



FIX ACES
Programming Specification

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1 Overview

This document contains the user requirements for accessing the NASDAQ FIX protocol, NASDAQ FIX for ACES functionality, and the messages transmitted via FIX for entering orders into ACES.

Users should be familiar with the FIX 4.2 specifications, as this document supplements those specifications.

As new functionality becomes available, you will receive technical updates detailing that functionality. At the same time the technical update is distributed, this programming specification will be updated on the NASDAQ Trader web site at <http://www.nasdaqtrader.com/asp/ctcidisclaim4.asp - FIX>.

1.1 Related Documentation

The *NASDAQ FIX Orders Programming Specification for FIX 4.2* is here:
<http://www.nasdaqtrader.com/trader/tradingservices/specsinstallguides/fixprogspec.pdf>

The *NASDAQ FIX Trade Reporting Programming Specification* is here:
<http://www.nasdaqtrader.com/trader/tradingservices/specsinstallguides/fixactspec.pdf>

1.2 NASDAQ Customer Support

| | | |
|---|----------------------------|---|
|  | NASDAQ FIX Support | 800-243-4284 |
|  | NASDAQ FIX Support | mailto:NASDAQFIX@NASDAQ.COM |
|  | NASDAQ Testing Facility | 800-288-3783 |
|  | NASDAQ Subscriber Services | 800-777-5606 |
|  | NASDAQ Trading Services | 800-219-4861 |

1.3 Publication Information

| Date | Version | Enhancements |
|------------------|---------|--|
| May 26, 2005 | 2005-03 | General updates made to pre-production specification. |
| May 4, 2005 | 2005-02 | General updates made to pre-production specification. |
| February 4, 2005 | 2005-01 | Initial publication of this programming specification on the NASDAQ Trader web site. |

2 NASDAQ FIX ACES

ACES acts as an order-routing tool between a firm entering orders, in any security, and a market maker's order management system. ACES is a voluntary service for which market makers must register. Once registered, market makers may authorize their order entry customers to send them order flow.

Market Makers route execution reports back to order entry firms through ACES. ACES does not offer automatic trade-reporting or locked-in clearing of transactions.

2.1 Message Type

NASDAQ FIX supports these message types for FIX ACES:

| Type | Message | Inbound, Outbound, or Both |
|------|---------------------|----------------------------|
| 0 | Heartbeat | B |
| 1 | Test Request | B |
| 2 | Resend Request | B |
| 3 | Reject | O |
| 4 | Sequence Reset | B |
| 5 | Logout | B |
| 8 | Execution Report | O |
| 9 | Order Cancel Reject | O |
| A | Logon | B |
| D | Order | I |
| F | Cancel | I |
| G | Cancel/Replace | I |
| H | Status Request | B |

2.2 Required Fields

Message format tables indicate which tags are required. Fields are required either by FIX (=Y), by NASDAQ (=Q), or by neither (=N).

2.3 New FIX ACES Messages

Currently in ACES, no acknowledgements are sent in response to order, cancel, and cancel/replace messages. FIX ACES introduces acknowledgement messaging. When an order entry firm enters an order, NASDAQ will send an acknowledgement message in response. NASDAQ will send pending messages for cancel and cancel/replace requests. See section 6 for messaging scenarios.

We have also added order status messages, which are used in two ways. First, an order entry firm may request order status from FIX ACES. FIX ACES responds directly to the order entry firm with current ACES state. Second, FIX ACES will send market makers an end of day order status request. If the market maker responds with order status information that does not match the ACES book, the ACES book will be updated to reflect the market maker's.

3 Session Details

3.1 Hours of Operation

All times are Eastern.

3.1.1 Regular Trading Day

Logon/Logoff

| FIX Startup | FIX Shutdown |
|-------------|--------------|
| 4:00 a.m. | 7:00 p.m. |

- NASDAQ FIX ACES will be up and accessible at 4:00 a.m.
- NASDAQ FIX ACES will remain up and running until 7:00 p.m.
- If you log off prior to 6:00 p.m., you will lose execution reports that in response to orders executed after 4:00 p.m.
- Log offs are not required. If you do not log off before 7:00 p.m, NASDAQ will log you off at shutdown.

Order Entry for NMS Security Trading

| Start Time | End Time |
|------------|-----------|
| 7:00 a.m. | 4:00 p.m. |

Order Entry for Exchange-listed Security Trading

| Start Time | End Time |
|------------|-----------|
| 7:00 a.m. | 4:00 p.m. |

- Orders entered between 4:00 a.m. and 7:00 a.m. will be rejected.
- All messages entered between 7:00 a.m. and 7:59.59 a.m. will be acknowledged, but they will not, however, be delivered until 8:00 a.m.
- All messages from order entry firms will be rejected after 4:00 p.m.
- Message delivery ends at 6:30 p.m.
- All messages from market maker firms after 6:30 p.m. will result in a System Not Available message.
- At 6:30 p.m., all day orders are auto-canceled in the ACES system.

NASDAQ FIX will reset its inbound and outbound sequence numbers to 1 at approximately 7:00 p.m. each day.

3.1.2 Early Close Trading Day

A planned early market close usually occurs at 1:00 p.m. NASDAQ will notify you of an early close by Head Trader Alert that will provide closing times. In unforeseen circumstances, an unplanned early market close may be necessary. Again, NASDAQ will notify you of such an event by Head Trader Alert. Head Trader Alerts are available online at: http://www.nasdaqtrader.com/dynamic/newsindex/headtraderalerts_2004.stm.

Logon/Logoff

| FIX Startup | FIX Shutdown |
|-------------|--------------|
| 4:00 a.m. | 4:00 p.m. |

- As with regular trading days, NASDAQ FIX will be up and accessible at 4:00 a.m.
- Logons are accepted any time after 4:00 a.m., and all messaging remains the same through market open. NASDAQ FIX will remain up and running until 4:00 p.m.
- If you log off prior to 6:00 p.m., you will lose execution reports that in response to orders executed after 4:00 p.m.
- Logoffs are not required. If you choose to log off, do so by 4:00 p.m.

Order Entry for NMS Security Trading

| Start Time | End Time (Market Close) |
|------------|-------------------------|
| 7:00 a.m. | 1:00 p.m. |

Order Entry for Exchange-listed Security Trading

| Start Time | End Time (Session Close) |
|------------|--------------------------|
| 7:00 a.m. | 1:00 p.m. |

- Orders entered between 4:00 a.m. and 7:00 a.m. will be rejected.
- All messages entered between 7:00 a.m. and 7:59.59 a.m. will be acknowledged, but they will not, however, be delivered until 8:00 a.m.
- All messages from order entry firms will be rejected after 1:00 p.m.
- Message delivery ends at 3:30 p.m.
- All messages from market maker firms after 1:30 p.m. will result in a System Not Available message.
- At 1:30 p.m., all day orders are auto-canceled in the ACES system.

NASDAQ FIX will reset its inbound and outbound sequence numbers to 1 at approximately 4:00 p.m. each day.

3.1.3 Non-trading Days

All messages, including logon, will be rejected on non-trading days. Of course, users will be able to logon and test on User Acceptance Test days.

3.2 Connectivity

You have the ability to send ACES order messages, NASDAQ Market Center order messages, and NASDAQ trade reporting messages over the same connection, although you may choose to send them over separate connections. You should make the decision after considering your own architecture and performance requirements.

To indicate the destination of your message within NASDAQ, you will use tag 57, TargetSubID. The values of this tag are:

- A = ACES
- S = NASDAQ market center orders
- T = NASDAQ market center trade reporting

You must use A for all FIX ACES messages.

- A connector ID is good for one and only one I112.
- The initial logon message is validated for both the sender comp ID (MPID) and the sender sub ID (I112).
- If logon fails, you will not receive a message indicating this failure.
- Subsequent administrative and application messages will validate the connector ID and I112.

4 Message Formats

4.1 Headers and Footers

All inbound and outbound messages will begin with a standard header and end with a standard footer.

4.1.1 Inbound to NASDAQ Header Format

| Tag | Field Name | Req'd | Comments |
|-----|-----------------|-------|--|
| 8 | BeginString | Y | Always unencrypted. Must be first field in message. |
| 9 | BodyLength | Y | Always unencrypted. Must be second field in message. |
| 34 | MsgSeqNum | Y | Integer message sequence number. |
| 35 | MsgType | Y | Unencrypted, must be third field in the message. See section 2.1 for supported message types. |
| 49 | SenderCompID | Y | To be supplied by Member. This is your 4-character ID assigned to you by NASDAQ as part of your NASDAQ connectivity. |
| 50 | SenderSubID | Q | User ID must be supplied here. NASDAQ assigns this ID to you as part of your NASDAQ connectivity. |
| 52 | SendingTime | Y | YYYYMMDD-HH:MM:SS Currently, this tag is not functional. |
| 56 | TargetCompID | Y | NSDQ |
| 57 | TargetSubID | Q | 1-character indicator to indicate destination system within NASDAQ. A = ACES Other NASDAQ systems not applicable here: S = NASDAQ market center trading T = NASDAQ trade reporting |
| 128 | DeliverToCompID | Q | For order entry firm-entered messages, this tag contains the MMID. For market maker-entered messages, this tag contains the OEID. |

4.1.2 Inbound to NASDAQ Trailer Format

| Tag | Field Name | Req'd | NASDAQ Implementation |
|-----|------------|-------|---|
| 10 | Checksum | Y | 3-character end-of-message delimiter that represents the total number of bytes in this message. Unencrypted, must be last field in message. |

4.1.3 Outbound from NASDAQ Header Format

| Tag | Field Name | Req'd | Comments |
|-----|------------------|-------|---|
| 8 | BeginString | Y | FIX.4.2. Always unencrypted. Must be first field in message. |
| 9 | BodyLength | Y | Always unencrypted. Must be second field in message. |
| 34 | MsgSeqNum | Y | Integer message sequence number. |
| 35 | MsgType | Y | Unencrypted, must be third field in the message. See section 2.1 for supported message types. |
| 49 | SenderCompID | Y | NSDQ |
| 50 | SenderSubID | Q | 1-character indicator that identifies this response as an ACES message. A = ACES |
| 52 | SendingTime | Y | YYYYMMDD-HH:MM:SS Please note that this time is the time the message left NASDAQ's FIX application. It has no relevancy to execution time, reject time, or cancel time in the destination systems. |
| 56 | TargetCompID | Y | This is your 4-character ID as submitted on the associated inbound message in its Sender Comp Id. |
| 57 | TargetSubID | Q | Receiving party's I112. |
| 115 | OnBehalfOfCompID | Q | For messages from NASDAQ to the market maker, this tag contains the OEID. For messages from NASDAQ to the order entry firm, this tag contains the MMID. |

4.1.4 Outbound from NASDAQ Trailer Format

| Tag | Field Name | Req'd | NASDAQ Implementation |
|-----|------------|-------|---|
| 10 | Checksum | Y | 3-character end-of-message delimiter that represents the total number of bytes in this message. Unencrypted, must be last field in message. |

4.2 Administrative Messages

4.2.1 Heartbeat

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 0 |
| 112 | TestReqID | N | Required when the heartbeat is in response to a Test Request. It is the TestReqID received from TestRequest message. |
| | <i>Standard Trailer</i> | Y | |

4.2.2 Logon

After establishing your TCP connection with NASDAQ FIX, a Logon must be the first message that you send. NASDAQ will respond with its own Logon. You must wait for that Logon before sending additional messages.

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = A |
| 95 | RawDataLength | N | |
| 96 | RawData | N | |
| 98 | EncryptMethod | Y | Must be 0. |
| 108 | HeartBtInt | Y | NASDAQ recommends an interval between 30-60 seconds. If you submit a value of less than 30 seconds, the logon will be rejected. |
| | <i>Standard Trailer</i> | Y | |

4.2.3 Test Request

The HeartBtInt that is specified in the Logon message will be used to make sure that the customer is alive and functioning. If NASDAQ detects inactivity for a period longer than the HeartBtInt + 1 second, it will send a Test Request to determine if the customer is still active. If after another HeartBtInt, there is still no activity, NASDAQ will send another test request. If after this additional HeartBtInt there is still no activity, NASDAQ will immediately send a logout message and the connection will be closed. It is expected that similar logic will be used on the customer's side in order to detect host activity.

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|-----------------------|
| | <i>Standard Header</i> | Y | MsgType = 1 |
| 112 | TestReqID | Y | Date/Time combination |
| | <i>Standard Trailer</i> | Y | |

4.2.4 Resend Request

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 2 |
| 7 | BeginSeqNo | Y | Beginning sequence number of Requested Message |
| 16 | EndSeqNo | Y | Ending sequence number of Requested Message |
| | <i>Standard Trailer</i> | Y | |

4.2.5 Sequence Reset

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|-------------------------------|
| | <i>Standard Header</i> | Y | MsgType = 4 |
| 36 | NewSeqNum | Y | Next expected sequence number |
| 123 | GapFillFlag | N | |
| | <i>Standard Trailer</i> | Y | |

4.2.6 Logout

Logouts will occur as a normal end of day routine, but they may also occur as a result of inactivity. It is your responsibility to logout prior to 5:00 p.m. each trading day.

