FIX Interface Specification

Updated August 12th, 2010

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The availability of the functionality reflected in these specifications is subject to Securities and Exchange Commission ("SEC") approval of the acquisition of Boston Stock Exchange, Incorporated ("BSE") by The NASDAQ OMX Group, Inc., the closing of that acquisition, and SEC approval of revised rules governing equity trading through BSE. The specifications contain more functionality than what is planned for initial production. Functionality that is not available will be greyed out in the specs. Any changes will be conveyed via the NASDAQ OMX BX Head Trader Alerts or Technical Updates.

1. Introduction to NASDAQ OMX BX FIX System

Overview

This document defines NASDAQ OMX BX's implementation of the Financial Information Exchange (FIX) 4.0, 4.1 and 4.2 protocols. NASDAQ OMX BX's FIX implementation acts like a router, converting incoming FIX messages into OUCH® messages and back again.

Users

It is assumed that the user of this manual is familiar with the FIX 4.0, 4.1 and 4.2 protocol standard, (can be found at www.fixprotocol.org).

2. Session Information

The first message should be a logon message. No additional messages should be transmitted until NASDAQ OMX BX has verified the SenderCompID, and a logon is received from NASDAQ OMX BX.

Note: NASDAQ OMX BX does NOT support encryption.

ID Fields

| SenderCompID sent | The SenderCompID as assigned by NASDAQ OMX BX. The | | |
|-----------------------|--|--|--|
| | maximum size is 4 to 6 characters. | | |
| SenderCompID returned | The SenderCompID returned within all messages is NQBX. | | |
| TargetCompID | Your TargetCompID should always be NQBX. | | |

3. Cancel and Replace - Order Modification

When replacing an order the ClOrdID field must be a unique ID for the newest order in the chain of orders and the OrigClOrdID must contain the ClOrdID of the order you are trying to replace / modify.

When canceling an order the ClOrdID field must be a unique ID for the cancel request and the OrigClOrdID must contain the ClOrdID of the order you are trying to cancel.

Only Price and OrdQty may be changed for limit and pegged orders.

Any change will result in your order losing time priority with the exception of a reduction in OrdQty only.

4. FIX Message Types - Supported / Unsupported

FIX Messages - Supported by NASDAQ OMX BX

Administrative Messages

Standard FIX administrative messages are supported.

Incoming Messages

New Order - Single Order Cancel Request Order Cancel/Replace Request (a.k.a. Order Modification Request)

Outgoing Messages

Execution Report Order Cancel Reject

FIX Messages - Not supported by NASDAQ OMX BX

Advertisements
Allocation
Allocation ACK
Didn't Know Trade (DK)
Email
Indications of Interest
List Cancel Request
List Execute
List Status
List Status
Request
New Order List
News
Quote
Quote Request
Settlement Instructions
Order Status Request

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5. Session Protocol Messages

All NASDAQ OMX BX comments/additions to the FIX specification are listed in BOLD in the "Comments" column for each message type.

If a Tag is not explicitly supported by NASDAQ OMX BX it will be ignored. Your message will not be rejected.

Message Header

| Tag | Field Name | Req'd | Comments |
|-----|-----------------|-------|--|
| 8 | BeginString | Υ | FIX.4.0 or FIX.4.1 or FIX.4.2. Must be the first field |
| | | | in message. |
| 9 | BodyLength | Υ | Must be second field in the message. |
| 35 | MsgType | Υ | Must be the third field in the message. |
| 34 | MsgSeqNum | Y | |
| 49 | SenderCompID | Y | SenderCompID as assigned by NASDAQ OMX BX . |
| | · | | It will always be four to six characters. |
| 56 | TargetCompID | Y | "NQBX" |
| 52 | SendingTime | Y | |
| 50 | SenderSubID | N | It must be 32 characters or less. |
| 57 | TargetSubID | N | Ignored |
| 43 | PossDupFlag | N | Always required for retransmitted messages, whether |
| | | | prompted by the sending system or as the result of a |
| | | | resend request. |
| 97 | PossResend | N | Required when message may be duplicate of another |
| | | | message sent under a different sequence number. |
| 122 | OrigSendingTime | N | Required for message resends. If data is not |
| | | | available set to same value as SendingTime. |

