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# Knight Equity Markets, L.P. Knight Capital Markets LLC FIX Specification

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## 1 OVERVIEW

Knight Equity Markets, L.P. and Knight Capital Markets LLC ("KEM" and "KCM" respectively) apply Knight's cash traders market intelligence and experience to provide high-quality trade executions. Cash traders handle sell-side orders that benefit from specialized expertise that can't be replicated by an automation-only model, such as oversized orders, specialized order types and stocks impacted by breaking news or events.

Knight's Broker-Dealer Electronic Trading is responsible for one of Wall Street's most successful and innovative automated electronic trading systems. Our team of quantitative strategists and developers has built a unique electronic trading engine designed to automatically handle Knight's broker dealer order flow. These models allow us to provide among the highest execution quality in the industry.

## 1.1 Purpose and Scope

The purpose of this document is to define the FIX specification for clients to send orders electronically to KEM or KCM—with the goal of facilitating connectivity between trading firms as efficiently as possible. The document is intended as a means to outline the order types available via KEM and/or KCM.

### 1.2 References

| Document                       | Website                                    |
|--------------------------------|--|
| FIX 4.2 Protocol Specification | http://www.fixprotocol.org/specifications/ |
| FIX 4.0 Protocol Specification | http://www.fixprotocol.org/specifications/ |

### 1.3 Document Revision Notes

| Version | Date | Name | Description |
|---------|------|------|-------------|
|         |      |      |             |



## **2 MESSAGE SPECIFICATION**

This section details the service supported for electronic trading of orders via FIX, including a definition of each order type as well as specific information of what is supported. Customization for specific client requests is also available.

## 2.1 General Service Features

| FieldName             | Comments  |
|-----------------------|---|
| Session Hours         | 21:30 UTC – 21:50 UTC (S-F)   |
| Supported:            | 21:45 UTC – 22:00 UTC (S-F)   |
|                       | 21:00 UTC – 21:45 UTC (S-F)   |
|                       | 06:00 UTC – 22:30 UTC (S-F)   |
| Regions Supported:    | NAM, EMEA, APAC   |
| Time In Force         | DAY, GTC and GTD orders are supported.                                |
| Order Cancels:        | Supported for open and partially filled orders.                       |
| Order Cancel/Replace: | Supported for regular FIX fields as specified in the FIX 4.2/4.0 spec |
| Order Rejects:        | Session level and business level rejects are supported.               |



## 2.2 FIX messages

The tables below exhibit the FIX tags supported by KEM and/or KCM. Within each section, the appropriate FIX tags are listed. The "Req'd" column uses the following symbols to denote which fields are optional vs. mandatory:

- 'Y' specifies the tag is required,
- 'N' specifies the tag is not required,
  'N\*' specifies the tag is conditionally required

#### 2.2.1 **Order Single**

| TAG  | FieldName            | Format                      | Req'd | Comments   |
|------|----------------------|-----------------------------|-------|--|
| 115  | onBehalfOfCo<br>mpID | String                      | N*    | Identification of a service bureau client  |
| 100  | exDestination        | string                      | Υ     |  |
| 11   | ClOrdID              | String                      | Y     | Uniqueness must be guaranteed within a single trading day.   |
| 21   | HandlInst            | Char                        | Y     | 1=Automate execution order, private, no Broker intervention 2= Automate execution order, public, Broker intervention OK 3=Manual order, best execution |
| 18   | ExecInst             | MultipleV<br>alue<br>String | Y     | 1=Not Held 5 = Held E = Do not increase - DNI F = Do not reduce - DNR G = All or none - AON  |
| 55   | Symbol               | String                      | Υ     | Identifies instrument to trade   |
| 65   | SymbolSfx            | String                      | N     | Additional information about the security (e.g. preferred, warrants, etc.).  |
| 48   | SecurityID           | String                      | N     | Security identifier, stated in tag 22  |
| 22   | IDSource             | String                      | N     | 1=CUSIP<br>2=SEDOL<br>4=ISIN<br>5=RIC  |
| 54   | Side                 | Char                        | Y     | 1=Buy<br>2=Sell<br>5=Sell Short  |
| 114  | LocateReqd           | char                        | N*    | Y=Indicates Knight must locate the stock (not accepted) N=Indicated Knight Match customer has located the stock  |
| 5700 | LocateSource         | String                      | N*    | Entity that has provided the locate of security in the short sell transaction  |
| 60   | TransactTime         | UTCTime stamp               | Y     | Time the order request was initiated/released by the trader or trading system.   |
| 38   | OrderQty             | Int                         | Υ     | Number of shares in the order  |
| 40   | OrdType              | Char                        | Υ     | 1=Market 2=Limit 3 = Stop 4 = Stop limit   |
| 44   | Price                | Price                       | Υ     |  |
| 15   | Currency             | String                      | N     | Identifies the price currency  |
| 57   | targetSubID          | String                      | N     |  |
| 59   | TimeInForce          | Char                        | Y     | 0=Day 1=Good Till Cancel 3=Immediate or Cancel 4=Fill or Kill (FOK) 6=Good till Date   |
| 126  | ExpireTime           | UTCTime stamp               | N     | Time/Date order expiration   |
| 58   | Text                 | String                      | N     | Free format text string  |



