



**ASIC**

Australian Securities & Investments Commission

# Australian Market Regulation Feed

## FIX Message Sequence Guide

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## Document Control

This document is a version-controlled document. All changes are recorded in the following version control table.

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## 1 About this Document

### 1.1 Introduction

ASIC (Australian Securities and Investments Commission) is Australia's corporate, markets and financial services regulator.

ASIC contributes to Australia's economic reputation and wellbeing by ensuring that Australia's financial markets are fair and transparent, supported by confident and informed investors and consumers.

ASIC is an independent Commonwealth Government body, is set up under and administers the Australian Securities and Investments Commission Act (ASIC Act), and carries out most of its work under the Corporations Act.

- The Australian Securities and Investments Commission Act 2001 requires ASIC to:
- maintain, facilitate and improve the performance of the financial system and entities in it
- promote confident and informed participation by investors and consumers in the financial system
- administer the law effectively and with minimal procedural requirements
- enforce and give effect to the law
- receive, process and store, efficiently and quickly, information that is given to us
- make information about companies and other bodies available to the public as soon as practicable.

ASIC has taken over responsibility for supervision of real-time trading on Australia's domestic licensed markets. This supplements its existing responsibility for enforcement of the laws against misconduct on Australia's financial markets and its supervision of Australian financial services licence holders.

To facilitate the monitoring of trading activity, each equity market is required to establish a network connection into ASIC's market surveillance system, and during the course of each trading day, provide a parallel data feed consisting of all orders, trades, and quotes being processed and disseminated by the market's trading engine, as well as all trading session and security price and status related messages.

This document is an extension to the FIX specification; it does not define FIX concepts and should not be considered as a stand-alone. It is expected that developers have read and understood the Australian Market Regulation Feed – FIX Specification and are familiar with FIX 5.0 SP2.

### 1.2 Intended Audience

This document has been specifically written for Australian equity markets exchanges who intend to provide the requisite order, and trade information to ASIC's Market Surveillance System (IMSS) using FIX. This specification document will be of particular interest to business analysts, systems architects, and developers. This document will also be useful for market participants who choose to implement the Australian Market Regulation Feed – FIX Specification.

### 1.3 References

- Australian Market Regulation Feed – FIX Specification
- Australian Market Regulation Feed – FIX Rules of Engagement
- Australian Market Regulation Feed – FIX Certification Manual

## 2 General Information

### 2.1 Data Element implementation

This Australian Market Regulation Feed will be implemented in several distinct phases. To reflect this staggered implementation the data elements specified in this document have an implementation timeframe that is described in the following table:

**Table 1:**

Implementation phase	Code	Description
Day 1	D1	These elements are to be available for use from the first day of implementation.
Day 1 (IMSS only)	D1_IMSS	These elements are to be available for use from the first day of implementation, but only require implementation by IMSS. Such elements should be ignored by MOs other than the ASX.
Retained for future use	RFU	These elements are considered not to have immediate relevance to the Australian marketplace, but have been retained in this specification for potential future use .

The Code values are used in the text, either as superscripts or as terms in tables, to denote the implementation phase of the corresponding message, component or data field.

### 2.2 ExecType (150) and OrdStatus (39)

The ExecType (150) field describes the specific type of ExecutionReport while OrdStatus (39) identifies the current status of the order. With respect to order restatement/replacement and the OrdStatus field, the enumerator 5 (Replaced) was deprecated by FPL and is no longer used. For orders that are re-priced or otherwise modified by the market (i.e., restated using an Execution Report), or replaced as the result of an OrderCancelReplaceRequest submitted by a trader, valid OrdStatus values are limited to:

- New (0) – for orders that have received no fills at the time of order replacement/restatement
- Partially Filled (1) – for orders that have been partially filled at the time of order replacement/restatement
- Done for day (3) – for GT and Day orders that are done for day

As a general rule, an order with a status of NEW (150=0, 39=0) should precede all subsequent messages indicating state changes to the order (e.g., REPLACE, RESTATE, CANCEL, EXPIRE, ORDER STATUS)

**Figure 1: OrdStatus Field and Enumerators**

Tag	Field Name	Req'd	Phase	Description
39	OrdStatus	Y	D1	<p>Identifies current status of order. Valid values:</p> <p>0 = New          1 = Partially Filled          2 = Filled [D1_IMSS]          3 = Done for day          4 = Cancelled          9 = Suspended          C = Expired</p>

