO. Valid values: Y = peg; N = do not peg Valid when eQuoteType [9478] = EQDA or EQDB.
9562	CeilingFloorPrice	N	This field specifies the highest (for a buy) or lowest (for a sell) price to which the eQuote may peg. Required when PegInd [9561] = Y. Note: If PegInd [9561] = N, this field will specify the highest (for buy orders) or lowest (for sell orders) price the e-Quote can be executed on the Close.
9563	MinPegQty	N	This field indicates the smallest size quote to which the eQuote is willing to peg. Must be specified in round lots. Valid only if PegInd [9561] = Y.
9565	DiscPriceRng	N	The amount of price discretion above (below) the file price to be used. Valid only if eQuoteType [9478] = EQDA or EQDB.
9566	DiscMaxVol	N	Total shares of the eQuote available to use discretion. Required when eQuoteType [9478] = EQDA or EQDB.
9567	ITSAllInd	N	Indicates whether discretion will be used to trade with an away market. Valid Value = Y or N Required when eQuoteType [9478] = EQDA or EQDB.
9568	OppSideMinSize	N	Specifies the minimum size necessary to trigger a trade with the order. Must be specified in round lots. Valid only for discretionary and mid-point orders.
	Standard trailer	Y	

2. Order Acknowledgement

Tag	Field Name	Req'd	Field Description
	Standard Header	Y	MsgType = 8
6	AvgPx	Y	The average price is computed from data in the FIX order file for the current order chain
11	ClOrdID	Y	Identifier for the order as assigned by the order originator.
14	CumQty	Y	Cumulative number of executed shares for the current order chain based on the current Execution report and information retrieved from the FIX order file.
17	ExecID	Y	Unique identifier of this report. The vendor may specify their own ExecID. This field is alpha-numeric and can contain spaces and forward slashes "/". The limitation for this field is 30 characters.
20	ExecTransType	Y	Is set to 0 for New
30	LastMkt	N	Market of execution for last fill. Valid Values: N = NYSE P = Arca A = NYSE Amex
31	LastPx	Y	Represents the price at execution.
32	LastShares	Y	Quantity of shares bought/sold.
37	OrderID	Y	Use the ClOrdID[11] of the original order.
38	OrderQty	Y	This field contains the Original Order Quantity.
39	OrdStatus	Y	Valid Values: 0 = New
54	Side	Y	Order instruction
55	Symbol	Y	Ticker symbol
65	Suffix	N	Additional information about the security, e.g., preferred, warrants, etc.
150	ExecType	Y	Valid Values: 0 = New
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
	Standard Trailer	Y	

3. Order Cancel Request

	Standard Header	Y	MsgType = F
11	ClOrdID	Y	Unique ID of cancel request
37	OrderID	Y	Populate with original/initial order ID (start of the order chain) or the order ID of the order being canceled. The value of this tag will be returned in tag 41 of the response. On multiple Cancel to Reduce (Leaves) messages, OrderID must refer to the ID of the original/initial order in the chain.
38	OrderQty	Y	Original/Initial Order quantity
41	OrigClOrdID	Y	ClOrdID of the previous order in the chain to be cancelled
54	Side	Y	Must match original order
55	Symbol	Y	Must match original order
65	SymbolSfx	N	Must match original order
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
9428	CxlQty	N	The quantity of the order reduction Required with CMSLeavesQty[9429] is present.
9429	CMSLeavesQty	N	New order quantity (includes the open and executed amount). Required when CxlQty[9428] is present.
	Standard Trailer	Y	

4. Order Cancel Request Acknowledgment

	Standard Header	Y	MsgType = 8
6	AvgPx	Y	The average price is computed from data in the FIX order file for the current order chain
11	ClOrdID	Y	Identifier for the order as assigned by the order originator.
14	CumQty	Y	Cumulative number of executed shares for the current order chain based on the current Execution report and information retrieved from the FIX order file.
17	ExecID	Y	Unique identifier of this report. The vendor may specify their own ExecID. This field is alpha-numeric and can contain spaces and forward slashes "/". The limitation for this field is 30 characters.
20	ExecTransType	Y	Is set to 0 for New
30	LastMkt	N	Market of execution for last fill. Valid Values: N = NYSE P = Arca A = NYSE Amex
31	LastPx	Y	Represents the price at execution. Note: All fields without values are made a plug of 0
32	LastShares	Y	Quantity of shares bought/sold Note: All fields without values are made a plug of 0
37	OrderID	N	Use the ClOrdID[11] of the original order from the Execution Report
38	OrderQty	Y	This field contains the Original Order Quantity.
39	OrdStatus	Y	Valid Values: 4 = Canceled

