# UMDF – Unified Market Data Feed

## FIX/FAST Message Reference

Version: 2.2.2
Last modified: 2026-07-09

## Contacts

- Services Development Department (GDS)**: handles all enquiries for connectivity setup and general exchange supported services.**

  ✉ **gds@b3.com.br**

- Certification and Testing Center (CTC)**: performs certification of all software solutions applying for EntryPoint connectivity.**

  ✉ **tradingcertification@b3.com.br**

  ☎ +55 11 2565-5059

- Trading Support Channel**: provides real-time connectivity monitoring and troubleshooting.**

  ✉ **tradingsupport@b3.com.br**

  ☎ +55 11 2565-5021

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# Revision History

| Date | Version | Description | Author |
|---|---|---|---|
| Jul, 09th, 2026 | 2.2.2 | - New field SettlDate (tag 64) to Market Data Incremental Refresh (35=X) and Market Data Snapshot Full Refresh (35=W)<br>- Added new domain 35 – TEST INSTRUMENT in tag 871 (InstrAttribType) | JPM , DBZ |
| Jun, 2026 | 2.2.1 | - Added new domain **2 - Vanilla - Cash Settlement in tag 1482 (OptPayoutType)** | |
| Oct 21th, 2025 | 2.2.0 | - Support for order management by price and priority – tag 290 (MDEntryPositionNo) is deprecated for ALL channels, even for BTB channel.<br>- New field MDEntryPrevSize (taq 37780) to Market Data Incremental Refresh (35=X) | RDC |
| Jul 04th, 2025 | 2.1.23 | - Modifications in SecurityList (35=y) message:<br>- Added new tag 1482 (OptPayoutType)<br>- Added new domain (160 – Crypto asset) in tag 762-SecuritySubType<br>- Changed description of tag 200 – MaturityMonthYear | RDC |
| May 13th, 2025 | 2.1.22 | - Alter tag description 37 (OrderID) in Market Data Incremental Refresh (35=X) and Market Data Snapshot Full Refresh (35=W) messages | RDC |
| Aug 22th, 2024 | 2.1.21 | - Alter tag description 200 (MaturityMonthYear) in SecurityList(35=y) message<br>- Added new domain LM - BTB (Limited Order) and AN - BTB (All or Nothing Order) in tag 276 (QuoteCondition), Market Data Incremental Refresh (35=X) and Market Data Snapshot Full Refresh (35=W) messages<br>- Added new domain 1 – Implied in tag 1144 (ImpliedMarketIndicator) and alter description, in SecurityList (35=y) message<br>- Added new domain "IM" (Implied) in tag 277 (TradeCondition), in Market Data Incremental Refresh (35=X) and Market Data Snapshot Full Refresh (35=W) messages | RDC |
| Jan 18th, 2024 | 2.1.20 | - Added new domain SW - Sweep in tag 277 (TradeCondition) in Market Data Incremental Refresh (35=X) and Market Data Snapshot Full Refresh (35=W) messages<br>- Added new domain 92 – Strategy InterestRate in tag 762 (SecuritySubType) in SecurityList(tag 35=y) message | RDC |
| Nov, 22th, 2023 | 2.1.19 | - Change the description of the 'RF' domain of tag 277 (TradeCondition) | RDC |
| May, 3nd, 2023 | 2.1.18 | - Moved tag 35561 – MinCrossQty from group NoRelatedSym in SecurityList (35=y) message. | LCP |
| Jan, 4nd, 2023 | 2.1.17 | - Changed tag 35561 – MinCrossQty datatype to Qty. | AYSF |
| Dez 22th, 2022 | 2.1.16 | - Added new domains TC (Trade at Close) and TA (Trade at Average) in tag 277 – TradeCondition in Incremental Refresh (35=X) and Snapshot (35=W) messages.<br>- Changed description to domain PT in Incremental Refresh (35=X) and Snapshot (35=W) messages.<br>- Added new domains 1020 - Trade at Close (TAC), 1021 - Trade at Average (TAA),1022 - Midpoint, 1023 - Block Book Trade (BBT) and 1024 - Request for Quote (RFQ) in tag 762.<br>- Added new tag 35561 (MinCrossQty) in SecurityList (35=y) message. | AYSF |
| Jun 7th, 2022 | 2.1.15 | - Added new domain MP in tag 277 – TradeCondition used for Midpoint Trades in Incremental Refresh (35=X) and Snapshot (35=W) messages. | AYSF |
| May 12nd, 2022 | 2.1.14 | - Added new domains (1137, 1138, 1139, 1150, 1151, 1152, 1153, 1154, 4004, 4005 and 4006) for tag 762 – SecuritySubType | AYSF |
| Apr 25 th , 2022 | 2.1.13 | - Added new domain for tag 277, used for RFQ Trade<br>- Added new domain for tag277, used for Point in time Action | AYSF |
| Sep 17th, 2021 | 2.1.12 | - Added new domains for tag 762 - SecuritySubType | AYSF |
| Aug 19th, 2020 | 2.1.11 | - Added new domains for tag 762 - SecuritySubType | AYSF, RC |
| Feb, 21 th, 2020 | 2.1.10 | - Added new domains for tag 762 – SecuritySubType | AYSF |
| Jun, 7nd , 2019 | 2.1.9 | - Added new domain for tag 277, used for RLP Trade | AYSF |
| Dec, 4 th, 2018 | 2.1.8 | - Added new tag 35021 for message 35=BX | AYSF |
| Nov, 1st, 2018 | 2.1.7 | - Added new domains for Derivatives on tag 762 | AYSF |
| Aug. 6 th, 2018 | 2.1.6 | - Added new domain (142 – Stock RollOver) for tag 762. | AYSF |

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|---|---|---|---|
| May, 29th, 2018 | 2.1.5 | - Added new domain for tag 762. | AYSF |
| Sep, 12nd, 2017 | 2.1.4 | - Added Volatility price repeating group (269=v) and corresponding tags 811-PriceDelta, 31-LastPx and 1025-FirstPx to sections 1.3.2 and 1.3.3. | AYSF / JLRM |
| Jun, 2nd, 2017 | 2.1.3 | - Increasing version number in accordance with the BTB changes mentioned on the Message Specification document. No changes to tag definitions. | AYSF / JLRM |
| Feb. 21st, 2017 | 2.1.2 | - Changed availability of tag 37003, being present for Derivatives, but always sending 0.<br>- Changed message 35=f (SecurityStatus), indicating tag 75-TradeDate is still being sent.<br>- Fixed tag number for tag 37025-BTBGraceDate (was 37035 previously). Also removed duplicate tag 37023-BTBCertIndicator.<br>- Marked tag 37019-EarlyTermination as also sent in message 35=W. | JLRM / AYSF |
| Jan, 12nd, 2017 | 2.1.1 | - Renamed TCP Recovery / Historical Replay to TCP Replayer / Historical Replayer, since the former ones are going to be decommissioned on Nov, 2017. | JLRM / AYSF |
| Nov, 23rd, 2016 | 2.1.0 | - Unified Derivatives and Equities specification<br>- See Customer Impact document or UMDF Message Specification ch. 12 for specific changes. | JLRM |
| May, 3rd, 2016 | 2.0.11 | - Added tags 37023, 37024 and 37025 to Incremental and Snapshot to accommodate changes to the BTB (ex-BTC) Security Lending System. Updated domain of tag 37019-EarlyTermination to include changes to the BTB Security Lending System. | JLRM |
| Nov, 11st, 2015 | 2.0.10 | - Marked value 2 (Marketplace entered trade) as valid for Derivatives as well, as a result of the Derivatives Engine Migration.<br>- Changed the domain of tag 762-SecuritySubType, adding new types for Foreign Indices and the new BDR products<br>- Added domain M2 to tag 37011-GovernanceIndicator | JLRM |
| Apr, 7th, 2014 | 2.0.9 | - Added new domains for tags 167 and 762 to reflect the addition of Fixed Income ETF products. | JLRM |
| Nov, 13th, 2014 | 2.0.8 | - Tag 1150-TradingReferencePrice is only applied to Economic Indicator instruments (derivatives segment). | RNKH |
| Oct, 24th, 2014 | 2.0.7 | - Marked tags 1148, 1149 and 1306 as available for Equities, to match UMDF market data specification document.<br>- Corrected description of tag 1150-TradingReferencePrice.<br>- Spelling and grammar issues. | JLRM |
| Apr, 15th, 2014 | 2.0.6 | - Corrected the name of tag 1194-ExerciseStyle. | JLRM |
| Mar, 27h, 2014 | 2.0.5 | - Clarified the default value for tag 37012 on section 1.3.1.<br>- Market message 35=n on section 1.3.6 as DEPRECATED with the integration of corporate fixed income products on the PUMA Trading Platform, according to the circular letter 003/2014-DI.<br>- Updated section 1.3.1 including the new domains for tags 167-SecurityType and 762-SecuritySubType. | JLRM |
| Oct, 11st, 2013 | 2.0.4 | - Marked block 269=D (Index Composite Price) as future use only, since it won´t be currently used on UMDF 2.0 index channel.<br>- Moved tag 83-RptSeq to the body of message 35=W, matching the new UMDF 2.0 production behavior and templates.<br>- Updated description of tag 37011-GovernanceIndicator.<br>- Added tag 37021-IndexTheoreticalQty to 35=y message, used for index instruments.<br>- Updated description of tag 37012-PriceDivisor, to indicate it can be used for index instruments to disseminate the index reducer. | JLRM |
| Jun, 11st, 2013 | 2.0.2 | - Changed description of tag 1174-SecurityTradingEvent on sections 1.3.3 and 1.3.4 to properly reflect that this tag always reports a value to indicate if the security follows the group when the messages refer to a specific security (having tag 48).<br>- Added tag 37018-UnderlyingPriceType for 269=D block on sections 1.3.2 and 1.3.3; | JLRM |
| Feb, 22nd, 2013 | 2.0.1 | - Group 1351-NoApplID marked for Equities.<br>- Reviewed the domain for tag 423-PriceType for Equities.<br>- Tag 460 not available on Derivatives.<br>- Corrected description of tag 1354 on Application Message Report (BY) message, section 2.1.4. | JLRM |
| Jan, 8th, 2013 | 2.0 | - Renamed message columns to DER and EQT.<br>- Renamed Market Recovery to Snapshot Recovery and TCP Replay to TCP Recovery.<br>- Applied changes to all impacted messages.<br>- Added section 1.3.6 describing message NonFixData. | JLRM |
| Oct, 24th, 2012 | 1.6.4.1 | - Added value 286=0 back to 35=W as well. | JLRM |
| Oct, 5th, 2012 | 1.6.4 | - Added value 286=0 back again, as it´s still used in some scenarios.<br>- Removed tag 7595-NoSharesIssued from message 35=y (SecurityList) and 35=W (Snapshot), as this will only be available on PUMA Equities. | JLRM |

