

# NASDAQ OMX PSX Best Bid and Offer

For PSX Trading Venue

NASDAQ OMX Global Data Products  
12/5/14

## PSX Best Bid and Offer (PSX BBO)

### 1 Overview

#### 1.1 Product Description

PSX Best Bid and Offer (PSX BBO) is a direct data feed product offered by NASDAQ OMX to support the PSX Trading Market upon launch. PSX BBO provides the exchange's best bid and offer position for NASDAQ-, New York Stock Exchange (NYSE)-, NYSE MKT-, NYSE Arca- and BATS-listed securities.

Market data distributors may use the PSX BBO data feed to feed dynamically updating stock tickers, portfolio trackers, trade alert programs, time and quote graphs, and other display systems. For market data administration purposes, PSX BBO is part of the PSX Basic entitlement.

For pricing and ordering information:

1. Refer to [Market Data section](#) of the NASDAQ OMX Trader website.
2. Contact the [NASDAQ OMX Global Data Products Account Team](#) at +1 301 978 5307 or +45 33 93 33 66.

### 2 Network Protocol Options

For direct data feed subscribers, NASDAQ OMX will offer the PSX BBO data feed in the following protocol options:

- SoupBinTCP
- MoldUDP64
- [SoupTCP](#)
- [MoldUDP](#)

In order to match the PSX Basic entitlement structure, PSX BBO will initially support three outbound channels for both protocol options. The PSX BBO data set will be channelized based on the listing market of a security.

| Data Channel | Securities coverage                 |
|--------------|-------------------------------------|
| 1            | NASDAQ-listed issues                |
| 2            | NYSE- and BATS-listed issues        |
| 3            | NYSE MKT-, NYSE Arca- listed issues |

### 3 Architecture

PSX BBO will be made up of a series of sequenced messages. Each message is variable in length based on the message type. The messages that make up the PSX BBO protocol are typically delivered using a higher level protocol that takes care of sequencing and delivery guarantees.

## 4 Data Types

All integer fields are unsigned big-endian (network byte order) binary encoded numbers.

All alphanumeric fields are ASCII fields which are left justified and padded on the right with spaces.

Prices are integer fields, supplied with an associated precision. When converted to a decimal format, prices are in a fixed point format, where the precision defines the number of decimal places. For example, a field flagged as Price (4) has an implied 4 decimal digits.

Timestamps reflects the NASDAQ system time at which the outbound message was generated. NASDAQ states time as the number of nanoseconds past midnight. The time zone is U.S. Eastern Time.

## 5 Message Formats

Note: For consistency, NASDAQ OMX has coded the PSX Best Bid and Offer to use the same data formats as the NASDAQ Best Bid and Offer (QBBO) 2.0 and BX Best Bid and Offer (BX BBO) 2.0 data feed offerings. Functionality that will not be supported for the PSX market upon initial market implementation has been grayed out.

### 5.1 System Event Message

The System Event message is used to signal key market or data feed control events. PSX BBO will support the System Event messages.

| SYSTEM EVENT MESSAGE |        |        |              |  |
|----------------------|--------|--------|--------------|--|
| Name                 | Offset | Length | Value        | Notes  |
| Message Type         | 0      | 1      | "S"          | System Event   |
| Tracking Number      | 1      | 2      | Integer      | NASDAQ OMX internal tracking number  |
| Time Stamp           | 3      | 6      | Timestamp    | Time stamp   |
| Event Code           | 9      | 1      | Alphanumeric | Denotes the type of event for which the message is being generated. See list below for allowable values. |

On a daily basis, PSX BBO will support the following event codes:

| SYSTEM EVENT CODES - DAILY |   |
|----------------------------|---|
| Code                       | Explanation   |
| O                          | <i>Start of Transmissions:</i> Denotes that PSX BBO has started its daily transmission schedule |
| S                          | <i>Start of System Hours:</i> This message indicates that PSX is                                |

|   |  |
|---|--|
|   | open and ready to start accepting orders.  |
| Q | <i>Start of Market Hours:</i> This message is intended to indicate that Market Hours orders are available for execution.         |
| M | <i>End of Market Hours:</i> This message is intended to indicate that Market Hours orders are no longer available for execution. |
| E | <i>End of System Hours:</i> It indicates that PSX is now closed and will not accept any new orders today.                        |
| C | <i>End of Transmissions:</i> Denotes that PSX BBO has completed its daily transmission schedule.                                 |

## 5.2 Administrative Messages

### 5.2.1 Stock Directory

At the start of each trading day, NASDAQ OMX PSX disseminates stock directory messages for all active symbols in its market center system.

