

FIX Specification for Barclays LX

FIX 4.2

Version: 2.6 November 30, 2010

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1. Introduction and Contact Details

1.1. Introduction

LX is Barclays Capital's dark liquidity crossing network which aggregates liquidity across the firm, including orders from clients and non-displayed trading partners, to provide users access to a deep and unique pool of liquidity. LX is an integral part of Barclays' electronic trading offering, providing clients with enhanced execution quality.

1.2. Purpose of document

This document defines the FIX protocol interface between a client and LX. It provides guidance and reference to you, the client, to assist in establishing FIX connectivity and order flow with Barclays Capital. Please do not hesitate to discuss with your sales contact, or with the contacts below any aspects of this document for which you need further clarification.

This document is based on FIX version 4.2.

This document should be read in conjunction with the FIX specifications on the FIX Protocol website (http://www.fixprotocol.org).

1.3. Contacts

Contact	Details
LX Service Desk Hot Line	212 526 9190 LXService@barcap.com
LX Relationship Management	LXDesk@barcap.com



1.4. Summary of supported functions

Field/Message	Description			
OrdType	■ Limit			
	Pegged (no Limit Price)			
	Pegged (with a Limit Price)			
Side	■ Buy			
	■ Sell			
	Sell Short			
TimeInForce	■ Day			
	■ Immediate or Cancel (IOC)			
ExecInst	R - Primary Peg *			
	P - Market Peg *			
	■ M - Mid Price Peg *			
	* Requires OrdType = Pegged(P)			
Quantity	Odd lots are not supported and will be rejected. Mixed lots will be executed in round lot increments and the remainder			
	will be cancelled back (unsolicited).			
Minimum Quantity	Minimum Quantity supported via tag 110.			
	LX supports MinQty[110] by "bunching" orders. For a given cross transaction, a client may receive one or many executions (fills) which sum to a quantity equal to or greater than the MinQty.			
	For example, client sends a NewOrder with MinQty=2,000. Client receives the following consecutive fills: 300, 500, 1,400 (totalling 2,200 shares). Consecutive fills are sent as part of a single transaction, so each individual fill may be less than the MinQty. Consecutive fills are sent by LX in a "best effort" manner.			
Cancels	Full cancels only. LX does not support FIX 4.0 partial cancels. Use Cancel / Replace (Modification) instead.			
Cancel / Replace	Supported:			
(Order Modifications)	Price increases and decreases			
	Quantity increases and decreases			
	MinQty changes			



Trade Corrects and Trade Cancels (i.e. "Busts")	Not currently supported electronically.
Cancel on Disconnect	LX will automatically cancel open orders for a client once a session disconnect is detected.

1.5. Summary of changes to the document

Version	Date	Comments
2.0	July 2010	FIX Rules of Engagement for the new LX platform.
2.1	October 4, 2010	Added comments pertaining to RegSHO amendments and the Short Sell Exempt Side[54] value. The current implementation is subject to change pending updates from the SEC.
2.2	October 7, 2010	Changed requirements for Sell Short Exempt orders (allowed at any time from B/D customers) as per the latest SEC FAQ on the Reg SHO addendum.
		ShortSaleExemptionReason[1688] will be accepted but not required from B/D customers.
2.3	November 9, 2010	Based on client feedback, adding FIX4.2 fields and values which were not supported in the original version of the spec. For clients who do not require strict FIX4.2 compliance, these features can be disabled.
2.4	November 16, 2010	Removed Held/Not Held as acceptable execution instructions. Only Pegging instructions (M/P/R) are allowed.
2.5	November 19, 2010	Added appendix with symbology examples.
2.6	November 30, 2010	Removed OrderMassCancel functionality as this is not currently supported.



2. FIX Connectivity

2.1. FIX Messages

This section discusses the details of the FIX messages supported by LX and some details on how each field is used. Please contact the connectivity desk to discuss your connectivity protocol.

LX will ensure that all FIX messages have the required mandatory fields as per the supported version of the FIX protocol. Relevant non-mandatory fields are also documented below. Barclays Capital reserves the right to send additional non-mandatory fields (without notification or revision of this document) provided that the overall validity of the FIX message remains intact.

The following tables represent the fields that LX supports for each message type, and the supported values for each field. Each table does not represent a complete FIX message. Every message sent and received by LX must have a Message Header and a Message Trailer as described below.