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 5 |
| 58 | Text | N | 10-character alphanumeric subscriber memo field. The system does not validate this entry. |
| | <i>Standard Trailer</i> | Y | |

4.3 Application Messages

4.3.1 Order Entry Firm to NASDAQ

4.3.1.1 New Order Single (OE to N)

Order entry firms use this message to place an order. If this message is not rejected, then NASDAQ sends the order entry firm an order acknowledgement in response (section 4.3.4.1). Also in response to this message, NASDAQ sends the market maker firm an order message (section 4.3.2.1).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = D |
| 1 | Account | N | Limited to 20 characters. |
| 11 | ClOrdID | Y | Must be unique for each order. For these ACES orders only, Nasdaq requires that you limit ClOrdIDs to 8 characters (because the Market Maker you are directing to may not have a FIX implementation and they may be limited to 8 characters. Used for OATS reporting. |
| 18 | ExecInst | N | Valid values: E = DNI F = DNR G = AON 1 = not held Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. |
| 21 | HandlInst | Y | Valid value: 1 = automated execution order, private, no broker intervention |
| 38 | OrderQty | Q | Number of shares. Odd lots are accepted. |
| 40 | OrdType | Y | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 44 | Price | N | Required if tag 40 = 2 or 4. 1-10 character decimal price. "12.34" is the correct presentation of twelve dollars and thirty-four cents. |

| Tag | Field Name | Req'd | Comments |
|-----|--------------|-------|--|
| | | | If tag 40 \neq 2 (or 4) and tag 44 is present, NASDAQ will reject the order. |
| 54 | Side | Y | Valid values: 1 = buy 2 = sell 5 = sell short |
| 55 | Symbol | Y | 1-14 character security identifier. Spaces, periods, and commas are not allowed. NASDAQ will reject it a symbol in lowercase letters. For exchange-listed securities, this tag will contain the base listed symbol only. See <i>SymbolSfx</i> [65] field for additional information about the security. |
| 59 | TimeInForce | N | Valid values: 0= DAY (default) 1 = GTC 2 = OPG (at the opening) 3= IOC 4 = FOK 6 = GTD* 7 = CLO (at the close) Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. *GTD is used in conjunction with tag 126. If MMDD is after the current date, then the order will expire in the current year. If MMDD is before the current date, then the order will expire in the following year. For example, today is September 20, 2005. MMDD = 1220 expires on December 20, 2005. MMDD = 0731 expires on July 31, 2006. |
| 60 | TransactTime | Y | Time this order request was released by the trading system. |
| 65 | SymbolSfx | N | Contains only the additional information about the security (e.g. preferred, warrants, etc.) for exchange-listed securities. This additional information must be in CQS format. No delimiters are allowed in this tag. For example, "OXYpB" would be formatted as: Symbol [55]: OXY SymbolSfx [65]: pB |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 76 | ExecBroker | N | Give-up MPID. Give-Up trades are prohibited through the ITS system for exchange-listed securities. |
| 99 | StopPx | N | Contains the limit price associated with an STP order once the trigger price (in 44) has been reached. If tag 44 is blank, then the order is treated as a stop market order. Required if tag 40 = 4. In order to code a stop market, set 40 = 3, leave 44 blank, and set your stop price here. In order to code a stop limit, set 40=4, set your trigger in 44 (required) and set your stop price here. |
| 126 | ExpireTime | N | Time/date of order expiration expressed in UTC. This tag is required if 59 = 6. The time portion of this tag is ignored. |
| 5149 | Memo | N | Free format, 60-character text field. Single and double quotes, pipes, and carets are not allowed. This text cannot be changed in a cancel/replace. |
| 9214 | SMBnchdFlag | N | For NMS orders, a 1-character indicator, B, for bunched orders. |
| 9307 | PfdMktMkr | Q | Contains the ID of the market maker to whom you are sending this order. |
| | <i>Standard Trailer</i> | Y | |

4.3.1.2 Cancel Request (OE to N)

Order entry firms use this message to cancel an order. If this message is not rejected, then NASDAQ sends the order entry firm a pending cancel message in response (section 4.3.4.6). Also in response to this message, NASDAQ sends the market maker firm a cancel message (section 4.3.2.2).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = F |
| 1 | Account | N | This tag is limited to 20 characters. |
| 11 | ClOrdID | Y | This tag contains a new, unique 8-character ID for this request. For these ACES cancels only, Nasdaq requires that you limit ClOrdIDs to 8 characters (because the Market Maker you are directing to may not have a FIX implementation and they may be limited to 8 characters. Used for OATS reporting. |
| 18 | ExecInst | N | As per associated order message. |
| 37 | OrderID | N | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | The full quantity of the order is cancelled. |
| 40 | OrdType | Q | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 41 | OrigClOrdID | Y | ClOrdID of the previous order (not necessarily the initial order of the day) after cancel/replace messages are considered. Limited too to 8 characters for ACES messages. |
| 44 | Price | N | As per associated order message. |
| 54 | Side | Y | As per associated order message. |
| 55 | Symbol | Y | As per associated order message. |
| 59 | TimeInForce | N | As per associated order message. |
| 60 | TransactTime | Y | Time the original New Order Single was initiated/released by the trader or trading system. |
| 65 | SymbolSfx | N | As per associated order message. |
| 76 | ExecBroker | N | As per associated order message. |

| Tag | Field Name | Req'd | Comments |
|------------|-------------------------|--------------|--|
| 99 | StopPx | N | As per associated order message. |
| 126 | ExpireTime | N | As per associated order message. |
| 5149 | Memo | N | Free format, 60-character text field. Single and double quotes, pipes, and carets are not allowed. |
| 9214 | SMBnchdFlag | N | As per associated order message. |
| 9307 | PfdMktMkr | Q | Contains the ID of the market maker to whom you are sending this cancel request. |
| | <i>Standard Trailer</i> | Y | |

4.3.1.3 Cancel/Replace Request (OE to N)

Order entry firms use this message to cancel/replace an order. If this message is not rejected, then NASDAQ sends the order entry firm a pending cancel/replace message in response (section 4.3.4.10). Also in response to this message, NASDAQ sends the market maker firm a cancel/replace message (section 4.3.2.3). This message contains the new information for the order, i.e. the field values that are changing. Only tag 5149 contains a value from the original order.

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = G |
| 1 | Account | N | As per the order message. |
| 11 | CIOrdID | Y | Unique identifier of replacement order. For these ACES orders only, Nasdaq requires that you limit CIOrdIDs to 8 characters (because the Market Maker you are directing to may not have a FIX implementation and they may be limited to 8 characters. . . Used for OATS reporting. |
| 18 | ExecInst | N | Valid values: E = DNI F = DNR G = AON 1 = not held Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. |
| 21 | HandlInst | Y | Valid value: 1 = automated execution order, private, no broker intervention Values 2 and 3 will be defaulted to 1. |
| 37 | OrderID | N | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | Number of shares. Odd lots are accepted. |
| 40 | OrdType | Q | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2 or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |

| Tag | Field Name | Req'd | Comments |
|-----|--------------|-------|--|
| 41 | OrigClOrdID | Y | ClOrdID of the previous order (not necessarily the initial order of the day) after cancel/replace messages are considered. Limited too to 8 characters. |
| 44 | Price | N | Required if tag 40 = 2 or 4. 1-10 character decimal price. "12.34" is the correct presentation of twelve dollars and thirty-four cents. If tag 40 \neq 2 (or 4) and tag 44 is present, NASDAQ will reject the order. |
| 54 | Side | Y | Valid values: 1 = Buy 2 = Sell 5 = Sell Short |
| 55 | Symbol | Y | 1-14 character security identifier. Spaces, periods, commas are not allowed. All incoming messages will send the symbol as entered. If the symbol is sent in lower case, then NASDAQ will reject it. This field will contain the base listed symbol only for listed securities. See <code>SymbolISfx</code> [65] field for additional information about the security. |
| 59 | TimeInForce | N | Valid values: 0= DAY (default) 1 = GTC 2 = at the opening (OPG) 3= IOC 4 = FOK 6 = GTD* 7 = at the close (CLO) Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. *GTD is used in conjunction with tag 126. If MMDD is after the current date, then the order will expire in the current year. If MMDD is before the current date, then the order will expire in the following year. For example, today is September 20, 2005. MMDD = 1220 expires on December 20, 2005. MMDD = 0731 expires on July 31, 2006. |
| 60 | TransactTime | Y | Time this order request was initiated/released by the trader or trading system. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 65 | SymbolSfx | N | This field will contain only the additional information about the security (e.g. preferred, warrants, etc.) for listed securities. This additional information must be in CQS format. No delimiters are allowed in this tag. For example, "OXYpB" would be formatted as: Symbol [55]: OXY SymbolSfx [65]: pB |
| 76 | ExecBroker | N | Must be the same as the ExecBroker of the original order. For exchange-listed securities, Give-Up trades are prohibited through the ITS system. |
| 99 | StopPx | N | Contains the limit price associated with an STP order once the trigger price (in 44) has been reached. If tag 44 is blank, then the order is treated as a stop market order. Required if tag 40 = 4. In order to code a stop market, set 40 = 3, leave 44 blank, and set your stop price here. In order to code a stop limit, set 40=4, set your trigger in 44 (required) and set your stop price here. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. The time portion of this tag is ignored. |
| 5149 | Memo | N | As per the order message. |
| 9214 | SMBnchdFlag | N | For NMS orders, a 1-character indicator, B, for bunched orders. |
| 9307 | PfdMktMkr | Q | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.1.4 Order Status Request (OE to N)

Order entry firms use this message to request order status from FIX ACES. NASDAQ responds directly to the order entry firm (section 4.3.4.15).

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = H |
| 11 | ClOrdID | Y | The ClOrdID of the original order whose status you are requesting. Used for OATS reporting. |
| 37 | OrderID | N | If available, the OrderID assigned by the market maker. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 60 | TransactTime | N | The date and time of the original order and not the time of this message. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 5149 | Memo | N | Free format, 60-character text field. Single and double quotes, pipes, and carets are not allowed. |
| | <i>Standard Trailer</i> | Y | |

4.3.2 NASDAQ to Market Maker

4.3.2.1 New Order Single (N to MM)

NASDAQ sends this message to the market maker firm in response to an order submitted by an order entry firm (section 4.3.1.1).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = D |
| 11 | ClOrdID | Y | Contains the unique, 20-character value assigned by NASDAQ ACES. Used for OATS reporting. |
| 18 | ExecInst | N | Contains the value sent by the order entry firm. Valid values: E = DNI F = DNR G = AON 1 = not held Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. |
| 21 | HandInst | Y | Contains the value sent by the order entry firm. Valid value: 1 = automated execution order, private, no broker intervention Values 2 and 3 will be defaulted to 1. |
| 38 | OrderQty | Q | Contains the number of shares sent by the order entry firm. |
| 40 | OrdType | Y | Contains the value sent by the order entry firm. Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 44 | Price | Q | Contains the price sent by the order entry firm. 1-10 character decimal price. "12.34" is the correct presentation of twelve dollars and thirty-four cents. Required if tag 40 = 2. |

| Tag | Field Name | Req'd | Comments |
|-----|--------------|-------|--|
| 54 | Side | Y | Contains the value sent by the order entry firm. Valid values: 1 = buy 2 = sell 5 = sell short |
| 55 | Symbol | Y | Contains the symbol sent by the order entry firm. This field will contain only the base listed symbol for listed securities. See <code>SymbolSfx</code> [65] field for additional information about the security. |
| 59 | TimeInForce | N | Contains the value sent by the order entry firm. Valid values: 0= DAY (default) 1 = GTC 2 = at the opening (OPG) 3= IOC 4 = FOK 6 = GTD* 7 = at the close (CLO) Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. *GTD is used in conjunction with tag 126. If MMDD is after the current date, then the order will expire in the current year. If MMDD is before the current date, then the order will expire in the following year. For example, today is September 20, 2005. MMDD = 1220 expires on December 20, 2005. MMDD = 0731 expires on July 31, 2006. |
| 60 | TransactTime | Y | Time this order request was released by the trading system. |
| 65 | SymbolSfx | N | Contains the symbol information sent by the order entry firm. Contains only the additional information about the security (e.g. preferred, warrants, etc.) for exchange-listed securities. This additional information must be in CQS format. No delimiters are allowed in this tag. For example, "OXYpB" would be formatted as: Symbol [55]: OXY SymbolSfx [65]: pB |
| 76 | ExecBroker | N | Contains the give-up MPID sent by the order entry firm. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| 99 | StopPx | N | Contains the stop limit price sent by the order entry firm. If tag 44 is blank, then the order is treated as a stop market order. Required if tag 40 = 4. |
| 126 | ExpireTime | N | Contains the order expiration date sent by the order entry firm. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | Contains the value sent by the order entry firm. For NMS orders, a 1-character indicator, B, for bunched orders. |
| | <i>Standard Trailer</i> | Y | |