Market data vendors should process this message to populate the Financial Status Indicator (required display field) and the Market Category (recommended display field) for NASDAQ-listed issues.

| STOCK DIRECTORY                      |   |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
|--------------------------------------|---|--------|--------------|--|------|------------|----------------------------------|--|---|---|---|------------------------------------|---|------------------------------------|--------------------------------------|--|---|--------------------------------|---|----------|---|-----------|---|-----------------|---------|---------------|
| Name                                 | Offset                                    | Length | Value        | Notes  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Message Type                         | 0   | 1      | "R"          | Stock Directory Message  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Tracking Number                      | 1   | 2      | Integer      | NASDAQ OMX internal tracking number  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Timestamp                            | 3   | 6      | Timestamp    | Time at which the directory message was generated. Refer to Data Types for field processing notes.   |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Stock                                | 9   | 8      | Alphanumeric | Denotes the security symbol for the issue in the NASDAQ execution system.  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Market Category                      | 17  | 1      | Alphanumeric | Indicates Listing market or listing market tier for the issue <table border="1" data-bbox="966 1339 1446 1814"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td colspan="2"><i>NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>Q</td> <td>NASDAQ Global Select Market<sup>SM</sup></td> </tr> <tr> <td>G</td> <td>NASDAQ Global Market<sup>SM</sup></td> </tr> <tr> <td>S</td> <td>NASDAQ Capital Market<sup>®</sup></td> </tr> <tr> <td colspan="2"><i>Non-NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>N</td> <td>New York Stock Exchange (NYSE)</td> </tr> <tr> <td>A</td> <td>NYSE MKT</td> </tr> <tr> <td>P</td> <td>NYSE Arca</td> </tr> <tr> <td>Z</td> <td>BATS Z Exchange</td> </tr> <tr> <td>&lt;space&gt;</td> <td>Not available</td> </tr> </tbody> </table> | Code | Definition | <i>NASDAQ-Listed Instruments</i> |  | Q | NASDAQ Global Select Market <sup>SM</sup> | G | NASDAQ Global Market <sup>SM</sup> | S | NASDAQ Capital Market <sup>®</sup> | <i>Non-NASDAQ-Listed Instruments</i> |  | N | New York Stock Exchange (NYSE) | A | NYSE MKT | P | NYSE Arca | Z | BATS Z Exchange | <space> | Not available |
| Code                                 | Definition                                |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| <i>NASDAQ-Listed Instruments</i>     |   |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Q                                    | NASDAQ Global Select Market <sup>SM</sup> |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| G                                    | NASDAQ Global Market <sup>SM</sup>        |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| S                                    | NASDAQ Capital Market <sup>®</sup>        |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| <i>Non-NASDAQ-Listed Instruments</i> |   |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| N                                    | New York Stock Exchange (NYSE)            |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| A                                    | NYSE MKT                                  |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| P                                    | NYSE Arca                                 |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Z                                    | BATS Z Exchange                           |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| <space>                              | Not available                             |        |              |  |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |
| Financial Status                     | 18  | 1      | Alphanumeric | For NASDAQ-listed issues, this field   |      |            |                                  |  |   |   |   |                                    |   |                                    |                                      |  |   |                                |   |          |   |           |   |                 |         |               |

PSX BEST BID AND OFFER VERSION 2.0  
INTERFACE SPECIFICATION

| Indicator                            |  |   |              | <p>indicates when a firm is not in compliance with NASDAQ continued listing requirements.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td colspan="2"><i>NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>D</td> <td>Deficient</td> </tr> <tr> <td>E</td> <td>Delinquent</td> </tr> <tr> <td>Q</td> <td>Bankrupt</td> </tr> <tr> <td>S</td> <td>Suspended</td> </tr> <tr> <td>G</td> <td>Deficient and Bankrupt</td> </tr> <tr> <td>H</td> <td>Deficient and Delinquent</td> </tr> <tr> <td>J</td> <td>Delinquent and Bankrupt</td> </tr> <tr> <td>K</td> <td>Deficient, Delinquent and Bankrupt</td> </tr> <tr> <td>C</td> <td>Creations and/or Redemptions Suspended for Exchange Traded Product</td> </tr> <tr> <td>N</td> <td>Normal (Default): Issuer Is NOT Deficient, Delinquent, or Bankrupt</td> </tr> <tr> <td colspan="2"><i>Non-NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>&lt;space&gt;</td> <td>Not available. Firms should refer to SIAC feeds for code if needed.</td> </tr> </tbody> </table> | Code | Definition | <i>NASDAQ-Listed Instruments</i> |   | D | Deficient  | E | Delinquent | Q | Bankrupt | S | Suspended | G | Deficient and Bankrupt | H | Deficient and Delinquent | J | Delinquent and Bankrupt | K | Deficient, Delinquent and Bankrupt | C | Creations and/or Redemptions Suspended for Exchange Traded Product | N | Normal (Default): Issuer Is NOT Deficient, Delinquent, or Bankrupt | <i>Non-NASDAQ-Listed Instruments</i> |  | <space> | Not available. Firms should refer to SIAC feeds for code if needed. |
|--------------------------------------|--|---|--------------|--|------|------------|----------------------------------|---|---|--|---|------------|---|----------|---|-----------|---|------------------------|---|--------------------------|---|-------------------------|---|------------------------------------|---|--|---|--|--------------------------------------|--|---------|---|
| Code                                 | Definition   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| <i>NASDAQ-Listed Instruments</i>     |  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| D                                    | Deficient  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| E                                    | Delinquent   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Q                                    | Bankrupt   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| S                                    | Suspended  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| G                                    | Deficient and Bankrupt   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| H                                    | Deficient and Delinquent   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| J                                    | Delinquent and Bankrupt  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| K                                    | Deficient, Delinquent and Bankrupt   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| C                                    | Creations and/or Redemptions Suspended for Exchange Traded Product   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| N                                    | Normal (Default): Issuer Is NOT Deficient, Delinquent, or Bankrupt   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| <i>Non-NASDAQ-Listed Instruments</i> |  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| <space>                              | Not available. Firms should refer to SIAC feeds for code if needed.  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Round Lot Size                       | 19   | 4 | Integer      | Denotes the number of shares that represent a round lot for the issue  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Round Lots Only                      | 23   | 1 | Alphanumeric | <p>Indicates if NASDAQ system limits order entry for issue</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>NASDAQ OMX system only accepts round lots orders for this security.</td> </tr> <tr> <td>N</td> <td>NASDAQ OMX system does not have any order size restrictions for this security. Odd and mixed lot orders are allowed.</td> </tr> </tbody> </table>   | Code | Definition | Y                                | NASDAQ OMX system only accepts round lots orders for this security. | N | NASDAQ OMX system does not have any order size restrictions for this security. Odd and mixed lot orders are allowed. |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Code                                 | Definition   |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Y                                    | NASDAQ OMX system only accepts round lots orders for this security.  |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| N                                    | NASDAQ OMX system does not have any order size restrictions for this security. Odd and mixed lot orders are allowed. |   |              |  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Issue Classification                 | 24   | 1 | Alphanumeric | Identifies the security class for the issue as assigned by NASDAQ. See Appendix for allowable values.  |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Issue Sub-Type                       | 25   | 2 | Alphanumeric | Identifies the security sub-type for the issue as assigned by NASDAQ. See Appendix for allowable values.   |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |
| Authenticity                         | 27   | 1 | Alphanumeric | Denotes if an issue or quoting   |      |            |                                  |   |   |  |   |            |   |          |   |           |   |                        |   |                          |   |                         |   |                                    |   |  |   |  |                                      |  |         |   |

