

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

1 Overview

NASDAQ OMX PSX accepts limit orders from system participants and executes matching orders when possible. Non-matching orders may be added to the NASDAQ OMX PSX Limit Order Book, a database of available limit orders, where they wait to be matched in price-time priority.

OUCH is a simple protocol that allows NASDAQ OMX PSX participants to enter orders, cancel existing orders and receive executions. It is intended to allow participants and their software developers to integrate NASDAQ OMX PSX into their proprietary trading systems or to build custom front ends.

OUCH only provides a method for participants to send orders to NASDAQ OMX PSX and receive updates on those orders entered. For information about all orders entered into and executed on the NASDAQ OMX PSX book, refer to the ITCH protocol (available separately).

OUCH is the low-level native protocol for connecting to NASDAQ OMX PSX. It is designed to offer the maximum possible performance at the cost of flexibility and ease of use. For applications that do not require this extreme level of performance, NASDAQ OMX PSX offers other, more standard interfaces that may be more suitable and easier to develop to.

1.1 Architecture

The OUCH protocol is composed of logical messages passed between the OUCH host and the client application. Each message type has a fixed message length. All messages are composed of non-control ASCII bytes.

All messages sent from the OUCH host to the client are assumed to be sequenced, and their delivery must be guaranteed by some lower level protocol. The SoupTCP (available separately) is typically used to guarantee the delivery and sequencing of OUCH messages sent from the host to the client.

Messages sent from the OUCH client to the host are inherently non-guaranteed, even if they are carried by a lower level protocol that guarantees delivery (like TCP/IP sockets). Therefore, all host-bound messages are designed so that they can be benignly resent for robust recovery from connection and application failures.

Each physical OUCH host port is bound to a NASDAQ OMX PSX-assigned logical OUCH Account. On a given day, every order entered on OUCH is uniquely identified by the combination of the logical OUCH Account and the participant-created Token field.

1.2 Data Types

Numeric fields are a string of ASCII-coded digits, right-justified and zero-filled on the left.

Alpha fields are left-justified and padded on the right with spaces.

Prices are given in decimal format with 6 whole number places followed by 4 decimal digits. The whole number portion is padded on the left with zeros; the decimal portion is padded on the right with zeros. The decimal point is implied by position; it does not appear inside the price field. The maximum valid price value on THE NASDAQ OMX PSX SYSTEM is \$199,999.00. Timestamp fields are given in milliseconds past midnight, Eastern Time (ET).

1.3 Fault Redundancy

A single OUCH Account can be bound to multiple physical OUCH machines. These OUCH machines then act as mirrors of each other for fault redundancy. In this configuration, both machines are able to accept orders and cancel requests, and any outbound messages would be simultaneously generated by both physical OUCH hosts.

1.4 Service Bureau Configuration

A single OUCH Account can accept orders from one or more firms, allowing a service bureau configuration. The service bureau OUCH Account must be specifically authorized to enter trades on behalf of each represented participant with a NASDAQ OMX PSX Service Bureau Agreement, available separately. Once an agreement has been submitted, the OUCH Account set up as the service bureau may enter orders for the represented firm by putting the represented firm's Market Maker Identifier in the Firm field upon order entry.

2 Inbound Messages

Inbound messages are sent from the participant's application to the OUCH host. They are not sequenced. All Inbound Messages may be repeated benignly. This gives the client the ability to re-send any Inbound message if it is uncertain whether NASDAQ OMX PSX received it in the case of a connection loss or an application error.

The idea of benign inbound message retransmission with end-to-end acknowledgement is fundamental to NASDAQ OMX PSX's fail-over redundancy. If your connection ever fails, there is no way for you to know if pending messages actually made it over the link before the failure. A robust OUCH client can safely re-send any pending messages over a mirrored link without worrying about generating duplicates. This applies to NASDAQ OMX PSX's disaster fail over capability as well; if NASDAQ OMX PSX ever needs to fail over to the backup site, some messages sent at the moment of the failure may be lost. A robust application can simply re-send the pending messages, making the fail over seamless to the end user.