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|---|---|---|---|
| | | - Change to tag 1348 domain, adding another to identify when TCP Recovery is unavailable. | |
| Jul, 10th, 2012 | 1.6.3 | - No changes made, just increased version to match the Market Data Reference document. | JLRM |
| Jun. 27th, 2012 | 1.6.2 | - Changed contact information to the Trading Support Channel | JLRM |
| Jun. 4th, 2012 | 1.6.2 | - Removed the value 4 for tag 1354 in section 2.1.4 (BY message), as this value should only be available in 35=BX messages.<br>- Added the value 4 for tag 1354 in section 2.1.2 (BX message). Also, in the same message BX, removed values 5 and 6 from tag 1348 as they are no longer used. | JLRM |
| May. 18th, 2012 | 1.6.1 | - Removed the value 3 for tag 1354 in section 2.1.4, as this value should only be available in 35=BX messages.<br>- Removed value 3 (Delete thru) for PUMA on tag 279, in section 1.3.2. | JLRM |
| Mar. 22th, 2012 | 1.6 | - MaturityDate marked as available for MEGA<br>- Added new type “MLEG” to 167-SecurityType in 35=y, for handling user defined strategy instruments.<br>- Added new tag 7595-NoSharesIssued to represent the total available shares for an Equity cash instrument<br>- Added the value 3 for tag 1354 in section 2.1.4<br>- Added PUMA exclusive tags to section 1.3<br>- Removed references to the GTS system (that has been discontinued. | JLRM |
| Sep. 2nd, 2011 | 1.5.1 | - Added tag 37016-MDInsertDate to messages 35=X and 35=W for MEGA (used in blocks 269=0,1) to be used for GTD/GTC orders. | JLRM |
| Jul. 27th, 2011 | 1.5.1 | - Marked tags 1150 as valid in 35=X,W for MEGA (in block 269=g, from RLC message 03, price type=38) | JLRM |
| May 25th, 2011 | 1.5.0 | - Added 269=g for MEGA | JLRM |
| May 5th, 2011 | 1.5.0 | - Added value “3” in tag 277-TradeCondition for 35=X and 35=W for MEGA<br>- Tag 83-RptSeq no longer required for 35=X (for Empty Book block) | JLRM |
| Apr. 20th, 2011 | 1.5.0 | - Added tags 623-LegRatioQty and 624-LegSide for 35=y on MEGA<br>- The other strategy related Leg tags are now available for 35=y on MEGA | JLRM |
| Apr. 16th, 2011 | 1.5.0 | - Reinstated tag 6939-PriceBandType in 35=X and 35=W, with limited domain for now.<br>- Added tags 201-PutOrCall and 1194-ExerciseStyle to SecurityList (35=y) message.<br>- Deprecated tag 231-ContractMultiplier on MEGA<br>- Added tag 37012-PriceDivisor on MEGA | JLRM |
| Feb. 9th, 2011 | 1.4.2.2 | - For the Sequence Reset message, tag 36-NewSeqNo Always one, not “always zero”. | JLRM |
| Jan. 19th, 2011 | 1.4.2.1 | - Added tags 225 and 461 to SecurityList(35=y) for MEGA<br>- Changed domain for tag 762-SecuritySubType | JLRM |
| Aug. 17th, 2010 | 1.4.2 | - Remove tags 267 and 269 from SecurityStatus (35=f).<br>- Changed description of value = 2 for tag 1348-ApplRespType. | RNKH |
| Aug. 5th, 2010 | 1.4.1 | - Price banding block (tag 269=g) is not available for equity market.<br>- *Product* field is removed from SecurityList message.<br>- Domains of *SecurityType* and *SecuritySubType* fields are redefined.<br>- *TotNoRelatedSym* field is now required for SecurityList message.<br>- *LastFragment* field is not required and the default value is “N” = Not last message.<br>- *PriceBandType* field is removed from Incremental and Snapshot messages. | RNKH |
| Jul. 27th, 2010 | 1.4.0 | - Domains of *TradingSessionSubID* and *SecurityTradingStatus* fields are changed to be compatible with new Matching Engine.<br>- *TotNumReports* is now related to each *ApplID* not *ApplReqID* anymore.<br>- Symbol removed from the spec except from *SecurityList*.<br>- Default *SecurityExchange* field is changed to “BVMF”.<br>- Imbalance and Trade Volume block included.<br>- Derivatives post-trading information included. | RNKH |
| Apr. 20th, 2010 | 1.2.0 | - DayCumQty removed: TradeVolume replace it.<br>- Include NoMDEntryTypes in the SecurityStatus message do indicate the entry types to be reset by client systems.<br>- Statistical Closing Data in RLC message 5J included (range 37001-37007). | RNKH |
| Jan. 14th, 2010 | 1.1.0.2 | - Included SettlPriceType to incremental and snapshot messages<br>- Included (9 and U) as new values to TradeCondition field | RNKH/TAT |
| Jan. 13th, 2010 | 1.1.0.1 | - Including NewsSource to News Message<br>- Including DayCumQty to incremental and snapshot messages | RNKH |
| Dec. 21st, 2009 | 1.1.0 | - Including Index related fields to Market Data Incremental Refresh and Market Data Snapshot Full Refresh.<br>- Including SettlType and SettlDate needed for trades in forward markets. | RNKH |

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|---|---|---|---|
| Nov. 19th, 2009 | 1.1.0 | - Updated Application Message Report message<br>- Updated Application Message Request message<br>- Include Application Message Request Acknowledgment message<br>- Include Application Raw data Reporting message | DRSF |
| Oct. 23th, 2009 | 1.0.2 | - Updated News message<br>- Updated Application Message Report message<br>- Updated Application Message Request message<br>- Market Data Snapshot Full Refresh adjusted | RNKH / JML |
| Sep 29th, 2009 | 1.0.1 | - Added price bands<br>- Updated security states | RNKH / JML |
| July 31st, 2009 | 1.0.0 | - First version | RNKH / JML |

# 1 Market Data FIX 5.0SP2 Message Specification

This section outlines the market data messages for the B3 feed for all segments. By implementing the specification in the document, clients will be able to process market data coming from all segments in PUMA Trading System.

The tag usage may vary depending on the market segment used (**DER-Derivatives/FX** and **EQT-Equities**), this indicated by an "X" in the relevant columns at certain tables below. If a tag is marked as required (Req) but it´s not available in a given segment, it is deemed ***not required*** for that segment.

Changes from previous version of UMDF are marked **in blue.**

## *1.1 Message Blocks*

This section contains "message blocks", i.e. specific sets of tags that work as "stamps" in the message specification and are common to most or all market data messages.

### 1.1.1 FIX Header (for all messages)

This section describes the header that is common to all messages of the market data feed.

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| 35 | MsgType | Y | String(2) | Defines message type. Example:<br>0 – Heartbeat |
| 34 | MsgSeqNum | Y | Integer | Integer Message Sequence Number. |
| 52 | SendingTime | Y | UTCTimestamp | Time of message transmission: always expressed in UTC (Universal Time Coordinated). |
| 369 | LastMsgSeqNumProcessed | N | Integer | Only used in the MarketDataSnapshotFullRefresh (35=W) message. The last sequence number of real-time channel as of the time the snapshot was generated. This is used to synchronize the snapshot with the real-time feed. |
| 1128 | ApplVerID | N | String | Specifies the service pack release being applied at message level. Default value= 9 (FIX.5.0.SP2). |

### 1.1.2 Instrument identification block

This block is common to most market data messages issued by B3. It contains the tags that uniquely identify an instrument, and works as a "stamp" of the instrument identification in the message specification.

| Tag | Tag name | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|
| 48 | SecurityID | Integer (12) | Unique instrument identifier for a given qualifier (*SecurityIDSource*). **All IDs are numeric on PUMA.** | X | X |
| 22 | SecurityIDSource | String(1) | SecurityID qualifier. Value issued by B3:<br>8 = Exchange Symbol (B3 security identification). | X | X |
| 207 | SecurityExchange | String(4) | Market to which the instrument belongs to.<br>If it is not present the default value is "**BVMF**".<br><br>Valid Values:<br>BVMF: B3 (equities, derivatives, FX) | X | X |

## *1.2 Session Level Messages*

This section outlines messages that relate to the market data channel multicast state.

### 1.2.1 Sequence Reset (tag 35=4)

This message is used to reset the incremental stream or indicate the loop on instrument definition or snapshot recovery is restarting.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | X | X | X | |

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| [Standard message header ] | | | | |
| 36 | NewSeqNo | Y | SeqNum | New sequence number. Always one. |

### 1.2.2 Heartbeat (tag 35=0)

This message is sent over the instrument definition, snapshot recovery and incremental streams to notify customers that the multicast channel join was successful and that B3 will send the data when available. On TCP Replayer this message is sent when the connection is idle.

There is no body for this message, only the standard header with tag 35=0.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | X | X | X | X |

## *1.3 Application Messages*

### 1.3.1 SecurityList (tag 35=y)

This message is used to relay instrument information, such as insertion, update or deletion.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | X | | X | |

| Tag | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| [ Standard message header ] | | | | | | |
| 393 | TotNoRelatedSym | Y | Integer | Total number of securities available in the channel. | X | X |
| 893 | LastFragment | N | Boolean | Indicates whether this message is the last in the sequence of messages.<br>Valid values:<br>Y = Last message<br>N = Not last message (default) | X | X |
| 146 | NoRelatedSym | Y | NumInGroup | Specifies the number of repeating instruments specified. | X | X |
| → 55 | Symbol | Y | String(32) | Instrument's ticker symbol. | X | X |
| → [ Instrument identification block ]<br>See Section "Instrument Identification Block" for tag values | | | | | | |

| Tag | | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|---|
| → | 1351 | | NoApplIDs | Y | NumInGroup | Specifies the number of the application ID occurrences (number of channels). | X | X |
| → | 1180 | | ApplID | Y | String | Identifies the channel. It follows the convention: type + number. Type may have the following values: MBO, MBP and TOB. Example: MBP101. | X | X |
| → | 1141 | | NoMDFeedTypes | C | NumInGroup | Number of MD Feed Types.<br>Relates to tag 1180. Not sent if the only feed type available is MBO. | X | X |
| → | → | 1022 | MDFeedType | N | String(3) | Indicates feed type as standard or implied. Not sent for MBO.<br><br>Valid values:<br>STD = Standard MBP | X | X |
| → | → | 264 | MarketDepth | Y | Integer | Identifies depth of book. Not sent for MBO (use default value).<br><br>Valid values:<br>0=full book depth (MBO) (default)<br>1=top of book (TOB)<br>2 and above = book depth (number of levels) | X | X |
| → | 454 | | NoSecurityAltID | N | NumInGroup | Number of alternate security identifiers. | X | X |
| → | → | 455 | SecurityAltID | Y | String(50) | Alternate identifiers for this security (e.g. ISIN). | X | X |
| → | → | 456 | SecurityAltIDSource | Y | String(1) | Identifies class or source of the SecurityAltID (455) value. Required if SecurityAltID is specified. Values issued by B3:<br>4 = ISIN number<br>H = Clearing house/organization | X | X |
| → | 711 | | NoUnderlyings | N | NumInGroup | Number of underlying instruments. | X | X |
| → | → | 311 | UnderlyingSymbol | Y | String(32) | Underlying instrument's ticker symbol. | X | X |
| → | → | 309 | UnderlyingSecurityID | Y | Integer | Underlying instrument's security identifier. | X | X |
| → | → | 305 | UnderlyingSecurityID Source | Y | String(1) | Qualifier for underlying instrument's security identifier.<br><br>Value issued by B3:<br>4 = ISIN code<br>8 = Exchange Symbol (B3 security identification). | X | X |
| → | → | 308 | UnderlyingSecurity Exchange | N | String(4) | Exchange code the underlying security belongs to. Value issued by B3:<br>BVMF: BVMF (equities, derivatives, FX)<br><br>The default value is "**BVMF**". | X | X |
| → | → | 6919 | IndexPct | C | Percentage | Required if this is an equity index instrument. It indicates the percentage that this underlying composes the index. | X | |
| → | → | 37021 | IndexTheoreticalQty | C | Double | The theoretical quantity of this underlying composing the index. This tag is only used for index instruments. | X | |
| → | 1144 | | ImpliedMarketIndicator | N | Integer | It indicates that an implied order can be created for the instrument.<br><br>Valid values:<br>0 = Not implied (default)<br>1 = Implied | X | X |
| → | 870 | | NoInstrAttribs | C | Integer | Number of repeating InstrAttribType entries. | X | X |
| → | → | 871 | InstrAttribType | C | Integer | Code to represent the type of instrument attributes.<br><br>Valid values:<br>24 = Trade type eligibility details for security.<br>34 = Eligibility for GTD/GTC | X | X |