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|                                      |  |   |              | <p>participant record is set-up in NASDAQ systems in a live/production, test, or demo state. Please note that firms should only show live issues and quoting participants on public quotation displays.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>P</td> <td>Live/Production</td> </tr> <tr> <td>T</td> <td>Test</td> </tr> </tbody> </table>   | Code | Definition | P                                | Live/Production                              | T | Test   |         |  |                                      |  |         |               |
|--------------------------------------|--|---|--------------|---|------|------------|----------------------------------|--|---|--|---------|--|--------------------------------------|--|---------|---------------|
| Code                                 | Definition   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| P                                    | Live/Production  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| T                                    | Test   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| Short Sale Threshold Indicator       | 28   | 1 | Alphanumeric | <p>Indicates if a security is subject to mandatory close-out of short sales under SEC Rule 203(b)(3).</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Issue is restricted under SEC Rule 203(b)(3)</td> </tr> <tr> <td>N</td> <td>Issue is not restricted</td> </tr> <tr> <td>&lt;space&gt;</td> <td>Threshold Indicator not available</td> </tr> </tbody> </table>  | Code | Definition | Y                                | Issue is restricted under SEC Rule 203(b)(3) | N | Issue is not restricted                                  | <space> | Threshold Indicator not available                            |                                      |  |         |               |
| Code                                 | Definition   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| Y                                    | Issue is restricted under SEC Rule 203(b)(3)                 |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| N                                    | Issue is not restricted                                      |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <space>                              | Threshold Indicator not available                            |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| IPO Flag                             | 29   | 1 | Alphanumeric | <p>Indicates if the NASDAQ security is set up for IPO release. This field is intended to help NASDAQ market participant firms comply with FINRA Rule 5131(b).</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td colspan="2"><i>NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>Y</td> <td>NASDAQ listed instrument is set up as a new IPO security</td> </tr> <tr> <td>N</td> <td>NASDAQ listed instrument is not set up as a new IPO security</td> </tr> <tr> <td colspan="2"><i>Non-NASDAQ-Listed Instruments</i></td> </tr> <tr> <td>&lt;space&gt;</td> <td>Not available</td> </tr> </tbody> </table> | Code | Definition | <i>NASDAQ-Listed Instruments</i> |  | Y | NASDAQ listed instrument is set up as a new IPO security | N       | NASDAQ listed instrument is not set up as a new IPO security | <i>Non-NASDAQ-Listed Instruments</i> |  | <space> | Not available |
| Code                                 | Definition   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <i>NASDAQ-Listed Instruments</i>     |  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| Y                                    | NASDAQ listed instrument is set up as a new IPO security     |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| N                                    | NASDAQ listed instrument is not set up as a new IPO security |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <i>Non-NASDAQ-Listed Instruments</i> |  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <space>                              | Not available  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| LULD Reference Price Tier            | 30   | 1 | Alphanumeric | <p>Indicates which Limit Up / Limit Down price band calculation parameter is to be used for the instrument. Refer to <a href="#">LULD Rule</a> for details.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tier 1 NMS Stocks and select ETPs</td> </tr> <tr> <td>2</td> <td>Tier 2 NMS Stocks</td> </tr> <tr> <td>&lt;space&gt;</td> <td>Not applicable</td> </tr> </tbody> </table>  | Code | Definition | 1                                | Tier 1 NMS Stocks and select ETPs            | 2 | Tier 2 NMS Stocks  | <space> | Not applicable   |                                      |  |         |               |
| Code                                 | Definition   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| 1                                    | Tier 1 NMS Stocks and select ETPs                            |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| 2                                    | Tier 2 NMS Stocks  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <space>                              | Not applicable   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| ETP Flag                             | 31   | 1 | Alphanumeric | <p>Indicates whether the security is an exchange traded product (ETP):</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Instrument is an ETP</td> </tr> <tr> <td>N</td> <td>Instrument is not an ETP</td> </tr> <tr> <td>&lt;space&gt;</td> <td>Not available</td> </tr> </tbody> </table>  | Code | Definition | Y                                | Instrument is an ETP                         | N | Instrument is not an ETP                                 | <space> | Not available  |                                      |  |         |               |
| Code                                 | Definition   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| Y                                    | Instrument is an ETP   |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| N                                    | Instrument is not an ETP                                     |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| <space>                              | Not available  |   |              |   |      |            |                                  |  |   |  |         |  |                                      |  |         |               |
| ETP Leverage Factor                  | 32   | 4 | Integer      | <p>Tracks the integral relationship of the ETP to the underlying index. Example:</p>  |      |            |                                  |  |   |  |         |  |                                      |  |         |               |