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Logon Message

| Tag | Field Name | Req'd | Comments |
|-----|------------------|-------|--|
| | Standard Header | Υ | MsgType = A |
| 98 | EncryptMethod | Υ | Not supported. |
| 108 | HeartBtInt | Υ | |
| 141 | ResetSeqNumFlag | N | Indicates both sides of a FIX session should reset sequence numbers. |
| | | | If this flag is present and set to 'Y' NASDAQ OMX BX will reset the next expected inbound sequence number to one and our next outbound sequence number to one. |
| | | | When using this flag the sequence number of the logon message should be one. |
| 95 | RawDataLength | N | Not supported. |
| 96 | RawData | N | |
| | Standard Trailer | Υ | |

6. Application Messages Regarding Orders

All NASDAQ OMX BX comments/additions to the FIX specification are listed in BOLD in the "Comments" column for each message type.

If a Tag is not supported by NASDAQ OMX BX "Not supported" will appear in the "Comments" column. If you send an unsupported tag, the tag and corresponding data will be ignored. Your message will not be rejected.

New Order – Single Message

Broker Dealer's who wish to electronically submit securities orders to NASDAQ OMX BX for execution use the new order message type.

Orders can be submitted with special handling instructions and execution instructions.

Handling instructions refer to how NASDAQ OMX BX should handle the order on its trading floor. The HandlInst field is required and it should always be set to 1, which indicates Automated execution order, private, no Broker intervention.

Execution instructions contain explicit directions as to how the order should be executed. The ExecInst field describes how it should be executed. 'N' (No Peg), 'P' (Market Peg), and 'R' (Primary Peg) are supported.

New Order messages received with a duplicate ClOrdID will be ignored, regardless if the PossResend flag is set. The New Order Message is described in the following table:

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| New (| Order – Single Messa | ge | |
|-------|----------------------|-------|--|
| Tag | Field Name | Req'd | Comments |
| | Standard Header | Υ | MsgType = D |
| 11 | ClOrdID | Υ | Unique identifier of the order as assigned by institution. Must be 64 characters or less. |
| 21 | HandlInst | Y | This is required by FIX. It should always be set to: 1 = Automated execution order, private, no Broker intervention |
| 55 | Symbol | Y | Ticker symbol. The format of the symbol is native INET symbology. More information can be found at the following link: http://www.nasdaqtrader.com/Trader.aspx?id=CQSS ymbolConvention NOTE: the entire symbol (root and suffix included) |
| 54 | Side | Y | needs to be in tag. Side of order Valid values: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt |
| 38 | OrderQty | Y | Required. |
| 40 | OrdType | Y | Valid values: 1 = Market 2 = Limit P = Pegged (requires ExecInst = P or R) |
| 44 | Price | N | Price field is required for Limit Orders. |
| 109 | ClientID | N | Used for firm identification in third-party transactions. Service bureaus must use this field to specify the firm entering the order. It MUST be a valid NASD assigned MPID. The firm must be a NASD registered broker dealer. |
| 76 | ExecBroker | N | The destination to send orders to. Currently INET, DOTA, DOTD, DOTI, DOTM, MOPP, STGY, SCAN and Directed Order Destination Codes (please see Directed Codes table below) are available. Will default to "INET" if not specified. |
| 1 | Account | N | Must be 32 characters or less. |
| 63 | SettlmntTyp | N | Not supported. |
| 64 | FutSettDate | N | Not supported. |
| 18 | ExecInst | N | Can contain multiple instructions, space delimited. Only 'M' (Midpoint Peg), 'N' (No Peg), 'P' (Market Peg), and 'R' (Primary Peg) are supported. For GTC orders, 'E' means Do-Not-Increment(DNI) and 'F' means Do-Not-Reduce(DNR) 'f' means InterMarket Sweep Order (ISO) |
| 9140 | DisplayInst | N | May be used to specify NASDAQ OMX BX's different display options. Y = Anonymous-Price to Comply A = Attributable-Price to Display |