**Figure 2: ExecType Field and Enumerators**

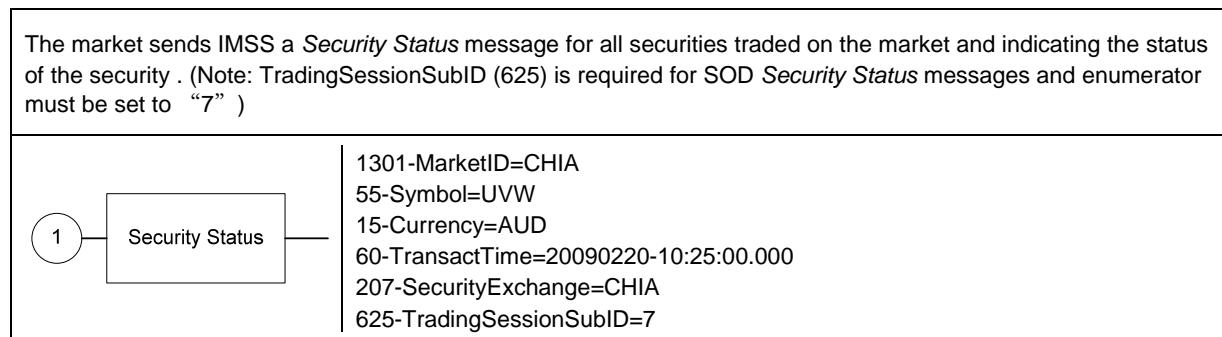
Tag	Field Name	Req'd	Phase	Description
150	ExecType	Y	D1	<p>Describes the specific ExecutionRpt. Valid values:</p> <p>0 = New          3 = Done for day          4 = Cancelled          5 = Replaced          9 = Suspended          C = Expired          D = Restated          I = Order Status [D1_IMSS]          L = Triggered [RFU]</p>

### 3 Message Sequencing

The following section describes the sequence flows for order types and events. Each sequence number corresponds to a message being sent from the Market to IMSS.

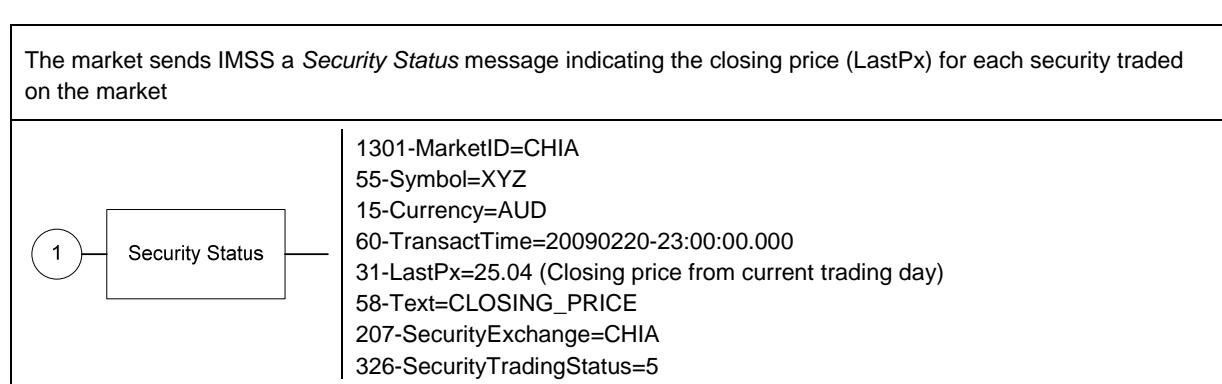
#### 3.1 Security Status – Start-of-Day [D1]