|                   |                           |   |              | <p>If the underlying Index increases by a value of 1 and the ETP's Leverage factor is 3, indicates the ETF will increase/decrease (see Inverse) by 3.</p> <p>Note: Leverage Factor of 1 indicates the ETP is NOT leveraged.</p> <p>This field is used for LULD Tier I price band calculation purposes.</p>  |      |            |   |                       |   |                           |
|-------------------|---------------------------|---|--------------|---|------|------------|---|-----------------------|---|---------------------------|
| Inverse Indicator | 36                        | 1 | Alphanumeric | <p>Indicates the directional relationship between the ETP and underlying index.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>ETP is an Inverse ETP</td> </tr> <tr> <td>N</td> <td>ETP is not an Inverse ETP</td> </tr> </tbody> </table> <p>Example: An ETP Leverage Factor of 3 and an Inverse value of 'Y' indicates the ETP will decrease by a value of 3.</p> | Code | Definition | Y | ETP is an Inverse ETP | N | ETP is not an Inverse ETP |
| Code              | Definition                |   |              |   |      |            |   |                       |   |                           |
| Y                 | ETP is an Inverse ETP     |   |              |   |      |            |   |                       |   |                           |
| N                 | ETP is not an Inverse ETP |   |              |   |      |            |   |                       |   |                           |

## 5.2.2 Stock Trading Action

NASDAQ OMX uses this administrative message to indicate the current trading status of a security to the trading community.

Prior to the start of system hours, NASDAQ OMX will send out a Trading Action spin. In the spin, NASDAQ OMX will send out a Stock Trading Action message with the "T" (Trading Resumption) for all NASDAQ- and other exchange-listed securities that are eligible for trading at the start of the PSX system hours. If a security is absent from the pre-opening Trading Action spin, firms should assume that the security is being treated as halted in the PSX platform at the start of the system hours. Please note that securities may be halted in the PSX system for regulatory or operational reasons.

After the start of system hours, NASDAQ OMX will use the Trading Action message to relay changes in trading status for an individual security. Messages will be sent when a stock is:

- Halted
- Released for quotation
- Released for trading

| STOCK TRADING ACTION MESSAGE |        |        |           |                                     |
|------------------------------|--------|--------|-----------|-------------------------------------|
| Name                         | Offset | Length | Value     | Notes                               |
| Message Type                 | 0      | 1      | "H"       | Trading Action                      |
| Tracking Number              | 1      | 2      | Integer   | NASDAQ OMX internal tracking number |
| Time Stamp                   | 3      | 6      | Timestamp | Time Stamp.                         |