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| | | | N = Non-Display I = Imbalance Only |
|-------------|-----------------------------|--------|---|
| 110 | MinQty | N | MinQty is currently supported. However, NASDAQ OMX BX does not allow orders with a MinQty to remain live on our book. Therefore, you need to specify IOC in the TIF field (tag 59=3). Also, MinQty must be a round lot. |
| 111 | MaxFloor | N | Represents the portion of your order that you wish to have displayed. It must be a round lot. |
| 114 | LocateReqd | N | Required for short sale orders. Must be set to 'N' for all short sale orders. The order entry firm is always responsible for locating the stock on a short sale. |
| | | | Indicates whether the broker is to locate the stock in conjunction with a short sell order. |
| | | | Valid values: |
| | | | N = Indicates the broker is not required to locate |
| 59 | TimeInForce | N | Specifies how long the order remains in effect. Absence of this field is interpreted as Market Hours. |
| | | | Valid values: |
| | | | 0 = Market Hours (DAY) |
| | | | 1 = Extended Hours Order |
| | | | 2 = On Open |
| | | | 3 = Immediate or Cancel (IOC) |
| | | | 5 = Extended Hours Order |
| | | | 6 = Good Till Time (Expire Time should have the end time) |
| | | | 7 = On Close |
| | | | A = Extended Hours Order |
| | | | C= GTC (Market Hours) |
| | | | M= GTC (System Hours) |
| | | | Order entered after the market close with TIF of DAY |
| | | | will be converted to an extended hours order. |
| 47 | Rule80A/OrderCapacity | N | All values are supported. 'A' (agent) is the default. |
| 211 | PegDifference | N | Offset amount for the pegged value. NASDAQ OMX |
| | | | BX uses the FIX standard conservative approach |
| F0 | T+ | N.I | when implementing the peg difference. |
| 58 126 | Text | N N | The time the order should be consoled at |
| 126 9395 | ExpireTime Marketability | N | The time the order should be canceled at. Valid values: |
| 3333 | Instructions | IN | 0 = None |
| 8020 | DisplayRange | N | Amount used to determine the random reserve |
| | , 3- | | range. If 200 is specified in this field, and the MaxFloor is set to 1000, the displayed amount will |
| 0301 | DicplayEvecInct | N | randomly shift between 800 and 1200. |
| 9391 | DisplayExecInst | IN | This tag is used to peg the display price of the order |

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| | | | NASDAQ OMX BX currently supports Market Peg ('P'), Primary Peg ('R') and Mid Peg (M) |
|------|----------------------|---|--|
| 9392 | DisplayPrice | N | This field contains the price that will be displayed on the NASDAQ OMX BX book. |
| 9396 | DisplayPegDifference | N | This field is used to offset a pegged display price as specified in field 9391. |
| 9355 | CrossTradeFlag | N | This specifies the cross in which this order goes live. Valid values: O = Opening cross C = Closing cross I = Intraday cross |
| 129 | DeliverToSubID | N | Value set to 'NX' to send a Direct+ order on DOT strategies |
| | Standard Trailer | Υ | |

| Directed Order Destination Codes | | | | |
|---|-------------------------|--|--|--|
| Market Center | Destination Code | | | |
| AMEX | ISAM | | | |
| ARCA/PCX | ISPA | | | |
| CBOE | ISCB | | | |
| CHSX | ISCX | | | |
| CINN/NSX | ISCN | | | |
| DATA | ISDA | | | |
| EDGA | ISGA | | | |
| EDGX | ISGX | | | |
| ISE | ISIS | | | |
| LavaFlow | ISLF | | | |
| NYSE | ISNY | | | |
| PHLX | ISPX | | | |
| TRAC | ISTR | | | |
| | | | | |

Order Cancel Request Message

The Order Cancel Request Message requests the cancellation of all of the remaining quantity of an existing order. The request will only be accepted if the order can successfully be pulled back from the exchange floor without executing.