Figure 3: Security Status – Start-of-Day



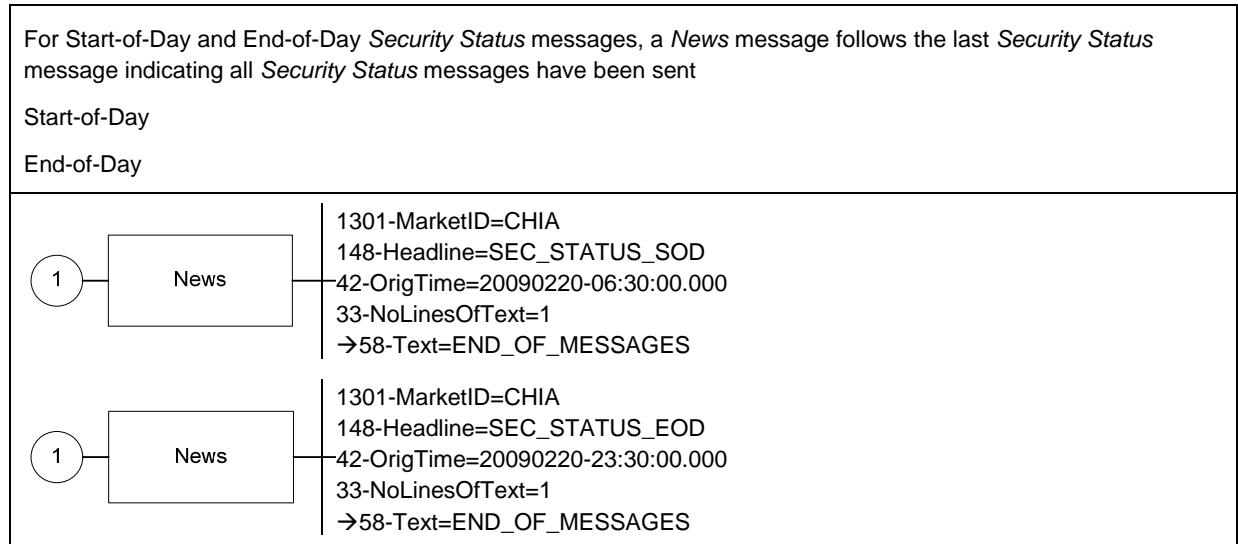
#### 3.2 Security Status – End -of-Day [D1]

Figure 4: Security Status – End -of-Day



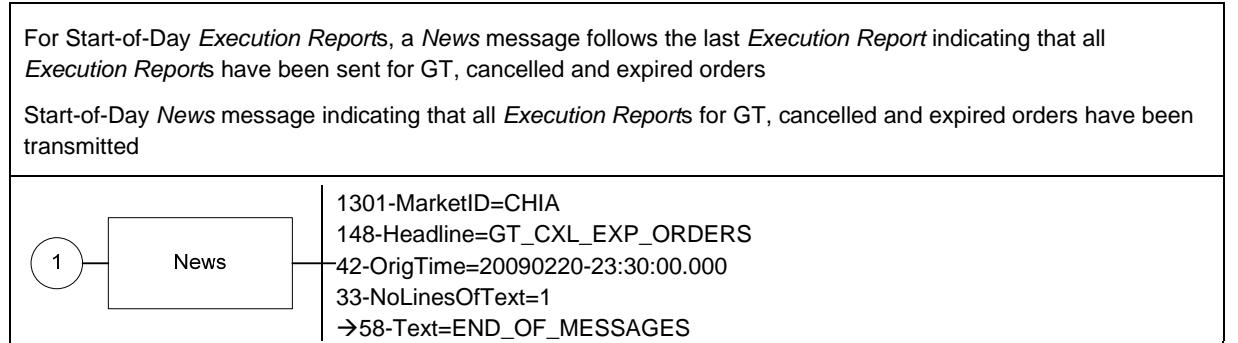
### 3.3 Security Status – End of Messages [D1]

Figure 5: News - End of Messages



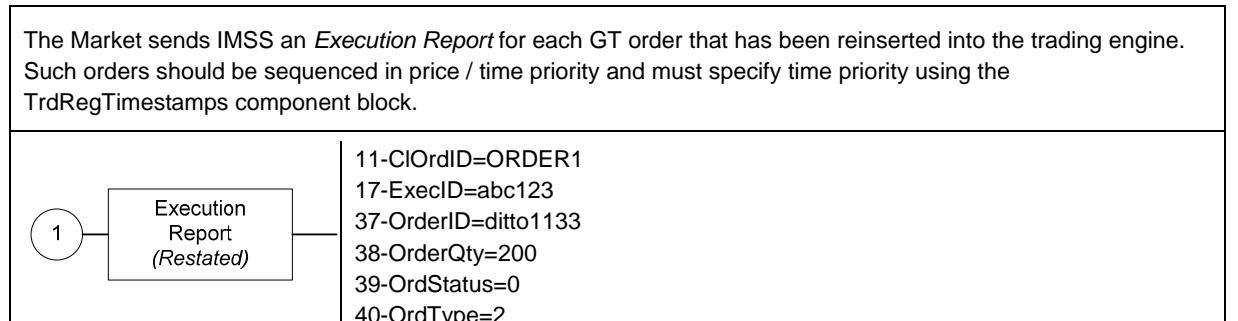
### 3.4 SOD GT / Cancelled / Expired Orders – End of Messages