4.3.2.2 Cancel Request (N to MM)

NASDAQ sends this message to the marker maker firm in response to a cancel request by the order entry firm (section 4.3.1.2).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = F |
| 1 | Account | N | Contains the value sent by the order entry firm. |
| 11 | ClOrdID | Y | Contains the unique, 20-character value assigned by NASDAQ ACES. Used for OATS reporting. |
| 18 | ExecInst | N | Valid values: E = DNI F = DNR G = AON 1 = not held Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. |
| 37 | OrderID | N | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | The full quantity of the order is cancelled. |
| 40 | OrdType | N | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 41 | OrigClOrdID | Y | ClOrdID of the previous order (not necessarily the initial order of the day) after cancel/replace messages are considered. |
| 44 | Price | Q | 1-10 character decimal price. "12.34" is the correct presentation of twelve dollars and thirty-four cents. |
| 54 | Side | Y | Valid values: 1 = Buy 2 = Sell 5 = Sell Short |

| Tag | Field Name | Req'd | Comments |
|-----|--------------|-------|--|
| 55 | Symbol | Y | 1-14 character security identifier. Spaces, periods, commas are not allowed. All incoming messages will send the symbol as entered. If the symbol is sent in lower case, then NASDAQ will reject it. This field will contain the base listed symbol only for listed securities. See <code>SymbolSfx</code> [65] field for additional information about the security. |
| 59 | TimeInForce | N | Valid values: 0= DAY (default) 1 = GTC 2 = at the opening (OPG) 3= IOC 4 = FOK 6 = GTD* 7 = at the close (CLO) Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. *GTD is used in conjunction with tag 126. If MMDD is after the current date, then the order will expire in the current year. If MMDD is before the current date, then the order will expire in the following year. For example, today is September 20, 2005. MMDD = 1220 expires on December 20, 2005. MMDD = 0731 expires on July 31, 2006. |
| 60 | TransactTime | Y | Time this order request was initiated/released by the trader or trading system. |
| 65 | SymbolSfx | N | This field will contain only the additional information about the security (e.g. preferred, warrants, etc.) for listed securities. This additional information must be in CQS format. No delimiters are allowed in this tag. For example, "OXYpB" would be formatted as: Symbol [55]: OXY SymbolSfx [65]: pB |
| 76 | ExecBroker | N | This tag contains an optional give-up MPID. Give-Up trades are prohibited through the ITS system for exchange-listed securities. |
| 99 | StopPx | N | The stop limit price. This field contains the limit price associated with an STP order once the trigger price has been reached. If tag 44 is blank, then the order is treated as a stop market order. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |

| Tag | Field Name | Req'd | Comments |
|------------|-------------------------|--------------|-------------------------|
| 375 | ContraBroker | Q | MPID of the other side. |
| | <i>Standard Trailer</i> | Y | |

4.3.2.3 Cancel/Replace Request (N to MM)

NASDAQ sends this message to the marker maker firm in response to a cancel/replace request by the order entry firm (section 4.3.1.3).

This message is also sent unsolicited after a corporate action. Receipt of this UM is optional.

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = G |
| 1 | Account | N | Contains the value sent by the order entry firm. |
| 11 | ClOrdID | Y | Contains the unique, 20-character value assigned by NASDAQ ACES. Used for OATS reporting. |
| 18 | ExecInst | N | Valid values: E = DNI F = DNR G = AON 1 = not held Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. |
| 21 | HandInst | Y | Valid value: 1 = automated execution order, private, no broker intervention Values 2 and 3 will be defaulted to 1. |
| 37 | OrderID | N | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | Number of shares. Odd lots are accepted. |
| 40 | OrdType | Y | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. If tag 40 = 3 or 4, then tag 99 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 41 | OrigClOrdID | Y | ClOrdID of the previous order (not necessarily the initial order of the day) after cancel/replace messages are considered. |
| 44 | Price | Q | Required if tag 40 = 2. 1-10 character decimal price. "12.34" is the correct presentation of twelve dollars and thirty-four cents. If tag 40 ≠ 2 and tag 44 is present, NASDAQ will |

| Tag | Field Name | Req'd | Comments |
|-----|--------------|-------|--|
| | | | reject the order. |
| 54 | Side | Y | Valid Values: 1 = Buy 2 = Sell 5 = Sell Short |
| 55 | Symbol | Y | 1-14 character security identifier. Spaces, periods, commas are not allowed. All incoming messages will send the symbol as entered. If the symbol is sent in lower case, then NASDAQ will reject it. This field will contain the base listed symbol only for listed securities. See <code>SymbolSfx</code> [65] field for additional information about the security. |
| 59 | TimeInForce | N | Valid values: 0= DAY (default) 1 = GTC 2 = at the opening (OPG) 3= IOC 4 = FOK 6 = GTD* 7 = at the close (CLO) Either [tag 59 = 3 or 4] or [tag 18 = E, F, G, or 1], not both. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. *GTD is used in conjunction with tag 126. If MMDD is after the current date, then the order will expire in the current year. If MMDD is before the current date, then the order will expire in the following year. For example, today is September 20, 2005. MMDD = 1220 expires on December 20, 2005. MMDD = 0731 expires on July 31, 2006. |
| 60 | TransactTime | Y | Time this order request was initiated/released by the trader or trading system. |
| 65 | SymbolSfx | N | This field will contain only the additional information about the security (e.g. preferred, warrants, etc.) for listed securities. This additional information must be in CQS format. No delimiters are allowed in this tag. For example, "OXYpB" would be formatted as: Symbol [55]: OXY SymbolSfx [65]: pB |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 76 | ExecBroker | N | Must be the same as the ExecBroker of the original order. For exchange-listed securities, Give-Up trades are prohibited through the ITS system. |
| 99 | StopPx | N | The stop limit price. This field contains the limit price associated with an STP order once the trigger price has been reached. If tag 44 is blank, then the order is treated as a stop market order. Only allowed if OrdType = 4. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | For NMS orders, a 1-character indicator, B, for bunched orders. |
| | <i>Standard Trailer</i> | Y | |

4.3.3 Market Maker to NASDAQ

4.3.3.1 Order Confirm (MM to N)

Market maker firms use this message to confirm an order from an order entry firm. Sending this message is optional. In response to this message, NASDAQ sends the order entry firm an order confirm message (section 4.3.4.3).

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID, as provided by NASDAQ, of the order being confirmed. This value will not be validated. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this order confirmation, or enter 0. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | You enter a unique ID for this order. |
| 39 | OrdStatus | Y | 0 = New |
| 40 | OrdType | Q | As per the order message. |
| 44 | Price | N | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 60 | TransactTime | N | The date and time that you are accepting this order. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | As per the order message. |
| 150 | ExecType | Y | 0 = New |
| 151 | LeavesQty | Y | For an Order Confirmation, LeavesQty is equal to OrderQty. |
| 375 | ContraBroker | Q | MPID of the other side. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.2 Order Decline (MM to N)

Market maker firms use this message to decline an order from an order entry firm. In response to this message, NASDAQ sends the order entry firm an order decline message (section 4.3.4.4).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID, as provided by NASDAQ, of the order being declined. This value will not be validated. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this order decline or 0 (zero). |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation. Otherwise, a unique ID for this order or 0 (zero). |
| 38 | OrderQty | Q | As per the order message. |
| 39 | OrdStatus | Y | 8 = Rejected |
| 40 | OrdType | N | As per the order message. |
| 44 | Price | Q | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 58 | Text | N | Where possible, a coded message to explain reason for decline, such as: Rej – NOT A MARKET MAKER Rej – OPEN ORDER CANCELLED Rej – DUPE BRANCH & SEQ NO Rej – COMPANY DISALLOW ACES Rej - INVALID EXPIRY DATE AND TIME: # Rej – ORD CXLD BY MM Rej – ORDER ALREADY CXLD |
| 59 | TimeInForce | N | As per the order message. |
| 60 | TransactTime | N | The date and time that you are declining this order. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | As per the order message. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 99 | StopPx | N | As per the order message. |
| 103 | OrdRejReason | N | Code to identify reason for order rejection. Valid values: 0 = Broker option (used for any undefined reason) 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order 7 = Duplicate of a verbally communicated order 8 = Stale Order |
| 126 | ExpireTime | N | As per the order message. |
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | For an Order decline, LeavesQty is equal to OrderQty. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.3 Execution Report (MM to N)

Market maker firms use this message to execute an order from an order entry firm. In response to this message, NASDAQ sends the order entry firm an execution report (section 4.3.4.5).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID, as provided by NASDAQ, of the order being executed. This value will not be validated. |
| 14 | CumQty | Y | Cumulative quantity executed against this order. |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this execution report. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 31 | LastPx | Q | Price of shares executed in this fill. |
| 32 | LastShares | Q | Number of shares executed in this fill. |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation. Otherwise, a unique ID for this order. |
| 38 | OrderQty | Q | As per the order message. |
| 39 | OrdStatus | Y | Valid values: 1 = Partially filled 2 = Filled |
| 40 | OrdType | Q | Valid values: 1 = market 2 = limit 3 = stop 4 = stop limit 9 = on basis If tag 40 = 2, 3, or 4 then tag 44 is required. Either [tag 59 = 2 or 7] or [tag 40 = 3, 4, or 9], not both. |
| 41 | OrigClOrdID | Q | ClOrdID of the order that you are executing. |
| 44 | Price | N | Most recent price from this order after considering all cancel/replace messages. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 58 | Text | N | Miscellaneous text limited to 20 characters. |
| 59 | TimeInForce | N | As per the order message. |
| 60 | TransactTime | N | The date and time of this execution. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | As per the order message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | Valid values: 1 = Partial Fill 2 = Fill |
| 151 | LeavesQty | Y | Quantity left on the order. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| 9863 | ContraClearingAcct | N | Number of the clearing firm associated with the order entry firm. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.4 Cancel Confirmation (MM to N)

Market maker firms use this message to confirm a cancel request from an order entry firm. In response to this message, NASDAQ sends the order entry firm a cancel confirmation (section 4.3.4.8).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Contains the value sent to you on the Cancel message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID of the cancel message sent by NASDAQ. This value will not be validated. |
| 14 | CumQty | Y | For a cancel, this represents the total executed quantity against this order when the cancel occurred. |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this cancel confirmation, or enter 0. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation, decline, or execution. Otherwise, 0 (zero). |
| 38 | OrderQty | Q | The order's original quantity. |
| 39 | OrdStatus | Y | 4 = Cancelled |
| 40 | OrdType | N | As per the order message. |
| 44 | Price | Q | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 59 | TimeInForce | N | As per the order message. |
| 60 | TransactTime | N | The date and time that you are accepting the cancel request. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | Give-up ID. |
| 99 | StopPx | N | As per the order message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 4 = Cancelled |

| Tag | Field Name | Req'd | Comments |
|------------|-------------------------|--------------|---|
| 151 | LeavesQty | Y | This tag is always 0, as all remaining shares are included in a cancel request. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.5 Cancel Decline (MM to N)

Market maker firms use this message to decline a cancel request from an order entry firm. In response to this message, NASDAQ sends the order entry firm a cancel decline message (section 4.3.4.9).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Contains the value sent to you on the Cancel message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID of the cancel message sent by NASDAQ. This value will not be validated. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this cancel decline or 0 (zero). |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation, decline, or execution. Otherwise, a unique ID for this order or 0 (zero). |
| 38 | OrderQty | Q | The order's original quantity. |
| 39 | OrdStatus | Y | Status at the time of the cancel request. |
| 40 | OrdType | N | As per the order message. |
| 44 | Price | Q | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. |
| 59 | TimeInForce | N | As per the order message. |
| 60 | TransactTime | N | The date and time that you are declining this cancel request. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | Give-up ID. |
| 99 | StopPx | N | As per the order message. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | | | 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | Quantity left on the order. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.6 Cancel/Replace Confirmation (MM to N)

Market maker firms use this message to confirm a cancel/replace request from an order entry firm. In response to this message, NASDAQ sends the order entry firm a cancel/replace confirmation (section 4.3.4.12).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Contains the value sent to you on the Cancel/Replace message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID of the cancel/replace message sent by NASDAQ. This value will not be validated. |
| 14 | CumQty | Y | Currently executed shares for chain of orders. |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this cancel/replace confirmation, or enter 0. |
| 18 | ExecInst | N | As per cancel/replace message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation, decline, or execution. |
| 38 | OrderQty | Q | As per cancel/replace message. |
| 39 | OrdStatus | Y | 5 = Replaced |
| 40 | OrdType | N | As per cancel/replace message. |
| 44 | Price | Q | As per cancel/replace message. |
| 54 | Side | Y | As per cancel/replace message. |
| 55 | Symbol | Y | As per cancel/replace message. |
| 59 | TimeInForce | N | As per cancel/replace message. |
| 60 | TransactTime | N | The date and time that you are accepting this cancel/replace request.. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per cancel/replace message. |
| 76 | ExecBroker | N | Give-up ID. |
| 99 | StopPx | N | As per cancel/replace message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 5 = Replaced |
| 151 | LeavesQty | Y | Quantity left on the order. |
| 375 | ContraBroker | Q | MPID of the other side. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--------------------------------|
| 9214 | SMBnchdFlag | N | As per cancel/replace message. |
| | <i>Standard Trailer</i> | Y | |