Note that the Order Cancel/Replace Request should be used to partially cancel (reduce) an order.

A cancel request is assigned a ClOrdID and is treated as a separate entity. If rejected, the ClOrdID of the cancel request will be sent in the Cancel Reject message, as well as the ClOrdID of the actual order in the OrigClOrdID field. The ClOrdID assigned to the cancel request must be unique amongst the ClOrdID assigned to regular orders and replacement orders.

The format of the cancel request message is shown in the following table:

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| Order | Cancel Request Mes | sage | |
|-------|--------------------|-------|---|
| Tag | Field Name | Req'd | Comments |
| | Standard Header | Υ | MsgType = F |
| 41 | OrigClOrdID | Υ | ClOrdID of the previous order (NOT the initial order of |
| | | | the day) when canceling or replacing an order. |
| 11 | ClOrdID | Υ | Unique ID of cancel request as assigned by the |
| | | | institution. Must be 64 characters or less. |
| 55 | Symbol | Y | Ticker symbol. The format of the symbol is native INET symbology. More information can be found at the following link: http://www.nasdaqtrader.com/Trader.aspx?id=CQSSymbolConvention |
| | | | NOTE: the entire symbol (root and suffix included) needs to be in tag. |
| 54 | Side | Y | Side of order - Valid values: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt |
| 38 | OrderQty | Y | NASDAQ OMX BX does not support CashOrderQty. Therefore, OrderQty is required. |
| 37 | OrderID | N | Unique identifier of most recent order as assigned by broker. |
| 109 | ClientID | N | Used for firm identification in third-party transactions. Service bureaus must use this field to specify the firm canceling the order. It MUST be a valid NASD assigned MPID. The firm must be a NASD registered broker dealer. |
| | Standard Trailer | Υ | |

Order Cancel/Replace Request (a.k.a. Order Modification Request)

The Order Modification Request is used to change the parameters of an existing order.

Do not use this message to cancel the remaining quantity of an outstanding order, use the Cancel Request message for this purpose.

The Order Modification request will only be accepted if the order can successfully be pulled back from the exchange floor without executing. Requests that cannot be processed will be rejected using the Cancel Reject message. The Cancel Reject message will provide the ClOrdID and OrigClOrdID values that were specified on the Order Modification Request message for identification.

Note that while it is necessary for the ClOrdID to change and be unique, the broker's OrderID field does not necessarily have to change as a result of the Order Modification request.

Only price and shares can be changed via the cancel/replace request message. All other fields should be retransmitted as sent in the original order.

The Order Modification Request Message is described in the following table:

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| Order | r Cancel/Replace Re | quest M | lessage |
|-------|---------------------|---------|--|
| Tag | Field Name | Req'd | Comments |
| | Standard Header | Υ | MsgType = G |
| 41 | OrigClOrdID | Υ | ClOrdID of the previous order (NOT the initial order of the day) when canceling or replacing an order. |
| 11 | ClOrdID | Y | Unique identifier of replacement order as assigned by institution. Note that this identifier will be used in ClOrdID field of the Cancel Reject Message if the replacement request is rejected. Must be 64 characters or less. |
| 21 | HandlInst | Υ | This is required by FIX. It should always be set to: 1 = Automated execution order, private, no Broker intervention |
| 55 | Symbol | Y | Ticker symbol. The format of the symbol is native INET symbology. More information can be found at the following link: http://www.nasdaqtrader.com/Trader.aspx?id=CQSSy mbolConvention NOTE: the entire symbol (root and suffix included) needs to be in tag. |
| 54 | Side | Y | Side of order - Valid values: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt Must match original side. |
| 38 | OrderQty | Y | NASDAQ OMX BX does not support CashOrderQty. Therefore, OrderQty is required. |
| 40 | OrdType | Y | Valid values: 1 = Market Peg 2 = Limit P = Pegged (requires ExecInst = P or R) |
| 44 | Price | N | Price field is required for Limit Orders. |
| 114 | LocateReqd | N | Indicates whether the broker is to locate the stock in conjunction with a short sell order. Valid values: Y = Indicates the broker is responsible for locating the stock N = Indicates the broker is not required to locate |
| 37 | OrderID | N | Unique identifier of most recent order as assigned by broker. |
| 109 | ClientID | N | Used for firm identification in third-party transactions. Service bureaus must use this field to specify the firm canceling the order. It MUST be a valid NASD assigned MPID. The firm must be a NASD registered broker dealer. |
| 18 | ExecInst | N | Can contain multiple instructions, space delimited. Only 'M' (Midpoint Peg), 'N' (No-Peg), 'P' (Market Peg), and 'R' (Primary Peg) are supported. |