2.1.1. Message Header

The table below describes the details required in messages received from your firm. Messages sent from Barclays Capital will contain the details discussed below as well.

Tag	Field Name	Req'd	Validated	Comments	
8	BeginString	Y	N	FIX4.2, identifies beginning of new message and protocol version. Must always be the first field in the message and should always be unencrypted. LX will respond with BeginString=FIX4.2 since any other BeginString would cause a Session Level Reject.	
9	BodyLength	Y	Y	Message length, in bytes, forward to the CheckSum field. Must always be the second field in the message.	
35	MsgType	Y	N	Always the third field in the message and should always be unencrypted. Valid values include: A: Logon C: Heartbeat 1: Test Request 2: Resend Request 3: Reject (Session Level) 4: Sequence Reset 5: Logout D: Order F: Cancel G: Cancel/Replace 8: Execution Report	
				9: Cancel Reject	



Tag	Field Name	Req'd	Validated	Comments
34	MsgSeqNum	Y	Y	If a sequence number is received by LX that is lower than expected without PossDupFlag=Y set, LX will generate a logout message and drop the Session. This scenario is considered to be an error because LX knows about messages that the client does not know have been sent. To recover from this situation, either the expected sequence number will need to be decreased or the client will need to increase the sequence number before the session can be successfully re-established. Sequence numbers are expected to be received in order (ie. 1, 2, 3, 4, 5). If a sequence number is received higher than expected (ie. 1, 2, 5) a resend request for the missing messages will be generated. Sequence numbers can be "padded" with zeroes (e.g. '0' or '00').
43	PossDupFlag	N	N	Included when a sequence number already sent or received is retransmitted. If MsgSeqNum has already been received and this flag is not set to 'Y', it is treated as an error condition and a logout/disconnect will occur. All messages received with PossDupFlag = Y will be processed. A stale order check will be done for all orders.
49	SenderCompID	Y	Y	Configured on a per session basis. The value must be agreed upon by the Client and Barclays Capital before trading.
52	SendingTime	Y	N	UTC message creation time as assigned by the client FIX engine. This must include milliseconds. Please note sending timestamps in any format besides UTC will cause Stale Order Check rejections.
56	TargetCompID	Y	Y	Configured on a per session basis. The value must be agreed upon by the Client and Barclays Capital before trading.
97	PossResend	N	N	This flag is ignored; validation of duplicate application messages is based on ClOrdID. If messages are re-published, the ClOrdID should not be changed.
122	OrigSendingTime	N	N	UTC Timestamp as assigned by the client FIX engine of when the message was originally sent. This must include milliseconds.

2.1.2. Message Trailer

Each FIX message sent and received must have a trailer at the end of the message. The table below describes the field that must appear in the trailer and how it is used.



Tag	Field Name	Req'd	Validated	Comments
10	CheckSum	Y	Y	Three byte, simple checksum calculated by summing all bytes in the message and converting to a modulo 256 number. This must always be the last field in the message and must always be unencrypted.

2.2. FIX Session Messages

LX will support the following session level messages. Details of each message type are explained below.

Description	Tag = Value
Logon	35 = A
Heartbeat	35 = 0
Test Request	35 = 1
Resend Request	35 = 2
Reject	35 = 3
Sequence Reset (Gap fill)	35 = 4
Logout	35 = 5



2.2.1. Logon (35=A)

The Client should initiate a TCP connection to LX on a predetermined host and port. Once the connection is established, the client should initiate the logon process. After receiving a logon request with the sequence number expected by LX (refer to Resend Request for out of sequence problems), a logon response message will be sent. If a logon request is received that cannot be identified based on the SenderCompID, LX will disconnect the session and will not respond with a logout.

Do not reset sequence numbers intra-day as some messages may be lost. If you need to reset sequence numbers please contact the service desk at Barclays Capital.

Tag	Field Name	Req'd	Validated	Comments
98	EncryptMethod	N	Y	If included, the value must be 0, any value other than 0 will result in a logout and disconnect.
108	HeartBtInt	Y	Y	The interval in seconds after no activity in which a heartbeat will be sent to indicate the connection is still alive. Both sides of the session will use the same heartbeat interval (server side sessions will use the same interval that it receives from the client side session). Recommended interval is 3 seconds.
141	ResetSeqNumFlag	N	Y	Indicates both sides of a FIX session should reset sequence numbers. If this flag is set to Y, LX will reset the next expected inbound and outbound number to 1.

