# SBE - Equity Indices Messaging Format

The streamlined SBE messages in this section are sent for Equity Indices. The messages, tags, and tag values sent vary, depending on the type of index being sent.



Tags not listed in the message specification may appear in the template.

### News (tag 35-MsgType=B) Message

The News (35=B) message is not sent for Bloomberg Indices.

| Tag | FIX Name | FIX Type | Valid Values | Description |
|---|---|---|---|---|
| 148 | Headline | String (50) | Index Update | The headline of a News message. |
| 42 | OrigTime | UTCTimeStamp (21) | | Original time of message<br><br>**Format:** YYYYMMDDHHMMSSsss (i.e. 20071215145535148)].<br><br>UTC Timestamps are sent in number of nanoseconds since Unix epoch synced to a master clock to microsecond accuracy. |
| 146 | NoRelatedSym | NumInGroup (1) | | Specifies the number of repeating symbols. |
| 55 | Symbol | String (50) | | Index Name. |
| 33 | NoLinesofText | NumInGroup (1) | | Identifies number of lines of text body. |
| 58 | Text | String (250) | | Free form text string. |

top

### Security Definition Request (tag 35-MsgType=c) Message

| Tag | FIX Name | FIX Type | Valid Values | Description |
|---|---|---|---|---|
| 1180 | ApplID | String (50) | | The channel ID from the XML Configuration File for which this request is made. |
| 320 | SecurityReqID | String (32) | | Unique ID of a Security Definition Request. |
| 321 | SecurityRequestType | String (1) | 8=All Securities | Type of Security Definition Request. |
| 1301 | MarketID | Exchange | SPI = Standard Poors Indices<br>DJI = Dow Jones Indices<br>BBGI = Bloomberg Indices | Identifies the Market. |

top

### Security Definition (tag 35-MsgType=d) Message

Security Definition messages are initially sent at approximately 11:30 pm on Saturday evenings (Chicago Daylight Savings Time) and approximately 10:30 pm on Saturday evenings (Chicago Standard Time).

| Tag | Tag Name | FIX Type | Valid Values | Description |
|---|---|---|---|---|
| 55 | Symbol | String (50) | | Instrument/Index/Swap Name. |
| 460 | Product | Int (2) | 7 = Index | Identifies the type of product. |
| 207 | SecurityExchange | Exchange (4) | SPI = Standard Poors Indices<br>DJI = Dow Jones Indices<br>BBGI = Bloomberg Indices | Market used to help identify a security/Index. |
| 15 | Currency | Currency (3) | | Identifies currency used for price. |
| 864 | NoEvents | NumInGroup (1) | | Number of repeating EventType entries. |
| **Repeating Group** | | | | |
| 865 | EventType | Int (3) | 5 = Activation<br>6 = Inactivation<br>120 = Modification | Code to represent the type of event. |
| 866 | EventDate | LocalMktDate (8) | | Date of event.<br>Data format (YYYYMMDD) |
| 870 | NoInstrAttrib | NumInGroup (2) | | Number of repeating group InstrAttribType entries. |
| **Repeating Group** | | | | |
| 871 | InstrAttribType | Int (3) | See table. | Tag 871-InstAttribType and tag 872-InstAttribValue function together where tag 871 indicates the type of value that the following tag 872 will contain. |
| 872 | InstrAttribValue | String (500) | See table. | Tag 871-InstAttribType and tag 872-InstAttribValue function together where tag 871 indicates the type of value that the following tag 872 will contain.<br><br>Attribute value appropriate to the tag 871-InstrAttribType field. |
| 980 | SecurityUpdateAction | Char (1) | M = Modify<br>D = Delete | Included in the message on the incremental feed when a mid-week modification/deletion occurs. |
| 1180 | ApplID | String (50) | | The channel ID as defined in the XML Configuration File. |

top

## Tag 871-InstAttribType and Tag 872-InstAttribValue Table of Values

Tag 871-InstAttribType and tag 872-InstAttribValue function together where tag 871 indicates the type of value that the following tag 872 will contain. The following Index attributes may be included in the Security Definition Message:

| Tag 871-InstrAttribType Valid Values | Description/Tag 872 Valid Values |
|---|---|
| 27 = Display Price Precision | Number of Decimals in Displayed Price |
| 117 = Index Long Name | Name of the Index |
| 118 = Index Key | Unique ID |
| 119 = Fee Code | When the preceding tag 871=119 (Fee Code), the following values are valid for tag 872:<br><br>XL = S&P 100 and S&P 500<br>XF = All other Fee Liable Indices<br>XW = All Fee Waived Indices<br>XD = Dow Jones Fee Liable Indices<br>XBW = Bloomberg Fee Waived Indices |
| 122 = Frequency | Publishing frequency (in seconds) |
| 123 = Start Publish Time | Time that the messages will begin to be published.<br><br>**UTC Format:** HHMMSSsss<br><br>UTC Timestamps are sent in number of nanoseconds since Unix epoch synced to a master clock to microsecond accuracy. |