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| | | | For GTC orders, 'E' means Do-Not-Increment(DNI) and 'F' means Do-Not-Reduce(DNR) 'f' means Intermarket Sweep Order (ISO) |
|------|------------------------|---|---|
| 9140 | DisplayInst | N | May be used to specify NASDAQ OMX BX's different display options. Y = Anonymous-Price to Comply A = Attributable-Price to Display N = Non-Display I = Imbalance Only |
| 59 | TimeInForce | N | The time in force of the original order caries through to all replacements. |
| 47 | Rule80A/OrderCapac ity | N | The Rule80A (capacity) of the original order caries through to all replacements. |
| 1 | Account | N | Not supported. The account of the original order carries through to all replacements. |
| 110 | MinQty | N | Not supported. The MinQty of the original order carries through to all replacements. |
| 111 | MaxFloor | N | Not supported. The MaxFloor of the original order carries through to all replacements. |
| | Standard Trailer | Υ | |

Execution Report

The execution report message is used to:

- 1. Confirm the receipt of an order
- 2. Confirm changes to an existing order (i.e. accept cancel and replace requests)
- 3. Relay order status information
- 4. Relay fill information on working orders
- 5. Reject orders
- 6. Report post-trade fees calculations associated with a trade

Each execution message will contain information that will describe the current state of the order and execution status as understood by NASDAQ OMX BX. State changes will be sent as separate messages and will not be used to also convey new partial fill details:

| Execu | ution Report | | |
|-------|-----------------|-------|--|
| Tag | Field Name | Req'd | Comments |
| | Standard Header | Υ | MsgType = 8 |
| 37 | OrderID | Y | OrderID, as assigned by NASDAQ OMX BX, is required to be unique for each chain of orders. |
| 17 | ExecID | Y | Identifier of execution message as assigned by broker (will be 0 (zero) for ExecTransType=3 (Status)). NASDAQ OMX BX assigns the ExecID based on the OUCH match number of the transaction. If you cross yourself on a trade the buy and sell orders will have the same ExecID. |
| 20 | ExecTransType | Y | Identifies transaction type Valid values: 0 = New 1 = Cancel Trade breaks will be sent with an ExecTransType of '1'. NASDAQ OMX BX does not support trade corrections. |
| 76 | ExecBroker | Y | The destination to send orders to. Currently INET, DOTA, DOTD, DOTI, DOTM, MOPP, STGY, SCAN and Directed Order Destination Codes (please see Directed Codes table below) are available. Will default to "INET" if not specified. |
| 150 | ЕхесТуре | Y | Describes the type of execution report. Same possible values as OrdStatus. |
| 39 | OrdStatus | Y | Describes the current state of a CHAIN of orders, same scope as OrderQty, CumQty, LeavesQty, and AvgPx Valid Values: 0 = New 1 = Partial Fill 2= Filled 4 = Canceled 5 = Replaced 6 = Pending Cancel 8 = Rejected |
| 55 | Symbol | Y | Ticker symbol. The format of the symbol is native INET symbology. More information can be found at the following link: http://www.nasdaqtrader.com/Trader.aspx?id=CQ SSymbolConvention NOTE: the entire symbol (root and suffix included) needs to be in tag. |
| 54 | Side | Υ | |
| 38 | OrderQty | Υ | |
| 32 | LastShares | Υ | Quantity of shares bought/sold on this (last) fill. |
| 31 | LastPx | Υ | Price of this (last) fill. |
| 151 | LeavesQty | Y | Amount of shares open for further execution. If the OrdStatus is Canceled, DoneForTheDay, Expired, |