Figure 6: Start of Day News Message



### 3.5 Start-of-Day – Reporting of Reinserted GT Orders [D1\_IMSS]

Figure 7: Execution Report – Reinserted GT Orders



	44-Price=10.25 54-Side=2 55-Symbol=XYZ 59-TimeInForce=6 60-TransactTime=20090220-10:59:00.000 150-ExecType=D 151-LeavesQty=200 378-ExecRestatementReason=1 (GT Renewal/Restatement) 432-ExpireDate=20090225 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12 768-NoTrdRegTimestamps=1 →769-TrdRegTimestamp=20090220-10:59:00.001 →770-TrdRegTimestampType=8 (Time Priority)
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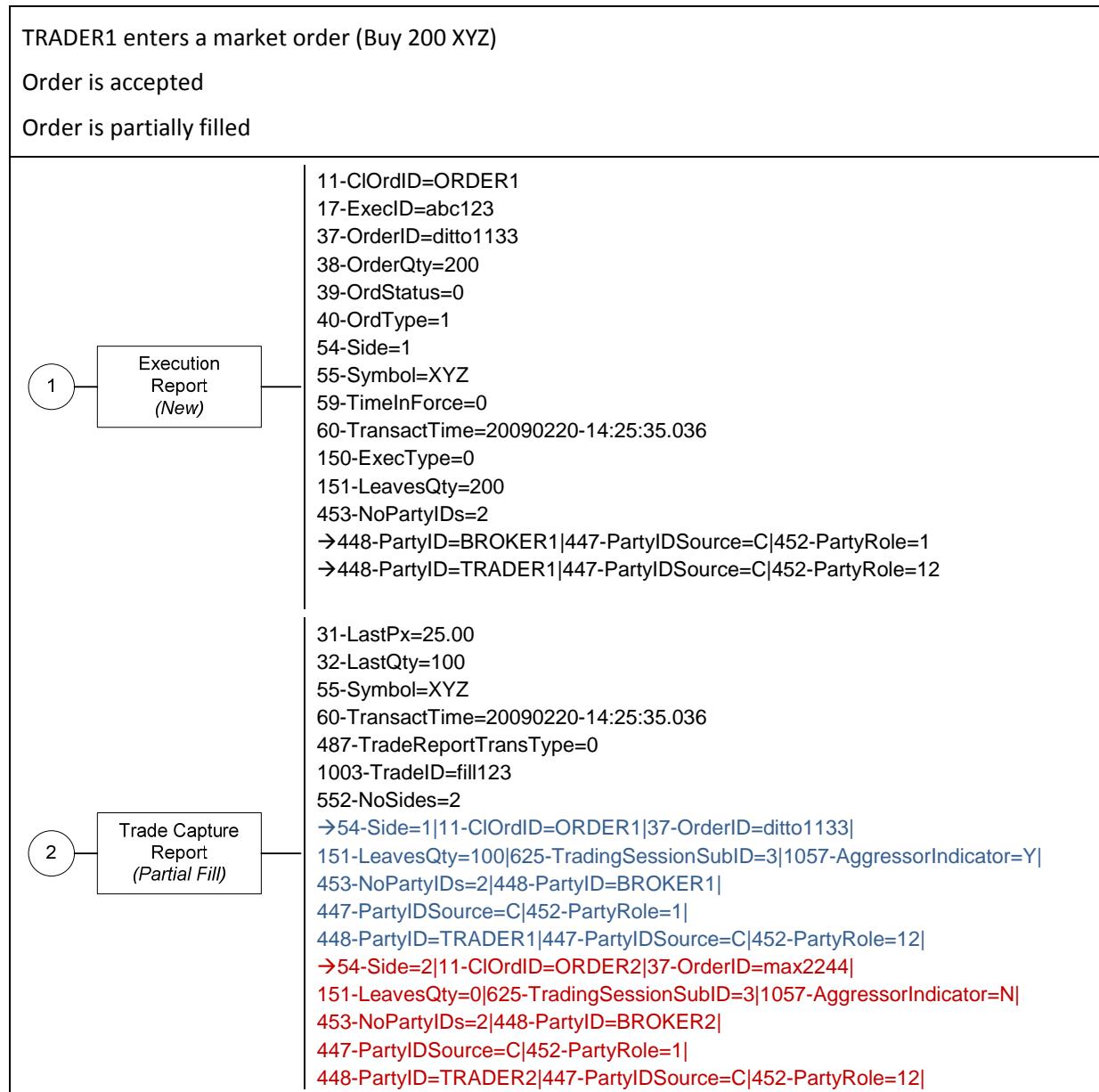
### 3.6 Market order fully filled [D1\_IMSS]

