

# **XDP BBO CLIENT SPECIFICATION**

NYSE BBO NYSE Arca BBO NYSE MKT BBO Global OTC BBO

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# Preface

### **DOCUMENT HISTORY**

The following table provides a description of all changes to this document.

| Version No. | Date       | Change Description  |
|-------------|------------|---|
| 1.5         | 07/12/2013 | Overview amended  |
| 1.6         | 08/20/2013 | Addition of the RPI field and clarifying statements within QuoteCondition field |
| 2.0         | 09/24/2013 | Several updates to section 2.1 Message Structure                                |
| 2.1         | 11/06/2013 | Removal of Quote Conditions values in Section 2.1 Message Structure             |
| 2.2         | 11/29/2013 | Note added to table 5 in section 2.1  |
| 2.3         | 09/26/2014 | Re-branded for ICE/NYSE   |
| 2.4         | 02/04/2015 | Added support for Global OTC  |
| 2.4a        | 03/12/2015 | Corrected last field in Quote message to Reserved                               |
| 2.4b        | 07/10/2015 | Updated legal disclaimer for Global OTC on title page                           |

### **REFERENCE MATERIAL**

The following lists the associated documents, which either should be read in conjunction with this document or which provide other relevant information for the user:

- XDP Common Client Specification
- SFTI US Technical Specification
- SFTI US Customer Guide
- NYSE Symbology

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### **FURTHER INFORMATION**

- For additional product information please visit, http://www.nyxdata.com
- For updated capacity figures, visit our capacity pages at: http://www.nyxdata.com/capacity
- For details of IP addresses, visit our IP address pages at: http://www.nyxdata.com/ipaddresses
- For a full glossary, visit: http://www.nyxdata.com/glossary/

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### 1. Introduction

This real-time low latency product provides top of book quote data for all traded securities on the respective NYSE exchanges. This data is intended for clients who require a direct, unconsolidated feed and timestamps provided directly from the Exchange matching engines.

### 1.1 PUBLICATION TIMES

#### Normal Trading Days (All times are EST)

| MsgType | Description   | NYSE / NYSE MKT | NYSE Arca       | Global OTC      |
|---------|---------------|-----------------|-----------------|-----------------|
| 140     | Quote Message | 9:30am – 4:00pm | 4:00am – 8:00pm | 8:00am – 4:00pm |

#### Early Closing Days (All times are EST)

| MsgType | Description   | NYSE / NYSE MKT | NYSE Arca       | Global OTC      |
|---------|---------------|-----------------|-----------------|-----------------|
| 140     | Quote Message | 9:30am – 1:00pm | 4:00am – 1:00pm | 8:00am – 1:00pm |

### 1.2 CONTROL MESSAGE TYPES USED IN THE DATA FEEDS

| MsgType | Description                          |  |  |
|---------|--------------------------------------|--|--|
| 1       | Sequence Number Reset                |  |  |
| 2       | Time Reference Message               |  |  |
| 3       | Symbol Index Mapping                 |  |  |
| 10      | Retransmission Request Message       |  |  |
| 11      | Request Response Message             |  |  |
| 12      | Heartbeat Response Message           |  |  |
| 13      | Symbol Index Mapping Request Message |  |  |
| 15      | Refresh Request Message              |  |  |
| 31      | Message Unavailable                  |  |  |
| 32      | Symbol Clear                         |  |  |
| 33      | Trading Session Change               |  |  |
| 34      | Security Status Message              |  |  |
| 35      | Refresh Header Message               |  |  |

### 1.3 REFRESH MESSAGE TYPES USED IN THE REFRESH FEED

| MsgType | Description             |
|---------|-------------------------|
| 35      | Refresh Header Message  |
| 3       | Symbol Index Mapping    |
| 34      | Security Status Message |
| 33      | Trading Session Change  |
| 140     | Quote Message           |

# 2. Quote Message – Msg Type 140

A quote message is sent when any event results in a new top of book value on either side of the market.

See the XDP Common Client Specification for details on Symbol Index Mapping and Time Reference messages.

| FIELD NAME      | OFFSET | SIZE<br>(BYTES) | FORMAT | DESCRIPTION   |
|-----------------|--------|-----------------|--------|---|
| Msg Size        | 0      | 2               | Binary | Size of the message: 38 bytes   |
| Msg Type        | 2      | 2               | Binary | The type of message:  |
|                 |        |                 |        | 140 – Quote Message   |
| SourceTimeNS    | 4      | 4               | Binary | The nanosecond offset (UTC Time) from the Time Reference message.                                   |
| SymbolIndex     | 8      | 4               | Binary | The ID of the symbol in the Symbol Index message.   |
| SymbolSeqNum    | 12     | 4               | Binary | The symbol sequence number.   |
| Ask Price       | 16     | 4               | Binary | The Ask price. Use the Price scale from the Symbol Index message.                                   |
| Ask Volume      | 20     | 4               | Binary | The aggregate size at the ask price.  |
| Bid Price       | 24     | 4               | Binary | The Bid price. Use the Price scale from the Symbol Index message.                                   |
| Bid Volume      | 28     | 4               | Binary | The aggregtate size at the bid price.   |
| Quote Condition | 32 1   | 1               | ASCII  | Valid values:   |
|                 |        |                 |        | 'C' - Closing   |
|                 |        |                 |        | 'O' - Opening Quote   |
|                 |        |                 |        | 'R' - Regular Quote   |
|                 |        |                 |        | 'W' - Slow on the Bid and Ask due to a "Set Slow List"  |
|                 |        |                 |        | Note: For NYSE Arca and Global OTC, only condition R is applicable.                                 |
| RPI Indicator   | 33     | 1               | ASCII  | The side(s) where Retail Price Indication (RPI orders) exist. Valid values are:                     |
|                 |        |                 |        | '' - Space means no Retail Interest (Default)   |
|                 |        |                 |        | 'A' – Retail Interest on Bid Quote  |
|                 |        |                 |        | 'B' – Retail Interest on Offer Quote  |
|                 |        |                 |        | 'C' - Retail Interest on both the Bid and Offer Quote   |
|                 |        |                 |        | Note: This field is only valid for NYSE and NYSE MKT. It is left as a future release for NYSE Arca. |
| Reserved        | 34     | 4               | Binary | Reserved for future use.  |

# 3. Product ID

Error! Reference source not found. table describes the Product IDs associated with supported exchanges.

| Exchange   | Product ID | Description    |
|------------|------------|----------------|
| NYSE       | 3          | NYSE BBO       |
| NYSE MKT   | 52         | NYSE MKT BBO   |
| NYSE Arca  | 152        | NYSE Arca BBO  |
| Global OTC | 170        | Global OTC BBO |