41	OrigClOrdID	Y	ClOrdID of the previous order in the chain to be cancelled.
54	Side	Y	Order instruction
55	Symbol	Y	Ticker symbol
65	Suffix	N	Additional information about the security, e.g., preferred, warrants, etc.
150	ExecType	Y	Valid Values: 4 = Canceled
151	LeavesQty	Y	Amount of shares open for further execution. If the OrdStatus is Canceled, DoneForTheDay, Expired, Calculated, or Rejected (in which case the order is no longer active) then LeavesQty could be 0, otherwise LeavesQty = OrderQty [38]- CumQty[32].
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
	Standard Trailer	Y	

5. Order Cancel Reject

	Standard Header	Y	MsgType = 9
1	Account	N	40-character maximum account information field
11	ClOrdID	Y	Unique ID of cancel request
30	LastMkt	N	Market of execution for last fill. Valid Values: N = NYSE P = Arca A = NYSE Amex
37	OrderID	N	If CxlRejReason = "Unknown Order", specify 'NONE' otherwise retrieve from Order File
39	OrdStatus	Y	OrdStatus value after this cancel reject is applied
41	OrigClOrdID	Y	ClOrdID which could not be cancelled/replaced. ClOrdID of the previous order (not the initial order of the day) when canceling or replacing an order.
58	Text	Y	Reject text. 25-character field
60	TransactTime	N	Time of Execution/Order creation. GMT
434	CxlRejResponseTo	Y	Identifies the type of request that a Cancel Reject is in response to. Valid values: 1 = Order Cancel Request 2 = Order Cancel/Replace Request
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
	Standard Trailer	Y	

6. Cancel/Replace Request

	Standard Header	Y	MsgType = G
11	ClOrdID	Y	Unique identifier of the replacement order as assigned by order originator. It has the format BBB^NNNN/MMDDYYYY. Values must be uppercase. Branch codes HMQ, YYY, RRR, ZZZ, TTT, QQQ, ZYY, ZYZ, or ZYX must not be used. Note: The same Branch Code and Sequence number combination for ClOrdId[11] must be unique within a given firm mnemonic within the same processing day. Violating this rule will cause the order to be rejected.
18	ExecInst	N	Instructions for order handling on the exchange trading floor. M = Mid-Price Peg (MPL) indicator
21	HandInst	Y	Set to 1 . Represents automatic execution.
37	OrderID	Y	Populate with original/initial order ID (start of the order chain) or the order ID of the order being cancel/replaced. The value of this tag will be returned in tag 41 of the response.
38	OrderQty	Y	Original/Initial Order quantity
40	OrdType	Y	The order type of the replacement order. OrdType provides basic information about the equity order.

			Order type is combined with price information. Valid Values: 2 = Limit
41	OrigClOrdID	Y	ClOrdID of the previous order in the chain to be cancelled
44	Price	Y	For eQuoteType [9478] = "EQAA" or "EQBB" this price represents the limit price of the order. For eQuoteType [9478] = "EQDA" or "EQDB" this price represents the initial file price of the order (e.g. price at which it will be displayed in the market). The ultimate limit of the order is the CeilingFloorPrice [9562] or the Price [44] plus (or minus) DiscPriceRng [9565].
47	OrderCapacity	Y	Represents the Account Type, which reflects the type of trade as well as the relationship between the beneficial owner of the account and the member organization clearing the trade.
54	Side	Y	Side of order. Valid Values: 1 = BUY 2 = SELL 3 = BUY MINUS (not valid for eQuoteType [9478] = "EQDA" or "EQDB") 4 = SELL PLUS (not valid for eQuoteType [9478] = "EQDA" or "EQDB") 5 = SELL SHORT 6 = SELL SHORT EXEMPT
55	Symbol	Y	Ticker Symbol
57	TargetSubID	N	Represents the valid NYSE routing codes. Valid Values: 7 = NYSE AutoEx All other values will be rejected. Message must have either Tag 57 or Tag 9487, or will be rejected. If Tag 57 is used, Tag 9487 (RoutingInstruction) cannot also be present.
59	TimeInForce	N	Absence of this field indicates a Day order. Valid Values: 0 = Day 2 = At the Opening 3 = Immediate or Cancel
60	TransactTime	Y	Time in UTC format. YYYYMMDD-HH:MM:SS
65	SymbolSfx	N	Additional information about the security (e.g. preferred, warrants, etc.).
109	ClientID	N	Contains the Sending Firm's Market Participant ID (MPID). Required when designating an order with Self Trade Prevention (Tag 7928).
110	MinQuantity	N	Minimum trade size. The minimum execution size when using discretion. Must be specified in round lots. Valid only if eQuoteType [9478] = EQDA or EQDB.
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
439	Clearing Firm	Y	Specifies the clearing member designated for settlement of its Exchange transactions. (Pass through the value from the order received from Broker.)
7928	SelfTradeType	N	Used to prevent the order from trading against another order with the same ClientID (MPID). Valid values: N = Cancel newest (arriving order) O = Cancel oldest (resting order)
9403	OffsetPrice	N	Offset (minimum price improvement) from current bid/offer. Must be