| Stock                 | 9  | 8 | Alphanumeric | NASDAQ-assigned indicator for issue for which the stock trading action message is being generated. For details on NASDAQ symbology, please refer to Appendix B.  |      |       |   |  |   |   |   |  |   |                |   |      |
|-----------------------|--|---|--------------|--|------|-------|---|--|---|---|---|--|---|----------------|---|------|
| Security Class        | 17   | 1 | Alphanumeric | Indicates the primary listing market for the issue. Allowable values are: <table border="1" data-bbox="850 457 1386 785"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Q</td> <td>NASDAQ Listed Issue</td> </tr> <tr> <td>N</td> <td>NYSE</td> </tr> <tr> <td>A</td> <td>NYSE MKT</td> </tr> <tr> <td>P</td> <td>NYSE Arca</td> </tr> <tr> <td>Z</td> <td>BATS</td> </tr> </tbody> </table>   | Code | Value | Q | NASDAQ Listed Issue                              | N | NYSE  | A | NYSE MKT   | P | NYSE Arca      | Z | BATS |
| Code                  | Value  |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| Q                     | NASDAQ Listed Issue  |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| N                     | NYSE   |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| A                     | NYSE MKT   |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| P                     | NYSE Arca  |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| Z                     | BATS   |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| Current Trading State | 18   | 1 | Alphanumeric | Reflects the current trading state for the issue. The allowable values are: <table border="1" data-bbox="850 890 1192 1465"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>Halted/Paused on NASDAQ and all UTP participants</td> </tr> <tr> <td>Q</td> <td>Quotation only period for cross-SRO halt or pause</td> </tr> <tr> <td>P</td> <td>Paused across all U.S. equity markets / SROs (NASDAQ-listed securities only)</td> </tr> <tr> <td>T</td> <td>Trading on PSX</td> </tr> </tbody> </table> | Code | Value | H | Halted/Paused on NASDAQ and all UTP participants | Q | Quotation only period for cross-SRO halt or pause | P | Paused across all U.S. equity markets / SROs (NASDAQ-listed securities only) | T | Trading on PSX |   |      |
| Code                  | Value  |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| H                     | Halted/Paused on NASDAQ and all UTP participants                             |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| Q                     | Quotation only period for cross-SRO halt or pause                            |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| P                     | Paused across all U.S. equity markets / SROs (NASDAQ-listed securities only) |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| T                     | Trading on PSX   |   |              |  |      |       |   |  |   |   |   |  |   |                |   |      |
| Reason                | 19   | 4 | Alphanumeric | Reflects the Market Ops or MarketWatch code for the trading state change. Refer to Appendix C for current code list.   |      |       |   |  |   |   |   |  |   |                |   |      |

### 5.2.3 Reg SHO Short Sale Price Test Restricted Indicator

In November 2010, the Securities and Exchange Commission (SEC) implemented changes to Rule 201 of the Regulation SHO (Reg SHO). For details, please refer to [SEC Release Number 34-61595](#). In association with the Reg SHO rule change, NASDAQ



introduced the following Reg SHO Short Sale Price Test Restricted Indicator message format.

For NASDAQ-listed issues, NASDAQ supports a full pre-opening spin of Reg SHO Short Sale Price Test Restricted Indicator messages indicating the Rule 201 status for all active issues. NASDAQ also sends the Reg SHO Short Sale Price Test Restricted Indicator message in the event of an intraday status change.

For other exchange-listed issues, NASDAQ relays the Reg SHO Short Sale Price Test Restricted Indicator message when it receives an update from the primary listing exchange.

NASDAQ processes orders based on the most Reg SHO Restriction status value.

| <b>REG SHO RESTRICTION</b> |               |               |              |  |
|----------------------------|---------------|---------------|--------------|--|
| <b>Name</b>                | <b>Offset</b> | <b>Length</b> | <b>Value</b> | <b>Notes</b>   |
| Message Type               | 0             | 1             | "Y"          | Reg SHO Short Sale Price Test Restricted Indicator   |
| Tracking Number            | 1             | 2             | Integer      | NASDAQ OMX internal tracking number  |
| Timestamp                  | 3             | 6             | Timestamp    | Time at which the market participant position message was generated  |
| Stock                      | 9             | 8             | Alphanumeric | Stock symbol right padded with spaces.   |
| Reg SHO Action             | 17            | 1             | Alphanumeric | Denotes the Reg SHO Short Sale Price Test Restriction status for the issue at the time of the message dissemination. Allowable values are:<br><br>"0" = No price test in place<br><br>"1" = Reg SHO Short Sale Price Test Restriction in effect due to an intraday price drop in security<br><br>"2" = Reg SHO Short Sale Price Test Restriction remains in effect |

## 5.2.4 Market-Wide Circuit Breaker (MWCB) Messaging

### 5.2.4.1 MWCB Decline Level Message

Informs data recipients what the daily MWCB breach points are set to for the current trading day.

| <b>MWCB Decline Level Message</b> |               |               |              |  |
|-----------------------------------|---------------|---------------|--------------|--|
| <b>Name</b>                       | <b>Offset</b> | <b>Length</b> | <b>Value</b> | <b>Notes</b>                                       |
| Message Type                      | 0             | 1             | "V"          | Market wide circuit breaker Decline Level Message. |
| Tracking Number                   | 1             | 2             | Integer      | NASDAQ OMX internal tracking number                |
| Timestamp                         | 3             | 6             | Timestamp    | Time at which the MWCB Decline Level               |

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|         |    |   |           |                                  |
|---------|----|---|-----------|----------------------------------|
|         |    |   |           | message was generated            |
| Level 1 | 9  | 8 | Price (8) | Denotes the MWCBC Level 1 Value. |
| Level 2 | 17 | 8 | Price (8) | Denotes the MWCBC Level 2 Value. |
| Level 3 | 25 | 8 | Price (8) | Denotes the MWCBC Level 3 Value. |