4.3.3.7 Cancel/Replace Decline (MM to N)

Market maker firms use this message to decline a cancel/replace request from an order entry firm. In response to this message, NASDAQ sends the order entry firm a cancel/replace decline message (section 4.3.4.13).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Contains the value sent to you on the Cancel/Replace message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | The ClOrdID of the cancel/replace message sent by NASDAQ. This value will not be validated. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | You enter a new, unique 20-character ID for this cancel/replace decline or 0 (zero). |
| 18 | ExecInst | N | As per cancel/replace message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID from the order confirmation, decline, or execution. Otherwise, a unique ID for this order or 0 (zero). |
| 38 | OrderQty | Q | As per cancel/replace message. |
| 39 | OrdStatus | Y | The status at the time of the cancel/replace request. |
| 40 | OrdType | N | As per cancel/replace message. |
| 44 | Price | Q | As per cancel/replace message. |
| 54 | Side | Y | As per cancel/replace message. |
| 55 | Symbol | Y | As per cancel/replace message. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. Business reject and application reject codes are in section Error! Reference source not found. |
| 59 | TimeInForce | N | As per cancel/replace message. |
| 60 | TransactTime | N | The date and time that you are declining this cancel/replace request.. The time portion of this tag is ignored, so you may enter the date only. |
| 65 | SymbolSfx | N | As per cancel/replace message. |
| 76 | ExecBroker | N | Give-up ID. |
| 99 | StopPx | N | As per cancel/replace message. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | Quantity left on the order. |
| 375 | ContraBroker | Q | MPID of the other side. |
| 9214 | SMBnchdFlag | N | As per cancel/replace message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4 NASDAQ to Order Entry Firm

4.3.4.1 Order Acknowledgement (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives an order entry firm's order message and FIX ACES has accepted that order message.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---------------------------------|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | 0 |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | 0 |
| 39 | OrdStatus | Y | 0 = New |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 150 | ExecType | Y | 0 = New |
| 151 | LeavesQty | Y | LeavesQty is equal to OrderQty. |
| 5149 | Memo | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.2 Order Reject (N to OE)

Order entry firms receive this message when NASDAQ rejects a New Order Single.

| Tag | Field Name | Req'd | Comments |
|------|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | 0 |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | 0 (zero) |
| 38 | OrderQty | N | As per the order message. |
| 39 | OrdStatus | Y | 8 = Rejected |
| 40 | OrdType | N | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 58 | Text | N | Where possible, a coded message to explain reason for rejection. Reject codes are in section 5. |
| 59 | TimeInForce | N | If this was present in the original order, it will be returned here. If it was not present, this tag will not be returned. |
| 65 | SymbolSfx | N | As per the order message. |
| 103 | OrdRejReason | N | Code to identify reason for order rejection. Valid values: 0 = Broker option 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order (e.g. dupe ClOrdID) 7 = Duplicate of a verbally communicated order 8 = Stale Order |
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | For an order reject, this tag is equal to OrderQty. |
| 5149 | Memo | N | As per the order message. |

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|----------|
| | <i>Standard Trailer</i> | Y | |

4.3.4.3 Order Confirm (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's order confirm message (section 4.3.3.1).

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 39 | OrdStatus | Y | 0 = New |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 150 | ExecType | Y | 0 = New |
| 151 | LeavesQty | Y | For an Order Confirmation, LeavesQty is equal to OrderQty. |
| 5149 | Memo | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.4 Order Decline (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's order decline message (section 4.3.3.2).

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | As per the order message. |
| 39 | OrdStatus | Y | 8 = Rejected |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 58 | Text | N | Where possible, a coded message to explain reason for decline. |
| 65 | SymbolSfx | N | As per the order message. |
| 103 | OrdRejReason | Q | Code to identify reason for order rejection. NASDAQ passes the value input by the market maker. Valid values: 0 = Broker option (used for any undefined reason) 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order 7 = Duplicate of a verbally communicated order 8 = Stale Order |
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | For an Order decline, LeavesQty is equal to OrderQty. |
| 5149 | Memo | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.5 Execution Report (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's execution message (section 4.3.3.3).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | As per the order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | Quantity, generated by the market maker, of currently executed shares for chain of orders. |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 31 | LastPx | Q | Price of shares executed in this fill. |
| 32 | LastShares | Q | Number of shares executed in this fill. |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | As per the order message. |
| 39 | OrdStatus | Y | Valid values: 1 = Partially filled 2 = Filled |
| 40 | OrdType | Q | As per the order message. |
| 41 | OrigClOrdID | Q | As per the order message. |
| 44 | Price | Q | Most recent price from this order after considering all cancel/replace messages. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| | | | |
| 59 | TimeInForce | N | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | N | As per the order message. |
| 99 | StopPx | N | As per the order message. |
| 126 | ExpireTime | N | As per the order message. |
| 150 | ExecType | Y | Valid values: 1 = Partially filled 2 = Filled |

| Tag | Field Name | Req'd | Comments |
|------------|-------------------------|--------------|---|
| 151 | LeavesQty | Y | Amount of shares open for further execution. |
| 5149 | Memo | N | As per the order message. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| 9863 | ContraClearingAcct | N | Number of the clearing firm associated with the order entry firm. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.6 Pending Cancel (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives an order entry firm's cancel request message and FIX ACES has accepted that cancel request message.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Contains the value provided by the order entry firm on the cancel request. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | CIOrdID | Q | As per the cancel request. |
| 14 | CumQty | Y | Current total executed quantity against this order when the cancel request was received. |
| 17 | ExecID | Y | 0 |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | For this pending message: 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Y | The order's original quantity. |
| 39 | OrdStatus | Y | 6 = pending cancel |
| | | | |
| 41 | OrigCIOrdID | Y | Returns your unique id of the order to be canceled. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 59 | TimeInForce | N | If present on the original order, it is returned here. |
| 65 | SymbolSfx | N | As per the order message. |
| 150 | ExecType | Y | 6 = pending cancel |
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per the cancel request. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.7 Rejected Cancel (N to OE)

Order entry firms receive this message when NASDAQ rejects a cancel request.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 9 |
| 11 | ClOrdID | Y | As per the cancel request. |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 39 | OrdStatus | Y | Order status after the cancel reject is applied. |
| 41 | OrigClOrdID | Y | Returns your unique ID of the original order that was attempted to be canceled. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. Reject codes are in section 5. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 5149 | Memo | N | As per the cancel request. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.8 Cancel Confirmation (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's cancel confirmation message (section 4.3.3.4).

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field contains the value you sent on the original cancel message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the cancel request. |
| 14 | CumQty | Y | For a cancel, this represents the total executed quantity against this order when the cancel occurred. |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | The order's original quantity. |
| 39 | OrdStatus | Y | 4 = cancelled |
| 40 | OrdType | N | As per the order message. |
| 41 | OrigClOrdID | Y | Returns your unique id of the original order – the order to be canceled. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 59 | TimeInForce | N | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 4 = cancelled |
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per the cancel request. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.9 Cancel Decline (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's cancel decline message (section 4.3.3.5).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field contains the value you sent on the original cancel message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the cancel request. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | The order's original quantity. |
| 39 | OrdStatus | Y | Status at the time of the cancel request. |
| 40 | OrdType | N | As per the order message. |
| 41 | OrigClOrdID | Q | ClOrdID of the order that you attempted to cancel. |
| 44 | Price | Q | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. Reject codes are in section 5. |
| 59 | TimeInForce | N | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 99 | StopPx | N | As per the order message. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 8 = Rejected |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|----------------------------|
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per the cancel request. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.10 Pending Cancel/Replace (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives an order entry firm's cancel/replace request message and FIX ACES has accepted that cancel/replace request message.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field is limited to 20 characters. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the cancel/replace request. |
| 14 | CumQty | Y | For a pending cancel/replace, this represents the current total executed quantity against this order when the cancel request was received. |
| 17 | ExecID | Y | 0 |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | For this pending message: 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Y | The order's original quantity. |
| 39 | OrdStatus | Y | E = pending replace |
| | | | |
| 41 | OrigClOrdID | Y | Returns your unique id of the order to be canceled. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 59 | TimeInForce | N | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 150 | ExecType | Y | E = Pending Replace |
| 151 | LeavesQty | Y | For a pending cancel/replace, this represents the current leaves quantity for this order when the cancel/replace request was received. |
| 5149 | Memo | N | As per the cancel/replace request. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.11 Rejected Cancel/Replace (N to OE)

Order entry firms receive this message when NASDAQ rejects a cancel/replace request.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 9 |
| 11 | ClOrdID | Y | As per the cancel/replace request. |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 39 | OrdStatus | Y | Status at the time of the cancel/replace request. |
| 41 | OrigClOrdID | Y | Returns your unique ID of the order that you attempted to replace. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. Reject codes are in section 5. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 5149 | Memo | N | As per the cancel/replace request. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.12 Cancel/Replace Confirmation (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's cancel/replace confirmation message (section 4.3.3.6).

This message is also sent unsolicited after a corporate action. Receipt of this UM is optional.

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field contains the value you sent on the original cancel/replace message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the cancel/replace request. |
| 14 | CumQty | Y | Currently executed shares for chain of orders. |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per cancel/replace message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | As per cancel/replace message. |
| 39 | OrdStatus | Y | 5 = replaced |
| 40 | OrdType | N | As per cancel/replace message. |
| 41 | OrigClOrdID | Q | ClOrdID of the order that you are cancel/replacing. |
| 44 | Price | Q | As per cancel/replace message. |
| 54 | Side | Y | As per cancel/replace message. |
| 55 | Symbol | Y | As per cancel/replace message. |
| 59 | TimeInForce | N | As per cancel/replace message. |
| 65 | SymbolSfx | N | As per cancel/replace message. |
| 99 | StopPx | N | As per cancel/replace message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 5 = replace |
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per cancel/replace request. |
| 9214 | SMBnchdFlag | N | As per cancel/replace message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.13 Cancel/Replace Decline (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives a market maker's cancel/replace decline message (section 4.3.3.7).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field contains the value you sent on the original cancel/replace message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the cancel/replace request. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per cancel/replace message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | As per cancel/replace message. |
| 39 | OrdStatus | Y | Status at the time of the cancel/replace request. |
| 40 | OrdType | N | As per cancel/replace message. |
| 41 | OrigClOrdID | Q | ClOrdID of the order that you attempted to cancel/replace. |
| 44 | Price | Q | As per cancel/replace message. |
| 54 | Side | Y | As per cancel/replace message. |
| 55 | Symbol | Y | As per cancel/replace message. |
| 58 | Text | N | Where possible, coded message to explain reason for rejection. Reject codes are in section 5. |
| 59 | TimeInForce | N | As per cancel/replace message. |
| 65 | SymbolSfx | N | As per cancel/replace message. |
| 99 | StopPx | N | As per cancel/replace message. |
| 102 | CxlRejReason | N | Code to identify reason for cancel rejection. Valid values: 0 = Too late to cancel 1 = Unknown order 2 = Broker Option 3 = Order already in Pending Cancel or Pending Replace status |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|--------------------------------|
| 150 | ExecType | Y | 8 = Rejected |
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per cancel/replace request. |
| 9214 | SMBnchdFlag | n | As per cancel/replace message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.14 Purged Order (N to OE)

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | This field contains the value you sent on the original order message. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order message. |
| 14 | CumQty | Y | 0 |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 18 | ExecInst | N | As per the order message. |
| 20 | ExecTransType | Y | 0 = New |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | 1-8 numbers that represents the number of shares. |
| 39 | OrdStatus | Y | 4 = cancelled |
| 40 | OrdType | N | As per the order message. |
| 44 | Price | Q | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| 59 | TimeInForce | N | As per the order message. |
| 65 | SymbolSfx | N | As per the order message. |
| 76 | ExecBroker | Q | Market Maker ID. |
| 99 | StopPx | N | As per the order message. |
| 126 | ExpireTime | N | Time/Date of order expiration expressed in UTC. This tag is required if 59 = 6. |
| 150 | ExecType | Y | 8 = cancelled |
| 151 | LeavesQty | Y | 0 |
| 5149 | Memo | N | As per the order message. |
| 9214 | SMBnchdFlag | N | As per the order message. |
| | <i>Standard Trailer</i> | Y | |

4.3.4.15 Order Status Response (N to OE)

NASDAQ sends this message to an order entry firm when NASDAQ receives the firm's order status request message (section 4.3.1.4).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | Y | MsgType = 8 |
| 1 | Account | N | Value sent to you on the order status request. |
| 6 | AvgPx | Y | 0 (zero) |
| 11 | ClOrdID | Q | As per the order status request. |
| 14 | CumQty | Y | Total shares executed against this order. |
| 17 | ExecID | Y | If available, the ExecID provided by the market maker. |
| 20 | ExecTransType | Y | 3 = Status |
| 37 | OrderID | Y | If available, the OrderID assigned by the market maker. |
| 38 | OrderQty | Q | Original quantity of the order. |
| 39 | OrdStatus | Y | Identifies current status of order. Valid values: 0 = New 1 = Partially filled 2 = Filled 3 = Done for day 4 = Canceled 5 = Replaced 6 = Pending Cancel 7 = Stopped 8 = Rejected 9 = Suspended A = Pending New B = Calculated C = Expired D = Accepted for bidding E = Pending Cancel/Replace |
| | | | |
| 44 | Price | N | As per the order message. |
| 54 | Side | Y | As per the order message. |
| 55 | Symbol | Y | As per the order message. |
| | | | |
| 65 | SymbolSfx | N | As per the order message. |

| Tag | Field Name | Req'd | Comments |
|-----|-------------------------|-------|-----------------------------|
| 150 | ExecType | Y | 0 = new |
| 151 | LeavesQty | Y | Quantity left on the order. |
| | <i>Standard Trailer</i> | Y | |