All inbound messages on an OUCH port are processed sequentially. This guarantees that if two orders are entered consecutively on the same connection, the first order entered will always be accepted first.

2.1 Enter Continuous Order Message

The Enter Continuous Order Message lets you enter a new order into NASDAQ OMX PSX.

Each new order must have a Token that is unique to the day and that logical OUCH account. If you send a valid order, you should receive an Accepted Continuous Order Message. If you

send an Enter Continuous Order Message with a previously used Token, the new order will be ignored.

Enter Order Message				
Name	Offset	Len	Value	Notes
Type	0	1	"O"	Identifies this message as Enter Order Message type
Order Token	1	14	Alpha-numeric	This is a free-form alpha-numeric field. You can put any information you like. Token must be day-unique for each OUCH account. Token is case sensitive, but mixing upper- and lower-case Tokens is not recommended.
Buy/Sell Indicator	15	1	Alpha	"B" = buy order "S" = sell order = sell short, client affirms ability to borrow securities in good deliverable form for delivery within three business days = sell short Exempt, client affirms ability to borrow securities in good deliverable form for delivery within three business days
Shares	16	6	Numeric	Total number of shares entered. Must be greater than zero
Stock	22	6	Alpha	Stock Symbol
Price	28	10	Price	The limit price of the order. The price is a 6-digit whole number portion followed by a 4-digit decimal portion. The whole number part should be left-padded with zeros, and the decimal part must be right-filled with zeros. Must be greater than zero
Time in Force	38	5	Numeric	The number of seconds that this order should live before being automatically canceled. Special values for Time in Force are listed below.
Firm	43	4	Alpha	This field should contain the all caps. Firm Identifier for the order entry firm. One logical OUCH Account can potentially enter orders for multiple firms in a Service Bureau configuration. If this field is blank-filled, the default firm for the OUCH Account will be used.
Display	47	1	Alpha	"A" = Attributable-Price to Display "Y" = Anonymous-Price to Comply "I" = Imbalance-Only "N" = Non-Display "P" = Post-Only "M" = Mid-Point Peg "W" = Mid-Point peg post only
Capacity	48	1	Alpha	Values other than "A", "P", or "R" will be converted to "O" = Other

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates.

				"A" = agency "P" = principal "R" = risk-less
Intermarket sweep eligibility	49	1	Alpha	"Y" = eligible "N" = not eligible "y" = Trade-at Intermarket Sweep Order

2.1.1 Special Values for the Time in Force

Special Values for Time in Force	
Value	Explanation
0	Immediate or cancel — If no match for the order is available at the moment the order is accepted, any unexecuted shares in the order are immediately canceled.
99998	Market Hours — Indicates that the order should live until the market close on the primary market for the security
99999	System Hours — Indicates that the order should live until the end of the NASDAQ OMX PSX trading day

2.2 Enter Cross Order Message

The Enter Cross Order Message lets you enter a new cross order into NASDAQ OMX PSX.

An order that participates in a Cross but enters the continuous market afterward if any portion of it is not executed is also considered a cross order. The difference in behavior is implied by the Time in Force field. Time in Force of 0 (immediate-or-cancel) will ensure that the order does not stay live beyond the Cross. Any other Time in Force is applied to the unexecuted portion of the order that enters the continuous market.

Each new order must have a Token that is unique to the day and that logical OUCH account. If you send a valid order, you should receive an Accepted Cross Order Message. If you send an Enter Cross Order Message with a previously used Token, the new order will be ignored.

All Cross Orders in the Opening and Closing Crosses are Non-displayed. Orders entered as Displayed will be converted to Non-displayed for the Cross. Once the Cross is complete, orders will be treated with the display attributes as entered.

Minimum Quantity orders are not allowed for Opening and Close Crosses. This field should be 0.