Figure 8: Market Order Fully Filled

<p>TRADER1 enters a market order (Buy 200 XYZ). No outstanding order quantity remains for either the buy-side or sell-side</p> <p>Order is accepted</p> <p>Order is fully filled</p>	
<p>1      Execution Report (New)</p> <p>2      Trade Capture Report (Filled)</p>	<p>11-CIOrgID=ORDER1      17-ExecID=abc123      37-OrderID=ditto1133      38-OrderQty=200      39-OrdStatus=0      40-OrdType=1      54-Side=1      55-Symbol=XYZ      59-TimelnForce=0      60-TransactTime=20090220-14:25:35.036      150-ExecType=0      151-LeavesQty=200      453-NoPartyIDs=2      →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1      →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12</p> <p>31-LastPx=25.00      32-LastQty=200      55-Symbol=XYZ      60-TransactTime=20090220-14:25:35.036      487-TradeReportTransType=0      1003-TradeID=fill123      552-NoSides=2      →54-Side=1 11-CIOrgID=ORDER1 37-OrderID=ditto1133       151-LeavesQty=0 625-TradingSessionSubID=3 1057-AggressorIndicator=Y       453-NoPartyIDs=2 448-PartyID=BROKER1       447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER1       447-PartyIDSource=C 452-PartyRole=12       →54-Side=2 11-CIOrgID=ORDER2 37-OrderID=max2244       151-LeavesQty=0 625-TradingSessionSubID=3 1057-AggressorIndicator=N       453-NoPartyIDs=2 448-PartyID=BROKER2       447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER2       447-PartyIDSource=C 452-PartyRole=12 </p>