| Tag | | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 35 = Instrument that is tradable but has no effect on the positions, exchange turnover etc. (test instrument identification) | | |
| → | → | 872 | InstrAttribValue | V | Integer | Attribute value appropriate to the InstrAttribType (871) field.<br><br>Valid values for 871=24:<br>1 = Electronic Match Eligible<br>3 = Block Trade Eligible<br>17 = Negotiated Quote Eligible<br><br>Valid values for 871=34:<br>1 = GTD/GTC Eligible | X | X |
| → | 1205 | | NoTickRules | N | Integer | Number of tick rules. This block specifies the rules for determining how a security ticks, i.e. the price increments which it can be quoted and traded, depending on the current price of the security<br><br>For future use. | X | X |
| → | → | 1206 | StartTickPriceRange | N | Price | Starting price range for specified tick increment<br><br>For future use. | X | X |
| → | → | 1207 | EndTickPriceRange | N | Price | Ending price range for the specified tick increment<br><br>For future use. | X | X |
| → | → | 1208 | TickIncrement | N | Price | Tick increment for stated price range. Specifies the valid price increments which a security can be quoted and traded<br><br>For future use. | X | X |
| → | → | 1209 | TickRuleType | N | Integer | Specifies the type of tick rule which is being described<br><br>For future use. | X | X |
| → | 555 | | NoLegs | N | NumInGroup | Number of instrument legs. | X | X |
| → | → | 600 | LegSymbol | Y | String(32) | Leg symbol. | X | X |
| → | → | 602 | LegSecurityID | Y | Integer | Unique identifier for instrument leg as per tag *LegSecurityIDSource*. | X | X |
| → | → | 603 | LegSecurityIDSource | Y | String(1) | Qualifier for leg identifier (*LegSecurityID*). Value issued by B3:<br>8 = Exchange Symbol (B3 security identification). | X | X |
| → | → | 616 | LegSecurityExchange | N | String(4) | Exchange code the leg security belongs to. Value issued by B3:<br>BVMF: BVMF (equities, derivatives, FX)<br><br>The default value is "**BVMF**". | X | X |
| → | → | 609 | LegSecurityType | Y | String | Indicates the type of the individual leg<br><br>Valid values (corporate fixed income):<br>- CORP (Corporate Fixed Income)<br>- ETF (Exchange Traded Fund)<br><br>Valid values (derivatives):<br>- FUT (Futures)<br>- SPOT (Spot Market)<br>- SOPT (Spot Options)<br>- FOPT (Future Options)<br>- DTERM (Derivative Forward markets, or "Termo")<br><br>Valid values (equities): | X | X |

| Tag | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| | | | | - CS (Common Stock)<br>- PS (Preferred Stock)<br>- CASH (rights, etc)<br>- FORWARD (Equity Forward or “Termo”)<br>- ETF (Exchange Traded Fund)<br>- OPT (Option)<br>- INDEX (Non Tradable index)<br>- OPTEXER (Option Exercise)<br>- MLEG (Multileg Instrument)<br>- SECLOAN (Security loan, or BTB)<br>- INDEXOPT (Option on Index) | | |
| → → 623 | LegRatioQty | Y | Double | The ratio of quantity for this individual leg relative to the entire multileg security. | X | X |
| → → 37009 | LegType | Y | Char | Indicates the type of leg present.<br><br>Valid values:<br>S = Short<br>L = Long<br>B = Base Leg<br>O = Option Leg<br>F = Future<br>T = Standard | | ~~X~~ |
| → → 37010 | BuyersPerspective | Y | Char | Indicates whether short or long in position (end with buy or sell).<br><br>Valid values:<br>1 = Buy<br>2 = Sell | | ~~X~~ |
| → → 624 | LegSide | Y | Integer | The side of this individual leg (multileg security).<br><br>Valid values:<br>1 – Buy<br>2 – Sell | X | X |
| → 980 | SecurityUpdateAction | Y | Char | Indicates the action used when updating the security.<br><br>Valid values:<br>A=Add<br>D=Delete<br>M=Modify | X | X |
| → 1234 | NoLotTypeRules | C | Integer | Number of Lot Type Rules for the instrument Only one rule can be defined (this tag is always set to 1).<br><br>This group is only used for equities segment. | X | X |
| → → 1093 | LotType | C | Integer | Defines the lot type for the instruments. Used for the equities segment.<br><br>Valid values:<br>1 = Odd Lot<br>2 = Round Lot<br>3 = Block Lot | X | X |
| → → 1231 | MinLotSize | C | Qty | Minimum lot size allowed based on lot type specified in LotType(1093).<br><br>Used for the equities segment. | X | X |
| → 561 | RoundLot | N | Qty | The trading lot size of the security. | | ~~X~~ |
| → 562 | MinTradeVol | N | Qty | The minimum trading volume for the security. | X | X |
| → 969 | MinPriceIncrement | N | Price | Number of minimum tick increments. | X | X |
| → 5151 | TickSizeDenominator | N | Integer | Number of decimals used for pricing this instrument, e.g. for price increment of 0.001, the number of decimals is 3. | X | X |

| Tag | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| → | 9749 | MinOrderQty | N | Qty | Minimum quantity of an order for the security. | X | X |
| → | 9748 | MaxOrderQty | N | Qty | Maximum quantity of an order for the security. | X | X |
| → | 9219 | InstrumentId | N | Integer | Unique number identifying the instrument. | | X |
| → | 1377 | MultiLegModel | C | Integer | Defines whether the security is pre-defined or user-defined. Used for multileg security only.<br><br>Valid values:<br>0 = Predefined Multileg Security<br>1 = User-Defined Multileg Security | X | X |
| → | 1378 | MultiLegPriceMethod | N | Integer | Defines the method used when applying the multileg price to the legs. When this tag is set, it indicates spreads that have leg prices generated by the trading engine.<br><br>Valid values:<br>3 = Individual | X | X |
| → | 15 | Currency | N | Currency | Currency used for the price. | X | X |
| → | 460 | Product | Y | Integer | Indicates the type of product the security is associated with.<br><br>Valid values:<br>2 = COMMODITY<br>3 = CORPORATE<br>4 = CURRENCY<br>5 = EQUITY<br>6 = GOVERNMENT<br>7 = INDEX<br>15 = ECONOMIC INDICATOR<br>16 = MULTILEG | X | X |
| → | 167 | SecurityType | N | String(32) | Indicates the type of the security.<br><br>Valid values (corporate fixed income):<br>- ETF (Exchange Traded Fund)<br>- CORP (Corporate Fixed Income)<br><br>Valid values (derivatives/fx):<br>- FUT (Futures)<br>- SPOT (Spot Market)<br>- SOPT (Spot Options)<br>- FOPT (Future Options)<br>- DTERM (Derivative Forward or “Termo”)<br>- OPTEXER (Option Exercise)<br>- MLEG (Multileg Instrument, Future use)<br><br>Valid Values (equities):<br>- CASH (rights, etc)<br>- OPT (Option)<br>- FORWARD (Equity Forward or “Termo”)<br>- ETF (Exchange Traded Fund)<br>- INDEX (Non-Tradable index)<br>- OPTEXER (Option Exercise)<br>- MLEG (Multileg Instrument, UDS)<br>- CS (Common Stock)<br>- PS (Preferred Stock)<br>- SECLOAN (Security loan, or BTB)<br>- INDEXOPT (Option on Index) | X | X |
| → | 762 | SecuritySubType | N | String(32) | The sub type of the instrument.<br><br>Values for derivatives/FX:<br>4 - FX spot<br>10 - Gold<br>20 - Index<br>30 - Interest rate | X | X |

| Tag | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | 40 - FX rate<br>50 - Foreign debt<br>60 - Agricultural<br>70 - Energy<br>80 - Economic Indicator<br>90 – Strategy<br>91 – Strategy Spot Dollar<br>92 – Strategy Interest Rate<br>100 - Future-style Option<br>110 - Volatility<br>120 - Swap<br>130 - MiniContract<br>140 - Financial RollOver<br>141 - Agricultural RollOver<br>142 – Stock RollOver<br>150 – Target Rate<br>**160 - Crypto Asset**<br>190 - Carbon credit<br>1003 - Common Shares (ON)<br>1004 - Preferred Shares (PN)<br>1005 - Class A preferred shares (PNA)<br>1006 - Class B preferred shares (PNB)<br>1007 - Class C preferred shares (PNC)<br>1008 - Class D preferred shares (PND)<br>1116 - UNIT<br>1117 - Class E Preferred Share (PNE)<br>1118 - Class F Preferred Share (PNF)<br>1119 - Class G Preferred Share (PNG)<br>1999 – Others<br><br>Values for equities:<br>1001 - Ordinary Rights (DO)<br>1002 - Preferred Rights (DP)<br>1003 - Common Shares (ON)<br>1004 - Preferred Shares (PN)<br>1005 - Class A preferred shares (PNA)<br>1006 - Class B preferred shares (PNB)<br>1007 - Class C preferred shares (PNC)<br>1008 - Class D preferred shares (PND)<br>1009 - Ordinary Receipts (ON REC)<br>1010 - Preferred Receipts (PN REC)<br>1020 - Trade at Close (TAC)<br>1021 -Trade at Average (TAA)<br>1022 - Midpoint<br>1023 - Block Book Trade (BBT)<br>1024 - Request for Quote (RFQ)<br>1100 - Common Forward<br>1101 - Flexible Forward<br>1102 - Dollar Forward<br>1103 - Index Points Forward<br>1104 - Non-tradable ETF Index<br>1105 - Predefined Covered Spread<br>1106 - Tradable ETF<br>1107 - Non-tradable Index<br>1108 - User defined spread<br>1109 - Exchange defined spread (not currently in use)<br>1110 - Security Loan<br>1111 - Tradable Index<br>1112 - Brazilian Depositary Receipt<br>1113 - Fund<br>1114 - Other Receipt<br>1115 - Other Right<br>1116 - UNIT<br>1117 - Class E Preferred Share (PNE)<br>1118 - Class F Preferred Share (PNF)<br>1119 - Class G Preferred Share (PNG) | | |