### 2.2.2 Order Cancel Replace Request

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

Only a limited number of fields can be changed via the cancel/replace request message, these fields are in **blue** text. \*NOTE\* When modifying ExecInst <18> fields in a replacement order, it is necessary to re-declare all ExecInst <18> in the replacement order. ExecInst <18>'s will not be carried forward from the original order to the replacement unless redeclared.

| TAG  | FieldName     | Format        | Reg'd | Comments  |
|------|---------------|---------------|-------|---|
| 115  | onBehalfOfCo  | String        | N*    | Identification of a service bureau client   |
| 110  | mpID          | Cumg          |       | Identification of a service bareau effects  |
| 37   | OrderID       |               | N     | Unique identifier of most recent order as assigned by Knight                      |
| 41   | OrigClOrdID   |               | Υ     | ClOrdID <11> of the previous order (NOT the initial order of the day) when        |
|      |               |               |       | canceling or replacing an order.  |
| 11   | ClOrdID       | String        | Υ     | Unique identifier of replacement order as assigned by institution. Note that this |
|      |               |               |       | identifier will be used in ClOrdID <11> field of the Cancel Reject <3> message if |
|      |               |               |       | the replacement request is rejected.  |
| 18   | ExecInst      | MultipleV     | Υ     | 1=Not Held  |
|      |               | alue          |       | 5 = Held  |
|      |               | String        |       | E = Do not increase - DNI   |
|      |               |               |       | F = Do not reduce - DNR   |
|      |               |               |       | G = All or none - AON   |
| 55   | Symbol        | String        | Υ     | Identifies instrument to trade  |
| 65   | SymbolSfx     | String        | N     | Additional information about the security (e.g. preferred, warrants, etc.).       |
| 48   | SecurityID    | String        | N     | Security identifier, stated in tag 22   |
| 22   | IDSource      | String        | N     | 1=CUSIP   |
|      |               |               |       | 2=SEDOL   |
|      |               |               |       | 4=ISIN  |
| F.4  | Side          | Char          | Υ     | 5=RIC   |
| 54   | Side          | Char          | Y     | 1=Buy<br>2=Sell   |
|      |               |               |       | 5=Sell Short  |
| 60   | TransactTime  | UTCTime       | Υ     | Time order request was initiated/released by the trader or trading system.        |
| 00   | Transactrinie | stamp         | 1     | Time order request was initiated/released by the trader or trading system.        |
| 38   | OrderQty      | Int           | Υ     | Number of shares in the order   |
| 40   | OrdType       | Char          | Υ     | 1=Market  |
|      |               |               |       | 2=Limit   |
|      |               |               |       | 3 = Stop  |
|      |               |               |       | 4 = Stop limit  |
| 44   | Price         | Price         | Υ     |   |
| 15   | Currency      | String        | N     | Identifies the price currency   |
| 59   | TimeInForce   | Char          | Υ     | 0=Day   |
|      |               |               |       | 1=Good Till Cancel  |
|      |               |               |       | 3=Immediate or Cancel   |
| 100  |               |               |       | 6=Good till Date  |
| 126  | ExpireTime    | UTCTime stamp | N     | Time/Date of order expiration   |
| 114  | LocateReqd    | char          | N*    | Y=Indicates Knight must locate the stock (not accepted)                           |
|      |               |               |       | N=Indicated Knight Match customer has located the stock                           |
| 5700 | LocateSource  | String        | N*    | Entity that has provided the locate of  |
|      |               | -             |       | security in the short sell transaction  |
| 58   | Text          | String        | N     | Free format text string   |