2.2.2. Heartbeat (35=0)

LX will send a heartbeat if there is no message activity for the interval determined by the HeartBtInt in the logon message. As a clarification, any message can qualify as message activity; heartbeats are only sent when there is no activity on the connection. LX will also respond to test requests with a heartbeat containing the corresponding TestReqID.

Tag	Field Name	Req'd	Validated	Comments
112	TestReqID	N	Y	If this Heartbeat is in response to a Test Request, the corresponding TestReqID will be included.



2.2.3. TestRequest (35=1)

A Test Request will be sent to the counterparty If a heartbeat is not received within the configured HeartbeatTimeout interval (default is 1.5 times the heartbeat interval). After 2 * (Heart Beat Interval * Heart Beat Interval Multiplier) seconds of inactivity (detect that we have received a heartbeat and then detect that they aren't responding to the test request), the FIX engine will logout and disconnect from the counterparty (after sending a logout we also wait for a logout response for the Logout Response Timeout before disconnecting). For example, if the default values of 1.5 are used for Heart Beat Interval Multiplier and Logout Response Timeout, a disconnect will occur 1.5 + 1.5 + 1.5 (4.5) seconds after the last message was received from the client.

Tag	Field Name	Req'd	Validated	Comments
112	TestReqID	Υ	N	A unique identifier for this test request.

2.2.4. Resend Request (35=2)

LX will issue a Resend Request if it receives a message with a sequence number that is higher than expected.

The FIX protocol specification defines two methods to recover missing messages. In the first method, all messages from the first missing message up to the last message sent by the client will be requested. In the second method, only the missing messages are requested. The second method can result in multiple resend requests being required and is discouraged. The LX uses the first method of re-sequencing.

When a Resend Request message is received by LX, the resend will be satisfied before processing any additional messages. All messages sent from LX in response to a Resend Request will be marked with PossDupFlag='Y'.

Tag	Field Name	Req'd	Validated	Comments
7	BeginSeqNo	Y	Y	The MsgSeqNum of the first message to be resent.
16	EndSeqNo	Y	Y	The last MsgSeqNum that is to be resent. LX will always request infinite resends as described by the FIX protocol. EndSeqNo will always be equal to "0".
				It is preferred that when the client requests a resend of messages they use the infinite resend approach (ie. from BeginSeqNo=X to EndSeqNo=0). However, resend requests from BeginSeqNo=X and EndSeqNo=Y are also supported by LX.



2.2.5. Session Reject (35=3)

Unless there is a FIX session layer error, application reject messages (35=8, 150=8) are preferred to session reject messages. Any message that is rejected by LX with a session reject will not be resent on a resend request.

LX will send a session reject in the event that a FIX message is received that is improperly formatted.

Tag	Field Name	Req'd	Validated	Comments
7	RefSeqNo	Y	Y	The MsgSeqNum of the message the reject applies to.

2.2.6. Sequence Reset (35=4)

The sequence reset message is used to indicate that certain messages will not be resent, typically administrative messages. For example, if a resend is requested of message 5 and up, but messages 5-7 were heartbeat messages, LX will send a sequence reset for MsgSeqNum=5 with the NewSeqNo=8 indicating that messages 5, 6, 7 will not be resent. Sequence reset messages will also contain PossDupFlag=Y. The following message types will not be resent, they will be gap filled A, 0, 1, 2, 3, 4, 5.

Tag	Field Name	Req'd	Validated	Comments
36	NewSeqNo	Y	N	The new sequence number that will be sent from LX.
123	GapFillFlag	N	N	If 'Y', indicates that this message is being sent in place of multiple messages (typically admin messages but could be used in place of application messages that are no longer valid to be included in a Resend).



2.2.7. Logout (35=5)

You must verify, prior to logout, that there are no live or pending orders, otherwise trade reports may be missed. Executions or messages from the previous day cannot be resent or replayed on current trading day. For assistance with requests for previous days' data, please contact the Service Desk for details.

The party initiating the logout must be the party that breaks the TCP connection to Barclays Capital. This requirement allows for both sides to issue a Resend Request should the logout or its reply arrive with a sequence gap. If you receive a logout with a sequence gap, as per the protocol specification, issue a Resend Request and then your own logout.

Tag	Field Name	Req'd	Validated	Comments
58	Text	Ν	N	A description of why the logout occurred.



2.3. FIX Application Messages (Incoming - Client to Barclays Capital)

The following incoming message types are supported; any other messages will be ignored.