| Tag | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | 1120 - Warrant<br>1122 - Non-tradable Security Lending<br>1123 - Foreign Index ETF<br>1125 - Government ETF<br>1126 - IPO or Follow on<br>1127 - Gross Auction<br>1128 - Net Auction<br>1129 - Tradable Index in Partnership<br>1130 - Nontradable Index in Partnership<br>1135 – Tradable ETF Real Estate<br>1136 – Non Tradable ETF Real Estate Index<br>1137 – Cryptocurrency ETF<br>1138 – Currency ETF<br>1139 – Foreign Fixed Income<br>1150 – BDR Equity ETF<br>1151 – BDR Commodity ETF<br>1152 – BDR Fixed Income ETF<br>1153 – BDR Debt<br>1154 – BDR Currency ETF<br>1999 – Others<br>4000 – Infrastructure Investment Fund<br>4001 – Multimarket Investment Fund<br>4002 – Fixed Income Investment Fund<br>4003 – Currency Investment Fund<br>4004 – Agro Investment Fund (FII)<br>4005 – Agro Investment Fund (FIDC)<br>4006 – Agro Investment Fund (FIP)<br><br>Values for corporate fixed income:<br>1106 - Tradable ETF<br>1124 - Fixed Income ETF<br>1131 - Nontradable Fixed Income ETF<br>1300 - Outright purchase<br>1301 - Specific collateral repo<br>1302 - Debenture<br>1303 - Real State Receivable Certificate<br>1304 - Agribusiness Receivable Certificate<br>1305 - Promissory Note<br>1306 - Letra Financeira<br>1307 - American Depositary Receipt<br>1308 - Unit Investment Fund<br>1309 - Receivable Investment Fund<br>1310 - Outright T+1<br>1311 - Repo T+1<br>1312 - Non-tradable gross settlement<br>1313 - Non-tradable net settlement<br>1314 - ETF Primary Market<br>1316 - Shares Primary Market<br>1317 - Rights Primary Market<br>1318 - Unit Primary Market<br>1319 - Fund Primary Market<br>1320 - Foreign Index ETF Primary Market<br>1321 - Warrant Primary Market<br>1322 - Receipt Primary Market<br>2002 - German Public Debts | | |
| → | 7534 | SecurityStrategyType | C | String | Strategy type definition. Required for strategy instruments. | X | X |
| → | 6937 | Asset | N | String(10) | Asset associated with the security, such as DOL, BGI, OZ1, WDL, CNI, etc. | X | X |
| → | 107 | SecurityDesc | N | String(1000) | Descriptive string of the security (e.g. “dollar futures” or “gold futures”). | X | X |
| → | 541 | MaturityDate | N | LocalMktDate | Date of instrument maturity. | X | X |
| → | 200 | MaturityMonthYear | N | MonthYear | Month and year of the maturity (for futures and options).<br>For weekly options, this tag contains the calendar month and week indicator reflected in the instrument symbol. Format | X | X |

| Tag | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | YYYYMMW (e.g., for the 4th week options of july 2024 : 2024074).<br>**For daily options, this tag contains the full calendar date . Format YYYYMMDD (e.g. 20240701).** | | |
| → | 202 | StrikePrice | N | Price | Strike price of option. | X | X |
| → | 947 | StrikeCurrency | N | Currency | Currency of option's strike price. | X | X |
| → | 1194 | ExerciseStyle | N | Integer | Type of exercise of a derivatives security.<br>Valid values:<br>0 – European<br>1 – American | X | X |
| → | 201 | PutOrCall | N | Integer | Indicates whether an option contract is a put or call.<br>Valid values:<br>0 – Put<br>1 – Call | X | X |
| → | 231 | ContractMultiplier | N | Double | Specifies the ratio or multiply factor to convert from "nominal" units (e.g. contracts) to total units (e.g. shares) (e.g. 1.0, 100, 1000, etc). Deprecated on MEGA. | X | X |
| → | 37012 | PriceDivisor | N | Integer/Double | Value that divides the Price field to produce the actual order price (based on Step of Quotation). (e.g. 1, 100, 1000, etc). Default value is "1".<br>Also used for index instruments to disseminate the index reducer (in this case it´s a Double), in this case, there is no default value. | X | |
| → | 667 | ContractSettlMonth | N | MonthYear | Specifies when the contract will settle. | X | X |
| → | 461 | CFICode | N | String(6) | Classification of Financial Instruments (CFI code) values, which indicate the type of security using the ISO 10962 standard. | X | X |
| → | 470 | CountryOfIssue | N | Country | ISO country code of instrument issue. | X | X |
| → | 225 | IssueDate | N | LocalMktDate | The date on which the security is issued/activated. | X | X |
| → | 873 | DatedDate | N | LocalMktDate | The date of the security activation, if different from the IssueDate. | | X |
| → | 916 | StartDate | N | LocalMktDate | Start date of a financing deal, i.e. the date the buyer pays the seller cash and takes control of the collateral | | X |
| → | 917 | EndDate | N | LocalMktDate | End date of a financing deal, i.e. the date the seller reimburses the buyer and takes back control of the collateral. | | X |
| → | 63 | SettlType | N | String(4) | Indicates order settlement period . (e.g. 0, D1, D2, D3, D60, D120 etc.)<br><br>If present, SettlDate (64) overrides this field. The default value SettlType (63) is 0 (Regular). | | X |
| → | 64 | SettlDate | N | LocalMktDate | Specific date of trade settlement (SettlementDate) in YYYYMMDD format. | | X |
| → | 120 | SettlCurrency | Y | Currency | Currency used for the settlement | | X |
| → | 423 | PriceType | N | Integer | The valid values are:<br>1 – Percentage<br>2 – Per unit (i.e. per share or contract)<br>3 – Fixed amount (absolute value)<br><br>~~For Derivatives, this code represents the price type of the instrument.~~<br>~~Valid values:~~<br>~~12 – Product ticks in full ticks~~<br>~~13 – Product ticks in halfs~~<br>~~14 – Product ticks in fourths~~<br>~~15 – Product ticks in eights~~<br>~~16 – Product ticks in sixteenths~~<br>~~17 – Product ticks in thirty-seconds~~ | X | X |

| Tag | | Tag name | Req | Data type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | ~~18 – Product ticks in sixty-fourths~~<br>~~20 – Product ticks in half thirty-seconds~~<br>~~21 – Product ticks in quarter thirty-seconds~~<br>~~22 – Product ticks in half sixty-fourths~~<br><br>***Absence of this field denotes that the instrument trades in decimals.*** | | |
| → | 6938 | SecurityValidity Timestamp | N | UTCTimestam p | Indicates the UTC timestamp when trading for this security expires, i.e. when it is not eligible to trade anymore. Different from MaturityDate. | X | X |
| → | 1151 | SecurityGroup | N | String(15) | Indicates the group this instrument belongs to. | X | X |
| → | 7595 | NoSharesIssued | N | Integer | Social Capital – Total number of shares issued for Cash Equity Instrument | X | |
| → | 1300 | MarketSegmentID | C | String | Identifies the market segment. Required for all tradable instruments. Not present in equity indexes, ETF indexes, BTB and Option Excercise. | X | X |
| → | 37011 | GovernanceIndicator | C | String | Corporative governance level indicator. Required for cash equities.<br><br>Valid values:<br>N1 = Level 1<br>N2 = Level 2<br>N3 = Level 3<br>NM = New Market<br>MA = MAIS Market<br>MB = SOMA Market<br>M2 = MAIS 2 Market | X | |
| → | 37010 | CorporateActionEventI D | C | Integer | Unique numeric identifier for a corporate action event associated with the security. The identifier is unique within the security. Note. This tag does not represent the type of the Corporate Action. Required for cash equities. | X | |
| → | 37015 | SecurityMatchType | C | Integer | Type of matching that occurred. Required for Special Auctions<br><br>Valid values:<br>8 = Issuing/Buy Back Auction | X | |
| → | 35561 | MinCrossQty | N | Qty | Minimum quantity of a cross order for the security. | X | X |
| → | 1482 | OptPayoutType | N | Integer | Indicates the type of valuation method or payout trigger for an in-the-money option.<br>Valid values:<br>1 = Vanilla (Default)<br>**2 - Vanilla - Cash Settlement**<br>3 = Binary | X | X |