## 2.2.3 Order Cancel Request

| TAG | FieldName            | Format        | Req'd | Comments   |
|-----|----------------------|---------------|-------|--|
| 115 | onBehalfOfCo<br>mpID | String        | N*    | Identification of a service bureau client  |
| 37  | OrderID              |               | N     | Unique identifier of most recent order as assigned by Knight   |
| 41  | OrigClOrdID          |               | Υ     | CIOrdID <11> of the previous order (NOT the initial order of the day) when canceling or replacing an order.  |
| 11  | ClOrdID              | String        | Υ     | Unique identifier of replacement order as assigned by institution. Note that this identifier will be used in ClOrdID <11> field of the Cancel Reject <3> message if the replacement request is rejected. |
| 55  | Symbol               | String        | Υ     | Identifies instrument to trade   |
| 65  | SymbolSfx            | String        | N     | Additional information about the security (e.g. preferred, warrants, etc.).  |
| 48  | SecurityID           | String        | N     | Security identifier, stated in tag 22  |
| 22  | IDSource             | String        | N     | 1=CUSIP<br>2=SEDOL<br>4=ISIN<br>5=RIC  |
| 54  | Side                 | Char          | Y     | 1=Buy<br>2=Sell<br>5=Sell Short  |
| 60  | TransactTime         | UTCTime stamp | Υ     | Time this order request was initiated/released by the trader or trading system.  |
| 38  | OrderQty             | Int           | N     | Number of shares in the order  |
| 58  | Text                 | String        | N     | Identifies the price currency  |



### 2.2.4 Execution Report

The Execution Report <8> message is used to:

- 1. Confirm the receipt of an order
- Confirm changes to an existing order (i.e. accept cancel and replace requests)
   Relay fill information on working orders
- 4. Reject orders

| TAG | FieldName            | Format                  | Req'd | Comments   |
|-----|----------------------|-------------------------|-------|--|
| 115 | onBehalfOfCo<br>mpID | String                  | N*    | Identification of a service bureau client  |
| 37  | OrderID              |                         | N     | Unique identifier of most recent order as assigned by Knight   |
| 41  | OrigClOrdID          |                         | Υ     | ClOrdID <11> of the previous order (NOT the initial order of the day) when canceling or replacing an order.  |
| 11  | ClOrdID              | String                  | Y     | Unique identifier of replacement order as assigned by institution. Note that this identifier will be used in ClOrdID <11> field of the Cancel Reject <3> message if the replacement request is rejected. |
| 17  | ExecID               | String                  | Υ     | Unique identifier of execution message as assigned by Knight   |
| 20  | ExecTransTyp         | Char                    | Y     | 0=New  |
|     | е                    |                         |       | 1=Cancel<br>2=Correct  |
| 19  | ExecRefID            | String                  | N     |  |
| 150 | ЕхесТуре             | Char                    | Y     | 0=New 1=Partial Fill 2=Fill 3=Done for Day 4=Cancelled 5=Replace 6=Pending Cancel 8=Rejected E=Pending Replace   |
| 39  | OrdStatus            | Char                    | Y     | 0=New 1=Partially Filled 2=Filled 3=Done for Day 4=Cancelled 5=Replaced 6=Pending Cancel 8=Rejected E=Pending Replace  |
| 55  | Symbol               | String                  | Υ     | Identifies instrument to trade   |
| 65  | SymbolSfx            | String                  | N     | Additional information about the security (e.g. preferred, warrants, etc.).  |
| 48  | SecurityID           | String                  | N     | Security identifier, stated in tag 22  |
| 22  | IDSource             | String                  | N     | 1=CUSIP<br>2=SEDOL<br>4=ISIN<br>5=RIC  |
| 54  | Side                 | Char                    | Y     | 1=Buy<br>2=Sell<br>5=Sell Short  |
| 38  | OrderQty             | Qty                     | Υ     | Number of shares in the order  |
| 40  | OrdType              | Char                    | Y     | 1=Market 2=Limit 3 = Stop 4 = Stop limit   |
| 44  | Price                | Price                   | Υ     |  |
| 15  | Currency             | String                  | N     | Identifies the price currency  |
| 59  | TimeInForce          | Char                    | Y     | 0=Day 1=Good Till Cancel 3=Immediate or Cancel 6=Good till Date  |
| 126 | ExpireTime           | UTCTime stamp           | N     | Time/Date of order expiration  |
| 18  | Execlnst             | MultipleV<br>alueString | Y     | 1=Not Held 5 = Held E = Do not increase - DNI F = Do not reduce - DNR G = All or none - AON  |