Enter Order Message				
Name	Offset	Len	Value	Notes
Type	0	1	"Q"	Identifies this message as Enter Order Message type
Order Token	1	14	Alpha-numeric	This is a free-form alpha-numeric field. You can put any information you like. Token must be day-unique for each OUCH account. Token is case sensitive, but mixing upper- and lower-case Tokens

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates.

				is not recommended.
Buy/Sell Indicator	15	1	Alpha	<p>"B" = buy order "S" = sell order</p> <ul style="list-style-type: none"> = sell short, client affirms ability to borrow securities in good deliverable form for delivery within three business days = sell short Exempt, client affirms ability to borrow securities in good deliverable form for delivery within three business days = short sale, client unable to affirm delivery of securities within three business days
Shares	16	6	Numeric	Total number of shares entered. Must be greater than zero
Stock	22	6	Alpha	Stock Symbol
Price	28	10	Price	<p>For limit orders it is price of the order. The price is a 6-digit whole number portion followed by a 4-digit decimal portion. The whole number part should be left-padded with zeros, and the decimal part must be right-filled with zeros. Must be greater than zero</p> <p>Clients could specify a "market" cross order by filling the price field with '999999999' (10-9s).</p>
Time in Force	38	5	Numeric	<p>The number of seconds that any portion of this order unexecuted in the Cross should live before being automatically canceled.</p> <p>If the price in this message is the special "market" price, the Time in Force will automatically be changed to 0.</p> <p>Special values for Time in Force are listed below.</p>
Firm	43	4	Alpha	This field should contain the all caps Firm Identifier for the order-entry firm. One logical OUCH Account can potentially enter orders for multiple firms in a Service Bureau configuration. If this field is blank-filled, the default firm for the OUCH Account will be used.
Display	47	1	Alpha	<p>"A" = Attributable-Price to Display "Y" = Anonymous-Price to Comply "I" = Imbalance-Only "N" = Non-Display</p>
Capacity	48	1	Alpha	Values other than "A", "P", or "R" will be converted to "O" = Other

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates.

				"A" = agency "P" = principal "R" = risk-less
Intermarket sweep eligibility	49	1	Alpha	"Y" = eligible "N" = not eligible "y" = Trade-at Intermarket Sweep Order
Minimum Quantity	50	6	Numeric	Minimum number of shares that could be traded.
Cross Type	56	1	Alpha	"O" = open "C" = close

2.2.1 Special Values for Time in Force

Special Values for Time in Force	
Value	Explanation
0	Immediate or cancel — If no match for the order is available in the Cross, any unexecuted shares in the order are canceled right after the Cross completes.
99998	Market Hours — Indicates that any portion of the order unexecuted in the Cross should live until the market close on the primary market for the security.
99999	System Hours — Indicates that any portion of the order unexecuted in the Cross should live until the end of the NASDAQ OMX PSX trading day.

3 Outbound Sequenced Messages

Outbound messages are generated by the OUCH host port and received by your client application.

3.1 System Event Messages

System Event Messages signal events that affect the entire NASDAQ OMX PSX system:

System Event Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Timestamp	See Data Types above.
Message Type	8	1	"S"	System Event Message identifier
Event Code	9	1	Alpha	See Event Codes below.

3.2 System Event Codes

System Event Codes	
Code	Explanation
"S"	Start of Day — This is always the first message each day. It indicates that NASDAQ OMX PSX is open and ready to start accepting orders.
"E"	End of Day — This indicates that NASDAQ OMX PSX is now closed and will not accept any new orders in this session. There will be no further executions during this session; however, it is still possible to receive Broken Trade

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates.

3.3 Order Messages

Order messages inform you about each event in the lifetime of your orders.

3.3.1 Continuous Order Accepted Message

A Continuous Order Accepted Message acknowledges the receipt and acceptance of a valid Enter Continuous Order Message. The data fields from the Enter Continuous Order Message are echoed back in the Continuous Order Accepted Message. Note that the accepted values may differ from the entered values for some fields. You will always receive an Accepted Order Message for an order before you get any Canceled Order Messages or Executed Order Messages for the order.