			greater than or equal to \$0.001 and must be in multiples of \$0.001. Required if tag 9487 = RPI
9448	IntroducingBadgeID	Y	Initiating Broker Badge ID (1 – 4 numeric characters). (Pass through the value from the order received from Broker.)
9449	BillTo	Y	Firm mnemonic identifying the Firm to be billed for resulting NYSE trades. If the Broker will be billed for all NYSE transaction fees set value to “ALGO”. Otherwise, it should be set to the mnemonic assigned to the Algo Vendor.
9451	ParentFirmOrdID	Y	Unique identifier of the Broker’s customer order. It has the format BBB^NNNN/MMDDYYYY. Branch code is 2 to 3 alphas, 1 space delimiter; sequence number is up to 4 numerics. (Pass through the value from the order received from Broker.)
9452	NYSEATANum	Y	The NYSE TA number assigned to the Brokers customer order. (Pass through the value from the order received from Broker.) All characters must be uppercase values, and 3 to 6 characters in length.
9453	ParentFirm	Y	Valid NYSE Member Firm Mnemonic. (Pass through the value from the order received from Broker.) 1 to 4 alpha characters.
9478	eQuote Type	Y	Valid values: EQAA = Simple eQuote EQBB = Reserve eQuote EQDA = eQuote with Discretion or Pegging EQDB = Reserve eQuote with Discretion or Pegging
9479	DisplayInd	Y	Indicates if reserve eQuote should be displayed to the DMM. Valid values = Y or N
9480	ResPubQty	N	The quantity, in shares, to be published in the NYSE BBO. Must be specified in round lots. Can be equal to zero. Required if eQuote Type = EQBB or EQDB.
9487	RoutingInstruction	N	Valid values: DNS = Do Not SHIP – A DNS order is a limit order to buy or sell that is to be quoted or executed in whole or in part only at the NYSE. SOC = SEC IOC - Non-shipping IOC order. Will execute up until the point it would be required to ship and then cancels the remaining balance. RPI = Retail Price Improvement order. Order which will only trade with incoming retail order flow. Not valid for NASDAQ listed securities. ALO = Add Liquidity Only. Only valid if Tag 18 [ExecInst] = M. Note: When using this tag, Tag 57 cannot also be present.
9561	PegInd	N	This indicator specifies whether the eQuote should peg to the NBBO. Valid values: Y = peg; N = do not peg Valid when eQuoteType [9478] = EQDA or EQDB.
9562	CeilingFloorPrice	N	This field specifies the highest (for a buy) or lowest (for a sell) price to which the eQuote may peg. Required when PegInd [9561] = Y. Note: If PegInd [9561] = N, this field will specify the highest (for buy orders) or lowest (for sell orders) price the e-Quote can be executed on the Close.
9563	MinPegQty	N	This field indicates the smallest size quote to which the eQuote is willing to peg. Must be specified in round lots. Valid only if PegInd [9561] = Y.