| 32  | LastShares   | Qty              | Υ | Qty executed                                |
|-----|--------------|------------------|---|---|
| 31  | LastPx       | Price            | Υ | Price of execution                          |
| 151 | LeavesQty    | Qty              | N | Amount of shares open for further execution |
| 14  | CumQty       | Qty              | Υ | 0   |
| 6   | AveragePx    | Price            | Υ | 0.000000                                    |
| 75  | TradeDate    | LocalMkt<br>Date | Υ | YYYYMMDD                                    |
| 60  | TransactTime | UTCTime stamp    | Y | Time of execution/order creation            |
| 58  | Text         | String           | Υ |   |



## 2.2.5 Standard Header

| TAG | FieldName    | Format           | Req'd | Comments   |
|-----|--------------|------------------|-------|--|
| 8   | BeginString  | string           | Υ     | Protocol Version FIX.4.2   |
| 9   | BodyLength   | int              | Υ     | Length of Message Body   |
| 35  | MsgType      | string           | Y     | 0 = HeartBeat 1 = TestRequest 2 = ResendRequest 3 = Reject 4 = SequenceReset 5 = Logout 8 = ExecutionReport A = Logon D = NewOrderSingle |
| 34  | MsgSeqNum    | int              | Υ     | Message Sequence Number (Resets to 1 at the start of each trading day)   |
| 49  | SenderCompID | string           | Υ     | Identification of the message originator   |
| 56  | TargetCompID | string           | Υ     | NITE (Identification of the message recipient)   |
| 43* | PossDupFlag  | Boolean          | N     | Indicates possible retransmission of this seq num  |
| 97* | PossResend   | Boolean          | N     | Indicates possible retransmission of msg under a New sequence number   |
| 52  | SendingTime  | UTC<br>Timestamp | Υ     | GMT Date/Time Message was sent   |

## 2.2.6 Standard Trailer

| TAG | FieldName | Format | Req'd | Comments   |
|-----|-----------|--------|-------|--|
| 10  | CheckSum  | string | Υ     | Integer byte count of message length without the CheckSum field. |



# 3 APPENDIX

# 3.1 FIX Tag Dictionary

| TAG | FieldName         | Format | Req'd | Comments  |
|-----|-------------------|--------|-------|---|
| 1   | Account           | String | N     |   |
| 6   | AvgPx             | Price  | Y     | Average price of execution  |
| 7   | BeginSeqNo        | int    | Υ     |   |
| 8   | BeginString       | string | Υ     | Protocol Version FIX.4.2  |
| 9   | BodyLength        | int    | Υ     | Length of Message Body  |
| 10  | CheckSum          | string | Υ     | Integer byte count of message length without the CheckSum field   |
| 11  | CIOrdID           | String | Y     | Must be unique for each order throughout the trading day, across all stocks and sides from the same FIX Session ID. Due to OATS reporting requirements, please note that the ClordID (OATS RoutedOrderID), must be limited to 20 characters in length and unique for a given day. If a client sends a CIOrdID greater than 20 characters, that value will be will truncated.            |
| 14  | CumQty            | Qty    | Y     | Total number of shares executed   |
| 16  | EndSeqNo          | int    | Υ     | 0 means +infinity   |
| 18  | ExecInst          | char   | N     | ignored   |
| 20  | ExecTransTy<br>pe | char   | Y     | Valid values: 0=New 1=Cancel 2=Correct  Note: In the event of a busted execution (20=1), the busted qty may be reopened for trading. See tag 14 (cumqty), tag 84 (cxl qty), and tag 151 (leaves qty).  In the event of a corrected execution (20=2) AFTER a cancel replace, a combination of a bust on the original clordid, plus a new execution on the current clordid, will be used. |
| 21  | HandlInst         | char   | Y     | Valid value: 1=Automated execution order, private, No Broker intervention   |
| 22  | IDSource          | String | N     | 1=CUSIP<br>2=SEDOL<br>4=ISIN<br>5=RIC   |
| 31  | LastPx            | Price  | N     | Price of this fill This tag is required for fills.  |
| 32  | LastShares        | Qty    | N     | Shares executed on this fill This tag is required for fills.  |
| 34  | MsgSeqNum         | int    | Υ     | Message Sequence Number (Resets to 1 at the start of each trading day)  |
| 35  | MsgType           | string | Y     | 0 = HeartBeat D = New Order 1 = TestRequest 8 = Execution 2 = ResendRequest F = Cancel 3 = Reject G = Cancel/Replace 4 = SequenceReset 9 = Order Cancel Reject 5 = Logout A = Logon   |
| 36  | NewSeqNo          | int    | Υ     | Next expected Sequence Number   |
| 38  | OrderQty          | Qty    | Y     | Number of shares to trade   |