Description	Tag = Value
New Order – Single	35 = D
Order Cancel Request	35 = F
Order Cancel / Replace Request	35 = G

2.3.1. Using the incoming message tables

- Tag The fix integer tag value
- Field Name The descriptive name for the tag. *Italics* indicate that a group of fields defined in another section are relevant to this message (ie. *Standard Header* indicates that the standard header is also relevant to the particular message).
- Req'd—Y if the field is required on the message sent to LX, N if it is optional, C if it is conditionally required.
- Comments LX specific instructions

All tags in the incoming FIX message are validated only where specified.

2.3.2. New Order Single (35=D)

The new order message type is used by clients wishing to send single stock orders to Barclays Capital.

Tag	Field Name	Req'd	Comments
	Standard Header	Υ	MsgType[35]="D"
1	Account	N	Account values must be agreed with Barclays Capital's Service Desk.
11	ClOrdID	Υ	Unique identifier of the order as assigned by the client. Must be 19 characters or less.
18	ExecInst	С	Execution Instruction. Valid values: R = Primary Peg * P = Market Peg * M = Mid-point Peg * * Conditionally required for Pegged Orders (OrdType[40]='P')
			These are the only acceptable values. Any other values will result in an order rejection.



Tag	Field Name	Req'd	Comments
21	HandlInst	N	If omitted, LX will assume that all orders are: 1 : Automated execution order, private, no Broker intervention The client may also chose to pass a value of "1" to LX, but no other values (including blanks) are permitted. Any other values sent to LX will result in an order reject.
38	OrderQty	Υ	Number of shares.
40	OrdType	Y	Supported values: 2 = Limit P = Pegged * * Pegged orders require ExecInst[18]= M, P, or R
44	Price	С	Price field is conditionally required for Limit Orders and is also accepted for Pegged Orders. Price must follow the Minimum Price Variance rules as dictated by RegNMS: Any price over \$1 can have at maximum 2 decimals. Any price under \$1 can have at maximum 4 decimals.
47	Rule 80A/Order Capacity	Y	Supported values: A = Agency P = Principal
54	Side	Y	Supported values: 1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt * * The Client must be configured by the Barclay Service Desk for Sell Short Exemptions (if applicable). ShortSaleExemptionReason[1688] may be included on Sell Short Exempt orders.
55	Symbol	Y	ETS (Exchange Traded Symbol) or RIC (Reuters Instrument Code) may be provided. The preferred symbology is RIC.
59	TimeInForce	N	Specifies how long the order remains in effect. Absence of this field is interpreted as a Day Order. Supported values: 0 = Day (Default if omitted) 3 = Immediate or Cancel
60	TransactTime	Y	Time of order creation expressed in UTC format including milliseconds. This will be used to conduct a stale order check.



Tag	Field Name	Req'd	Comments
			* Please note, orders which do not strictly abide by UTC will be rejected due to Stale Order Checks.
63	SettlmntTyp	N	Indicates order settlement period.
			0 = Regular Settlement (Default if omitted)
			Any other value will cause the order to be rejected.
65	SymbolSfx	N	Additional information about the security (e.g. preferred, warrants, etc.).
			May only be used if Symbol[55] contains an ETS and not a RIC.
100	ExDestination	Υ	"83" for Barclays ATS as per the FIX Protocol.
110	MinQty	N	Minimum quantity of an order to be executed.
			LX will "bunch" fills within a single cross transaction to meet the MinQty. For example, an order with a MinQty of 500, may be filled by 3 partial fills at once (200, 200, 100).
1688	ShortSaleExemptionR eason	N	Indicates the reason a short sale order is exempted from applicable regulation (e.g. Reg SHO addendum (b)(1) in the U.S.).
			Valid values:
			0 = Exemption Reason Unknown
			1 = Incoming Short Sale Exempt
			2 = Above National Best Bid (Broker Dealer Provision)
			3 = Delayed Delivery
			4 = Odd-Lot
			5 = Domestic Arbitrage
			6 = International Arbitrage
			7 = Underwriter or Syndicate Distribution
			8 = Riskless Principal
			9 = VWAP
5700	LocateBroker	С	Conditionally required if Side[54]=5. This field must contain the MPID of a valid locate broker:
			For example: BEST, BOFA, CSFB, DBAB, DBKS, GSCO, LEHM, MLCO, MSCO, SBSH, UBS, PW
			If the value provided is not part of the accepted (client specific) Locate Broker list, Barclays Capital will locate the shares through It's internal Stock Loan desk.
			If the stock is not available, the order will be rejected.
			The client should work with the Barclays Service desk to ensure proper configuration if locates are not required on Short Sells.