Continuous Order Accepted Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"A"	Accept Order Message Identifier
Token	9	14	Alpha-numeric	The order Token field as entered
Buy/Sell Indicator	23	1	Alpha	Buy/sell indicator as entered
Shares	24	6	Numeric	Total number of shares accepted
Stock	30	6	Alpha	Stock symbol as entered
Price	36	10	Price	The accepted limit price of the order. Please note that the accepted price could potentially be different than the entered price if the order was re-priced by NASDAQ OMX PSX on entry. The accepted price will always be better than or equal to the entered.
Time in Force	46	5	Numeric	The accepted Time in Force of the order. Please note that the accepted Time in Force may potentially be different than the entered Time in Force. The accepted Time in Force will always be equal to or shorter in scope than the entered Time in Force.
Firm	51	4	Alpha	The accepted firm for the order. Please note that if the firm was left blank on entry, the default firm for the OUCH account will appear here.
Display	55	1	Alpha	The display type for the order as entered
Order Reference Number	56	12	Numeric	The day-unique Order Reference Number assigned by NASDAQ OMX PSX to this order
Capacity	68	1	Alpha	The capacity specified on the order
Intermarket	69	1	Alpha	"Y" = eligible

sweep eligibility				"N" = not eligible "y" = Trade-at Intermarket Sweep Order
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3.3.2 Cross Order Accepted Message

A Cross Order Accepted Message acknowledges the receipt and acceptance of a valid Enter Cross Order Message. The data fields from the Enter Cross Order Message are echoed back in the Cross Order Accepted Message. Cross Orders are not part of the continuous book. Please note that the accepted values may differ from the entered values for some fields.

Cross Order Accepted Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"R"	Accept Cross Order Message Identifier
Token	9	14	Alpha-numeric	The order Token field as entered
Buy/Sell Indicator	23	1	Alpha	Buy/sell indicator as entered
Shares	24	6	Numeric	Total number of shares accepted
Stock	30	6	Alpha	Stock symbol as entered
Price	36	10	Price	<p>For limit orders, the accepted limit price of the order. Please note that the accepted price could potentially be different than the entered price if the order was re-priced by NASDAQ OMX PSX on entry. The accepted price will always be better than or equal to the entered.</p> <p>If the order was entered as a "market" order, this field will contain the special Market Order Price as it was entered.</p>
Time in Force	46	5	Numeric	The accepted Time in Force of the order. Please note that the accepted Time in Force may potentially be different than the entered Time in Force. The accepted Time in Force will always be equal to or shorter in scope than the entered Time in Force.
Firm	51	4	Alpha	The accepted firm for the order. Please note that if the firm was left blank on entry, the default firm for the OUCH account will appear here.
Display	55	1	Alpha	The display type for the order as entered
Order Reference Number	56	12	Numeric	The day-unique Order Reference Number assigned by NASDAQ OMX

				PSX to this order
Capacity	68	1	Alpha	The Capacity of the user as entered
Intermarket sweep eligibility	69	1	Alpha	"Y" = eligible "N" = not eligible "y" = Trade-at Intermarket Sweep Order
Minimum Quantity	70	6	Numeric	Minimum number of shares as entered
Cross Type	76	1	Alpha	The Cross Type as entered

3.3.3 Canceled Order Message

A Canceled Order Message informs you that an order has been reduced or canceled. This could be acknowledging a Cancel Order Request Message, or it could be the result of the order timing out or being canceled automatically.

Please note that a Cancel Order Message does not necessarily mean the entire order is dead; some portion of the order may still be alive.

Canceled Order Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"C"	Canceled Order Message
Order Token	9	14	Alpha-numeric	The order Token field as entered
Decrement Shares	23	6	Numeric	The number of shares just decremented from the order. This number is incremental, not cumulative.
Reason	29	1	Alpha	Reason the order was reduced or canceled. See currently supported Cancel Order Reasons below. Clients should anticipate additions to this list and thus support all capital letters of the English alphabet.