| | |
|---|---|
| 124 = End Publish Time | Time that the messages will no longer be published.<br><br>**UTC Format:** HHMMSSsss<br><br>UTC Timestamps are sent in number of nanoseconds since Unix epoch synced to a master clock to microsecond accuracy. |

top

### Streamlined Market Data Incremental Refresh (tag 35-MsgType X)

This section describes the streamlined Market Data Incremental Refresh Message (35=X) for Equity Indices products.

The  symbol indicates a repeating group tag.

| Tag | FIX Name | FIX Type | Valid Values | Description |
|---|---|---|---|---|
| 60 | TransactTime | UTCTimeStamp | | Trade date in number of nanoseconds since Unix epoch.<br><br>UTC Timestamps are sent in number of nanoseconds since Unix epoch synced to a master clock to microsecond accuracy. |
| 5799 | MatchEventIndicator | String | ex. 10000001 – end of trade summaries, end of event | Bitmap field of eight Boolean type indicators reflecting the end of updates for a given event:<br><br>Bit 0: (least significant bit) Last Trade message for a given event<br><br>Bit 1: Last electronic volume message<br><br>Bit 2: Last customer order quote message<br><br>Bit 3: Last statistics message<br><br>Bit 4: Last implied quote message<br><br>Bit 5: Message is sent during  recovery process<br><br>Bit 6: Reserved for future use<br><br>Bit 7: (most significant bit) Last message for a given event |
| 268 | NoMDEntries | NumInGroup (5) | | Number of FIX Market Data Incremental Refresh Data Blocks in the Market Data Incremental Refresh message. |
| 1022 | MDFeedType | String | XL = S&P 100 and S&P 500<br>XF = All other Fees Liable indexes<br>XW = All fee Waived<br>XD = Dow Jones Fee Liable Indices<br>XB = Bloomberg Fee Waived Indices | Market data on fee-liable indices type. |
| 50001 | BatchTotalMessages | Int | | Total number of messages contained within batch, which is defined by match event indicator (5799). |
| **Repeating Gruop** | | | | |
| 279 | MDUpdateAction | Char (1) | 0 = New | Indicates the type of Market Data update action |
| 269 | MDEntryType | Char (1) | 0 = Bid<br>1 = Offer<br>2 = Trade<br>3 = Index Value<br>4 = Opening Price<br>5 = Closing Price<br>6 = Settlement Price<br>7 = Trading Session High Price<br>8 = Trading Session Low Price<br>e = Trade Volume | Indicates the type of market data entry.<br><br>Opening Price - This value is the first 'normal' index tick at the start of the new trading day. A normal tick is a tick generated during the regular trading hours of the underlying constituents.<br><br>Closing Price - The index close value computed using the official close prices of the underlying constituents.<br><br>**Note:** The following tags are **NOT** sent for Bloomberg Indices:<br>• 0 = Bid<br>• 1 = Offer<br>• 6 = Settlement Price |
| 83 | RptSeq | Int (3) | | Sequence number per Instrument update or index. |

| | | | | |
|---|---|---|---|---|
| 55 | Symbol | String (50) | | Instrument Name |
| 286 | OpenCloseSettleFlag | Int (3) | 0 = Daily Open / Close /Settlement entry<br>4 = Entry from previous business day<br>102 = Settlement Index value<br>103 = Special Opening Quote | Indicates whether price is a settlement index or if it is a special opening index quote.<br><br>**Special Opening Quote** – The Index Opening Settlement is based on the SOQ (Special Opening Quotation) calculation to facilitate convergence of cash and future markets. Many Index futures are settled against the Index Opening Settlement. This value is calculated as per normal index calculation procedures except that open prices of the underlying constituents are used for this calculation. The Index Opening Settlement value should not be confused with the first tick of the index and will likely greatly differ from that value. The final Index Opening Settlement value is typically published after all the underlying constituents of the index have opened for trading. |
| 451 | NetChgPrevDay | PriceOffset (20) | | Net change from previous day's closing price.<br><br>**Note:** This tag is **NOT** sent for Bloomberg Indices. |
| 6119 | NetPctChg | Percentage (20) | | Index percentage change with respect to previous close.<br><br>**Note:** This tag is **NOT** sent for Bloomberg Indices. |
| 7017 | PercentTrading | Percentage (20) | | Percent trading of the underlying index constituents.<br><br>**Note:** This tag is **NOT** sent for Bloomberg Indices. |
| 9988 | MDEntryCode | MultipleValueString (2) | 1 = Indicative<br>2 = Pre-Market<br>3 = Preliminary Close<br>4 = Session Close<br>5 = Close | List of conditions describing a market data entry. See the table below for additional description of valid values for this tag.<br><br>If tag 9988 is not present, the market data entry occurred during the normal trading condition. |
| 270 | MDEntryPx | Price (20) | | Price of the Market Data Entry |
| 271 | MDEntrySize | Qty | | Traded quantity. |
| 272 | MDEntryDate | UTCDateOnly (8) | | Date of the Market Data Entry. Value is the number of days since UNIX epoch. |
| 273 | MDEntryTime | UTCTimeOnly (12) | | Timestamp of Market Data Entry. Value is the number of milliseconds since GMT midnight. |
| 1145 | EventTime | UTCTimestamp | | Date and Time of event expressed in UTC DateTime. UTC Timestamps are sent in number of nanoseconds since Unix epoch synced to a master clock to microsecond accuracy. |
| 9633 | Reference ID | String | | Reserved for future use. |
| 235 | YieldType | String (20) | MATURITY = Yield to Maturity | Type of yield.<br><br>**Note:** This tag is **NOT** sent for Bloomberg Indices. |
| 236 | Yield | Price (20) | | Yield of the index's underlying instruments.<br><br>Applicable for Fixed Income indices only.<br><br>**Note:** This tag is **NOT** sent for Bloomberg Indices. |