### 3.7 Market order partially filled then booked as Limit order [D1\_IMSS]

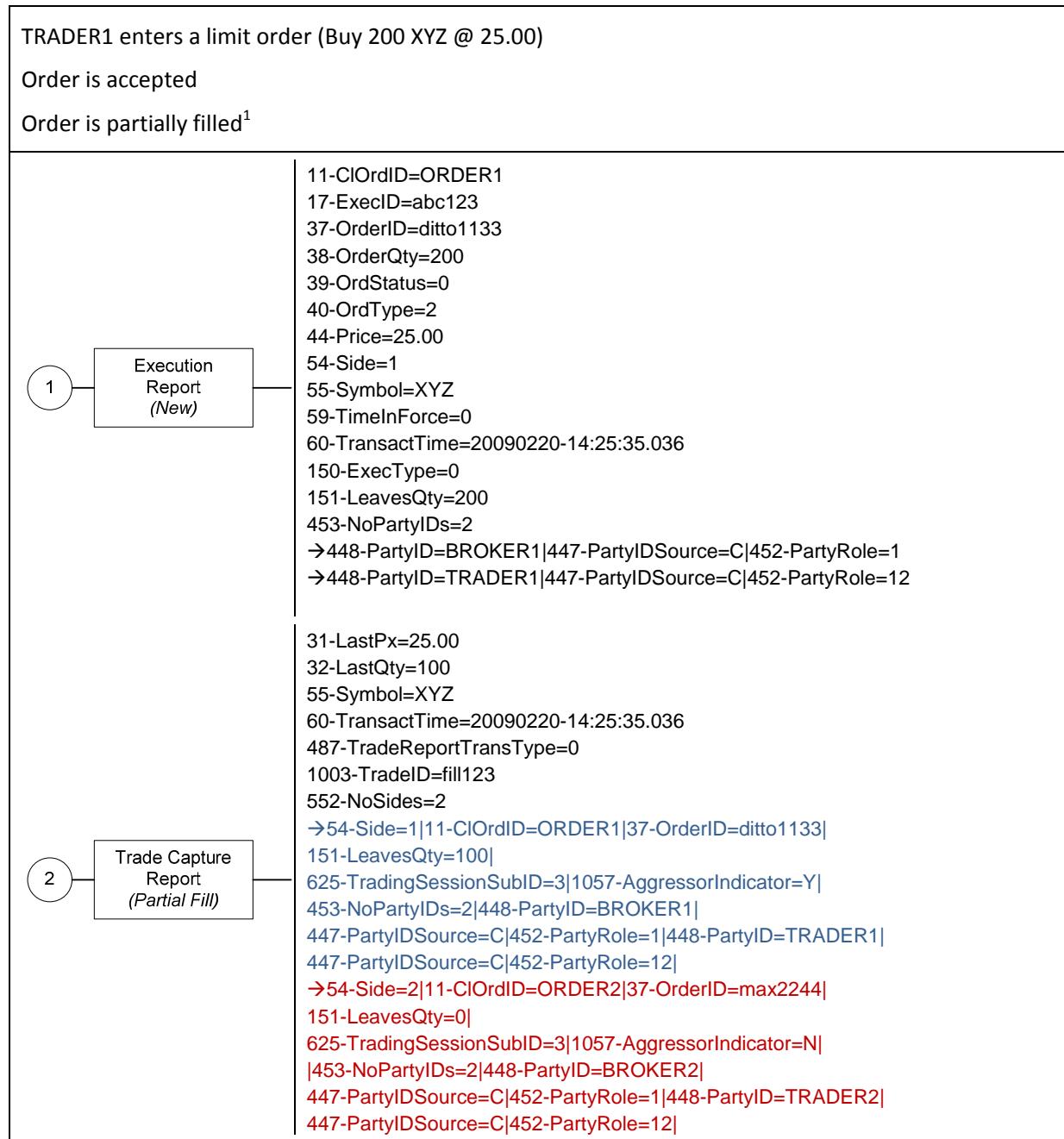
Figure 9: Market Order Partially Filled



Unfilled portion of market order is booked	
3	<p>Execution Report <i>(Restated)</i></p> <p>11-CIOrgID=ORDER1 17-ExecID=ghi789 37-OrderID=ditto1133 38-OrderQty=200 39-OrdStatus=1 40-OrdType=2 44-Price=25.00 54-Side=1 55-Symbol=XYZ 59-TimelInForce=0 60-TransactTime=20090220-14:25:35.036 150-ExecType=D 151-LeavesQty=100 378-ExecRestatementReason=3 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12</p>