| Security   String   Valid values   | TAG  | FieldName       | Format  | Req'd | Comments   |
|--|------|-----------------|---------|-------|--|
| I = Partially filled   2=Pilled   3=Done for day   4=Cancelled   3=Done for day   4=Cancelled   5=Replaced   6=Replaced   6=Replaced  | 39   | OrdStatus       | char    | Υ     |  |
| Second  |      |                 |         |       |  |
| ### ### ### ### #### #### ############   |      |                 |         |       |  |
| S=Replaced   |      |                 |         |       | 3=Done for day   |
| Be-Pending Cancel Be-Rejected Be-Suspender A A-Pending New C=Kprind E-Pending Replace Be-Suspender A A-Pending New C=Kprind E-Pending Replace Be-Pending Reputate Be-Pending Replace Be-Pending Replace Be-Pending Replace B |      |                 |         |       |  |
| Be-Rejected   S-Suspended   A-Pending New   C-Expired   E-Pending Replace   E-Pendin |      |                 |         |       |  |
| A=Pending New C=Expired E=Pending Replace  40 OrdType  |      |                 |         |       | · ·  |
| C=Expired E=Pending Replace  |      |                 |         |       |  |
| E=Pending Replace  |      |                 |         |       |  |
| 1 = Market   2 = Limit   |      |                 |         |       | E=Pending Replace  |
| 2 = Limit  | 40   | OrdType         | char    | Υ     |  |
| Assembly   Boolean   N°   Indicates possible retransmission of this seq num  |      |                 |         |       |  |
| Price  |      |                 |         |       |  |
|  |      |                 |         |       | ·  |
| RefSeqNum  | 44   | Price           | Price   | N*    |  |
| Index Arbitrage information correctly DTI will forward the order restriction information, but change the order capacity to "Agency".    48   | 45   | RefSeqNum       | int     | Υ     |  |
| Information, but change the order capacity to "Agency".    SecurityID  | 47   | Rule80a         | String  | Υ     | The customer is responsible for filling in this field with Program Order and |
| SecurityID   String   N   Security identifier, stated in tag 22  |      |                 |         |       |  |
| SenderCompl   String   | 48   | SecurityID      | String  | N     |  |
| SenderSubID   String   N   |      | •               |         |       | ,  |
| SendingTime   UTC   Timestam   P   |      | D               | -       |       |  |
| Timestam p  Char Y Valid values:  1= Buy 2= Sell 5= Sell short  Note: DTI supports either a fully qualified symbol name in tag 55, with suffix delimited by a period (e.g. RIO PRA), or a combination of symbol and suffix (e.g. 55=RIO, 65=PRA), but NOT both (e.g. 55=RIO, 65=PR).  NITE (Identification of the message recipient)  TargetCompl D  String Y NITE (Identification of the message recipient)  TargetSubID String N Value used to identify specific individual or unit intended to receive message.  ADMIN' reserved for administrative messages not intended for a specific user.  Text String N Way be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade.  See alternative specification  TimeInForce char N Valid values:  0= Day (default)  3= Immediate or Cancel  See Tag 55 notes  TexeBroker String N Identifies the source venue of the execution.  The HeartBetth int Y O=None / Other  Redy  TestReqID string N Auto-Generated Request ID  Locate Redy  N' Is broker to locate stock?  Required if side=5  Valid value:  'N' = false  Value used to identify firm originating message if the message was delivered   |      | senderSubID     |         |       | , .  |
| Side   | 52   | SendingTime     |         | Y     | GMT Date/Time Message was sent   |
| Side   |      |                 |         |       |  |
| Symbol   String   Y   Note: DTI supports either a fully qualified symbol name in tag 55, with suffix delimited by a period (e.g. RIO.PRA), or a combination of symbol and suffix (e.g. 55=RIO, 65=PRA), but NOT both (e.g. 55=RIO.A 65=PR).  | 54   | Side            |         | Υ     |  |
| Symbol   String   Y   Note: DTI supports either a fully qualified symbol name in tag 55, with suffix delimited by a period (e.g. RIO.PRA), or a combination of symbol and suffix (e.g. 55=RIO, 65=PRA), but NOT both (e.g. 55=RIO.A 65=PR).  |      |                 |         |       |  |
| delimited by a period (e.g. RIO.PRA), or a combination of symbol and suffix (e.g. 55=RIO, 65=PRA), but NOT both (e.g. 55=RIO.A 65=PR).  TargetCompl D String Y NITE (Identification of the message recipient)  TargetSubID String N Value used to identify specific individual or unit intended to receive message. 'ADMIN' reserved for administrative messages not intended for a specific user.  String N May be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade. See alternative specification  TimeInForce Char N Valid values:  O= Day (default) 3= Immediate or Cancel  Ser Tag 55 notes  Text String N Identifies the source venue of the execution.  PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number of the execution.  Indicates possible retransmission of msg under a New sequence number of the execution.  The HeartBtInt int Y The Heartbeat Interval is 60 seconds. Clients should use a 60 second theartbeat Interval.  TestReqID string N Auto-Generated Request ID  TestReqID string N Is broker to locate stock? Required if side=5 Valid value:  N* Is broker to locate stock? Required if side=5 Valid value:  N* Value used to identify firm originating message if the message was delivered  |      |                 |         |       |  |
| (e.g. 55=RIO, 65=PRÀ), but NOT both (e.g. 55=RIO, 65=PR).  56 TargetCompl D String Y NITE (Identification of the message recipient)  57 TargetSubID String N Value used to identify specific individual or unit intended to receive message. 'ADMIN' reserved for administrative messages not intended for a specific user.  58 Text String N May be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade. See alternative specification  59 TimeInForce Char N Valid values:  59 O=Day (default) 3= Immediate or Cancel  65 SymbolSfx String N Identifies the source venue of the execution.  76 ExecBroker String N Identifies the source venue of the execution.  97 PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number  98 EncryptMetho int Y O=None / Other  108 HeartBtInt int Y The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  112 TestReqID string N Auto-Generated Request ID  114 Locate Reqd Boolean N* Is broker to locate stock? Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered   | 55   | Symbol          | String  | Υ     |  |