top

## Streamlined FIX Tag 9988-MDEntryCode Valid Values Description

| Value | Description |
|---|---|
| 1=Indicative | Index computed using alternate prices of the underlying constituents to provide an indicative index level. |

| | |
|---|---|
| 2=Pre-Market | Pre-market index data for certain key headline indices will be generated typically one hour prior to the actual start of trading day.<br><br>The pre-market index data will contain:<br><br>• Index values flat-lined with previous day's index close levels.<br>• Index Bid & Ask values computed using real-time pre-market quotes of the underlying constituents.The pre-market index ticks should be considered as an initialization phase for the index before the start of the trading day. The pre-market index ticks serve the purpose of a system health check prior to the actual open of the index. All market data vendors are encouraged to distribute the pre-market index ticks with an appropriate pre-market indicator. The index values produced during pre-market do not contribute to the Daily Open, High and Low. Additionally, the Index Bid and Ask values computed using pre-market quotes provides an early indication of the index spread before the start of trading day. |
| 3=Preliminary Close | The index tick computed using real-time prices just before the official index close is published. |
| 4=Session Close | The index level computed using the mid-day close prices of the underlying constituents. |
| 5=Close | The index close value computed using the official close prices of the underlying constituents |

top

## Sample (35=X) Message and Data Blocks

This section provides FIX syntax for each type of Equity Index statistic transmitted over streamlined SBE.

### Index Prices

FIX Syntax for Index Price - Market Data Incremental Refresh (tag 35-MsgType = X)

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=3 (index value)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime
- Tag 1020-TradeVolume
- Tag 9988-MDEntryCode
- Tag 6119-NetPctChg
- Tag 451-NetChgPrevDay

top

### Bid & Ask Prices

FIX Syntax for Bid or Ask Price - Market Data Incremental Refresh (tag 35-MsgType = X)

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=0 (Bid) or 1 (Ask)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime

top

### High & Low Prices

FIX Syntax for High or Low Price - Market Data Incremental Refresh (tag 35-MsgType = X)

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=7(High) or 8(Low)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime

top

### Opening Price

FIX Syntax for Opening Price - Market Data Incremental Refresh (tag 35-MsgType = X)

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=4 (Opening)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime

top

### Closing Price

FIX syntax for Closing Price - Market Data Incremental Refresh (tag 35-MsgType = X)

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=5 (Closing)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 286-OpenCloseSettleFlag=0 (Daily Open/Close/Settlement entry) or 4 (Entry from previous business day)

top

### Settlement Index Prices

FIX Syntax for Settlement Index Price - Market Data Incremental Refresh (tag 35-MsgType = X).

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=6 (Settlement price)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime
- Tag 286-OpenCloseSettle=102 (Settlement index value)

top

### Special Opening Quotes

FIX Syntax for Special Opening Quotes - Market Data Incremental Refresh (tag 35-MsgType = X).

- Tag 279-MDEntryAction=0 (New)
- Tag 269-MDEntryType=6 (Settlement Price)
- Tag 83-RptSeq
- Tag 55-Symbol
- Tag 270-MDEntryPx
- Tag 272-MDEntryDate
- Tag 273-MDEntryTime
- Tag 286-OpenCloseSettlFlag=103 (Special opening quote)
- Tag 7017-PercentTrading

top