5 Reject Messages

5.1 Session

Sometimes, messages that are inbound to NASDAQ FIX are rejected directly, resulting in session level rejects. In these cases, you will receive a reject message (35=3) that includes the reject reason (tag 373) and detailed, specific causes of the reject (tag 58).

| Tag | Field Name | Req'd | Comments |
|-----|------------------------|-------|--|
| | <i>Standard Header</i> | | MsgType = 3 |
| 45 | RefSeqNum | Y | MsgSeqNum of Rejected message |
| 58 | Text | Q | Where possible, coded message that includes an indicator and text to explain reason for rejection. 0001 Invalid tag number 0002 Required tag missing 0003 Tag not defined for this message type 0004 Undefined Tag 0005 Tag specified without a value 0006 Value is incorrect (out of range) for tag 0007 Incorrect data format for value 0009 Signature problem 0010 Tag CompID problem 0011 SendingTime accuracy problem 0012 Invalid value for MsgType tag |
| 371 | RefTagId | N | The tag number, if appropriate, being referenced in tag 373. |
| 372 | RefMsgType | N | The message type, tag 35, of the FIX message being referenced. |
| 373 | SessionRejectReason | Q | As per FIX specifications, the reason for the reject: Valid values: 0 = Invalid tag number 1 = Required tag missing 2 = Tag not defined for this message type 3 = Undefined Tag 4 = Tag specified without a value 5 = Value is incorrect (out of range) for this tag 6 = Incorrect data format for value 7 = Decryption problem 8 = Signature problem 9 = CompID problem 10 = SendingTime accuracy problem 11 = Invalid MsgType |

| Tag | Field Name | Req'd | Comments |
|------|-------------------------|-------|---|
| 5149 | Memo | N | This tag will contain the text from the message being rejected. |
| | <i>Standard Trailer</i> | | |

5.2 Business

Messages can be rejected when tag content validation fails, resulting in business level rejects. Business rejects include order, cancel, and cancel/replace rejects. In these cases, you will receive a reject message (35=8 or 35=9) that includes the reject reason (tag 103 or 102) and detailed and specific causes of the reject (tag 58). The message formats are in sections 4.3.4.2, 4.3.4.7, and 4.3.4.11.

The following table lists business reject errors that you may see in tag 58 of business level rejects.

| Tag 58 |
|--|
| 0200 Client Order ID (COrdID) exceeds the NASDAQ specified 20-character limit |
| 0201 Original Client Order ID (OrigCOrdID) exceeds the NASDAQ specified 20-character limit |
| 0202 Unknown Client Order ID (COrdID) |
| 0203 Unknown Original Client Order ID (OrigCOrdID) |
| 0204 Symbol does not match symbol from original order |
| 0205 Side does not match side from original order |
| 0206 Invalid SenderSubID |
| 0207 Cannot send Cancel/Replace Request while in Pending New Order state |
| 0208 Cannot send Cancel/Replace Request while in Pending Cancel state |
| 0214 Non-supported Order Type (OrdType) value |
| 0217 Non-supported Time In Force (TimeInForce) value |
| 0219 Cannot send Cancel/Replace Request while in Pending Replace state |
| 0220 Too Late To Cancel |
| 0221 Price must be present on Limit Order |
| 0216 Non-supported Side Value |
| 0223 Cancel NACKed by NASDAQ Market Center - Not accepted |
| 0224 No Client Order ID (COrdID)/Invalid COrdID provided |
| 0225 No Original Client Order ID (COrdID) provided |
| 0226 Invalid TargetSubID |
| 0227 Invalid HandInst |
| 0228 Price not allowed on Market order |

| Tag 58 |
|--|
| 0229 Invalid Dispatch |
| 0230 Order Rejected By NASDAQ Market Center |
| 0231 Invalid Order Capacity |
| 0232 Transaction Time is Missing |
| 0233 PossDup Flag Must be Y or N or None |
| 0234 PossResend Flag Must be Y or N or None |
| 0235 Invalid Bunched Indicator |
| 0236 Error UM has been processed - Possible Duplicate |
| 0237 Cannot send Cancel Request while in Pending New Order state |
| 0238 Cannot send Cancel Request while in Pending Cancel state |
| 0239 Cannot send Cancel Request while in Pending Replace state |
| 0240 Order Already Cancelled |
| 0241 Client Order ID must be Alphanumeric |
| 0300 Invalid Size |
| 0301 Invalid Reserve/Refresh Size |
| 0302 Order Not Accepted No Attributable Orders |
| 0303 Too Late To Cancel |
| 0304 Not Within Allowable Time |
| 0305 MPID Not Authorized |
| 0306 Size Over Limit |
| 0307 Size Smaller Than Default |
| 0308 Invalid Delta Update No Reserve Size |
| 0309 Excessive Open Order Quantity |
| 0310 Cannot Reinstate a Quote |
| 0310 Cannot Reinstate - Order Not Purged |
| 0311 Violation Shortsale Rule |
| 0312 Order Rejected Due to Anti-Internalization |
| 0313 Security in Trade Halt |
| 0314 Security in Quote Halt |
| 0315 Issue Set to Delete |
| 0316 Order Not Executable |
| 0317 Preferenced Order Not Executable |
| 0318 Preferenced Order Not Executable |
| 0319 Action Rejected |
| 0320 Order Not Found |

| Tag 58 |
|---|
| 0321 Cannot Lock/Cross Market |
| 0322 Quote Not Found |
| 0323 Order Not Executed |
| 0324 Invalid Update No Open Qty |
| 0325 Cannot Cancel Quote |
| 0326 Cannot Cancel/Replace Quote |
| 0327 No Display Quote For Destination MPID |
| 0328 [This message varies in meaning. The text following this message number explains the reason for the reject. Please see the explanation of this reject after this table.] |
| 0499 Order NACKed by NASDAQ Market Center - Not accepted |
| 0500 Replaced/Filled Orders cannot be Modified |
| 0501 Invalid Quantity |
| 0502 Error SIDE does not match original order / not present on cancel replace |
| 0503 Internal Error Unable to Process Message |
| 0504 Error Duplicate CLORDID |
| 0505 Error MsgType Not Supported |
| 0506 Illegal character(s) in ClOrdID |
| 0507 Error Layer6 CLORDID not found |
| 0508 Error Outbound NSMP Message I112 Invalid |
| 0509 Error Order Not Found |
| 0510 Cannot Modify Side/Tif/Symbol/OrdType |
| 0511 Account exceeds maximum length of 20 |
| 0514 Error Drop Copy I112, No Inbound Messages Allowed |
| 0521 Unknown Exchange Destination |
| 0522 Preferenced Market Maker Not Allowed Unless ExDestination is O |
| 0523 Unknown TradingSessionID |
| 0612 Temporarily Not Available |
| 0659 Client Order ID (ClOrdID) exceeds the ACES specified 8-character limit. |
| 0660 Original Client Order ID (OrigClOrdID) exceeds the ACES specified 8-character limit |

A note about reject 0328:

Business reject messages from NASDAQ may contain the value 328, the text of which is undocumented in this specification. These values are undocumented because unique reject text may be returned to you for enhanced host processing rejects. Allowing a variable text reject through the use of tag 328 and its companion tags enables you to receive these unique rejects in unison with other methods of message delivery (API, CTCL, QIX). This flexibility eliminates the need for you to upgrade your access service software in unison with business rule changes.

While some values of 328 are known at this time, inclusion of these in the specification would result in a still incomplete list due to ongoing system changes and implementations. Instead, we have listed several examples of possible explanations for 328.

In the rare event that your FIX engine does not automatically recognize these values because of the uniqueness of the messages, then please call the FIX Support Group. See section 1.2, NASDAQ Customer Support.

Example 1:

Enter a Day or GTC order prior to 9:28, status = K. If you decrement quantity or try to cancel the order after 9:28, you will receive reject **0328 Action Pended at This Time**. Format is below, where tag 58 (reject code) = 0328 and tag 102 (reject reason) = 0 (too late to cancel)

```
8=FIX.4.2|9=162|35=9|34=149|49=NSDQ|50=S|52=20041203-
15:01:01|56=DLJP|57=03F9|11=120308061324|37=04804DT000MN|39=0|41=120308061
323|58=0328 ACTION PENDED AT THIS TIME|102=0|434=2|10=082|
```

Example 2:

Enter an On Open order prior to 9:28, status = Q. If you modify and the price is not better than the open price, you receive reject **0328 Invalid Price**. Format is below, where tag 58 (reject code) = 0328 and tag 102 (reject reason) = 0 (too late to cancel)

```
8=FIX.4.2|9=148|35=9|34=102|49=NSDQ|50=S|52=20041203-
14:28:21|56=DLJP|57=03F9|11=120308061317|37=04D04DT000MC|39=0|41=120308061
35|58=0328 INVALID PRICE|102=0|434=2|10=216|
```

Example 3:

Enter a Pegged order, where there is not an inside to peg to. You receive reject **0328 Order Not Accepted - No Current Inside**. Format is below where tag 58 (reject code) = 0328. The Order Reject Reason Tag 103 is not required and does not appear on this reject message.

```
8=FIX.4.2|9=246|35=8|34=168|49=NSDQ|50=S|52=20041203-
15:16:44|56=DLJP|57=03F9|6=0.0|11=120308061326|14=0|17=R0000000000000000120
072|18=R|20=0|31=0|32=0|37=04D04DT000N1|38=200|39=8|40=P|54=1|55=JPST|58=0
328 ORDER NOT ACCEPTED - NO CURRENT INSID|59=0|150=8|151=200|10=164|
```

Example 4:

Enter an auto-ex only order. If it cannot auto execute, you'll receive the reject **0328 Cannot Autoex - Order Rejected**. Format is below where tag 58 (reject code) = 0328. The Order Reject Reason tag 103 is not required and does not appear on this reject message.

```
8=FIX4.2|9=242|35=8|34=180|49=NSDQ|50=S|52=20041203-
15:25:42|56=DLJP|57=03F9|6=0.0|11=120308061328|14=0|17=R000000042949672970
072|20=0|31=0|32=0|37=04D04DT000N4|38=200|39=8|40=2|44=4.33|54=2|55=JPST|5
8=0328 CANNOT AUTOEX - ORDER REJECTED|59=0|150=8|151=200|10=107|
```

5.3 Application

Messages can be rejected when tag content validation fails, resulting in business level rejects. Business rejects include order, cancel, and cancel/replace rejects. In these cases, you will receive a reject message (35=8 or 35=9) that includes the reject reason (tag 103 or 102) and detailed and specific causes of the reject (tag 58). The message formats are in sections 4.3.4.2, 4.3.4.7, and 4.3.4.11.

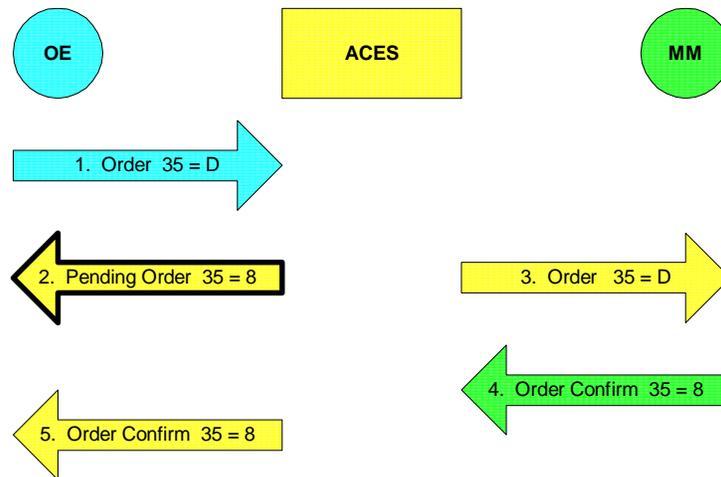
The following table lists FIX ACES reject errors that you may see in tag 58 of application level rejects. All application errors will be preceded by 5000.

| Tag 58 |
|--|
| Rej – INVALID FORMAT |
| Rej – NOT WITHIN ALLOWABLE HOURS |
| Rej – CANT FIND |
| Rej – MMID NOT AUTHORIZED |
| Rej – CONTRA FIRM NOT IN CUSTOMER FILE |
| Rej – NOT AUTHORIZED |
| Rej – FUNCTION NOT ALLOWED |
| Rej – INVALID BUY/SELL CODE |
| Rej – INVALID CUSTOMER |
| Rej – INVALID FORMAT |
| Rej – INVALID GIVEUP |
| Rej – INVALID PRICE |
| Rej – INVALID VOLUME |
| Rej – INVALID MM FIRM |

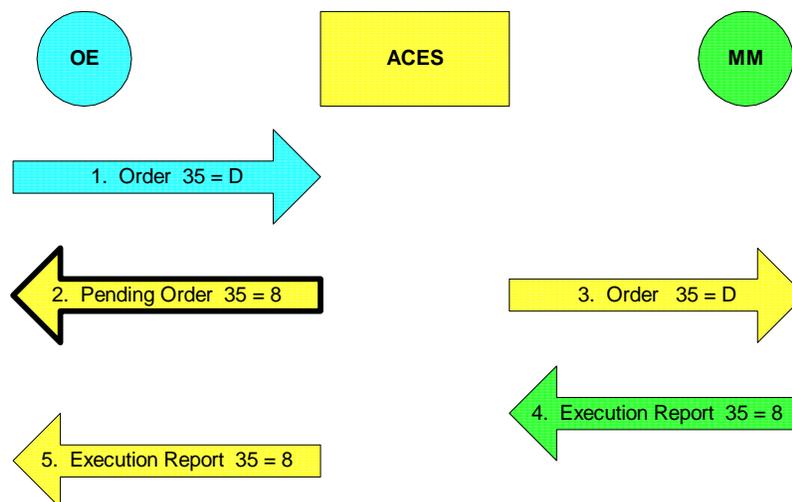
6 Appendix A: Message Flow Scenarios

Please note that bold arrows indicate messages that do not currently exist in ACES, but do exist in FIX ACES.