| TargetCompl D String Y NITE (Identification of the message recipient)  TargetSubID String N Value used to identify specific individual or unit intended to receive message. 'ADMIN' reserved for administrative messages not intended for a specific user.  Text String N May be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade. See alternative specification  TimeInForce Char N Valid values:  Description D SymbolSfx String N See Tag 55 notes  ExecBroker String N Identifies the source venue of the execution.  PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number of the execution.  HeartBtInt int Y DeNone / Other of the Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  TestReqID string N Auto-Generated Request ID  Locate Reqd Boolean N* Is broker to locate stock? Required if side=5 Valid value: 'N' = false  OnBehalfOfC String N Value used to identify firm originating message if the message was delivered   |      |                 |         |       |  |
| TargetSubID String N Value used to identify specific individual or unit intended to receive message.  'ADMIN' reserved for administrative messages not intended for a specific user.  String N May be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade. See alternative specification  TimeInForce char N Valid values: 0= Day (default) 3= Immediate or Cancel  SymbolSfx String N See Tag 55 notes  ExecBroker String N Identifies the source venue of the execution.  PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number int Y 0=None / Other  EncryptMetho d  | 56   | TargetCompl     | string  | Υ     |  |
| 'ADMIN' reserved for administrative messages not intended for a specific user.   String  |      |                 | 0.1     |       |  |
| Text String N May be used for special purposes by prior arrangement, or as a passive memo field ignored by EdgeTrade. See alternative specification  Valid values: 0= Day (default) 3= Immediate or Cancel  See Tag 55 notes  N See Tag 55 notes  ReceBroker String N Identifies the source venue of the execution.  PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number  PessResend Boolean N* O=None / Other  Int Y O=None / Other  The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  TestReqID string N Auto-Generated Request ID  TestReqd Boolean N* Is broker to locate stock? Reqd Reqd Required if side=5 Valid value: 'N' = false  Value used to identify firm originating message if the message was delivered  | 5/   | TargetSubID     | String  | N     |  |
| See alternative specification    See alternative specification   | 58   | Text            | String  | N     | May be used for special purposes by prior arrangement, or as a passive memo  |
| TimeInForce char N Valid values: 0   |      |                 |         |       |  |
| 0= Day (default) 3= Immediate or Cancel  65    SymbolSfx    String    N    See Tag 55 notes  76    ExecBroker    String    N    Identifies the source venue of the execution.  97    PossResend    Boolean    N*    Indicates possible retransmission of msg under a New sequence number  98    EncryptMetho    int  | 59   | TimeInForce     | char    | N     |  |
| SymbolSfx   String   N   See Tag 55 notes  |      |                 |         | .,    | 0= Day (default)   |
| 76 ExecBroker String N Identifies the source venue of the execution.  97 PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number  98 EncryptMetho d int Y 0=None / Other  108 HeartBtInt int Y The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  110 TestReqID string N Auto-Generated Request ID  111 Locate Reqd Boolean N* Is broker to locate stock? Required if side=5 Valid value:  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered   | C.F. | Council al Cfor | Cárin a | NI    |  |
| 97 PossResend Boolean N* Indicates possible retransmission of msg under a New sequence number  98 EncryptMetho int Y 0=None / Other  108 HeartBtInt int Y The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  112 TestReqID string N Auto-Generated Request ID  114 Locate Reqd Boolean N* Is broker to locate stock? Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered   | CO   | SYMBOISTX       | Suing   | IN    | See ray SS notes   |
| 98 EncryptMetho d int Y 0=None / Other  108 HeartBtInt int Y The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.  112 TestReqID string N Auto-Generated Request ID  114 Locate Reqd Boolean N* Is broker to locate stock? Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered  | 76   | ExecBroker      | String  | N     | Identifies the source venue of the execution.                                |
| d  | 97   | PossResend      | Boolean | N*    | Indicates possible retransmission of msg under a New sequence number         |
| The Heartbeat Interval is 60 seconds. Clients should use a 60 second Heartbeat Interval.   | 98   |                 | int     | Υ     | 0=None / Other   |
| Heartbeat Interval.  112 TestReqID string N Auto-Generated Request ID  114 Locate Reqd Boolean Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered  | 108  |                 | int     | Y     | The Heartbeat Interval is 60 seconds. Clients should use a 60 second         |
| 114 Locate Reqd  N* Is broker to locate stock? Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered  |      |                 |         |       | Heartbeat Interval.  |
| Reqd Required if side=5 Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered  |      | ,               | Ŭ       |       |  |
| Valid value: 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered  | 114  |                 | Boolean | N*    |  |
| 'N' = false  115 OnBehalfOfC String N Value used to identify firm originating message if the message was delivered   |      | Nequ            |         |       |  |
|  |      |                 |         |       | 'N' = false  |
|  | 115  |                 | String  | N     |  |