3.3.3.1 Cancel Order Reasons

Cancel Order Reasons	
Reason	Explanation
"U"	User requested cancel. Sent in response to a Cancel Request Message
"I"	Immediate or Cancel order. This order was originally sent with a timeout of zero and no further matches were available on the book so the remaining unexecuted shares were immediately canceled.
"T"	Timeout. The Time In Force for this order has expired

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates. 10

"S"	Supervisory. This order was manually canceled or reduced by a NASDAQ OMX PSX supervisory terminal. This is usually in response to a participant request via telephone.
"D"	This order cannot be executed because of a regulatory restriction (e.g., short sale or trade through restrictions).
"Q"	Self Match Prevention. The order was cancelled because it would have executed with an existing order entered by the same MPID.
"Z"	System cancel. This order was cancelled by the system.
"E"	Closed. Any DAY order that was received after the closing cross is complete in a given symbol will receive this cancel reason.
"F"	Post Only Cancel. This Post Only order was cancelled because it would have been price slid for NMS.
"G"	Post Only Cancel. This Post Only order was cancelled because it would have been price slid due to a contra side displayed order on the book.

3.3.4 AIQ Cancelled Message

AIQ Canceled Order Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"D"	Canceled Order Message
Order Token	9	14	Alpha-numeric	The order Token field as entered
Decrement Shares	23	6	Numeric	The number of shares just decremented from the order. This number is incremental, not cumulative.
Reason	29	1	"Q"	Reason the order was reduced or canceled. For AIQ Cancel message, this value will be "Q".
Quantity Prevented from Trading	30	4	Integer	Shares that would have executed if the trade would have occurred
Execution price	34	4	Integer	Price at which the trade would have occurred
Liquidity flag	38	1	Alpha	Liquidity Flag the order would have received

3.3.5 Executed Order Message

An Executed Order Message informs you that all or part of an order has been executed.

Executed Order Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp

Message Type	8	1	"E"	Order Executed Message
Order Token	9	14	Alpha-numeric	The order Token as entered
Executed Shares	23	6	Numeric	Incremental number of shares executed
Execution Price	29	10	Price	The price at which these shares were executed.
Liquidity Flag	39	1	Alpha	See Liquidity Flag Values table below.
Match Number	40	12	Numeric	Assigned by NASDAQ OMX PSX to each match executed. Each match consists of one buy and one sell. The matching buy and sell executions share the same match number.

3.3.5.1 Liquidity Flags

Liquidity Flags	
Flag	Value
A	Added
R	Removed
O	Opening Cross
M	Opening Cross (imbalance-only)
C	Closing Cross
L	Closing Cross (imbalance-only)
H	Halt/IPO Cross
K	Halt Cross
J	Non-displayed adding liquidity
m	Removed liquidity at a midpoint
k	Added liquidity via a midpoint order
V	Displayed added liquidity with original order size of greater than or equal to 2,000 shares. Only applicable to symbols that are set to the pro rata execution algorithm.

3.3.6 Broken Trade Message

A Broken Trade Message informs you that an execution has been broken. The trade is no longer good and will not clear. The reason for the break is given.

You will always get an Executed Order Message prior to getting a Broken Trade Message for a given order/execution.

Broken Trade Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"B"	Broken Trade Message
Order Token	9	14	Alpha-numeric	The order Token field as entered

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates.

Match Number	23	12	Numeric	Match Number as transmitted in the preceding Executed Order Message
Reason	35	1	Alpha	The reason the trade was broken. See currently supported Broken Trade Reasons table below. Clients should anticipate additions to this list and thus support all capital letters of the English alphabet.

3.3.6.1 Broken Trade Reasons

Broken Trade Reasons	
Reason	Explanation
"E"	Erroneous — The trade was deemed clearly erroneous.
"C"	Consent — The two parties mutually agreed to break the trade.
"S"	Supervisory — The trade was manually broken by a NASDAQ OMX PSX supervisory terminal.
"X"	External — The trade was broken by an external third party.

3.3.7 Price Correction Message

A Price Correction Message informs you that an execution has been price-corrected.