2.3.3. Order Cancel Request (35=F)

The order cancel request is used to request the cancellation of the remaining quantity of an existing order. An immediate response to this message will be sent:

Tag	Field Name	Req'd	Comments
	Standard Header	Υ	MsgType[35]="F"
11	ClOrdID	Y	Unique ID of cancel request. Format requirements specified in New Order – Single definition.
41	OrigClOrdID	Y	Must match the ClOrdID[11] of the previous order (NOT the initial order of the day) as assigned by the client, used to identify the previous order in cancel requests.
54	Side	Y	Must be the same as the original order.
55	Symbol	Y	Must be the same as the original order (if originally provided).
60	TransactTime	Υ	UTC Time stamp of the cancel creation.



2.3.4. Order Modification Request (35=G)

The order modification (cancel/replace) request is used to change the parameters of an existing order.

Only the following can be modified:

- Price (Any price changes will result in a loss of position in the order book).
- OrderQty (Quantity increases will result in a loss of position in the order book).
- MinQty (MinQty changes will result in a loss of position in the order book).

Tag	Field Name	Req'd	Comments
	Standard Header	Υ	MsgType[35]="G"
11	CIOrdID	Y	Unique identifier provided by the client for the modification request. Refer to formatting requirements of New Order – Single
38	OrderQty	Y	Order Quantity. This can be increased, decreased, or remain the same as the original order quantity.
			Attempts to replace to an OrderQty less than the order's filled quantity will be rejected by LX.
40	OrdType	Υ	Must be the same as the original order. *
			* Modifying from Pegged to Limit requires a Cancel and New rather than a Replace.
41	OrigClOrdID	Y	ClOrdID[11] of the previous order (NOT the initial order of the day) as assigned by the client. Used to identify the previous order in modification requests.
44	Price	Y	The Limit or Pegged Limit Price. This can be increased, decreased, or remain the same as the original order price.
54	Side	Υ	Must be the same as the original order.
55	Symbol	Υ	Must be the same as the original order.
60	TransactTime	Υ	Time of replace creation. Refer to New Order - Single, will be used for stale order checks.
110	MinQty	Y	If this field was present on the original order, and missing on the Replace, this will remove the MinQty restriction.

2.4. FIX Application Messages (Outgoing - Barclays Capital to Client)

Description	Tag = Value
Execution Report	MsgType[35]="8"
Order Cancel Reject	MsgType[35]="9"



2.4.1. Execution Report (35=8)

The Execution Report message is used to:

- 1. Acknowledge the receipt of an order
- 2. Acknowledge the modification of an existing order (i.e., accept cancel/replace requests)
- 3. Acknowledge the cancellation of an existing order
- 4. Convey information about an order crossing in LX (i.e. Fills)
- 5. Reject orders, cancels, or modification requests

Please note the following fields are DISABLED by default. The Barclays Service Desk can enable this on demand and this should be coordinated before FIX Certification:

- 1. AvgPx[6]
- 2. CumQty[14]
- 3. ExecTransType[20]
- 4. LeavesQtyp[151]
- 5. LastLiquidityInd[851]

All fields supplied in the execution reports are listed below.

Tag	Field Name	Comments
	Standard Header	MsgType[35]="8"
6	AvgPx	Calculated average price of all fills on this order.
11	ClOrdID	Unique identifier as provided by the client.
14	CumQty	Total quantity (e.g. number of shares) filled.
17	ExecID	Unique identifier for a message as generated by LX. * Reject messages will not have this field.
19	ExecRefID	Reference identifier used with Trade Cancel and Trade Correct execution types.
20	ExecTransType	ldentifies transaction type LX will always respond with "0" (NEW).
31	LastPx	Price of this last fill.
32	LastShares	Quantity of shares bought/sold on this last fill.
37	OrderID	Unique identifier generated by LX which does not change across cancels and modifications. This will be "NONE" for Order Rejects.
38	OrderQty	Value as provided by the client on the order or replace.
39	OrdStatus	Valid Values: 0 = New 1 = Partial Fill 2 = Filled 3 = Done for Day 4 = Cancelled 5 = Replaced 8 = Rejected
40	OrdType	Value as provided by the client on the order or replace.
41	OrigClOrdID	ClOrdID of the previous order when cancelling or replacing an order.