9565	DiscPriceRng	N	The amount of price discretion above (below) the file price to be used. Valid only if eQuoteType [9478] = EQDA or EQDB.
9566	DiscMaxVol	N	Total shares of the eQuote available to use discretion. Required when eQuoteType [9478] = EQDA or EQDB.
9567	ITSAllInd	N	Indicates whether discretion will be used to trade with an away market. Valid Value = Y or N Required when eQuoteType [9478] = EQDA or EQDB.
9568	OppSideMinSize	N	Specifies the minimum size necessary to trigger a trade with the order. Must be specified in round lots. Valid only for discretionary and mid-point orders.
	Standard trailer	Y	

7. Cancel/Replace Acknowledgement

	Standard Header	Y	MsgType = 8
11	ClOrdID	Y	Unique ID of cancel request
14	CumQty	Y	Cumulative number of executed shares for the current order chain based on the current Execution report and information retrieved from the FIX order file.
17	ExecID	Y	Unique identifier of this report. The vendor may specify their own ExecID. This field is alpha-numeric and can contain spaces and forward slashes "/". The limitation for this field is 30 characters.
20	ExecTransType	Y	Identifies the transaction type. 0 = New
30	LastMkt	N	Market of execution for last fill. Valid Values: N = NYSE P = Arca A = NYSE Amex
37	OrderID	N	Populate with original/initial order information (start of the order chain). The format is TBD. On multiple Cancel to Reduce (Leaves) messages referencing a single Order, OrderID must refer to the original/initial Order in the chain.
38	OrderQty	Y	The new order quantity
39	OrdStatus	Y	The current status of the order. Valid Values: 5 = Replaced
41	OrigClOrdID	Y	ClOrdID of the previous order in the chain to be cancelled
54	Side	Y	Must match original side.
55	Symbol	Y	Must match original order
65	SymbolSfx	N	Must match original order
150	ExecType	Y	Valid Value: 5 = Replaced
207	SecurityExchange	Y	Valid Values: N = NYSE A = NYSE Amex
	Standard Trailer	Y	

8. Execution Report

Tag	Field Name	Req'd	Description
	Standard header	Y	MsgType = 8. Standard header data, including the session identifier, which is retrieved from the FIX order file using the Branch Code/Sequence Number, and if necessary, the repeated order information, as the key for the current order chain.
1	Account	N	40-character maximum account information field.
6	AvgPx	Y	The average price is computed from data in the FIX order file for the current order chain. In the initial version, this field will be 0.
11	ClOrdID	N	Retrieved from Order file.
14	CumQty	Y	Cumulative number of executed shares for the current order chain based on the current Execution report and information retrieved from the FIX order file. In the initial version, this field will be 0.
17	ExecID	Y	Unique identifier of this report. The vendor may specify their own ExecID. This field is alpha-numeric and can contain spaces and forward slashes "/". The limitation for this field is 30 characters.
18	ExecInst	N	If more than one instruction is applicable to an order, this field can contain multiple instructions separated by space. Can contain multiple instructions, space delimited. Only E and F are sent to CCG. E and F are mutually exclusive; if both 'E' and 'F' are present, only one (arbitrarily chosen) is used. Valid Values: E = DNI F = DNR
20	ExecTransType	Y	Identifies the transaction type. Valid values: 0 = New 1 = Cancel 2 = Correction 3 = Status
30	LastMkt	N	Market of execution for last fill. Valid Values: N = NYSE P = Arca A = NYSE Amex
31	LastPx	Y	Represents the price at execution.
32	LastShares	Y	Quantity of shares bought/sold.
37	OrderID	Y	The ClOrdID[11] of the active order.
38	OrderQty	Y	This field contains the Original Order Quantity.
39	OrdStatus	Y	Valid Values: 0 = New 1 = Partially filled 2 = Filled 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected E = Pending Replace If LeavesQty[151] is 0, set to 2 , otherwise set to 1 .
40	OrdType	N	Value returned from the original order.
44	Price	N	Value returned from the original order.