### 3.8 Limit order partially filled [D1]

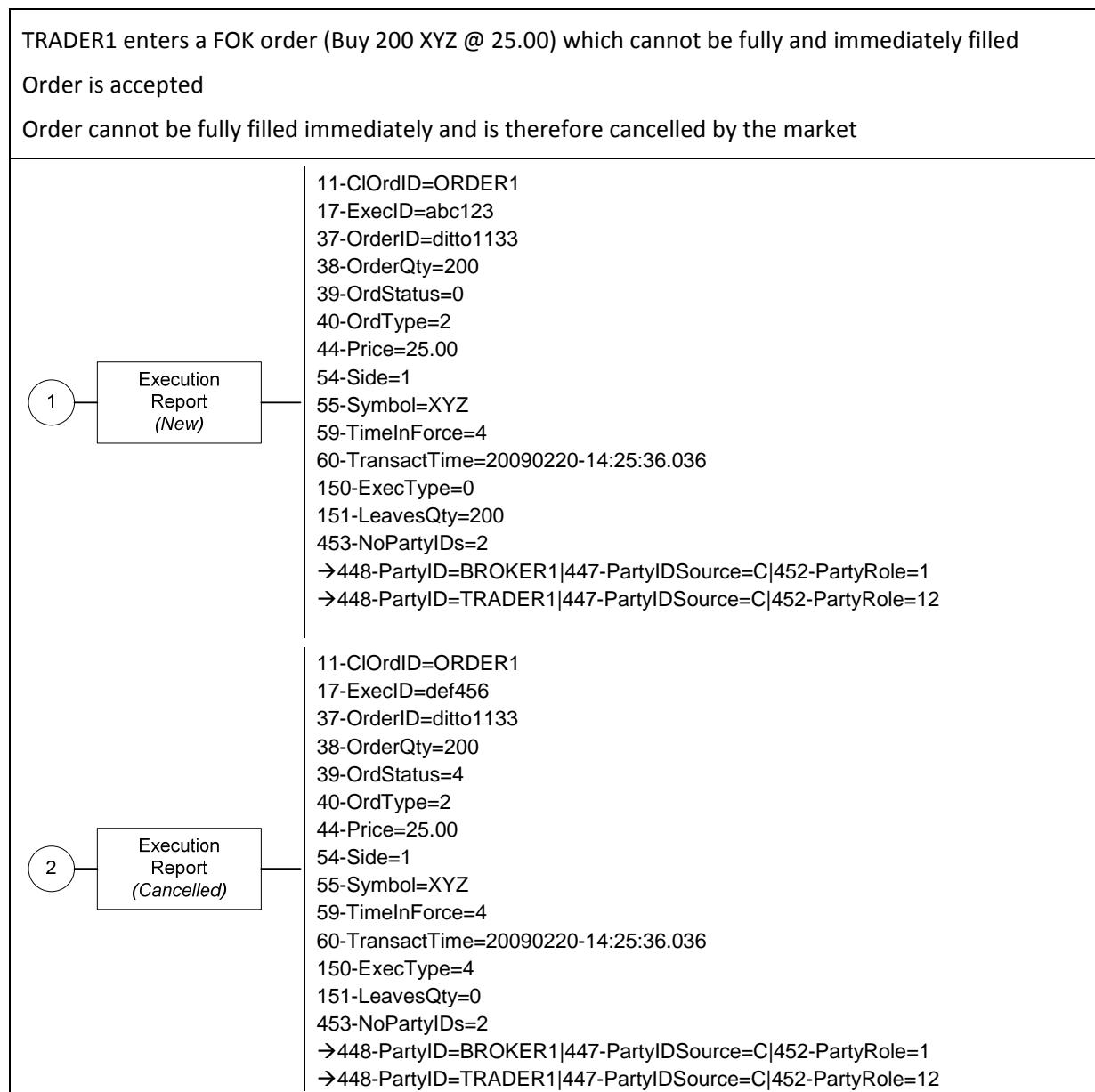
Figure 10: Limit Order Partially Filled



<sup>1</sup> Subsequent Execution Report for remaining volume of order that is booked is required if order with remaining volume is re-priced when booked (e.g. order was a better priced limit order)

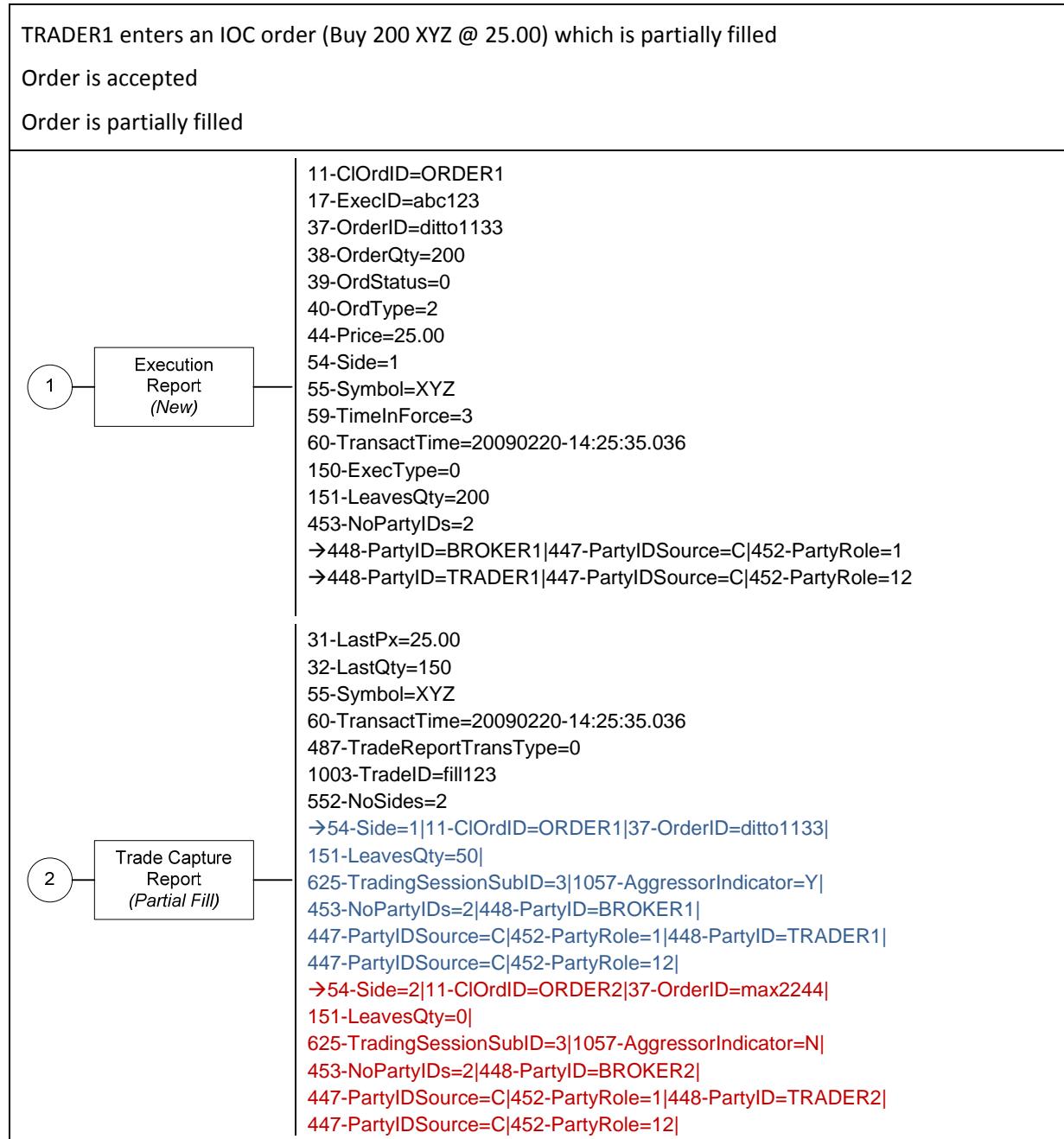
### 3.9 Fill or Kill (FOK) order received and cancelled [D1]