6.1 OE sends order and MM confirms it

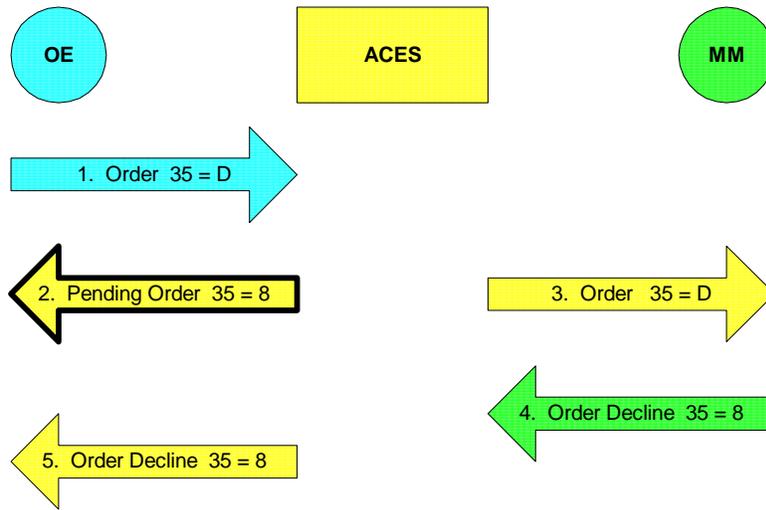


6.2 OE sends order and MM executes it

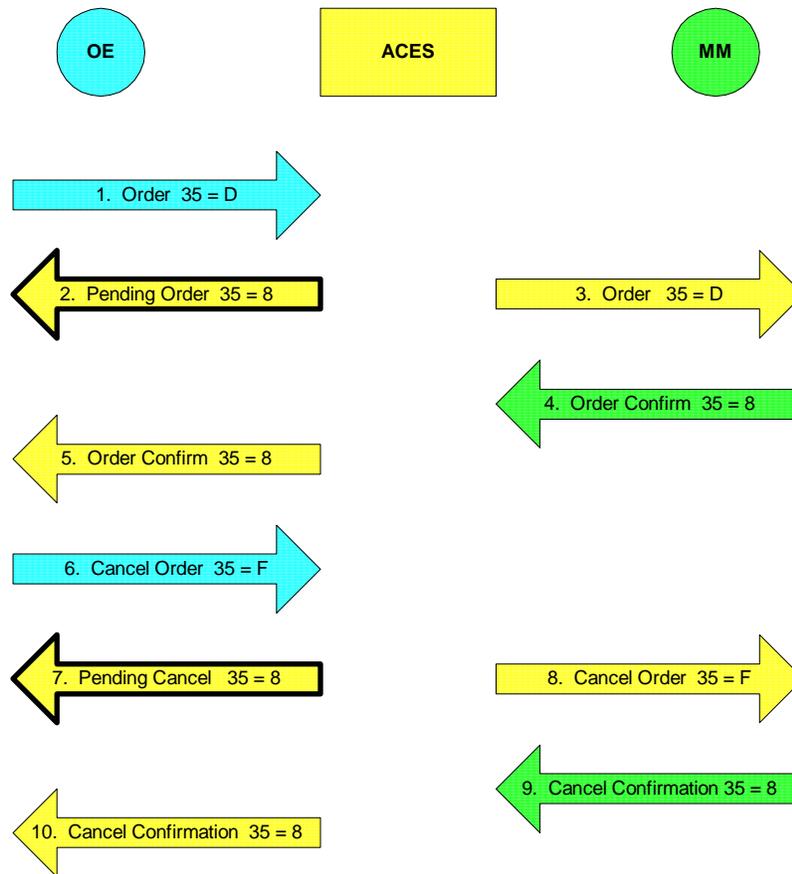


Please note that the MM could also send an Order Confirmation message prior to the execution report. Order Confirmation messages are optional.

6.3 OE sends order and MM declines it

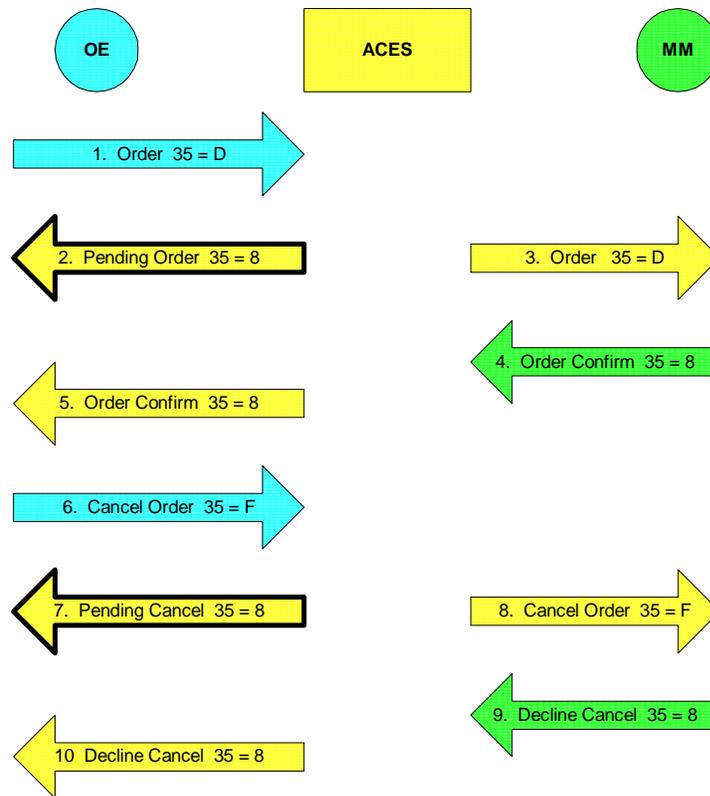


6.4 OE cancels order and MM confirms cancel



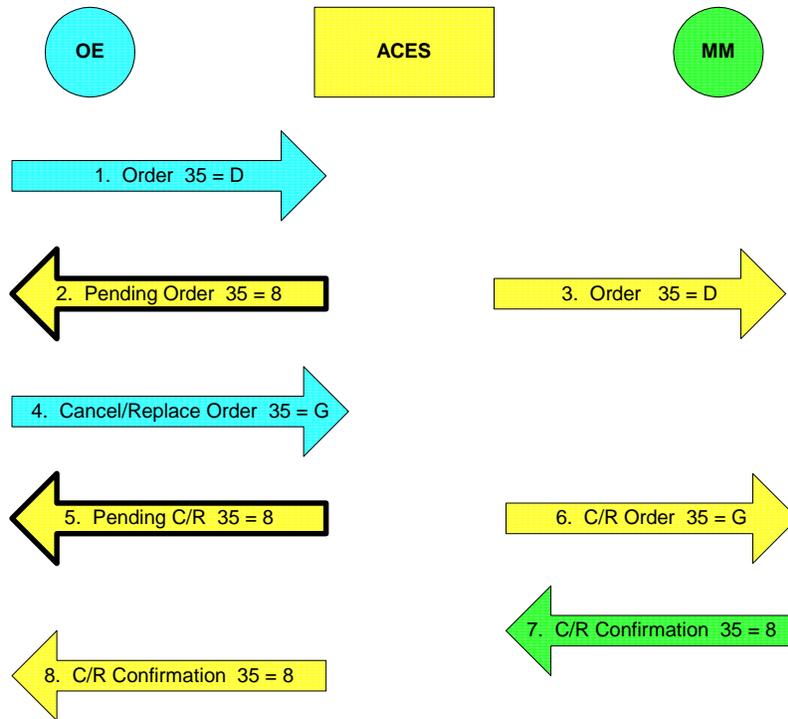
Please note that the MM is under no obligation to send an Order Confirm message. This scenario could exclude steps 4 and 5.

6.5 OE cancels order and MM declines cancel

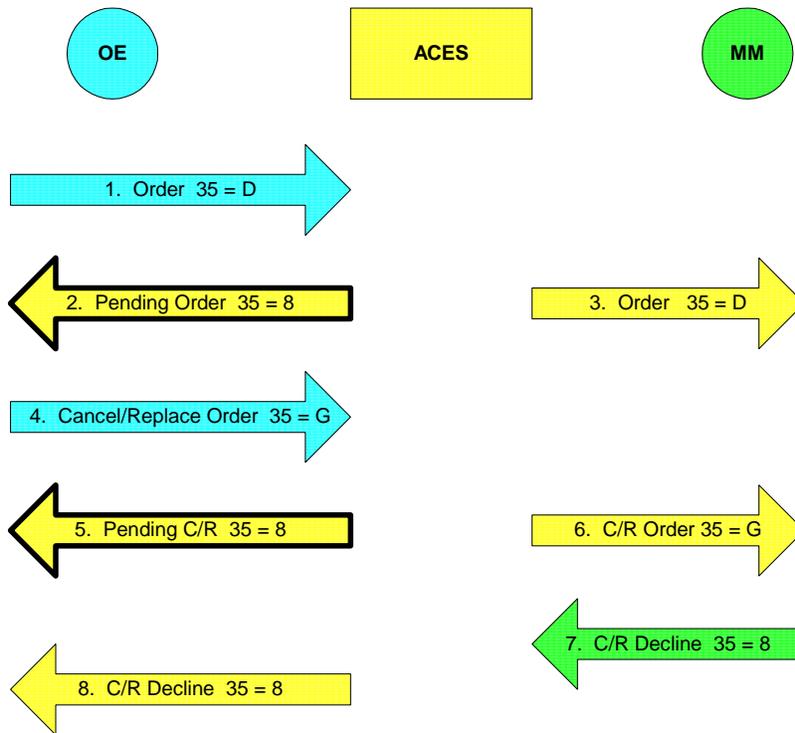


Please note that the MM is under no obligation to send an Order Confirm message. This scenario could exclude steps 4 and 5.

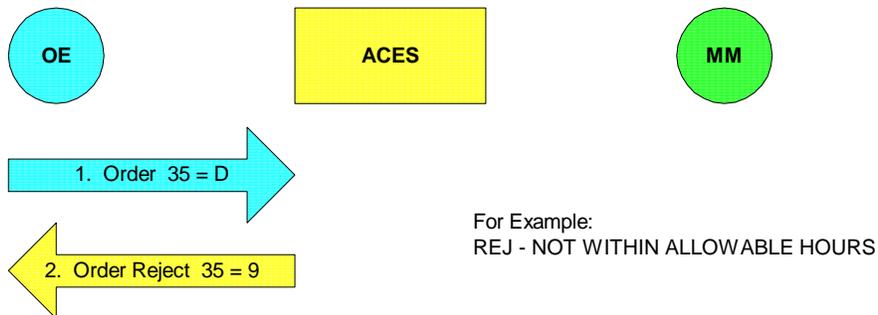
6.6 OE cancel/replaces order and MM confirms cancel/replace