| TAG  | FieldName           | Format               | Req'd | Comments   |
|------|---------------------|----------------------|-------|--|
| 116  | OnBehalfOfS<br>ubID | String               | N     | Value used to identify specific message originator (i.e. trader) if the message was delivered by a third party   |
| 123  | GapFillFlag         | Boolean              | N*    | The use of 'Y' is required for common resequencing. 'N' is not recommended, and should only be used in emergencies that require manual intervention. 'N' causes the SeqNo of the SequenceReset message to be ignored, creating a high possibility of message loss. |
| 126  | ExpireTime          | UTC<br>Time<br>stamp | N     | Start time of algorithmic order.   |
| 128  | DeliverToCom<br>pID | String               | N     | Value used to identify the firm targeted to receive the message if the message is delivered by a third party   |
| 129  | DeliverToSubI<br>D  | String               | N     | Value used to identify specific message recipient (i.e. trader) if the message is delivered by a third party   |
| 150  | ExecType            | char                 | Y     | Valid values: 0= New 1= Partial fill 2= Fill 3= Done for day 4= Canceled 5= Replaced 6= Pending Cancel 8= Rejected 9= Suspended A= Pending New C= Expired E= Pending Replace   |
| 151  | LeavesQty           | Qty                  | N     | Amount of shares open for further execution  |
| 5700 | LocateSource        | String               | N*    | Entity that has provided the locate of security in the short sell transaction  |