47	Rule80A	N	Value returned from the original order.
54	Side	Y	Value returned from the original order.
55	Symbol	Y	Ticker symbol
58	Text	N	Free form text string
59	TimeInForce	N	Value returned from the original order.
60	TransactTime	Y	Time of Execution/Order creation. GMT
63	SettlmntType	N	Indicates order settlement period. Valid values: 0 = Regular 1 = Cash 2 = Next Day 8 = Sellers Option
64	FutSettDate	N	Settlement Date. Required if SettlmntTyp [63] = '8' (Sellers Option).
65	SymbolSfx	N	Additional information about the security (e.g. preferred, warrants, etc.).
99	StopPx	N	Limit price per share.
106	Issuer	N	Company name of the security issuer. Retrieved from the Order File.
107	SecurityDesc	N	Security description. Retrieved from the Order File.
109	ClientID	N	Firm identifier used in third party-transactions. Retrieved from Order file.
150	ExecType	Y	If LastShares is zero, set to 0 ; if LastShares equals OrderQty, set to 2 ; otherwise set to 1 . Valid values: 0 = New 1 = Partially filled 2 = Filled 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected E = Pending Replace
151	LeavesQty	Y	Amount of shares open for further execution. If the OrdStatus is Canceled, DoneForTheDay, Expired, Calculated, or Rejected (in which case the order is no longer active) then LeavesQty could be 0, otherwise LeavesQty = OrderQty [38]- CumQty[32].
207	SecurityExchange	Y	Market used to help identify a security. Valid values: N = NYSE P = Arca A = NYSE Amex
382	NoContraBrokers	Y	Number of Contra Brokers repeating group instances. For Algo eQuote executions the value of this field will always be "1".
	337	ContraTrader	Identifies the trader (e.g. "badge number") of the Contra Broker.
	375	ContraBroker	Identifies the Contra side of the trade.
	437	ContraTradeQty	Quantity traded with the Contra Broker.
	438	ContraTradeTime	Identifies the time of the trade with the ContraBroker. Format is HHMM for CCG
9426	BillingRate	Y	Consolidated billing information. This tag will contain either a Liquidity Indicator followed by a Displayed Liquidity Indicator or a Market Center ID followed by an optional MMID. Valid values: NYSE Executions

			1 = Taker 2 = Provider 3 = Blended 5 = Opening 6 = Closing/Provider 7 = Closing/Blended 9 = Retail Order Taker 10 = Retail Order Taker MPL 11 = MPL Taker 12 = MPL Provider Away Executions B = NASDAQ OMX BX C = National Stock Exchange D=FINRA ADF I=International Securities Exchange J = Direct Edge A K = Direct Edge X M = Chicago Stock Exchange P = NYSE Arca T = NASDAQ OMX W = CBOE X = NASDAQ OMX PHLX Y = BATS Y Z = BATS Exchange
9430	AutoExInd	N	If present, indicates if the trade was executed automatically. Value = NX.
9433	Execution Information	N	Executing Broker's badge number.
9435	ExClearingHouse	N	Represents a trade that is settled outside the normal clearing processing. Valid values: Y or N
9440	ERReferenceNumber	N	CCG provided format string. Format is GGRRRSSS
9448	IntroducingBadgeID	Y	Initiating Broker Badge ID (1 – 4 numeric characters). Leading zeros not required.
9478	eQuote Type	Y	Valid values: EQAA = Simple eQuote EQBB = Reserve eQuote EQGA = Simple gQuote EQDA = eQuote with discretion and/or pegging EQDB = Reserve eQuote with either discretion and/or pegging
9483	DBKLinkID	Y	6 numeric characters Associates all Buy and Sell Execution Reports and Tape prints in the Display Book (DBK) Trade.
9560	EQuoteExecType	N	1 = Executed with Discretion 2 = Executed with Pegging 3 = Executed with Discretion and Pegging
9570	ExecAwayMktID	N	Contains the Market Center ID and, optionally, the Market Maker ID separated by a slash, e.g., D/EDGA. If this tag is present, Tag 9578 will not also be present. Valid Values: B = NASDAQ OMX BX C = National Stock Exchange

			D=FINRA ADF I=International Securities Exchange J = Direct Edge A K = Direct Edge X M = Chicago Stock Exchange P = NYSE Arca T = NASDAQ OMX W = CBOE X = NASDAQ OMX PHLX Y = BATS Y Z = BATS Exchange
9578	BillingIndicator	N	Execution Report Billing Indicators. If this tag is present, Tag 9570 will not also be present. Valid Values: 1 = Taker 2 = Provider 3 = Blended 5 = Opening 6 = Closing 8 = Retail Price Improvement Orders
9579	ExpERCReferenceNumber	N	Expanded Activity ID. Contains the activity ID embedded in the ExecID field. Format RRRRRSSSSS
	Standard Trailer	Y	