### 1.3.2 Market Data Incremental Refresh (tag 35=X)

This message relays incremental book, trade and statistical information on one instrument.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | X | |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| [ Standard message header ] | | | | | | |
| 75 | TradeDate | N | LocalMktDate | Used to specify the trading date for which a set of market data applies, in YYYYMMDD format. | X | X |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| | | | | Absence of this field indicates current day (expressed in local time at place of trade). | | |
| 268 | NoMDEntries | Y | NumInGroup | Number of entries following. | X | X |
| → 269 | MDEntryType | Y | Char | Type Market Data entry. Valid values: | | |
| | | | | 0 = Bid | X | X |
| | | | | 1 = Offer | X | X |
| | | | | 2 = Trade | X | X |
| | | | | 3 = Index Value | X | |
| | | | | 4 = Opening Price | X | X |
| | | | | 5 = Closing Price | X | X |
| | | | | 6 = Settlement Price | X | X |
| | | | | 7 = Session High Price | X | X |
| | | | | 8 = Session Low Price | X | X |
| | | | | 9 = Session VWAP Price | X | X |
| | | | | A = Imbalance | X | X |
| | | | | B = Trade Volume | X | X |
| | | | | C = Open Interest | X | X |
| | | | | J = Empty Book | X | X |
| | | | | g = Price band | X | X |
| | | | | h = Quantity band | X | X |
| | | | | D = Composite Underlying Price (future use) | X | |
| | | | | v = Volatility price | | X |
| → 279 | MDUpdateAction | Y | Char | Types of Market Data update action.<br><br>Valid values:<br>0 = New<br>1 = Change<br>2 = Delete<br>3 = Delete Thru<br>4 = Delete From<br>5 = Overlay | X | X |
| → 83 | RptSeq | N | Integer | Sequence number per Instrument update. | X | X |
| → 37100 | IndexSeq | C | Integer | Index Value sequence number. Used only for index instruments. | X | |
| → 6939 | PriceBandType | **C** | Integer | Indicates the type of price banding (tunnel):<br><br>Used for Price Banding when MDEntryType (269) = g and when tags 1148 and 1149 are sent.<br><br>Valid values:<br>1= Hard Limit<br>2= Auction Limits<br>3= Rejection Band<br>4= Static Limits | X | X |
| → | **[ Instrument identification block ]** | | | | X | X |
| → 1500 | MDStreamID | N | String(2) | The identifier or name of the price stream. If it is not present, the default value is "E" (Electronic). Each stream must be stored separately in memory.<br><br>Valid values:<br>E - Electronic<br>X - Ex-pit<br>O - Option Exercise<br>T - Termo<br>N - Index<br>L - Lending (BTB)<br>A – All | X | X |
| → 270 | MDEntryPx | C | Price | Price of the Market Data Entry. Required when this market data entry involves a price. Represents the notional value for trade volume (B). Other entry types that do not involve price do not require this tag. | X | X |
| → 271 | MDEntrySize | C | Qty | Quantity or volume represented by the Market Data Entry. Required when MDUpdateAction = New (0) | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | and MDEntryType = Bid (0), Offer (1), Trade (2), Trade Volume (B) or Opening Price (4). | | |
| → | 37780 | MDEntryPrevSize | C | Qty | Previously displayed quantity or volume represented by the Market Data Entry. Present only in when mDUpdateAction=CHANGE and represents the previous quantity of the order before the modification. Absent for new order.<br>-- *Not available in SnapshotFullRefresh message* -- | X | X |
| → | 272 | MDEntryDate | Y | UTCDateOnly | Date of Market Data Entry. | X | X |
| → | 273 | MDEntryTime | Y | UTCTimeOnly | Time of Market Data Entry. This tag now includes up to milliseconds (hhmmssSSS). | X | X |
| → | 37016 | MDInsertDate | C | UTCDateOnly | Date when the order was inserted or re-inserted into the order book (used for GTD/GTC orders, only for equities market).<br><br>In Trade (269=2 - New or Delete) – original trade date or manually entered by MktOps | X | X |
| → | 37017 | MDInsertTime | Y | UTCTimeOnly | The time when the order was inserted or re-inserted into the order book or manually altered by MktOps. This tag now includes up to milliseconds (hhmmssSSS). | X | X |
| → | 64 | SettlDate | C | LocalMktDate | Specific date related to published settlement price in YYYYMMDD format.<br><br>Sent only for MDEntryType=6 (Settlement Price). | | X |
| → | 37014 | MDEntryInterestRate | C | Percentage | Interest Rate of the Termo Trade.<br>Expressed in decimal form. For example, 1% points is expressed and sent as 0.01. One basis point is represented as 0.0001. | X | X |
| → | 274 | TickDirection | C | Char | Direction of the “tick”. Required when MDEntryType=2 (Trade) or 4 (Opening Price).<br><br>Valid values: | | |
| | | | | | 0 = Plus Tick | X | X |
| | | | | | 1 = Zero-Plus Tick | X | X |
| | | | | | 2 = Minus Tick | X | X |
| | | | | | 3 = Zero-Minus Tick | X | X |
| → | 276 | QuoteCondition | N | MultipleString Value | Space-delimited list of conditions describing a quote. Possible values are: | | |
| | | | | | “K” = Implied Price | X | X |
| | | | | | “R” = Retransmission of the order | X | X |
| | | | | | “LM” - BTB (Limited Order) | X | |
| | | | | | “AN” - BTB (All or Nothing Order) | X | |
| → | 277 | TradeCondition | N | MultipleString Value | For optional use in reporting Trades/Imbalance. Space delimited list of conditions describing a trade/imbalance. Valid values: | | |
| | | | | | R = Opening Price | X | X |
| | | | | | X = Crossed | X | X |
| | | | | | L = Last Trade at the Same Price Indicator | X | X |
| | | | | | P = Imbalance more buyers | X | X |
| | | | | | Q = Imbalance more sellers | X | X |
| | | | | | U = Exchange Last | X | X |
| | | | | | 3 = Multi Asset Trade (Termo Vista) | X | |
| | | | | | 1 = Leg trade | X | X |
| | | | | | 2 = Marketplace entered trade (trade on behalf) | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | IM = Implied | X | X |
| | | | | | PT = Block Book Trade | X | X |
| | | | | | RF= Equities : RFQ Trade<br>Futures: Fixed Income Trade | X | X |
| | | | | | RL = RLP Trade | X | X |
| | | | | | MP = Midpoint Trade | X | X |
| | | | | | TC = Trade at Close | X | X |
| | | | | | TA = Trade at Average | X | X |
| | | | | | SW = Sweep | X | |
| → | 336 | TradingSessionID | C | Integer | Used to mark Non-Regular Session trades.<br>Valid values:<br>1 = Regular Session<br>6 = Non-regular session | X | X |
| → | 286 | OpenCloseSettlFlag | N | MultipleString Value | Identifies if the opening/closing price in field MDEntryPx represents a theoretical opening/closing price and applicable to describe when the settlement data is related to.<br><br>Valid values:<br>0 = Daily settlement entry<br>1 = Session settlement entry<br>3 = Expected entry (Preliminary price)<br>4 = Entry from previous business day<br>5 = Theoretical price. | X | X |
| → | 15 | Currency | N | Currency | Identifies currency used for financial volume. Absence of this field is interpreted as the default currency for the security. | | ~~X~~ |
| → | 9325 | LastTradeDate | C | UTCDateOnly | Date the instrument last traded.<br>Used as an input in the calculation of the MaxTradeVol and used to trigger an Auction. Not published if the product has never been traded.<br><br>Published as part of Adjusted Closing Price block 269=5 286=4. | X | |
| → | 37013 | PriceAdjustmentMethod | C | Integer | Indicator of previous day´s closing price.<br><br>Used for Closing price adjustments related to Corporate Actions.<br><br>Valid values:<br>0 = No adjustment (default)<br>1 = Theoretical price of EX share.<br>2 = Theoretical price of EX share when greater than WITH price.<br>3 = Theoretical price of EX share, resulting from dividends in different types of stocks/companies.<br>4 = Price arbitrated by Market Authority | X | |
| → | 37 | OrderID | C | String(50) | Unique identifier for Order as assigned by the exchange, maps to the *SecondaryOrderID* field in the *Execution Report* message. It is unique per broker firm, per instrument, per trading date. Required when this entry represents book data. | X | X |
| → | 1003 | TradeID | C | String(32) | Contains the unique identifier for this trade per instrument + trading date, as assigned by the exchange. Required if reporting a Trade. | X | X |
| → | 288 | MDEntryBuyer | N | String(50) | For optional use in reporting trades (buying party) or indicating a new bid entry.<br>Note: not sent in FX messages (blind screen). | X | X |
| → | 289 | MDEntrySeller | N | String(50) | For optional use in reporting trades (selling party) or indicating a new offer entry.<br>Note: not sent in FX messages (blind screen). | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| → | 346 | NumberOfOrders | C | Integer | Contains the number of orders that make up the aggregate quantity at the price point. Required if this is a price-depth book entry. | X | X |
| → | ~~290~~ | ~~MDEntryPositionNo~~ | C | Integer | Display position of a bid or offer, numbered from most competitive to least competitive, per market side, beginning with 1. **DEPRECATED.** | X | X |
| → | ~~5767~~ | ~~AgressorSide~~ | N | Char | Indicates which side is aggressor of the trade. If the tag is not present, then there is no aggressor. **DEPRECATED**.<br><br>Valid values are:<br>1 = Buy<br>2 = Sell | | ~~X~~ |
| → | 423 | PriceType | N | Integer | Code to represent the price type (applicable to settlement data). The default value is “2” (Per unit).<br><br>Valid values:<br>1 – Percentage<br>2 – Per unit (i.e. per share or contract)<br>3 – Fixed amount (absolute value) | | X |
| → | 451 | NetChgPrevDay | N | PriceOffset | Net change from previous trading day’s closing price vs. last traded price. | X | X |
| → | 287 | SellerDays | N | Integer | Specifies the number of days that may elapse before delivery of the security. Only used for trades in forward market. | X | X |
| → | 731 | SettlPriceType | C | Integer | Required only for MDEntryType=6 (Settlement Price).<br><br>Valid values:<br>1 = Final<br>2 = Theoretical/Preview<br>3 = Updated | | X |
| → | 1020 | TradeVolume | N | Qty | Total traded quantity (shares/contracts) of the trading day. Only present in the Trade Volume (269=B) and Trade (269=2) blocks. | X | X |
| → | 1306 | PriceLimitType | N | Integer | Describes how the price limits are expressed. The default value is “0” (Price Unit).<br><br>Valid values:<br>0 = Price Unit<br>1= Ticks<br>2 = Percentage | X | X |
| → | 1148 | LowLimitPrice | N | Price | Allowable low limit price for the trading day. A key parameter in validating order price. Used as the lower band for validating order prices. Orders submitted with prices below the lower limit will be rejected. | X | X |
| → | 1149 | HighLimitPrice | N | Price | Allowable high limit price for the trading day. A key parameter in validating order price. Used as the upper band for validating order prices. Orders submitted with prices above the upper limit will be rejected. | X | X |
| → | 1150 | TradingReferencePrice | N | Price | Reference price for the current trading price range. The value may be the reference price, settlement price or closing price of the prior trading day. **Sent only for Economic Indicators.** | | X |
| → | 37008 | PriceBandMidpointPriceType | C | Integer | Band Midpoint Type, used with Auction Price Banding. Used in 269=g block.<br><br>Valid values:<br>0 = Last Traded Price (default)<br>1 = Complementary Last Price<br>2 = Theoretical Price | X | X |
| → | 37003 | AvgDailyTradedQty | C | Integer | Daily average shares traded within 30 days – equity market only. Previously known as DailyAvgShares30D. Always 0 for Derivatives. | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| → | 432 | ExpireDate | C | LocalMktDate | Date of order expiration (last day the order can trade), always expressed in terms of the local market date.<br>Used in BTB contracts only. | X | |
| → | 37019 | EarlyTermination | C | Integer | Indicates if the deal is subject to anticipated liquidation (early termination of the borrowing/lending)<br>Used in BTB contracts only.<br><br>Valid values:<br>0 = Normal termination (default)<br>1 = Early termination<br>2 = Early termination also in case of PTO | X | |
| → | 37023 | BTBCertIndicator | C | Integer | Indicates if the security lending offer or pre-contract is certified.<br>If not sent, means the offer or pre-contract is not certified.<br>Used in BTB contracts only.<br>Valid values:<br>0 = Certified (default)<br>1 = Not certified | X | |
| → | 37024 | BTBContractInfo | C | Integer | Only used for BTB. Denotes extra information about the BTB pre-contract.<br>Used in BTB contracts only.<br>Valid values:<br>1 = pre-contract (default)<br>2 = intention | X | |
| → | 37025 | BTBGraceDate | C | LocalMktDate | Only used for BTB. Indicates the minimum date from when the borrower can call the loan contract to an end.<br>Used in BTB contracts only. | X | |
| → | 1140 | MaxTradeVol | C | Integer | The maximum order quantity that can be submitted for a security.<br>The value is the minimum between % of shares issued and % of average traded quantity within 30 days. | X | |
| → | 1025 | FirstPx | C | Price | The price for the short future on a volatility price (269=v). | | X |
| → | 31 | LastPx | C | Price | The price for the long future on a volatility price (269=v). | | X |
| → | 811 | PriceDelta | C | Float | The rate of change in the price of a derivative with respect to the movement in the price of the underlying instrument(s) upon which the derivative instrument price is based. Only used for 269=v (Volatility price).<br>This value is normally between -1.0 and 1.0. | | X |
| → | 711 | NoUnderlyings | C | NumInGroup | Number of repeating groups is based on Index Composition. Only used when representing Index Composite Underlying Price (269=D). | X | |
| → | → 309 | UnderlyingSecurityID | Y | Integer | Underlying instrument's security identifier. | X | |
| → | → 305 | UnderlyingSecurityIDSource | Y | Integer | Qualifier for underlying instrument's security ID.<br>Valid value: 8 | X | |
| → | → 308 | UnderlyingSecurityExchange | Y | String | Underlying instrument's exchange.<br>Valid value: BVMF | X | |
| → | → 810 | UnderlyingPx | Y | Price | Underlying instrument price reflected in Index value | X | |
| → | → 370<br>18 | UnterlyingPxType | C | Integer | Indicates the Underlying Instrument price type reflected in Index value. Used for Composite Underlying Price block (269=D), only sent when different from the default value.<br><br>Valid values:<br>0 = Trade (default)<br>1 = Average of TOB | X | |
| → | ~~7687~~ | ~~PercentageVar~~ | N | Percentage | Index variation in percentage, from start of day. DEPRECATED. | | |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| → | ~~9343~~ | ~~NoUnchangedSecurities~~ | N | Integer | Number of index underlying securities with no variation. DEPRECATED. | | |
| → | ~~9344~~ | ~~NoNotTradedSecurities~~ | N | Integer | Number of index underlying securities that are not quoted. DEPRECATED. | | |
| → | ~~9989~~ | ~~TotTradedSecurities~~ | N | Integer | Number of quoted securities in the index. DEPRECATED. | | |
| → | ~~9990~~ | ~~CapitalPct~~ | N | Percentage | Capitalization percentage of active securities in the index. DEPRECATED. | | |
| → | ~~9993~~ | ~~PrevYearVariation~~ | N | Percentage | Index variation in percentage, compared to previous year last index. DEPRECATED. | | |
| → | ~~9996~~ | ~~NoFallingSecurities~~ | N | Integer | Number of index underlying securities falling in price. DEPRECATED. | | |
| → | ~~9997~~ | ~~NoRisingSecurities~~ | N | Integer | Number of index underlying securities rising in price. DEPRECATED. | | |
| → | ~~37001~~ | ~~PercThresholdNormalTrade~~ | N | Percentage | Percentage threshold normal trade. DEPRECATED. | | |
| → | ~~37002~~ | ~~PercThresholdCrossTrade~~ | N | Percentage | Percentage threshold cross trade. DEPRECATED. | | |
| → | ~~37003~~ | ~~DailyAvgShares30D~~ | N | Qty | Daily average shares traded on last 30 days. DEPRECATED, now known as AvgDailyTradedQty. | | |
| → | ~~37004~~ | ~~MaxinumNormalSharesPer DailyAvgShares30DRatio~~ | N | Float | Ratio maximum shares traded normal trade / Daily average shares traded on last 30 days. DEPRECATED. | | |
| → | ~~37005~~ | ~~MaxinumCrossSharesPer DailyAvgShares30DRatio~~ | N | Float | Ratio maximum shares traded cross trade / Daily average shares traded on last 30 days. DEPRECATED. | | |
| → | ~~37006~~ | ~~NormalSharesPer OutstandingSharesRatio~~ | N | Float | Ratio maximum shares traded normal trade / Outstanding number of shares. DEPRECATED. | | |
| → | ~~37007~~ | ~~CrossSharesPer OutstandingSharesRatio~~ | N | Float | Ratio maximum shares traded cross trade / Outstanding number of shares. DEPRECATED. | | |