#### 5.2.4.2 MWCBC Status Message

Inform data recipients when a MWCBC has breached one of the established levels

| <b>MWCBC Breach Message</b> |               |               |              |   |
|-----------------------------|---------------|---------------|--------------|---|
| <b>Name</b>                 | <b>Offset</b> | <b>Length</b> | <b>Value</b> | <b>Notes</b>  |
| Message Type                | 0             | 1             | "W"          | Market-Wide Circuit Breaker Status message  |
| Tracking Number             | 1             | 2             | Integer      | NASDAQ OMX internal tracking number   |
| Timestamp                   | 3             | 9             | Timestamp    | Time at which the MWCBC Breaker Status message was generated                                      |
| Breached Level              | 9             | 1             | Alphanumeric | Denotes the MWCBC Level that was breached.<br><br>"1" = Level 1<br>"2" = Level 2<br>"3" = Level 3 |

### 5.3 Quotation Message

PSX BBO will broadcast a real-time update every time that the exchange's best bid and offer quote is updated during the trading day.

| <b>PSX BBO QUOTATION MESSAGE</b> |               |               |              |   |             |              |
|----------------------------------|---------------|---------------|--------------|---|-------------|--------------|
| <b>Name</b>                      | <b>Offset</b> | <b>Length</b> | <b>Value</b> | <b>Notes</b>  |             |              |
| Message Type                     | 0             | 1             | "Q"          | QBBO Quotation Message  |             |              |
| Tracking Number                  | 1             | 2             | Integer      | NASDAQ OMX internal tracking number   |             |              |
| Time Stamp                       | 3             | 6             | Timestamp    | Time stamp  |             |              |
| Stock                            | 9             | 8             | Alphanumeric | Denotes the PSX market center system issue identifier for which the PSX BBO quotation message is being generated.   |             |              |
| Security Class                   | 17            | 1             | Alphanumeric | Indicates the primary listing market for the stock. The allowable values are as follows:                            |             |              |
|                                  |               |               |              | <table border="1"> <thead> <tr> <th><b>Code</b></th> <th><b>Value</b></th> </tr> </thead> <tbody> </tbody> </table> | <b>Code</b> | <b>Value</b> |
| <b>Code</b>                      | <b>Value</b>  |               |              |   |             |              |

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|                      |    |   |           |  |                     |  |
|----------------------|----|---|-----------|--|---------------------|--|
|                      |    |   |           | Q  | NASDAQ Listed Issue |  |
|                      |    |   |           | N  | NYSE                |  |
|                      |    |   |           | A  | NYSE MKT            |  |
|                      |    |   |           | P  | NYSE Arca           |  |
|                      |    |   |           | Z  | BATS                |  |
| PSX Best Bid Price   | 18 | 4 | Price (4) | Denotes the PSX best bid price – the highest price for market buy order(s) in the PSX system.                                  |                     |  |
| PSX Best Bid Size    | 22 | 4 | Integer   | Denotes the aggregated number of shares available for display within the PSX market center system at the PSX best bid Price.   |                     |  |
| PSX Best Offer Price | 26 | 4 | Price (4) | Denotes the PSX exchange’s best offer price – the lowest price for market sell order(s) in the PSX system.                     |                     |  |
| PSX Best Offer Size  | 30 | 4 | Integer   | Denotes the aggregated number of shares available for display within the PSX market center system at the PSX Best Offer Price. |                     |  |

## **6 Contact Information**

Questions about the PSX Basic entitlement and PSX BBO specification document may be directed to [NASDAQ OMX Global Data Products](#) at +1 301 978 5307.

Questions about PSX BBO transmissions may also be directed to [NASDAQ OMX Operations Center](#).

## Appendix A

### Stock Symbol Convention

For NASDAQ-listed issues, NASDAQ OMX currently restricts its symbol length to a maximum of 8 characters. For common stock issuances, NASDAQ, PSX and BX will only assign root symbols of 1 to 4 characters in length with possible fifth and or sixth character denoting a suffix. In certain instances, a dot "." delimiter may be applied to symbols after the root and between the suffix eg., XXXX.A. For subordinate securities, NASDAQ and BX will assign a 5 character symbol for which the last character relays information about the issue class or issue type. For the current list of fifth and or six character symbol suffixes, please refer to [Ticker Symbol Convention](#) page on the NASDAQ OMX Trader website.

For NYSE-, NYSE MKT- and NYSE Arca-listed securities with subordinate issue types, please refer to [Ticker Symbol Convention](#) page on the NASDAQ OMX Trader website.

## Appendix B

### Trading Action Reason Codes

For NASDAQ-listed issues, NASDAQ acts as the primary market and has the authority to institute a trading halt or trading pause in an issue due to news dissemination or regulatory reasons.

For CQS issues, NASDAQ, BX and PSX abide by any regulatory trading halts and trading pauses instituted by the primary or listing market as appropriate.

For all issue types, NASDAQ, BX and/or PSX may also halt trading for operational reasons.