You will always get an Executed Order Message prior to getting a Price Correction Message for a given order/execution.

Price Correction Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"K"	Price Correction Message
Order Token	9	14	Alpha-numeric	The order Token field as entered
Match Number	23	12	Numeric	Match Number as transmitted in the preceding Executed Order Message
New Execution Price	35	10	Price	The corrected price of the execution
Reason	45	1	Alpha	The reason the trade was corrected. See Price Correction Reasons table below.

3.3.7.1 Price Correction Reasons

Price Correction Reasons	
Reason	Explanation
"E"	Erroneous — The trade was deemed clearly erroneous.
"C"	Consent — The two parties mutually agreed to correct the price.
"S"	Supervisory — The trade was manually price-corrected by a NASDAQ OMX PSX supervisory terminal.

"X"	External — The trade was price-corrected by an external third party.
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3.3.8 Rejected Order Message

A Rejected Order Message may be sent in response to an Enter Order Message if the order cannot be accepted at this time. The reason for the rejection is given. No further actions are permitted on this order.

The Token of a rejected order cannot be re-used.

Rejected Order Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"J"	Rejected Order Message
Order Token	9	14	Alpha-numeric	This is the order Token field as was transmitted with the order when entered.
Reason	23	1	Alpha	The reason the order was rejected. See currently supported Rejected Order Reasons below. Clients should anticipate additions to this list and thus support all capital letters of the English alphabet.

3.3.8.1 Rejected Order Reasons

Rejected Order Reasons	
Reason	Explanation
"T"	Test Mode — This OUCH Account is configured for test mode and is not able to accept orders in non-TEST securities.
"H"	Halted — There is currently a trading halt so no orders can be accepted in this stock at this time.
"Z"	Shares exceeds configured safety threshold — The number of shares entered must be less than the safety threshold configured for this Account. The safety threshold can be added/updated through NASDAQ OMX PSX Subscriber Services.
"S"	Invalid stock — The stock field must be a valid issue, tradable on NASDAQ OMX PSX.
"D"	Invalid Display Type — Sent when Display Type Entered cannot be accepted in current circumstances and can't be simply converted to a valid Display Type.
"C"	NASDAQ OMX PSX is closed.
"L"	Requested firm not authorized for requested clearing type on this account — To authorize additional firms, use the NASDAQ OMX PSX Service Bureau Agreement.
"M"	Outside of permitted times for requested clearing type
"R"	This order is not allowed in this type of cross (stock or time restrictions).
"X"	Invalid price
"N"	Invalid Minimum Quantity
"W"	Invalid Mid-point Post Only Price

3.3.8.2 PRM Rejected Order Reasons

PRM Rejected Order Reasons	
Reason	Explanation
"a"	Reject All enabled
"b"	Easy to Borrow (ETB) reject
"c"	Restricted symbol list reject
"d"	ISO order restriction
"e"	Odd lot order restriction
"f"	Mid-Point order restriction
"g"	Pre-Market order restriction
"h"	Post market order restriction
"i"	Short sale order restriction
"j"	On Open order restriction
"k"	On Close order restriction
"l"	Two sided quote reject
"m"	Exceeded shares limit
"n"	Exceeded dollar value limit

3.3.9 Cancel Pending Message

A Cancel Pending Message is sent in response to a cancel request for a Cross Order during a pre-cross late period signifying that it cannot be canceled at this time, but any unexecuted portion of this order will automatically be canceled immediately after the cross completes.

This message will only be sent once for a given token. Duplicate cancel requests for the same token will be ignored by OUCH.

Cancel Status Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp
Message Type	8	1	"P"	Cancel Status Message
Order Token	9	14	Alpha-numeric	This is the order Token field as was transmitted with the order being cancel-rejected.

3.3.10 Cancel Reject Message

A Cancel Reject Message is sent in response to a partial cancel request (with non-zero "intended order size") for a Cross Order during a pre-cross late period signifying that it cannot be partially canceled at this time. No automatic cancel will be scheduled for this order. Clients could repeat their request for any unexecuted portion of the order after the cross completes.