### 1.3.3 Market Data Snapshot Full Refresh (tag 35=W)

This message is contains a snapshot of a specific instrument state (book, statistical data, state).

| | Instrument definition | Snapshot | Incremental | TCP Replay |
|---|---|---|---|---|
| Sent on stream | | X | | |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| [ **Standard message header** ] | | | | | | |
| 911 | TotNumReports | Y | Integer | Total number of snapshots to be returned in a replay loop. | X | X |
| 75 | TradeDate | N | LocalMktDate | Used to specify the trading date for which a set of market data applies, in YYYYMMDD format. Absence of this field indicates current day (expressed in local time at place of trade). | X | X |
| 451 | NetChgPrevDay | N | PriceOffset | Net change from previous trading day's closing price vs. last traded price. | X | X |
| 264 | MarketDepth | N | Integer | Indicates the depth of the aggregate book (order depth book is always full depth), if applicable.<br><br>If value = "0" or the tag is not present, it indicates Market by Order. | X | X |
| 83 | RptSeq | N | | Sequence number per Instrument update, which contains the same data as the corresponding RptSeq in the Market Data Incremental Refresh | X | X |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| | | | | (tag 35-MsgType=X). Contrary to that other message, this tag is on the body instead, since this message always refers to one instrument only. | | |
| **[ Instrument identification block ]**<br>See Section "Instrument Identification Block" for tag values | | | | | X | X |
| 268 | NoMDEntries | Y | NumInGroup | Number of entries following. | X | X |
| → 269 | MDEntryType | Y | Char | Type Market Data entry. Valid values: | | |
| | | | | 0 = Bid | X | X |
| | | | | 1 = Offer | X | X |
| | | | | 2 = Trade | X | X |
| | | | | 3 = Index Value | X | |
| | | | | 4 = Opening Price | X | X |
| | | | | 5 = Closing Price | X | X |
| | | | | 6 = Settlement Price | X | X |
| | | | | 7 = Trading Session High Price | X | X |
| | | | | 8 = Trading Session Low Price | X | X |
| | | | | 9 = Trading Session VWAP Price | X | X |
| | | | | A = Imbalance | X | X |
| | | | | B = Trade Volume | X | X |
| | | | | C = Open Interest | X | X |
| | | | | c = Security trading state/phase | X | X |
| | | | | g = Price band | X | X |
| | | | | h = Quantity band | X | X |
| | | | | D = Composite Underlying Price | X | |
| | | | | v = Volatility price | | X |
| → 37100 | IndexSeq | C | Integer | Index Value sequence number. Used only for index instruments. | X | |
| → 6939 | PriceBandType | C | Integer | Indicates the type of price banding (tunnel): Used for Price Banding when MDEntryType (269) = g and when tags 1148 and 1149 are sent.<br><br>Valid values:<br>~~0 = oscillation tunnel (default)~~<br>~~1 = rejection tunnel  (for future use)~~<br>~~2 = auction tunnel  (for future use)~~<br>1= Hard Limit<br>2= Auction Limits<br>3= Rejection Band<br>4= Static Limits | X | X |
| → 1500 | MDStreamID | N | String(2) | The identifier or name of the price stream. The default value is "E" (Electronic).<br><br>Valid values:<br>E - Electronic<br>X - Ex-pit<br>~~S - Surveillance~~<br>O - Option Exercise<br>~~C - Over-the-counter (OTC)~~<br>T - Termo<br>N - Index<br>L - Lending (BTB)<br>A - All | X | X |
| → 270 | MDEntryPx | C | Price | Price of the Market Data Entry. Required when this market data entry involves a price. | X | X |
| → 271 | MDEntrySize | C | Qty | Quantity or volume represented by the Market Data Entry. Required when this market data entry involves a quantity. | X | X |
| → 272 | MDEntryDate | Y | UTCDateOnly | Date of Market Data Entry. | X | X |
| → 273 | MDEntryTime | Y | UTCTimeOnly | Time of Market Data Entry. This tag now includes up to milliseconds (hhmmssSSS). | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| → | 37016 | MDInsertDate | C | UTCDateOnly | Date when the order was inserted or re-inserted into the order book (used for GTD/GTC orders, only for equities market).<br><br>In Trade (269=2 - New or Delete) – original trade date or manually entered by MktOps | X | X |
| → | 37017 | MDInsertTime | Y | UTCTimeOnly | The time when the order was inserted or re-inserted into the order book or manually altered by MktOps. This tag now includes up to milliseconds (hhmmssSSS). | X | X |
| → | 64 | SettlDate | C | LocalMktDate | Specific date related to published settlement price in YYYYMMDD format.<br><br>Sent only for MDEntryType=6 (Settlement Price). | | X |
| → | 37014 | MDEntryInterestRate | C | Percentage | Interest Rate of the Termo Trade.<br>Expressed in decimal form. For example, 1% points is expressed and sent as 0.01. One basis point is represented as 0.0001. | X | |
| → | 274 | TickDirection | C | Char | Direction of the “tick”. Required if reporting a Trade. Valid values: | | |
| | | | | | 0 = Plus Tick | X | X |
| | | | | | 1 = Zero-Plus Tick | X | X |
| | | | | | 2 = Minus Tick | X | X |
| | | | | | 3 = Zero-Minus Tick | X | X |
| → | 326 | SecurityTradingStatus | N | Integer | Status related to a given Instrument. The default value is “17” = Open.<br><br>Valid values:<br>02 = Trading halt (Pause)<br>04 = No-Open (Close)<br>17 = Ready to trade (Open)<br>18 = Not available for trading (Forbidden)<br>20 = Unknown or invalid<br>21 = Pre-Open (Reserved)<br>101 = Final Closing Call | X | X |
| → | 625 | TradingSessionSubID | N | Integer | Phase related to a SecurityGroup where the instrument belongs to. If absent, the default value is “17” = Open.<br>Valid values sent by B3:<br>02 = Trading halt (Pause)<br>04 = No-Open (Close)<br>17 = Ready to trade (Open)<br>18 = Not available for trading (Pre-close)<br>21 = Pre-Open<br>101 = Final Closing Call | X | X |
| → | 342 | TradSesOpenTime | C | UTCTimestamp | Indicates the time the auction is scheduled to end. Required when MDEntryType=’c’ and SecurityTradingStatus=21 (Reserved) without random ending. | X | X |
| → | 276 | QuoteCondition | N | MultipleString Value | Space-delimited list of conditions describing a quote. Possible values are: | | |
| | | | | | “R” = Retransmission of the order | X | X |
| | | | | | “K” = Implied Price | X | X |
| | | | | | “LM” - BTB (Limited Order) | X | |
| | | | | | “AN” - BTB (All or Nothing Order) | X | |
| → | 277 | TradeCondition | N | MultipleString Value | For optional use in reporting Trades/Imbalance. Space delimited list of conditions describing a trade/imbalance. Possible values: | | |
| | | | | | R = Opening Price | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | X = Crossed | X | X |
| | | | | | L = Last Trade at the Same Price Indicator | X | X |
| | | | | | P = Imbalance more buyers | X | X |
| | | | | | Q = Imbalance more sellers | X | X |
| | | | | | U = Exchange Last | X | X |
| | | | | | 3 = Multi Asset Trade (Termo Vista) | X | |
| | | | | | 1 = Leg trade | X | X |
| | | | | | 2 = Marketplace entered trade (trade on behalf) | X | X |
| | | | | | IM = Implied | X | X |
| | | | | | PT = Block Book Trade | X | X |
| | | | | | RF= Equities : RFQ Trade<br>Futures: Fixed Income Trade | X | X |
| | | | | | RL = RLP Trade | X | X |
| | | | | | MP = Midpoint Trade | X | X |
| | | | | | TC = Trade at Close | X | X |
| | | | | | TA = Trade at Average | X | X |
| | | | | | SW = Sweep | X | |
| → | 336 | TradingSessionID | C | Integer | Used to mark Non-Regular Session trades.<br>Valid values:<br>6 = Non-regular session | X | X |
| → | 1174 | SecurityTradingEvent | C | Integer | Identifies an event related to a *TradingSessionSubID*. Always sent on MDEntryType='c', when field 326 is filled.<br><br>Possible values:<br>101 = Security Status maintained separately from Group Status<br>102 = Security Status following Group Status | X | X |
| → | 286 | OpenCloseSettlFlag | N | MultipleString Value | Identifies if the opening price in field MDEntryPx represents a theoretical opening price and applicable to describe when the settlement data is related to.<br><br>Valid values issued by B3:<br>0 = Daily settlement entry<br>1 = Session settlement entry<br>3 = Expected entry (Preliminary price)<br>4 = Entry from previous business day<br>5 = Theoretical price. | X | X |
| → | **15** | **Currency** | N | Currency | Identifies currency used for financial volume. Absence of this field is interpreted as the default currency for the security. | | ~~X~~ |
| → | 9325 | LastTradeDate | C | UTCDateOnly | Date the instrument last traded.<br>Used as an input in the calculation of the MaxTradeVol and used to trigger an Auction. Not published if the product has never been traded.<br><br>Published as part of Adjusted Closing Price block 269=5 286=4. | X | |
| → | 37013 | PriceAdjustmentMethod | C | Integer | Indicator of previous day´s closing price.<br><br>Used for Closing price adjustments related to Corporate Actions.<br><br>Valid values:<br>0 = No adjustment (default)<br>1 = Theoretical price of EX share.<br>2 = Theoretical price of EX share when greater than WITH price.<br>3 = Theoretical price of EX share, resulting from dividends in different types of stocks/companies.<br>4 = Price arbitrated by Market Authority | X | |
| → | 37 | OrderID | C | String(50) | Unique identifier for Order as assigned by the exchange, maps to the *SecondaryOrderID* field in the *Execution Report* message. It is unique per broker firm, per instrument, per trading date. | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | Required when this Bid or Offer represents an order. | | |
| → | 1003 | TradeID | C | String(32) | Contains the unique identifier for this trade per instrument + trading date, as assigned by the exchange. Required if reporting a Trade. | X | X |
| → | 288 | MDEntryBuyer | N | String(50) | For optional use in reporting trades (buying party) or indicating a new bid entry.<br>Note: not sent in FX messages (blind screen). | X | X |
| → | 289 | MDEntrySeller | N | String(50) | For optional use in reporting trades (selling party) or indicating a new offer entry.<br>Note: not sent in FX messages (blind screen). | X | X |
| → | 346 | NumberOfOrders | C | Integer | Contains the number of orders that make up the aggregate quantity at the price point. Required if this is a price-depth book entry. | X | X |
| → | ~~290~~ | ~~MDEntryPositionNo~~ | ~~C~~ | ~~Integer~~ | Display position of a bid or offer, numbered from most competitive to least competitive, per market side, beginning with 1. **DEPRECATED**. | X | X |
| → | ~~5767~~ | ~~AgressorSide~~ | N | Char | Indicates which side is aggressor of the trade. If there is no value present, then there is no aggressor. **DEPRECATED**. Valid values are:<br>1 = Buy<br>2 = Sell | | ~~X~~ |
| → | 423 | PriceType | N | Integer | Code to represent the price type (applicable to settlement data). The default value is “2” (Per unit).<br><br>Valid values:<br>1 – Percentage<br>2 – Per unit (i.e. per share or contract)<br>3 – Fixed amount (absolute value) | | X |
| → | 287 | SellerDays | N | Integer | Specifies the number of days that may elapse before delivery of the security. Only used for some types of trades in forward market. | X | X |
| → | 731 | SettlPriceType | C | Integer | Required only for MDEntryType=6 (Settlement Price). Type of settlement price:<br>1 = Final<br>2 = Theoretical/Preview<br>3 = Updated | | X |
| → | 1020 | TradeVolume | N | Qty | Total traded quantity (shares/contracts) of the trading day. It could be present only in the Trade Volume (269=B) or Trade (269=2) blocks. | X | X |
| → | 1306 | PriceLimitType | N | Integer | Describes how the prices are expressed. The default value is “0” (Price Unit).<br><br>Valid values:<br>0 = Price Unit<br>1= Ticks<br>2 = Percentage | | X |
| → | 1148 | LowLimitPrice | N | Price | Allowable low limit price for the trading day. A key parameter in validating order price. Used as the lower band for validating order prices. Orders submitted with prices below the lower limit will be rejected. | | X |
| → | 1149 | HighLimitPrice | N | Price | Allowable high limit price for the trading day. A key parameter in validating order price. Used as the upper band for validating order prices. Orders submitted with prices above the upper limit will be rejected. | | X |
| → | 1150 | TradingReferencePrice | N | Price | Reference price for the current trading price range. The value may be the reference price, settlement price or closing price of the prior trading day. Sent only for Economic Indicators. | | X |
| → | 37008 | PriceBandMidpointPriceType | C | Integer | Band Midpoint Type, used with Auction Price Banding. | X | X |

| | Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|
| | | | | | Valid values:<br>0 = Last Traded Price (default)<br>1 = Complementary Last Price<br>2 = Theoretical Price | | |
| → | 37003 | AvgDailyTradedQty | C | Integer | Daily average shares traded within 30 days – equity market only. Previously known as DailyAvgShares30D. Always 0 for Derivatives. | X | X |
| → | 432 | ExpireDate | C | LocalMktDate | Date of order expiration (last day the order can trade), always expressed in terms of the local market date.<br>Used in BTB contracts only. | X | |
| → | 37019 | EarlyTermination | C | Integer | Indicates if the deal is subject to anticipated liquidation (early termination of the borrowing/lending)<br>Used in BTB contracts only.<br><br>Valid values:<br>0 = Normal termination (default)<br>1 = Early termination<br>2 = Early termination also in case of PTO | X | |
| → | 37023 | BTBCertIndicator | C | Integer | Indicates if the security lending offer or pre-contract is certified.<br>If not sent, means the offer or pre-contract is not certified.<br>Used in BTB contracts only.<br>Valid values:<br>0 = Certified (default)<br>1 = Not certified | X | |
| → | 37024 | BTBContractInfo | C | Integer | Only used for BTB. Denotes extra information about the BTB pre-contract.<br>Used in BTB contracts only.<br>Valid values:<br>1 = pre-contract (default)<br>2 = intention | X | |
| → | 37025 | BTBGraceDate | C | LocalMktDate | Only used for BTB. Indicates the minimum date from when the borrower can call the loan contract to an end.<br>Used in BTB contracts only. | X | |
| → | 1140 | MaxTradeVol | C | Integer | The maximum order quantity that can be submitted for a security.<br>The value is the minimum between % of shares issued and % of average traded quantity within 30 days. | X | |
| → | 1025 | FirstPx | C | Price | The price for the short future on a volatility price (269=v). | | X |
| → | 31 | LastPx | C | Price | The price for the long future on a volatility price (269=v). | | X |
| → | 811 | PriceDelta | C | Float | The rate of change in the price of a derivative with respect to the movement in the price of the underlying instrument(s) upon which the derivative instrument price is based. Only used for 269=v (Volatility price).<br>This value is normally between -1.0 and 1.0. | | X |
| → | 711 | NoUnderlyings | C | NumInGroup | Number of repeating groups is based on Index Composition. Only used when representing Index Composite Underlying Price (269=D). | X | |
| → | 37008 | PriceBandMidpointPriceType | C | Integer | Band Midpoint Type<br>Complementary Last Price (CLAST) follows special rules described in 3BR6.2.3.1<br>Used with Auction Price Banding.<br><br>Valid values:<br>0 = Last Traded Price (default)<br>1 = Complementary Last Price<br>2 = Theoretical Price | X | |

| Tag | | | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|---|---|
| → | → → | 309 | UnderlyingSecurityID | Y | Integer | Underlying instrument's security identifier. | X | |
| → | → | 305 | UnderlyingSecurityIDSource | Y | Integer | Qualifier for underlying instrument's security ID.<br>Valid value: 8 | X | |
| → | → | 308 | UnderlyingSecurityExchange | Y | String | Underlying instrument's exchange.<br>Valid value: BVMF | X | |
| → | → | 810 | UnderlyingPx | Y | Price | Underlying instrument price reflected in Index value | X | |
| → | → | 37018 | UnterlyingPxType | C | Integer | Indicates the Underlying Instrument price type reflected in Index value. Used for Composite Underlying Price block (269=D), only sent when different from the default value.<br><br>Valid values:<br>0 = Trade (default)<br>1 = Average of TOB | X | |
| → | ~~7687~~ | | ~~PercentageVar~~ | N | Percentage | Index variation in percentage, from start of day. DEPRECATED. | | |
| → | ~~9343~~ | | ~~NoUnchangedSecurities~~ | N | Integer | Number of index underlying securities with no variation. DEPRECATED. | | |
| → | ~~9344~~ | | ~~NoNotTradedSecurities~~ | N | Integer | Number of index underlying securities that are not quoted. DEPRECATED. | | |
| → | ~~9989~~ | | ~~TotTradedSecurities~~ | N | Integer | Number of quoted securities in the index. DEPRECATED. | | |
| → | ~~9990~~ | | ~~CapitalPct~~ | N | Percentage | Capitalization percentage of active securities in the index. DEPRECATED. | | |
| → | ~~9993~~ | | ~~PrevYearVariation~~ | N | Percentage | Index variation in percentage, compared to previous year last index. DEPRECATED. | | |
| → | ~~9996~~ | | ~~NoFallingSecurities~~ | N | Integer | Number of index underlying securities falling in price. DEPRECATED. | | |
| → | ~~9997~~ | | ~~NoRisingSecurities~~ | N | Integer | Number of index underlying securities rising in price. DEPRECATED. | | |
| → | ~~37001~~ | | ~~PercThresholdNormalTrade~~ | N | Percentage | Percentage threshold normal trade. DEPRECATED. | | |
| → | ~~37002~~ | | ~~PercThresholdCrossTrade~~ | N | Percentage | Percentage threshold cross trade. DEPRECATED. | | |
| → | ~~37003~~ | | ~~DailyAvgShares30D~~ | N | Qty | Daily average shares traded on last 30 days. DEPRECATED, now known as AvgDailyTradedQty. | | |
| → | ~~37004~~ | | ~~MaxinumNormalSharesPer DailyAvgShares30DRatio~~ | N | Float | Ratio maximum shares traded normal trade / Daily average shares traded on last 30 days. DEPRECATED. | | |
| → | ~~37005~~ | | ~~MaxinumCrossSharesPer DailyAvgShares30DRatio~~ | N | Float | Ratio maximum shares traded cross trade / Daily average shares traded on last 30 days. DEPRECATED. | | |
| → | ~~37006~~ | | ~~NormalSharesPer OutstandingSharesRatio~~ | N | Float | Ratio maximum shares traded normal trade / Outstanding number of shares. DEPRECATED. | | |
| → | ~~37007~~ | | ~~CrossSharesPer OutstandingSharesRatio~~ | N | Float | Ratio maximum shares traded cross trade / Outstanding number of shares. DEPRECATED. | | |

## 1.3.4 Security Status (tag 35=f)

This message contains instrument or instrument group state and trading phase information.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | X | |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| [ Standard message header ] | | | | | | |

| Tag | Tag Name | Req | Data Type | Comment | EQT | DER |
|---|---|---|---|---|---|---|
| 1151 | SecurityGroup | N | String(15) | The instrument group that is changing trading phase. | X | X |
| | | | **[ Instrument identification block ]**<br>See Section "Instrument Identification Block" for tag values | | | |
| 75 | TradeDate | Y | LocalMktDate | Trade date of the Market Data messages. | | ~~X~~ |
| 625 | TradingSessionSubID | C | Integer | Phase related to a given *SecurityGroup*.<br>Valid values sent by B3:<br>02 = Trading halt (Pause)<br>04 = No-Open (Close)<br>17 = Ready to trade (Open)<br>18 = Not available for trading (Pre-close)<br>21 = Pre-Open<br>101 = Final Closing Call | X | X |
| 326 | SecurityTradingStatus | C | Integer | Status related to a given instrument.<br>Valid values sent by B3:<br>02 = Trading halt (Pause)<br>04 = No-Open (Close)<br>17 = Ready to trade (Open)<br>18 = Not available for trading (Forbidden)<br>20 = Unknown or invalid<br>21 = Pre-Open (Reserved)<br>101 = Final Closing Call | X | X |
| 336 | TradingSessionID | C | Integer | Identifier for Trading Session.<br><br>Valid values:<br>1 = Regular Day Session<br>6 = Non Regular Session (After Hours) | X | X |
| 342 | TradSesOpenTime | N | UTCTimestamp | Estimated end of the current auction. Included only if *SecurityTradingStatus*=21 (Reserved). | X | X |
| 60 | TransactTime | N | UTCTimestamp | Timestamp when the business transaction represented by the message occurred. | X | X |
| 1500 | MDStreamID | Y | String | The identifier or name of market data stream.<br>If not present, default=E.<br>Valid values:<br>E - Electronic<br>X - Ex-pit<br>~~S - Surveillance~~<br>O - Option Exercise<br>~~C - Over-the-counter (OTC)~~<br>T - Termo<br>N - Index<br>L - Lending (BTB)<br>A - All | X | X |
| 1174 | SecurityTradingEvent | C | Integer | Identifies an event related to a Trading<br><br>This tag is also used to mark when an instrument state is kept separate from the group phase, or when the instrument state follows the default group phase (stops having a separate, defined state). Always sent when tag 48 is present.<br><br>Valid values:<br>4 = Change of Trading Session (clears statistics)<br>101 = Security Status maintained separately from Group Status<br>102 = Security Status following Group Status | X | X |

