

Appendix D. JSE ITCH to FIX Conversion

Symbol Directory -> Security Definition

Instrument ID -> SecurityID
"8 instrument identifier" -> SecurityIdSource
Symbol Status -> SecurityStatus
"3" -> NoSecurityAltID
 ISIN -> SecurityAltID [0]
 "4 ISIN" -> SecurityAltIDSource [0]
 Symbol -> SecurityAltID [1]
 "8 Exchange Symbol" -> SecurityAltIDSource [1]
 TIDM -> SecurityAltID [2]
 "M Market assigned identifier (TIDM)" -> SecurityAltIDSource [2]
"1" -> NoMarketSegments
 Segment -> MarketSegmentID [0]
Corporate Action -> CorporateAction

Symbol Status -> Security Status

Instrument ID -> SecurityID
"8 instrument identifier" -> SecurityIdSource
Trading Status -> SecurityTradingStatus
Halt Reason -> HaltReason
Session Change Reason -> SecurityTradingEvent
New End Time -> Text
Book Type -> MDSubBookType

Add Order -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction
Side, Flags -> MDEntryType
Nanosecond -> MDEntryTime
Order ID -> MDEntryID
New Quantity -> MDEntrySize
Instrument ID -> SecurityID
"8 instrument identifier" -> SecurityIdSource
New Price -> MDEntryPx

Order Modified -> Market Data Incremental Refresh

"1 Change" -> MDUpdateAction

Nanosecond -> MDEntryTime

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Order ID -> MDEntryID

New Quantity -> MDEntrySize

New Price -> MDEntryPx

Order Deleted -> Market Data Incremental Refresh

"2 Delete" -> MDUpdateAction

Nanosecond -> MDEntryTime

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Order ID -> MDEntryID

Order Executed -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"2 Trade" -> MDEntryType

Nanosecond -> MDEntryTime

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Order ID -> OrderID

Executed Quantity -> MDEntrySize

Trade ID -> MDEntryID

Order Executed With Price/Size -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"2 Trade" -> MDEntryType

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Nanosecond -> MDEntryTime

Order ID -> OrderID

Executed Quantity -> MDEntrySize

Display Quantity -> none

Trade ID -> MDEntryID

Price -> MDEntryPx

Order Book Clear -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"J Empty Book" -> MDEntryType

Nanosecond -> MDEntryTime

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Auction Info -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"Q Auction Clearing Price" -> MDEntryType

"0 Indicative" -> MDQuote Type

Nanosecond -> MDEntryTime

Paired Quantity, Imbalance Direction -> MDEntrySize

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price, Imbalance Direction -> MDEntryPx

Trade -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"2 Trade" -> MDEntryType

Nanosecond -> MDEntryTime

Executed Quantity -> MDEntrySize

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price -> MDEntryPx

Trade ID -> MDEntryID

Auction Trade -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"2 Trade" -> MDEntryType

"5 Auction" -> MatchType

Nanosecond -> MDEntryTime

Quantity -> MDEntrySize

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price -> MDEntryPx

Trade ID -> MDEntryID

Auction Type -> TradeCondition

Off Book Trade -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

"2 Trade" -> MDEntryType

Executed Quantity -> MDEntrySize

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price -> MDEntryPx

Trade ID -> MDEntryID

Off Book Trade Type -> TrdSubType

Trade Time -> MDEntryTime

Trade Date -> MDEntryDate

Trade Break -> Market Data Incremental Refresh

"2 Delete" -> MDUpdateAction

"2 Trade" -> MDEntryType

Nanosecond -> MDEntryTime

Trade ID -> MDEntryID

Statistics -> Market Data Incremental Refresh

"0 New" -> MDUpdateAction

Statistic Type -> MDEntryType

Nanosecond -> MDEntryTime

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price -> MDEntryPx

Open Close Indicator -> OpenCloseIndicator (30002)

Recovery Trade -> Market Data Incremental Refresh

"0 New" or "2 Delete" -> MDUpdateAction

"2 Trade" -> MDEntryType

"5" (for Auction Trade) -> MatchType

Nanosecond -> MDEntryTime

Executed Quantity -> MDEntrySize

Instrument ID -> SecurityID

"8 instrument identifier" -> SecurityIdSource

Price -> MDEntryPx

Trade ID -> MDEntryID

Auction Type -> TradeCondition

Off Book Trade Type (for Off Book Trade) -> TrdSubType

Trade Time (for Off Book Trade) -> MDEntryTime

Trade Date (for Off Book Trade) -> MDEntryDate

Conversion Error -> User Notification

"104" -> UserStatus

Error Message -> Text

ITCH Message -> EncodedText

ITCH Message Size -> EncodedTextLen

Note:

ITCH order execution messages are converted to FIX trade entries with non-empty OrderID field