6.7 OE cancel/replaces order and MM declines cancel/replace

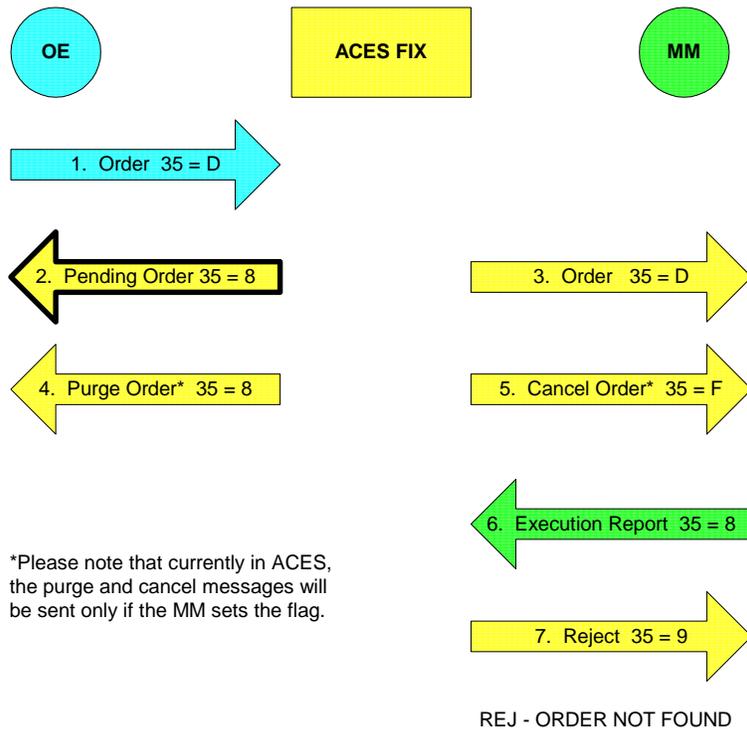


6.8 OE sends order and FIX ACES rejects it

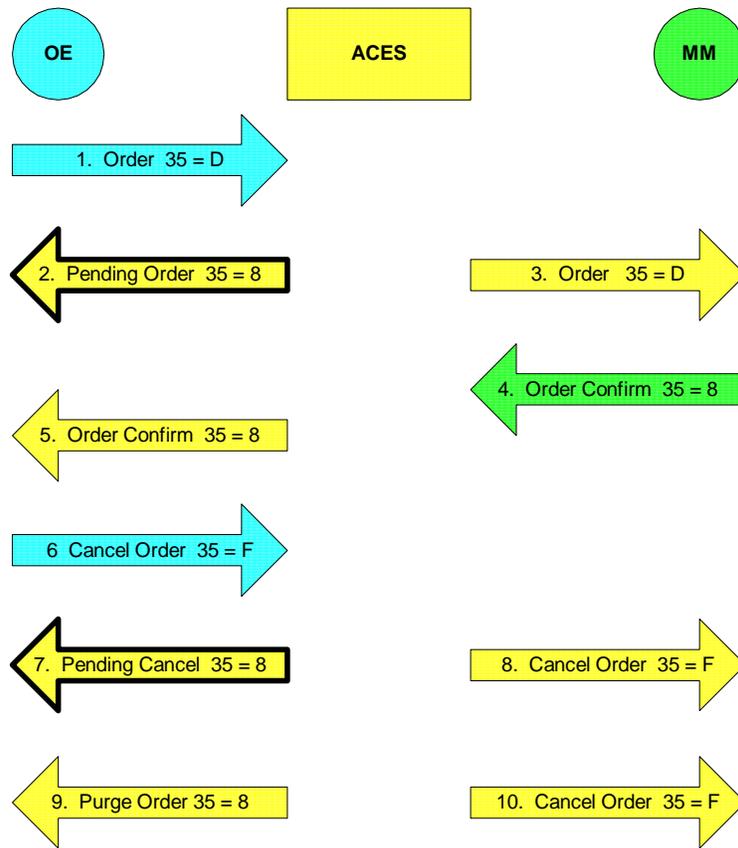


6.9 FIX ACES purges open order

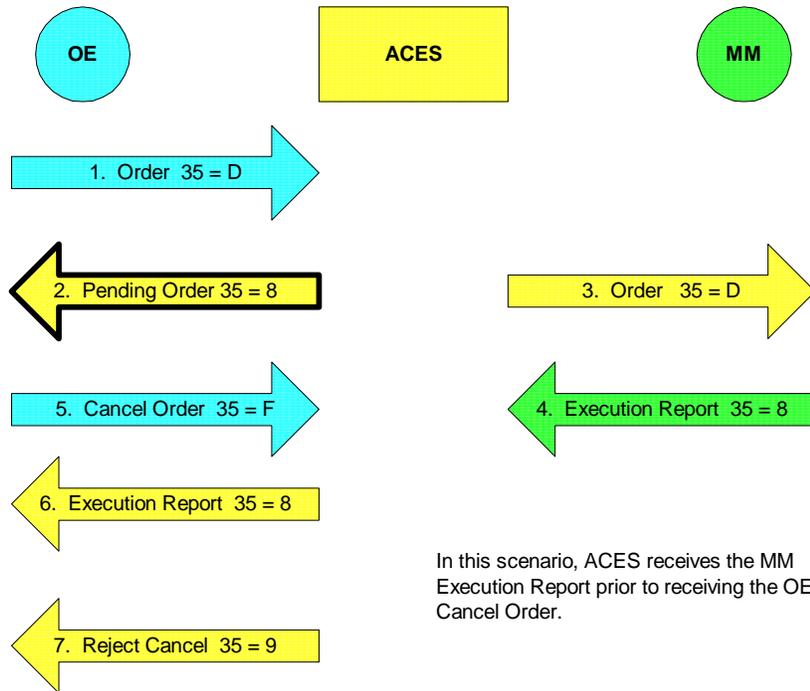
This DAY order is purged at the end of the day - when it expires - because it has not been executed.



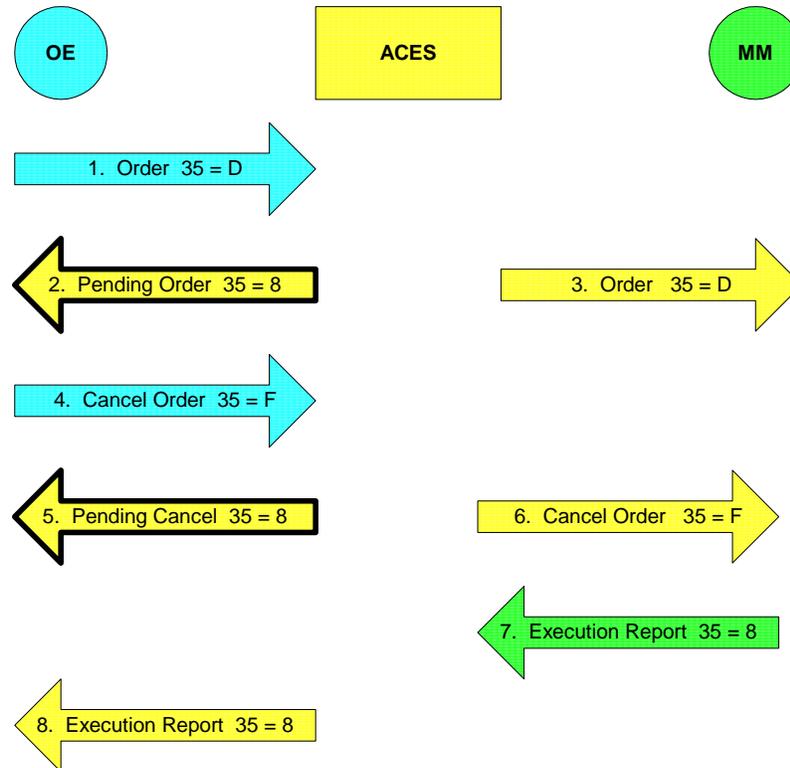
6.10 FIX ACES purges pending cancel order



6.11 OE cancels order while MM execution is in flight

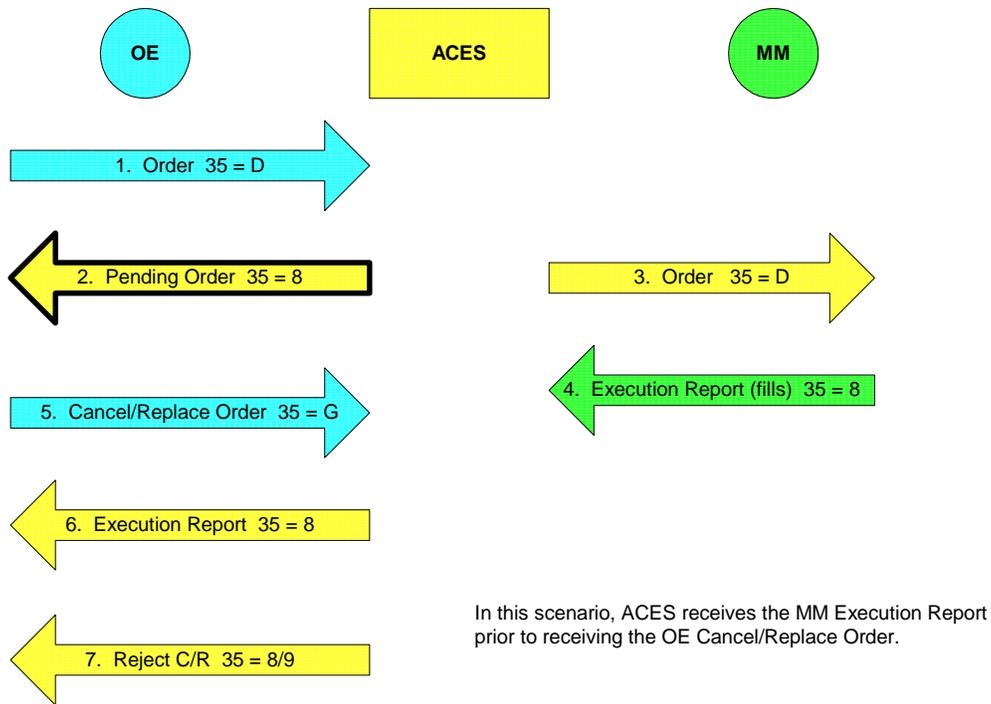


6.12 MM executes order while OE cancel is in flight

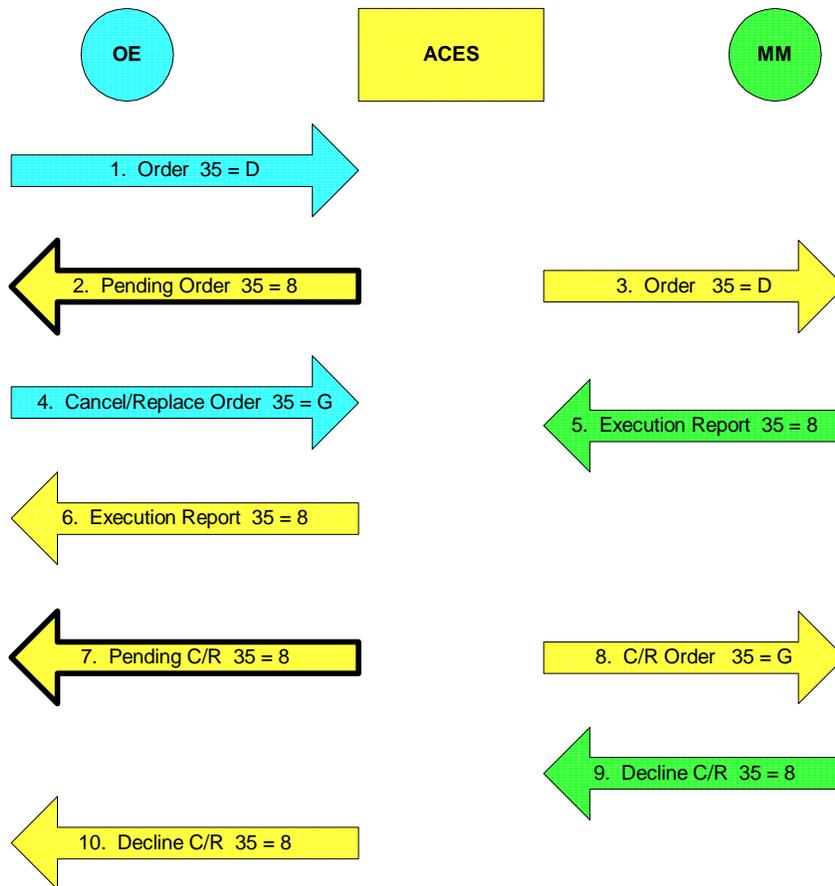


In this scenario, ACES receives the OE Cancel Order prior to receiving the MM Execution Report. The order will execute, as in scenario 15, but the OE will not receive a reject cancel message.