### 1.3.5 News (tag 35=B)

The News message is sent over the incremental stream to convey market information of B3 market surveillance notifications and news produced by agencies. News message is available to all segments: Derivatives and Equities.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Sent on stream | | | X | |

| Tag | | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|---|
| [Standard message header] | | | | | |
| 42 | | OrigTime | Y | UTCTimestamp | Time of message origination (always expressed in UTC - Universal Time Coordinated, also known as "GMT") |
| 6940 | | NewsSource | Y | String(3) | Indicates the source of the news.<br><br>Valid values for derivatives market:<br>"1" – DCM<br>"2" – BBMNet<br>"3" – MarketSurveillance<br>"4" – Internet<br>"5" – DPR-VE<br>"19" – Mkt Ops FX Agency<br>"20" – Mkt Ops Derivatives Agency<br><br>Valid values for equities market:<br>"11" – Over-the-counter news agency<br>"13" – Electronic Purchase Exchange<br>"14" – CBLC News Agency<br>"15" – BOVESPA – Index Agency<br>"16" – BOVESPA – Institutional Agency<br>"17" – Mkt Ops Equites Agency<br>"18" – BOVESPA – Companies Agency |
| 1472 | | NewsID | N | String(7) | Unique identifier for News message.<br>Included in the News messages sent in the Unified News Channel.<br>Not sent for trading engine News messages. |
| 1474 | | LanguageCode | N | Language | Indicates the language the news is in. Represented by the two-letter ISO 639-1 standard identification. Absence of this field defaults to "pt" – Portuguese. |
| 148 | | Headline | Y | String | The headline of a News message. |
| 358 | | EncodedHeadlineLen | N | Integer | Must be set if EncodedHeadline field is specified and must immediately precede it.<br><br>Can only be published in the Unified News Channel. |
| 359 | | EncodedHeadling | N | Data(512) | Encoded (non-ASCII characters) representation of the Headline field in the encoded format specified via the MessageEncoding field.<br><br>Can only be published in the Unified News Channel. |
| 146 | | NoRelatedSym | N | NumInGroup | Specifies the number of repeating symbols (instruments) specified. |
| → | | **[ Instrument identification block ]**<br>See Section "Instrument Identification Block" for tag values | | | |
| ~~215~~ | | ~~NoRoutingIDs~~ | N | NumInGroup | Indicates the number of destinations of this message. DEPRECATED. |
| → | ~~216~~ | ~~RoutingType~~ | Y | Integer | Indicates the type of RoutingID (217) specified. DEPRECATED.<br>Values issued by B3:<br>2 = Target List. |
| → | ~~217~~ | ~~RoutingID~~ | N | String(2) | Assigned value used to identify a specific routing destination. DEPRECATED.<br>Values issued by B3:<br>"1" = Vendors<br>"2" = Traders<br>"3" = B3 RSS feed<br>"4" = BBMNet<br>"5" = GLOBEX |
| 33 | | NoLinesOfText | Y | NumInGroup | Identifies number of lines of text body. |
| → | 58 | Text | Y | String(8192) | Free format text string. |
| → | 354 | EncodedTextLen | N | Length | Length of EncodedText field. Can only be published in the Unified News Channel. |
| → | 355 | EncodedText | N | Data | Encoded (non-ASCII characters) representation of the Text (58) field in the encoded format specified via the *MessageEncoding* (347) field. Can only be published in the Unified News Channel. |
| 149 | | URLLink | N | String(1024) | A URL (Uniform Resource Locator) link to additional information (e.g. https://www.b3.com.br/en_us/ ) |

## 1.3.6 NonFixData (tag 35=n)

***** THIS MESSAGE HAS BEEN DEPRECATED *****

As of the date mentioned in the Circular Letter 003/2014-DI, corporate fixed income market data will be published in the same fashion as other equity products, via messages 35=X, y, W, f and so on. This message will no longer be generated after the mentioned date.

The NonFixData message was used to carry a payload that is the encoded Fixed Income messages from BovespaFIX legacy system (RLC-Z5, from ProxyDiff). These messages could be extracted and processed as usual by customers and vendors already capable of processing it. It was sent over the incremental stream and also present on TCP Replayer.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | X | X |

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| ~~[Standard message header ]~~ | | | | |
| ~~212~~ | ~~DataLen~~ | ~~Y~~ | ~~Int~~ | ~~Integer field representing the length of the field Data (213) in bytes. Value must be positive.~~ |
| ~~213~~ | ~~Data~~ | ~~Y~~ | ~~Data~~ | ~~Actual message data stream (encoded Z5).~~ |
| ~~347~~ | ~~MessageEncoding~~ | ~~Y~~ | ~~String~~ | ~~Type of the encoded message inside the current message. Fixed value: RLC-Z5~~ |

# 2 Market Data FIX 4.4 Message Specification

## *2.1 FIX 4.4 Application Messages used at TCP Replayer / Historical Replayer Connections*

This section outlines the FIX 4.4 messages designed/adapted only for replaying lost FIX 5.0SP2 real-time market data purposes. More details of small-scale recovering process can be found at UMDF Market Data messaging specification.

### 2.1.1 Application Message Request (tag 35=BW)

The client application should send this message for requesting the recovery of lost messages in the UDP channel.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | | X |

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| [Standard message header ] | | | | |
| 1346 | ApplReqID | Y | String | Unique identifier for Request. |
| 1347 | ApplReqType | Y | Integer | Type of resend request being made:<br>0 - Retransmission of application messages for the specified Applications. |
| 1351 | NoApplIDs | Y | NumInGroup | Specifies number of application ID occurrences. |
| → 1355 | RefApplID | Y | String | Reference to the unique application identifier (the UDP Channel ID). |
| → 1182 | ApplBegSeqNum | Y | Integer | Message sequence number of first message in range to be resent. If the request is for a single message, *ApplBeginSeqNum* (tag 1182) and *ApplEndSeqNum* (tag 1183) must be the same. |
| → 1183 | ApplEndSeqNum | Y | Integer | Message sequence number of last message in range to be resent. If the request is for a single message, *ApplBeginSeqNum* (tag 1182) and *ApplEndSeqNum* (tag 1183) must be the same. *ApplEndSeqNum*=0 is not |

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| | | | | allowed. The maximum number of messages that can be requested is 2000. |

## 2.1.2 Application Message Request Acknowledgment (tag 35=BX)

B3 sends the Application Message Request Acknowledgment message in response to the Application Message Request (tag 35-MsgType=BW) message. The Application Request Acknowledgment contains information regarding the response to the recovery request.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | | X |

| Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|
| [Standard message header ] | | | | |
| 1353 | ApplRespID | Y | String | Identifier for the Application Resend Response (identifier provided by the Exchange) |
| 1346 | ApplReqID | Y | String | Unique identifier for Request (identifier provided by the client application and received in the Application Message Request – tag 35=BW) |
| 1347 | ApplReqType | Y | Integer | Type of application resend response being sent:<br>0 - Retransmission of application messages. |
| 1348 | ApplRespType | Y | Integer | Used to indicate the type of acknowledgement being sent:<br>0 - Request accepted<br>1 - Application does not exist (not specified)<br>2 - Request not accepted or partially accepted (unable to process all requested data, each *RefApplID* in the *NoApplIDs* group must be checked to verify errors).<br>3 - The processing of a prior Application Message Request is in progress (client application must wait until the resend in progress is complete)<br>4 - Exceeded the maximum number of Applications (*NoApplIDs* - tag 1351) allowed in a single Application Message Request (currently 1)<br>7 – System temporarily unavailable |
| 1351 | NoApplIDs | N | NumInGroup | Specifies number of application ID occurrences, only when feedback information is applied. |
| → 1355 | RefApplID | Y | String | Reference to the unique application identifier (the UDP Channel ID). |
| → 1182 | ApplBegSeqNum | N | Integer | Beginning range of application sequence numbers. |
| → 1183 | ApplEndSeqNum | N | Integer | Ending range of application sequence numbers. |
| → 1354 | ApplRespError | N | Integer | Used if response error for a given ApplID; resend is not possible.<br>Reason:<br>0 - Application does not exist<br>3 - Invalid range requested<br>4 - Exceeded the maximum limit of messages allowed per resend request<br>8 - System resources unavailable (for TCP Historical Replay only) |
| → 35021 | ApplResponseStatus | Y | Int (1) | Used to indicate the status for each Application Message Request.<br>Valid values:<br>0 – Request Sucessfully Processed<br>1 – User Not Authorized For Application<br>2 – Invalid Range Requested<br>3 – Prior Application Request In Progress<br>4 – Application Temporatily Unavailable |
| [Standard message header ] | | | | |

## 2.1.3 Application Raw Data Reporting (tag 35 =URDR)

In order to resend the messages requested with Application Message Request (tag 35-MsgType=BW), B3 sends a set of Raw Data Reporting messages (tag 35-MsgType=URDR) each containing one or more FAST encoded messages appended in the RawData (tag 96) field.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Sent on stream | | | | X |

| Tag | | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|---|
| [Standard message header] | | | | | |
| 1346 | | ApplReqID | Y | String | Unique identifier for Request (identifier provided by the client application in the Application Message Request message– tag 35=BW) |
| 1353 | | ApplRespID | Y | String | Identifier for the Application Resend Response (identifier provided by the Exchange in the Application Message Request Acknowledgment message – tag 35=BX) |
| 1180 | | ApplID | Y | String | Identifies the application with which the message is associated. |
| 1352 | | ApplResendFlag | Y | Boolean | Used to indicate that a message is being sent in response to an Application Message Request |
| 95 | | RawDataLength | Y | Integer | Number of bytes in raw data field |
| 96 | | RawData | Y | Bytes | Unformatted raw data containing one or more encoded FAST messages |
| 911 | | TotNumReports | Y | Integer | Total number of recovered messages to be resent regarding the *ApplID*. |
| 10054 | | NoApplSeqNums | Y | NumInGroup | Specifies number of Application Sequence Number occurrences. |
| → | 1181 | ApplSeqNum | Y | String | Application sequence number being resent |
| → | 1350 | ApplLastSeqNum | Y | Integer | The previous sequence number in the application sequence stream. Useful to help detect sequence gaps. The value “0” means that this is the first message being resent. |
| → | 10055 (?) | RawDataOffset | Y | Integer | The offset is the reference to the start point for the encoded message in *RawData* field (tag 96) |
| → | 95 | RawDataLength | Y | Integer | Length in bytes of the encoded message. Must be used with *RawDataOffset* to safely recover the resent message with *ApplSeqNum*. |

### 2.1.4 Application Message Report (tag 35=BY)

B3 sends the Application Message Report (tag 35-MsgType=BY) message to indicate that the Application Resend process is complete. An Application Message Report is generated for each Channel ID just after resending the last Raw Data Reporting message.

| | Instrument definition | Snapshot | Incremental | TCP Replayer |
|---|---|---|---|---|
| Sent on stream | | | | X |

| Tag | | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|---|
| [Standard message header] | | | | | |
| 1356 | | ApplReportID | Y | String | Identifier for the Application Message Report |
| 1426 | | ApplReportType | Y | Integer | Reason the Application Message Report is being sent:<br>3 - Application Resend successfully completed<br>4 - Application Resend Error |
| 1347 | | ApplReqType | Y | String | Type of application resend response being sent:<br>0 = Retransmission of application messages. |
| 1346 | | ApplReqID | Y | String | Unique identifier for Request (identifier provided by the client application and received in the Application Message Request message – tag 35=BW) |
| 1353 | | ApplRespID | Y | String | Identifier for the Application Resend Response (identifier provided by the Exchange in the Application Message Request Acknowledgment message – tag 35=BX) |
| 1351 | | NoApplIDs | Y | NumInGroup | Specifies number of Application ID occurrences. Should always be 1, because TCP Replayer issues a separate report for each Channel ID, when it completes an Application Resend. |
| → | 1355 | RefApplID | Y | String | Reference to the unique application identifier (the UDP Channel ID). |
| → | 1357 | RefApplLastSeqNum | N | Integer | Application sequence number of last transmitted message. This is the last application sequence number that should have been received. |
| → | 1354 | ApplRespError | N | Integer | Used if response error; resend is not possible or has missing data.<br>Reason:<br>1 - Messages requested are not available |

| | Tag | Tag Name | Req | Data Type | Comment |
|---|---|---|---|---|---|
| | | | | | 5 - Top-N message(s) of requested range not available to resend. The messages may be queued at server application, thus the client application may want to send another request to obtain the missing data.<br>6 - Bottom-N messages of the requested range not available for resend.<br>7 – Both reasons 5 and 6 together (Top-N and Bottom-N messages not available and on the requested range)<br>**8 - System resources unavailable (for TCP Historical Replay only)** |