This message will only be sent once for a given token. Duplicate cancel requests for the same token will be ignored by OUCH.

Cancel Status Message				
Name	Offset	Len	Value	Notes
Timestamp	0	8	Numeric	Timestamp

Message Type	8	1	"I"	Cancel Status Message
Order Token	9	14	Alpha-numeric	This is the order Token field as was transmitted with the order being cancel-rejected.

3.3.11 Cancel Order Message

The Cancel Order Message is used to request that an order be canceled or reduced. In the Cancel Order Message, you must specify the new "intended order size" for the order. The "intended order size" is the maximum number of shares that can be executed in total after the cancel is applied.

To cancel the entire balance of an order, you would enter a Cancel Order Message with a Shares field of zero.

Cancel Order Message				
Name	Offset	Len	Value	Notes
Type	0	1	"X"	Cancel Order Message
Order Token	1	14	Alpha-numeric	The Order Token as was originally transmitted in an Enter Order Message
Shares	15	6	Numeric	This is the new intended order size. This limits the maximum number of shares that can potentially be executed in total after the cancel is applied. Entering a zero here will cancel any remaining open shares on this order.

Note that the only acknowledgement to a Cancel Order Message is the resulting Canceled Order Message. There is no "too late to cancel" message since by the time you received it, you would already have gotten the execution. Superfluous Cancel Order Messages are silently ignored.

4 Support

If you have any questions or comments about this specification, email tradingservices@NASDAQomx.com. We welcome suggestions for new features or improvements.

5 Revision History

Version	Date	Revision
3.1	03/18/2008	Initial Version for NASDAQ OMX PSX
3.1	10/28/2008	Updated Reference field from 9 to 12 characters

Functionality that is not available will be greyed out in the specifications. Any changes will be conveyed via the NASDAQ OMX Head Trader Alerts or Technical Updates. 16

		Updated Match field from 9 to 12 characters
3.1	01/02/2009	Updated Display field to contain "P" for Post-Only for Enter Continuous Order Message section.
3.1	05/06/2009	Updated Display field to contain "S" for Non-routable Flash for Enter Continuous Order Message section.
3.1	06/05/2009	Added display flag value "F" for Non-routable Flash post only
3.1	06/24/2009	Revised description of cancelled order reason "I" for anti-internalization
3.1	07/01/2009	Revised description of cancelled order reason "I" for removing anti-internalization Added cancelled order reason "Q" for anti-internalization
3.1	08/10/2009	Removed display flag value "F" Removed display flag value "S"
3.1	12/10/2009	Revised anti-internalization language, replaced with self match prevention.
3.1	04/16/2010	Added display value "M" for mid-point pegging.
3.1	08/12/2010	Re-introduced the sell short exempt value in the buy sell field.
3.1	08/15/2011	Added PRM Rejects
3.1	11/06/2011	Added AIQ cancelled message
3.1	03/08/2012	Added default value for capacity field Removed legacy value "I" from cross type field Removed legacy value "I" from liquidity flag field
3.1	04/19/2012	Added liquidity flag values "k", "m"
3.1	05/01/2013	Updated specs for price-time functionality
3.1	06/12/2014	Changed "Liquidity Code" to "Liquidity Flag" Updated formatting of the document
3.1	03/23/2015	Added cancel reasons "E", "X" (greyed out) Greyed out various liquidity flag values
3.1	06/04/2015	Added display value "W" Added reject order reason "W" Changed wording of liquidity flag values "O", "M", "C", "L", "H", and "K" to make consistent with all specifications Added liquidity flag "V"
3.1	06/08/2015	Greyed out "Enter Cross Order Message" and "Cross Order Accepted Message" sections
3.1	06/23/2015	Updated description for cancel reason "E" Removed cancel reason "X"
3.1	02/29/2016	Greyed out price correction message
3.1	07/18/2016	Added intermarket sweep eligibility value "y"
3.1	04/07/2020	Added cancel reason code "F" and "G"

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