NASDAQ, BX and/or PSX will send out a trading action message to inform its market participants when the trading status of an issue changes. For informational purposes, NASDAQ and PSX also attempt to provide the reason for each trading action update. For bandwidth efficiency reasons, NASDAQ, BX and PSX use a 4-byte code for the reason on its outbound data feeds.

| <b>REASON CODES FOR TRADING HALT ACTIONS</b> |   |
|--|---|
| Code   | Value   |
| T1   | Halt News Pending   |
| T2   | Halt News Disseminated  |
| T5   | Single Security Trading Pause In Affect                         |
| T6   | Regulatory Halt – Extraordinary Market Activity                 |
| T8   | Halt ETF  |
| T12  | Trading Halted; For Information Requested by Listing Market     |
| H4   | Halt Non-Compliance   |
| H9   | Halt Filings Not Current  |
| H10  | Halt SEC Trading Suspension                                     |
| H11  | Halt Regulatory Concern   |
| O1   | Operations Halt; Contact Market Operations                      |
| LUDP   | Volatility Trading Pause  |
| LUDS   | Volatility Trading Pause – Straddle Condition                   |
| MWC1   | Market Wide Circuit Breaker Halt – Level 1                      |
| MWC2   | Market Wide Circuit Breaker Halt – Level 2                      |
| MWC3   | Market Wide Circuit Breaker Halt – Level 3                      |
| MWC0   | Market Wide Circuit Breaker Halt – Carry over from previous day |
| IPO1   | IPO Issue Not Yet Trading                                       |
| M1   | Corporate Action  |
| M2   | Quotation Not Available   |
| <space>                                      | Reason Not Available  |

| <b>REASON CODES FOR QUOTATION/TRADING RESUMPTION ACTIONS</b> |   |
|--|---|
| Code   | Value   |
| T3   | News and Resumption Times   |
| T7   | Single Security Trading Pause / Quotation Only Period                 |
| R4   | Qualifications Issues Reviewed/Resolved; Quotations/Trading to Resume |
| R9   | Filing Requirements Satisfied/Resolved; Quotations/Trading To Resume  |
| C3   | Issuer News Not Forthcoming; Quotations/Trading To Resume             |
| C4   | Qualifications Halt ended; Maintenance Requirements Met; Resume       |

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|         |  |
|---------|--|
| C9      | Qualifications Halt Concluded; Filings Met; Quotes/Trades To Resume      |
| C11     | Trade Halt Concluded By Other Regulatory Auth.; Quotes/Trades Resume     |
| MWCQ    | Market Wide Circuit Breaker Resumption                                   |
| R1      | New Issue Available  |
| R2      | Issue Available  |
| IPOQ    | IPO Security Released for Quotation (NASDAQ OMX Securities Only)         |
| IPOE    | IPO Security — Positioning Window Extension (NASDAQ OMX Securities Only) |
| <space> | Reason Not Available   |

For the current list of regulatory halts, please refer to the [Trading Halts page](#) on the NASDAQ OMX Trader website.

## Appendix C - Issue Classification Values

Identifies the security class for the issue as assigned by NASDAQ

| CODES FOR ISSUE CLASSIFICATION VALUES |                               |
|---------------------------------------|-------------------------------|
| Code                                  | Value                         |
| A                                     | American Depositary Share     |
| B                                     | Bond                          |
| C                                     | Common Stock                  |
| F                                     | Depository Receipt            |
| I                                     | 144A                          |
| L                                     | Limited Partnership           |
| N                                     | Notes                         |
| O                                     | Ordinary Share                |
| P                                     | Preferred Stock               |
| Q                                     | Other Securities              |
| R                                     | Right                         |
| S                                     | Shares of Beneficial Interest |
| T                                     | Convertible Debenture         |
| U                                     | Unit                          |
| V                                     | Units/Benif Int               |
| W                                     | Warrant                       |



## Appendix D - Issue Sub-Type Values

| CODES FOR ISSUE CLASSIFICATION VALUES |   |
|---------------------------------------|---|
| Code                                  | Value   |
| A                                     | Preferred Trust Securities  |
| AI                                    | Alpha Index ETNs  |
| B                                     | Index Based Derivative  |
| C                                     | Common Shares   |
| CB                                    | Commodity Based Trust Shares  |
| CF                                    | Commodity Futures Trust Shares  |
| CL                                    | Commodity-Linked Securities   |
| CM                                    | Commodity Index Trust Shares  |
| CO                                    | Collateralized Mortgage Obligation  |
| CT                                    | Currency Trust Shares   |
| CU                                    | Commodity-Currency-Linked Securities  |
| CW                                    | Currency Warrants   |
| D                                     | Global Depository Shares  |
| E                                     | ETF-Portfolio Depository Receipt  |
| EG                                    | Equity Gold Shares  |
| EI                                    | ETN-Equity Index-Linked Securities  |
| EN                                    | Exchange Traded Notes   |
| EU                                    | Equity Units  |
| F                                     | HOLDERS   |
| FI                                    | ETN-Fixed Income-Linked Securities  |
| FL                                    | ETN-Futures-Linked Securities   |
| G                                     | Global Shares   |
| I                                     | ETF-Index Fund Shares   |
| IR                                    | Interest Rate   |
| IW                                    | Index Warrant   |
| IX                                    | Index-Linked Exchangeable Notes   |
| J                                     | Corporate Backed Trust Security   |
| L                                     | Contingent Litigation Right   |
| LL                                    | Identifies securities of companies that are set up as a Limited Liability Company (LLC) |
| M                                     | Equity-Based Derivative   |
| MF                                    | Managed Fund Shares   |
| ML                                    | ETN-Multi-Factor Index-Linked Securities  |
| MT                                    | Managed Trust Securities  |
| N                                     | NY Registry Shares  |
| O                                     | Open Ended Mutual Fund  |
| P                                     | Privately Held Security   |
| PP                                    | Poison Pill   |
| PU                                    | Partnership Units   |
| Q                                     | Closed-End Funds  |