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| | | | Calculated, or Rejected (in which case the order is no longer active) then LeavesQty could be 0, |
|------|----------------------|-----|--|
| | | | otherwise LeavesQty = OrderQty - CumQty. |
| 14 | CumQty | Υ | Currently executed shares for chain of orders. |
| 6 | AvgPx | Y | Calculated average price of all fills on this order. |
| 19 | ExecRefID | N | Required for Cancel and Correct ExecTransType |
| 19 | LXECKETID | IV | messages |
| 1 | Account | N | As specified in the NewOrder |
| 11 | ClOrdID | N | As specified in the NewOrder |
| 44 | Price | N | As specified in the NewOrder |
| 211 | PegDifference | N | As specified in the NewOrder |
| 41 | OrigClOrdID | N | ClOrdID of the previous order (NOT the initial order |
| 71 | Origeioraid | IV | of the day) when canceling or replacing an order. |
| 109 | ClientID | N | Used for firm identification in third-party |
| 109 | CheffCD | IV | transactions. |
| | | | If a ClientID was specified in the original order |
| | | | then it will be returned in all subsequent execution |
| | | | · |
| 18 | ExecInst | N | reports. Can contain multiple instructions, space delimited. |
| 10 | Exectist | IN | Only 'M' (Midpoint Peg), 'N' (No-Peg), 'P' (Market |
| | | | Peg), and 'R' (Primary Peg) are supported. |
| | | | For GTC orders, 'E' means Do-Not-Increment(DNI) |
| | | | and 'F' means Do-Not-Reduce(DNR) |
| | | | 'f' means Intermarket Sweep (ISO) |
| 9140 | DisplayInst | N | May be used to specify NASDAQ OMX BX's different |
| 3140 | DisplayTrist | IN | display options. |
| | | | Y = Anonymous-Price to Comply |
| | | | A = Attributable-Price to Display |
| | | | N = Non-Display |
| | | | I = Imbalance Only |
| 75 | TradeDate | N | Used when reporting other than current day |
| , 5 | Tradebate | | trades. |
| 59 | TimeInForce | N | Absence of this field indicates Market Hours order |
| 40 | OrdType | N | Valid values: |
| 10 | отатурс | | 2 = Limit |
| | | | P = Pegged (requires ExecInst of P or R) |
| 60 | TransactTime | N | Time of execution/order creation (expressed in |
| 30 | Transactime | . 4 | GMT). |
| 47 | Rule80A/OrderCapacit | N | All values are supported. 'A' (agent) is the default. |
| ' ' | v | . • | The values are supported. A (agent) is the deladit. |
| 58 | Text | N | Free format text string, |
| 9882 | LiquidityFlag | N | Will be returned within all execution reports that |
| 3002 | Elquidity) rag | | contain a partial or full fill. |
| | | | See Liquidity Flags Table below for values |
| 111 | MaxFloor | N | As specified in the NewOrder |
| | Standard Trailer | Y | |
| | Standard Franci | • | |

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| Liquidity Flags | | |
|-----------------|-----------------------------------|--|
| Flag | Value | |
| Α | Added | |
| R | Removed | |
| J | Non-displayed and added liquidity | |
| X | Routed | |
| D | DOT | |
| F | Added or Opening Trade (on NYSE) | |
| G | Odd Lot or On-Close order (on | |
| | NYSE) | |
| 0 | Open Cross (billable) | |
| М | Open Cross (non-billable) | |
| С | Closing Cross (billable) | |
| L | Closing Cross (non-billable) | |
| H | Halt/IPO Cross (billable) | |
| K | Halt/IPO Cross (non-billable) | |
| I | Intraday/Post-Market Cross | |
| Y | Re-Routed by NYSE | |