6.13 OE decreases quantity while MM execution (fills) is in flight

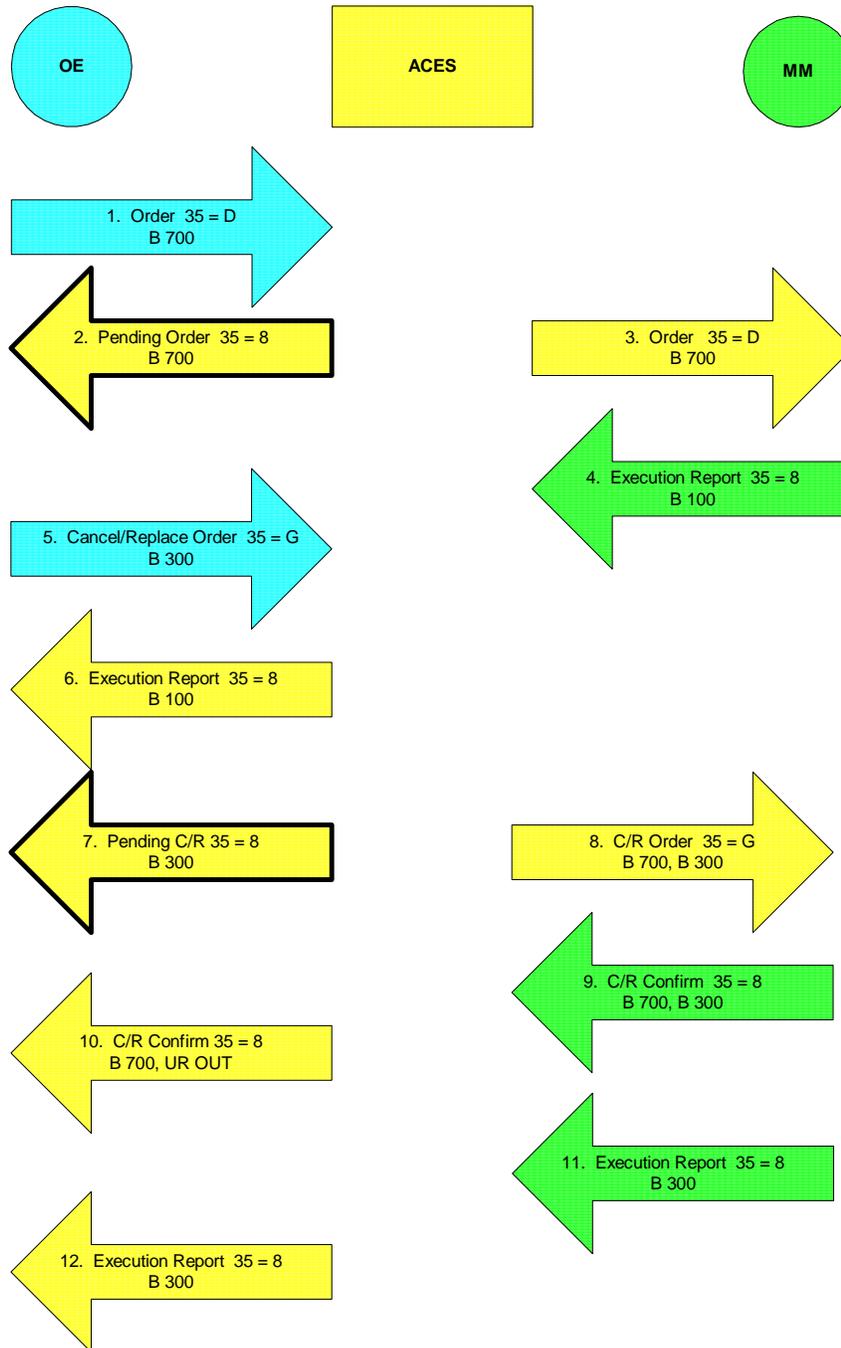


6.14 MM executes order while cancel/replace is in flight

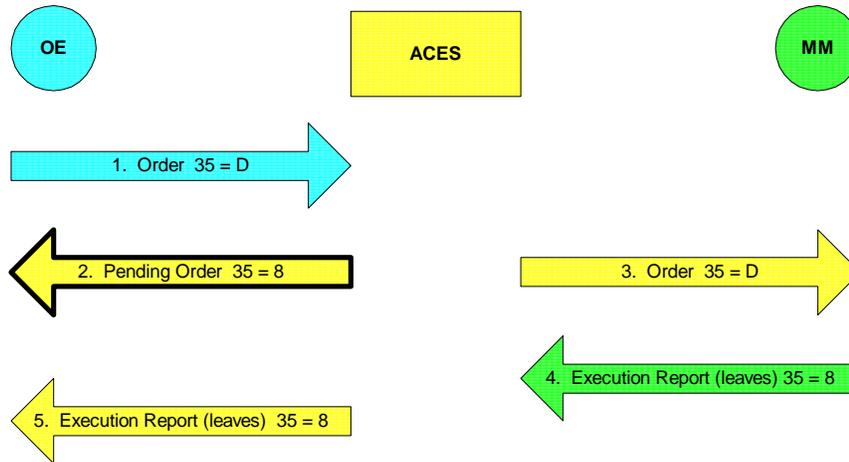


In this scenario, ACES receives the OE Cancel/Replace Order prior to receiving the MM Execution Report.

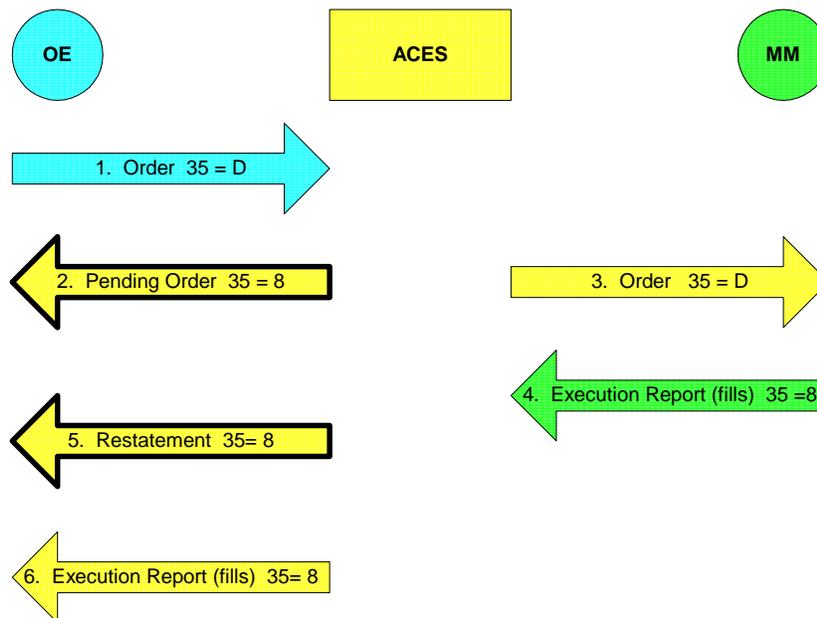
6.15 OE decreases quantity while MM execution (leaves) is in flight



6.16 MM executes 500 shares of a 1000 share order (leaves)

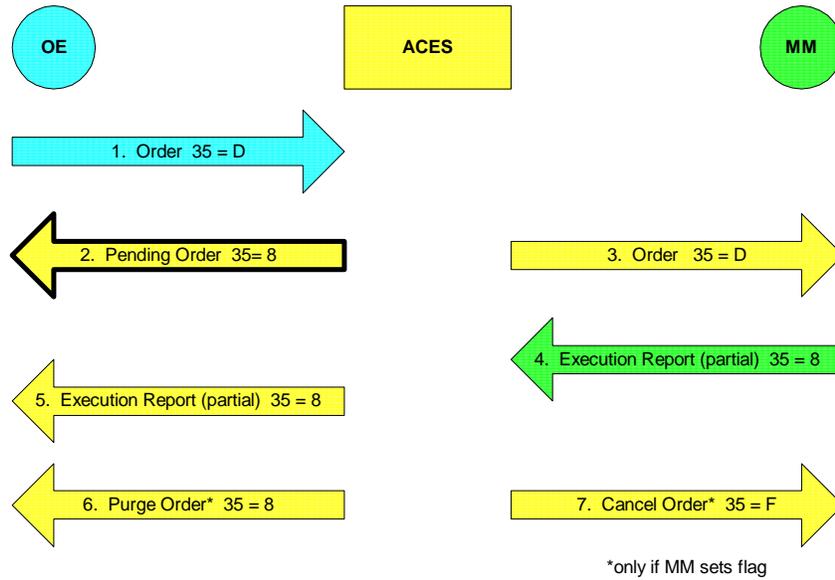


6.17 MM executes 500 shares of a 1000 share order (fills)



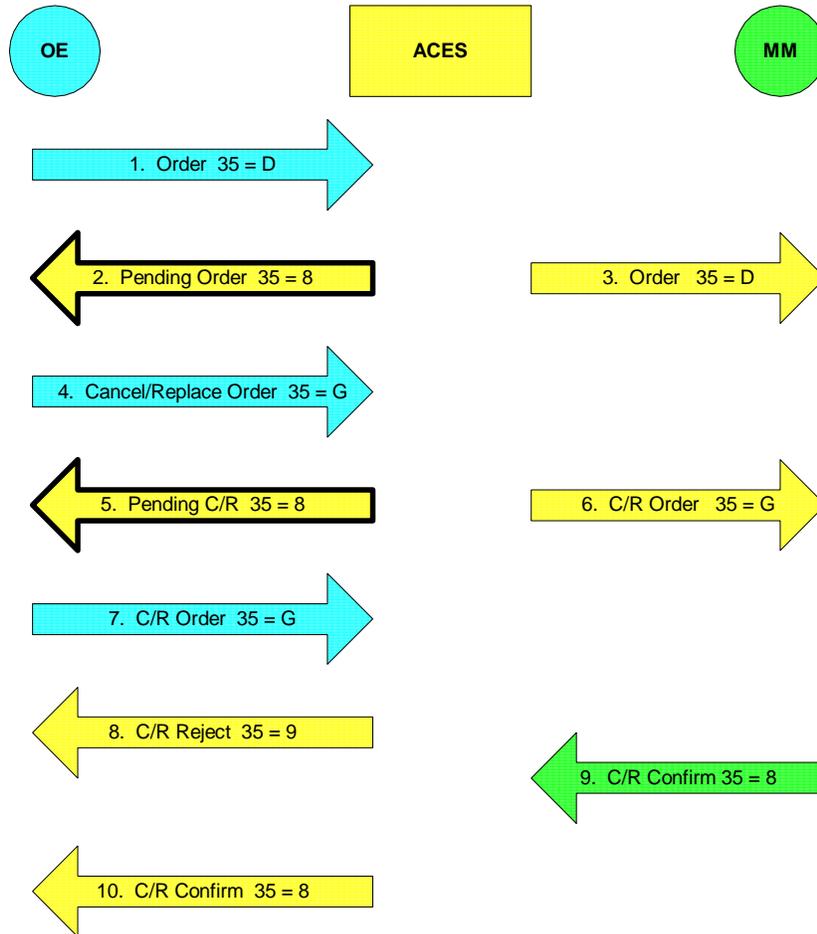
6.18 MM executes partial order and FIX ACES purges remainder at expiration

In this case, the MM did not designate leaves or fills.



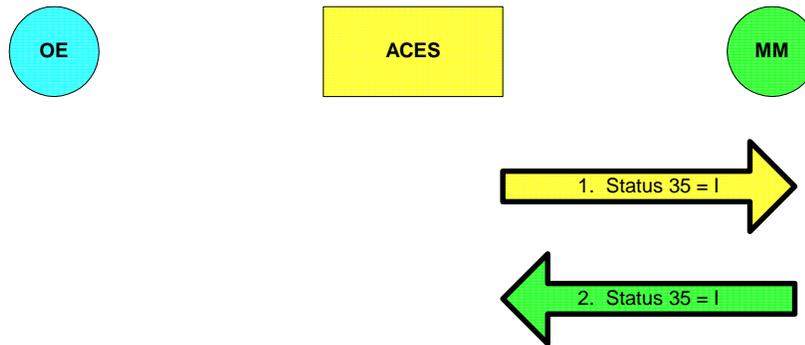
6.19 OE submits a cancel/replace while another is in flight

Both of these cancel/replace messages are for the same order.

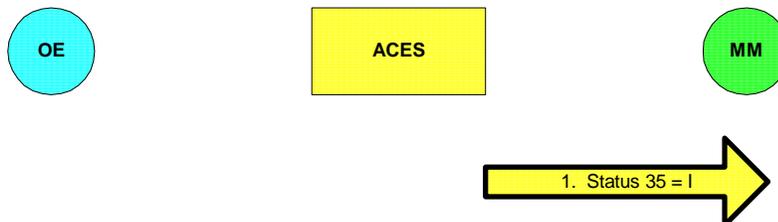


6.20 FIX ACES sends status request and MM responds

The MM response status is the same as FIX ACES state. If not, then FIX ACES will adjust its book to reflect the market maker's.

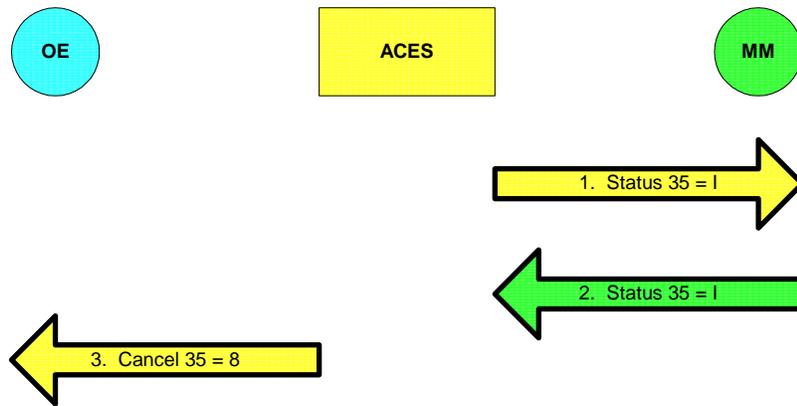


6.21 FIX ACES sends status request and MM does not respond

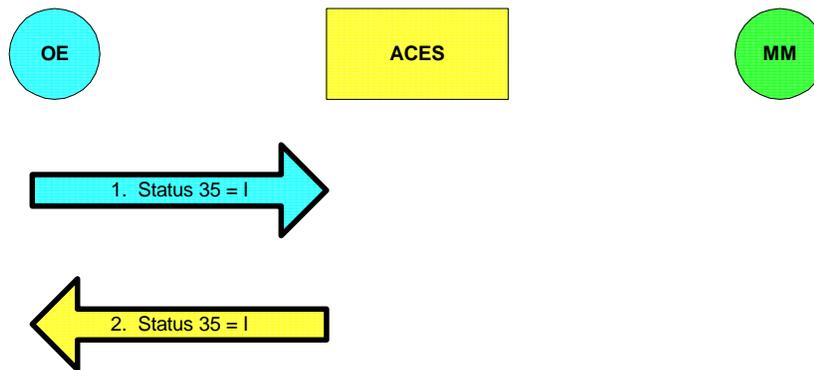


In this situation, orders in pending cancel or pending cancel/replace state revert to their prior state. DAY orders will be purged, as we do today. All other orders will remain open.

6.22 FIX ACES sends status request and MM responds with Do Not Know



6.23 OE sends status request and FIX ACES responds



6.24 MM sends execution report and order is not open on FIX ACES book