Tag	Field Name	Comments
44	Price	Value as provided by the client on the order or replace.
54	Side	Value as provided by the client on the order or replace.
55	Symbol	Value as provided by the client on the order or replace.
58	Text	May be populated with descriptive text provided by LX.
60	TransactTime	Represents the time that LX generated the message. For Fills, this will be the time that a trade occurred.
103	OrdRejReason	Will be included on OrdStatus = 8 0 = Broker / Exchange option 1 = Unknown symbol 6 = Duplicate Order (e.g. dupe ClOrdID (11)) 18 = Invalid Price Increment
150	ЕхесТуре	Represents the type of Execution Report. Valid values: 0 = New 1 = Partial Fill 2 = Fill 4 = Cancelled 5 = Replaced 8 = Rejected
151	LeavesQty	Quantity open for further execution.
851	LastLiquidityInd	Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity. 1 = Added Liquidity 2 = Removed Liquidity



2.4.2. Order Cancel Reject (35=9)

The order cancel reject message is issued by LX upon receipt of a cancel request or cancel/replace request message which cannot be honored. Requests to change price or quantity are executed only when an outstanding quantity exists. Filled orders cannot be changed (i.e. quantity reduced or price change.)

Tag	Field Name	Comments
	Standard Header	MsgType[35]="9"
11	ClOrdID	Unique identifier as provided by the client.
37	OrderID	If the cancel reject is for an unknown order this field will contain the text "UNKNOWN". Otherwise, it will contain the OrderID of the last order in the chain of orders.
39	OrdStatus	OrdStatus value after this cancel reject is applied. Refer to ExecutionReport for valid values.
41	OrigClOrdID	ClOrdID that could not be cancelled/replaced.
58	Text	May be populated with descriptive text provided by LX.
60	TransactTime	Time of CancelReject creation.
102	CxlRejReason	Contains an explanatory code for the reject.
		0 = Too late to cancel
		1 = Unknown order
		3 = Order already in Pending Cancel or Pending Replace status
		18 = Invalid Price Increment
434	CxIRejResponseTo	Identifies the type of request that a Cancel Reject is in response to.
		1= Order Cancel Request
		2 = Order Cancel/Replace Request



3. Appendix

3.1. Symbology

LX Supports three modes for client to send symbology:

3.1.1. Reuters Instrument Code

Symbology identifier provided by Thomson Reuters. This is the identifier used by the LX matching Engine. If the client has a license to use this data, and can provide this symbol directly in Tag 55, the FIX Gateway will forgo a symbology lookup and pass the order straight through to the matching engine. The estimated cost saved by skipping a lookup is 5 microseconds.

Example Common Stock (INTL BUSINESS MACHINES CORP COMMON-STOCK)

• Symbol[55]="IBM.N"

Example Preferred Stock (BANK OF AMERICA CORP PREFERRED)

• Symbol[55]="BAC ph.N"

Example Class Stock (VIACOM INC CLASS B)

• Symbol[55]="VIAb.N"

3.1.2. Exchange Traded Symbol (ETS) option 1

Symbology identifier commonly referred to as a "ticker". Option 1 utilizes the SymbolSfx[65] field.

Example Common Stock (INTL BUSINESS MACHINES CORP COMMON-STOCK)

- Symbol[55]="IBM"
- SymbolSfx[65] is not provided on Common Stock.

Example Preferred Stock (BANK OF AMERICA CORP PREFERRED)

- Symbol[55]="BAC"
- SymbolSfx[65]="PRH"

Example Class Stock (VIACOM INC CLASS B)

- Symbol[55]="VIA"
- SymbolSfx[65]="B"

3.1.3. Exchange Traded Symbol (ETS) option 2

Symbology identifier commonly referred to as a "ticker". Option 2 does NOT utilize the SymbolSfx[65] field. If 65 is provided in this mode, orders will reject.

Example Common Stock (INTL BUSINESS MACHINES CORP COMMON-STOCK)

Symbol[55]="IBM"

Example Preferred Stock (BANK OF AMERICA CORP PREFERRED)

• Symbol[55]="BAC PRH"

Example Class Stock (VIACOM INC CLASS B)

Symbol[55]="VIA B"



4. Legal Notice

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