Restatement Message

This message will tell the user the amount their orders were reduced down to as a result of a partially cancelled quantity.

| Resta | atement | | |
|-----------|---------------------|-------|--|
| Tag | Field Name | Req'd | Comments |
| | Standard Header | Υ | MsgType = 8 |
| 37 | OrderID | Υ | OrderID, as assigned by NASDAQ, is required to be unique for each chain of orders. |
| 17 | ExecID | Y | Identifier of execution message as assigned by broker (will be 0 (zero) for ExecTransType=3 (Status)). NASDAQ assigns the ExecID based on the OUCH match number of the transaction. If you cross yourself on a trade the buy and sell orders will have the same ExecID. |
| 20 | ExecTransType | Y | Identifies transaction type Valid values: 0 = New 1 = Cancel Trade breaks will be sent with an ExecTransType of '1'. NASDAQ does not support trade corrections. |
| 76 | ExecBroker | Y | The destination to send orders to. Currently INET, DOTA, DOTD, DOTI, DOTM, TFTY, MOPP, STGY, SCAN, SKIP, SKNY, SCNF, SGNF and Directed Order Destination Codes (please see Directed Codes table below) are available. Will default to "INET" if not specified. |
| 150 | ExecType | Y | Describes the type of execution report. For restatement, this value will always be: D = Restated |
| 39 | OrdStatus | Y | Describes the current state of a CHAIN of orders, same scope as OrderQty, CumQty, LeavesQty, and AvgPx Valid Value for restatement will be: 0 = New |
| 55 | Symbol | Y | Ticker symbol. The format of the symbol is native INET □ymbology. More information can be found at the following link: http://www.nasdaqtrader.com/Trader.aspx?id=CQ SSymbolConvention NOTE: the entire symbol (root and suffix included) needs to be in tag. |
| 54 | Side | Υ | |
| 38 | OrderQty | Υ | |
| 32 | LastShares | Y | Quantity of shares bought/sold on this (last) fill. For restatement, this value will always be "0". |
| 31 151 | LastPx LeavesQty | Y | Price of this (last) fill. 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 - CumQty. |
| 14 | CumQty | Υ | Currently executed shares for chain of orders. |

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| 6 | AvgPx | Υ | Calculated average price of all fills on this order. |
|------|---------------------------|-----|--|
| 19 | ExecRefID | N | Required for Cancel and Correct ExecTransType |
| - | 0 | N.I | messages |
| 1 | Account | N | |
| 11 | ClOrdID | N | |
| 44 | Price | N | |
| 211 | PegDifference | N | |
| 41 | OrigClOrdID | N | ClOrdID of the previous order (NOT the initial order of the day) when canceling or replacing an order. |
| 109 | ClientID | N | Used for firm identification in third-party transactions. If a ClientID was specified in the original order then it will be returned in all subsequent execution reports. |
| 18 | ExecInst | N | Can contain multiple instructions, space delimited. Only 'M' (Midpoint Peg), 'N' (No-Peg), 'P' (Market Peg), and 'R' (Primary Peg) are supported. For GTC orders, 'E' means Do-Not-Increment(DNI) and 'F' means Do-Not-Reduce(DNR) 'f' means Intermarket Sweep (ISO) |
| 9140 | DisplayInst | N | May be used to specify NASDAQ's different display options. Y = Anonymous-Price to Comply A = Attributable-Price to Display N = Non-Display I = Imbalance Only |
| 75 | TradeDate | N | Used when reporting other than current day trades. |
| 59 | TimeInForce | N | Absence of this field indicates Market Hours order |
| 40 | OrdType | N | Valid values: 2 = Limit P = Pegged (requires ExecInst of P or R) |
| 60 | TransactTime | N | Time of execution/order creation (expressed in GMT). |
| 47 | Rule80A/OrderCapacit v | N | All values are supported. 'A' (agent) is the default. |
| 58 | Text | N | Free format text string, |
| 9882 | LiquidityFlag | N | Will be returned within all execution reports that contain a partial or full fill. |
| | | | See Liquidity Flags Table below for values |
| 111 | MaxFloor | N | As specified in the NewOrder |
| 378 | | Υ | For restatement, this value will always be: |
| | ExecRestatementReas on | | 5 = Partial decline of OrderQty |

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Order Cancel Reject

The order cancel reject message is issued by NASDAQ OMX BX upon receipt of a Cancel Request or Cancel/Replace Request Message that cannot be honored.