VI. FIX Format Validation and Error Messages

FIX Tag Name TAG#	VALID VALUES	REJECT REASONS	EXISTING AND NEW REJECT MESSAGES
EquoteType Tag 9478	4 alpha characters <ul style="list-style-type: none"> • EQAA – eQuote • EQBB – Reserve eQuote • EQDA - eQuote with discretion and/or pegging • EQDB - Reserve eQuote with discretion and/or pegging 	If EquoteType FIX tag 9478 is present, the following FIX tags are required <ul style="list-style-type: none"> • TargetSubID • ClearingFirmID or GiveUpID • IntroducingBadgeld • DisplayInd • PublishedQuantity (only for Reserve eQuote messages) Incorrect Tag format or value	REJ – INVALID TAG <9478>
		If FIX Tag 9478 EquoteType is received “EQDA” or “EQDB” And any of the Discretionary or Pegged FIX tags (9561 through 9568) are present on “F” (cancels) or “H” (admin inquiries) type messages	Tags 9561 through 9568 are ignored
		Multiple Tags specified	REJ – MULTIPLE TAG <9478>
		FIX Tag 9478 is received without “EQDA” or “EQDB” and any of the new discretionary FIX tags are present (#’s 9561 through 9568)	REJ - INCOMPATIBLE DATA FOR EQUOTES TAG <NNNN>
		If FIX tags 9561 through 9568 do not pass cross validation	REJ - INCOMPATIBLE DATA FOR EQUOTES TAG <9478>
IntroducingBadgelD Tag 9448	1 to 4 numeric digits NNNN	Incorrect Tag format/value	REJ – INVALID TAG <9448>
		Missing Tag (applicable to D & G Type FIX Messages)	REJ - REQUIRED TAG <9448> MISSING FOR CLORDID <ClOrdId value>

FIX Tag Name TAG#	VALID VALUES	REJECT REASONS	EXISTING AND NEW REJECT MESSAGES
ResPubQty Tag 9480	up to 7 numeric digits NNNNNNNN (quantity represented in shares, must be in multiples of UOT)	The value populated in this field must be in shares and must be in multiples of UOT.	REJ – INVALID TAG <9480> QUANTITY NOT ROUNDLOT
	The reserve quantity must be at least ten times the unit of trade for the stock or the total order quantity, whichever is less.	Incorrect Tag format/value	REJ – INVALID TAG <9480>
		If the EquoteType FIX tag 9478 is present with the value EQBB or EQDB – Reserve eQuote, this tag is required.	REJ - REQUIRED TAG <9480> MISSING FOR CLORDID <ClOrdId value>
ClearingFirm (FIX 4.2) Tag 439	4 alpha characters AAAA	If EquoteType FIX tag 9478 is received and FIX tag 9431 is not present	REJ - REQUIRED TAG <439> MISSING FOR CLORDID <CLORDID VALUE>
OnBehalfOfCompID Tag 115		Member Firm rejects tag if CMS Member Firm Mnemonic Flag is OFF for eQuotes.	REJ – SERVICE UNAVAILABLE FOR FIRM – TAG <115>
SecurityExchange Tag 207	'N' = NYSE 'A' = NYSE Amex	'P'	REJ – FORMAT ERROR FROM ARCA
		Other value not 'N' or 'P'	REJ – INVALID SUBSCRIBER – TAG <207>
TargetSubID Tag 57	RPX (Specialist's Post) NX (NYSE Direct)	OVR, RPXV, A, AV, OL, OS, TS are not allowed for eQuote Type messages.	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <57>
OrdType Tag 40		MKT, MKT OB, MKT CLO, LMT OB, LMT CLO, STP, STP LMT, CLO, BAS, WOW, LMT WOW, MKT WOW not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <40>
RoutingInstruction Tag 9487	DNS	AUC, ISO, SOC and OCX not allowed for eQuote messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <9487>
StopPx Tag 99		STP and STP LMT not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <99>
OrderQty Tag 38		Partial Roundlot and Oddlot quantity not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <38>
TimeInForce Tag 59		GTC, GTX, OPG, OC not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <59>
ExecInst Tag 18		DNI, DNR not allowed for eQuote messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <18>