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|    |  |
|----|--|
| R  | Reg-S  |
| RC | Commodity-Redeemable Commodity-Linked Securities |
| RF | ETN-Redeemable Futures-Linked Securities         |
| RT | REIT   |
| RU | Commodity-Redeemable Currency-Linked Securities  |
| S  | SEED   |
| SC | Spot Rate Closing                                |
| SI | Spot Rate Intraday                               |
| T  | Tracking Stock                                   |
| TC | Trust Certificates                               |
| TU | Trust Units                                      |
| U  | Portal   |
| V  | Contingent Value Right                           |
| W  | Trust Issued Receipts                            |
| WC | World Currency Option                            |
| X  | Trust  |
| Y  | Other  |
| Z  | Not Applicable                                   |

## Appendix E

### Documentation Version Control Log

#### **December 5, 2014: PSX BBO Version 2.00**

The PSX BBO Specification was updated to include missing Issue Sub-Type Codes (Appendix D):

- AI – Alpha Indexes ETNs
- CO – Collateralized Mortgage Obligation
- EU – Equity Units
- F – HOLDERS
- IR – Interest Rate
- IW – Index Warrant
- J – Corporate Backed Trust Security
- PP – Poison Pill
- Q – Closed -End Funds
- RT – REIT
- SC – Spot Rate Closing
- SI – Spot Rate Intraday
- WC – World Currency Option
- X – Trust
- Y – Other
- Z – NA

#### **October 1, 2013: PSX Best Bid and Offer (PX BBO) 2.00**

Released a new version of PSX BBO documentation to support the following changes:

- Conversion to binary

#### **August 2, 2013: PSX Best Bid and Offer (PX BBO) 2.00**

Released a new version of PX BBO documentation to support the following changes:

- Inclusion of the Appendices for Issue Classification and Issue Sub-Type
- Updated offsets in the Symbol Directory Message
- Updated offsets and lengths for the MWCB Decline Level Message
- Renamed the Compliance ID field to TrackingID

#### **July 10, 2013: PSX Best Bid and Offer (PX BBO) 2.00**

The PX BBO Specification was updated to reflect the following changes:

- Added Enhanced Symbol Directory
- Added Market-Wide Circuit Breaker (MWCB) Messaging
  - MWCB Decline Level Message
  - MWCB Status Message
- Addition of an internal tracking number to multiple messages
- Addition of 'C' to the Financial Status Indicator field in the Symbol Directory Message

#### **March 11, 2013: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX added the following Trading Action Reason Code for LULD to reflect when the National Best Bid is below the lower price band and/or the National Best Offer is above than the upper price band and the NMS Stock is not in a Limit State.

- LUDS - Volatility Trading Pause – Straddle Condition

#### **January 9, 2013: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX added the following Trading Action Reason Code:

- MWC0 - Market Wide Circuit Breaker Halt – Carry over from previous day

**January 8, 2013: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX removed the Trading Action State, "P", from the Stock Trading Message.

**November 6, 2012: PSX Best Bid and Offer (PX BBO) 1.1**

Released a new version of the PX BBO documentation to support the following changes:

- Added the "P" value to the Trading State in the Stock Trading Message.
- Modified the values for the Trading Action Reason Codes. Added the following codes:
  - LUDP - Volatility Trading Pause
  - MWC1 - Market Wide Circuit Breaker Halt – Level 1
  - MWC2 - Market Wide Circuit Breaker Halt – Level 2
  - MWC3 - Market Wide Circuit Breaker Halt – Level 3
  - MWCQ - Market Wide Circuit Breaker Resumption
- Removed the Trading Action values related to the Volatility Guard Program. Removed Trading State, "V". Eliminated Trading Action Reason Codes, V1 and V2.

**November 1, 2011: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX added a new Market Center code, "Z", for BATS-listed securities to the Market Category and Security Class fields.

**July 14, 2010: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX added a new Regulation SHO Short Sale Price Test Restricted Indicator message format to be introduced in the fourth quarter of 2010.

**July 2, 2010: PSX Best Bid and Offer (PX BBO) 1.1**

NASDAQ OMX added new Action Trading code(s) to the Stock Trading Action message for the NASDAQ Volatility Guard trading pause.

**May 25, 2010 : PSX Best Bid and Offer (PX BBO) 1.1**

Inclusion of two new Trading Action Reason code values (T5 and T7) for single security trading pause situations

**March 26, 2010 : PSX Best Bid and Offer (PX BBO) 1.1**

Inclusion of EMC (Emergency Market Conditions) System Event Codes

**February 26, 2010 : PSX Best Bid and Offer (PX BBO) 1.1**

Initial release of PSX documentation.

(Note: For cross market consistency, PSX is using the same version numbers as the NASDAQ and BX markets. There will be no PX BBO 1.0.)