The format of the Order Cancel Reject Message is as follows

| Tag | Field Name | Req'd | Comments |
|-----|------------------|-------|---|
| | Standard Header | Υ | MsgType = 9 |
| 37 | OrderID | Y | 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. |
| 11 | ClOrdID | Y | Unique order id assigned by broker to the cancel request or to the replacement order. |
| 41 | OrigClOrdID | Y | ClOrdID that could not be canceled/replaced. ClOrdID of the previous order (NOT the initial order of the day) when canceling or replacing an order. |
| 39 | OrdStatus | Y | OrdStatus value after this cancel reject is applied. |
| 109 | ClientID | N | Used for firm identification in third-party transactions. For known orders this will contain the ClientID specified in the original order. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order |
| 58 | Text | N | See "Rejected Order Reasons" in section 7 |
| | Standard Trailer | Υ | |

7. Order Reject/Cancel Reasons

The FIX Text field, tag 58, will be returned within all reject and cancel messages and will contain a description of the reject or cancel.

Rejected Order Reasons

| Reason | Explanation |
|--------|--|
| Υ | The LocateReqd tag was not set to 'N' |
| С | Rash is not yet open |
| I | Invalid side |
| E | Invalid peg type |
| L | Invalid Firm |
| Z | Order Size is more then maximum shares allowed |
| 0 | Unknown Error. |
| F | Invalid marketability value |
| В | Quote not available for pegged order |

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| Р | Pegging is not allowed |
|---|---|
| X | The order does not have a valid price. |
| R | Routing not enabled |
| G | Specified routing destination is temporarily down |
| J | Internal NASDAQ OMX BX error |
| N | Order attribute specified that the routing destination does not support |
| D | Bad reserve value |
| Т | Port is in Test Only mode |
| Н | The stock is halted |
| S | Invalid stock |
| Q | Invalid order qty |
| K | Invalid Min Qty |
| W | Routing destination is not supported |
| Α | Advanced functionality not supported |
| U | NASDAQ OMX BX was asked to reject resent orders and this order was resent |
| V | Invalid Order Type |

Cancel Order Reason

| Reason | Explanation |
|--------|--|
| "U" | User requested cancel. Sent in response to a Cancel Request Message. |
| "I" | Immediate or Cancel Order. |
| "T" | Timeout. The Time In Force for this order has expired |
| "S" | Supervisory. The order was manually canceled or reduced by an NASDAQ OMX BX supervisory terminal. |
| "Q" | Self Match Prevention. The order was cancelled because it would have executed with an existing order entered by the same MPID. |

8. Revision History

| Revision # | Date | Change |
|------------|------------|---|
| 1.0 | 3/18/2008 | Document Creation |
| 1.0 | 12/19/2008 | Added "J" liquidity code value |
| | | Greyed out tag 9392 (not supported) |
| 1.01 | 05/06/2009 | Added "S" display flag |
| 1.02 | 06/24/2009 | Revised description of cancelled order reason "I" for anti-internalization |
| 1.03 | 07/01/2009 | Revised description of cancelled order reason "I" for removing anti- internalization |
| | | Added cancelled order reason "Q" for anti-internalization |
| 1.04 | 7/29/2009 | Added Restatement message type |
| 1.05 | 8/10/2009 | Removed "S" display flag |
| 1.06 | | Revised anti-internalization language, replaced with self match prevention |

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| | | Removed value "4" from TIF |
|------|------------|---|
| 1.07 | 08/12/2010 | Re-introduced the sell short exempt value in the side field |

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