FIX Tag Name TAG#	VALID VALUES	REJECT REASONS	EXISTING AND NEW REJECT MESSAGES
SettlmntType Tag 63		CASH, ND, Seller^n not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <63>
TryToStop Tag 9438		TTS not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <9438>
TargetLocationID Tag 143		Booth ID not allowed for eQuote Type messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <143>

Side Tag 54		Buy Minus, Sell Plus, and non-REGSHO Sell Short not allowed for eQuote messages	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <54>
For all of the following tags (9561-9568)		If FIX tag 9478 is received without “EQDA” or “EQDB” and any of the following tags are present	REJ – INCOMPATIBLE DATA FOR EQUOTES – TAG <NNNN>
PegInd Tag 9561		Populated with a value other than “Y” or “N”	REJ – INVALID TAG <9561>
		If the PegInd equals “N” when the eQuote type is “EQDA” or “EQDB” and MaxPegQty is greater than zero or MinPegQty is greater than zero	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
CeilingFloorPrice Tag 9562		When this tag is received And PegInd tag is not received	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
		Not populated with a valid price (including decimal point)	REJ – INVALID TAG <9562>
		IfCeilingFloorPriceis greater than limit price on sell, sell short exempt, or non REGSHO sell short eQuote Or IfCeilingFloorPriceis less than limit price on a buy eQuote	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.

FIX Tag Name TAG#	VALID VALUES	REJECT REASONS	EXISTING AND NEW REJECT MESSAGES
MinPegQty Tag 9563		When this tag is received And PegInd tag is not received	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
		Not a round lot	REJ – INVALID TAG <9563> QUANTITY NOT ROUNDLOT
DiscPriceRng Tag 9565		If DiscPriceRng equals zero when the eQuote type is “EQDA” or “EQDB” and OppSideMaxSize is greater than zero or OppSideMinSize is greater than zero or ITSAllInd equals “Y” or DiscMaxVol is greater than zero	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.

		If DiscPriceRng is greater than zero when the eQuote type is "EQDA" or "EQDB" and DiscMaxVol is not greater than zero	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
		When this tag is received And DiscPriceRng is not received	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
DiscMaxVol Tag 9566		Not a round lot	REJ – INVALID TAG <9566> QUANTITY NOT ROUNDLOT

FIX Tag Name TAG#	VALID VALUES	REJECT REASONS	EXISTING AND NEW REJECT MESSAGES
ITSAIInd Tag 9567		When this tag is received And DiscPriceRng is not received	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
		Populated with a value other than "Y" or "N"	REJ – INVALID TAG <9567>
OppSideMinSize Tag 9568		When this tag is received And DiscPriceRng is not received	REJ – INCOMPATIBLE DATA FOR EQUOTES TAG <9478> NOTE: Tags 9561-9568 will not be returned in the Reject Message.
		If OppSideMinSize is greater than OppSideMaxSize	
		Not a round lot	REJ – INVALID TAG <9568> QUANTITY NOT ROUNDLOT

VII. FIX Message Examples

1. New Messages

eQuote

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQAA
HandInst	21	1
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	1
OrderQty	38	20000
Symbol	55	IBM
Price	44	88.75
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
ClearingFirm	439	AAAA
IntroducingBadgelD	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
DisplayInd	9479	Y

Reserve eQuote

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQBB
HandInst	21	1
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	1
OrderQty	38	20000
Symbol	55	IBM
Price	44	88.75
OrdType	40	2
SecurityExchange	207	N
ClearingFirm	439	AAAA
IntroducingBadgeID	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
ResPubQty	9480	500
DisplayInd	9479	Y

eQuote with Discretion and Pegging

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQDA
HandInst	21	1
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	1
OrderQty	38	50000
Symbol	55	IBM
Price	44	77.20
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
ClearingFirm	439	AAAA
Introducing BrokerID	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
DisplayInd	9479	Y
PegInd	9561	Y
CeilingFloorPrice	9562	77.30
MinPegQty	9563	500
DiscPriceRng	9565	0.04
DiscMaxVol	9566	20000
ITSAIInd	9567	N
OppSideMinSize	9568	1000

Reserve eQuote Discretion, Pegging and ITS All

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQDB
HandInst	21	1
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	2
OrderQty	38	50000
Symbol	55	LU
Price	44	2.41
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
Introducing BadgeID	9448	1234
BillTo	9449	ALGO
ResPubQty	9480	2000
ClearingFirm	439	AAAA
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
DisplayInd	9479	Y
PegInd	9561	Y
CeilingFloorPrice	9562	2.31
MinPegQty	9563	500
DiscPriceRng	9565	0.05
DiscMaxVol	9566	20000
ITSAIInd	9567	Y
OppSideMinSize	9568	1000

Reserve eQuote w/ Discretion for Close Only

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQDB
HandInst	21	1
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	2
OrderQty	38	50000
Symbol	55	LU
Price	44	1.00 (not marketable)
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
ClearingFirm	439	AAAA
Introducing BrokerID	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
ResPubQty	9480	100
DisplayInd	9479	Y
PegInd	9561	N
CeilingFloorPrice	9562	10.00 (max (or min) price for the Close)
DiscPriceRng	9565	0
DiscMaxVol	9566	50000
ITSAIInd	9567	N

Retail Price Improvement Order

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQAA
HandInst	21	1
Rule80A	47	A
TransactTime	60	20091127-17:59:50
Side	54	1
OrderQty	38	20000
Symbol	55	IBM
Price	44	88.75
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
ClearingFirm	439	AAAA
OffsetPrice	9403	.001
IntroducingBrokerID	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETA Num	9452	AB123
ParentFirm	9453	AAA
RoutingInstruction	9487	RPI
DisplayInd	9479	Y

Self Trade Prevention eQuote

MESSAGE TYPE 'D' - NEW ORDER SINGLE		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 10/06162006
eQuoteType	9478	EQAA
HandInst	21	1
Rule80A	47	A
TransactTime	60	20091127-17:59:50
TargetSubID	57	7
Side	54	1
OrderQty	38	20000
Symbol	55	IBM
Price	44	88.75
OrdType	40	2
TimeInForce	59	0
ClientID	109	ABCD (MPID of parent order firm)
SecurityExchange	207	N
ClearingFirm	439	AAAA
SelfTradeType	7928	O
IntroducingBadgelD	9448	1234
BillTo	9449	ALGO
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA
DisplayInd	9479	Y

2. Cancel and Cancel/Replace Messages

Cancels

MESSAGE TYPE 'F' - CANCEL REQUEST		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 35/06162006
OrderID	37	LA 10/06162006
OrigClOrdID	41	LA 10/06162006
Side	54	1
OrderQty	38	100
Symbol	55	IBM
SecurityExchange	207	N

Cancel/Replace with Reserve eQuotes using Discretion and Pegging

MESSAGE TYPE 'G' - CANCEL/REPLACE REQUEST		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
ClOrdId	11	LA 35/06162006
HandlInst	21	1
OrderID	37	LA 10/06162006
OrderType	40	2
OrigClOrdID	41	LA 10/06162006
eQuoteType	9478	EQDB
Rule80A	47	A
TargetSubID	57	7
TransactTime	60	20091127-17:59:50
Side	54	2
OrderQty	38	50000
Symbol	55	LU
Price	44	2.41
OrdType	40	2
TimeInForce	59	0
SecurityExchange	207	N
Introducing BrokerID	9448	1234
BillTo	9449	ALGO
ResPubQty	9480	2000
ClearingFirm	439	AAAA
ParentFirmOrdID	9451	AAB 1234/12345678
NYSETANum	9452	AB123
ParentFirm	9453	AAA

3. eQuote Execution Report Messages

eQuote Execution Report

MESSAGE TYPE '8' - EXECUTION REPORT		
MESSAGE BODY (SUPPORT FIX 4.2)		
TAG NAME	FIX #	VALUE
AvgPx	6	0
CumQty	14	0
ExecID	17	LA 1006162006 123123123
ExecTransType	20	0
LastMkt	30	N
LastPx	31	88.75
LastShares	32	10000
OrderID	37	LA 10/06162006
OrderQty	38	10000
OrdStatus	39	2
Side	54	1
Symbol	55	IBM
TimeInForce	59	0
TransactTime	60	20080706 – 13:07:04
ExecType	150	2
LeavesQty	151	0
NoContraBrokers	382	1
ContraBroker	375	LOC
ContraTrader	337	0001
ContraTradeQty	437	100
ContraTradeTime	438	0948
BillingRate	9426	D/EDGA
eQuoteType	9478	EQAA
IntroducingBadgelD	9448	1234
DBKLinkInd	9483	000003
ExecAwayMkt ID	9570	D/EDGA