Figure 11: FOK Cancelled

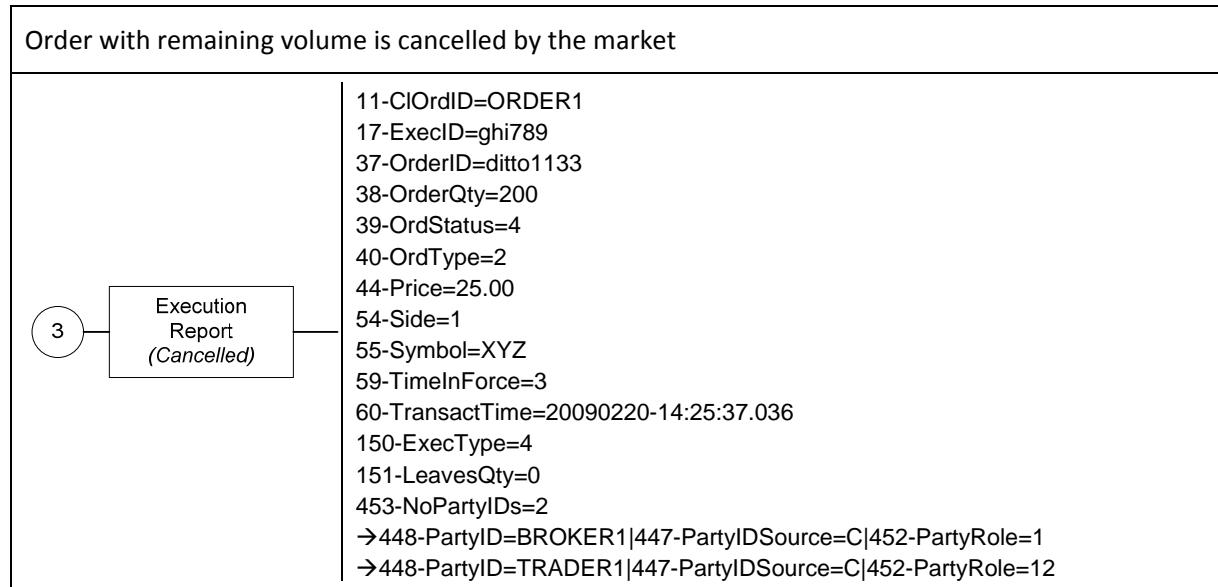


### 3.10 Immediate or Cancel (IOC) order partially filled [D1]

Figure 12: IOC Partially Filled

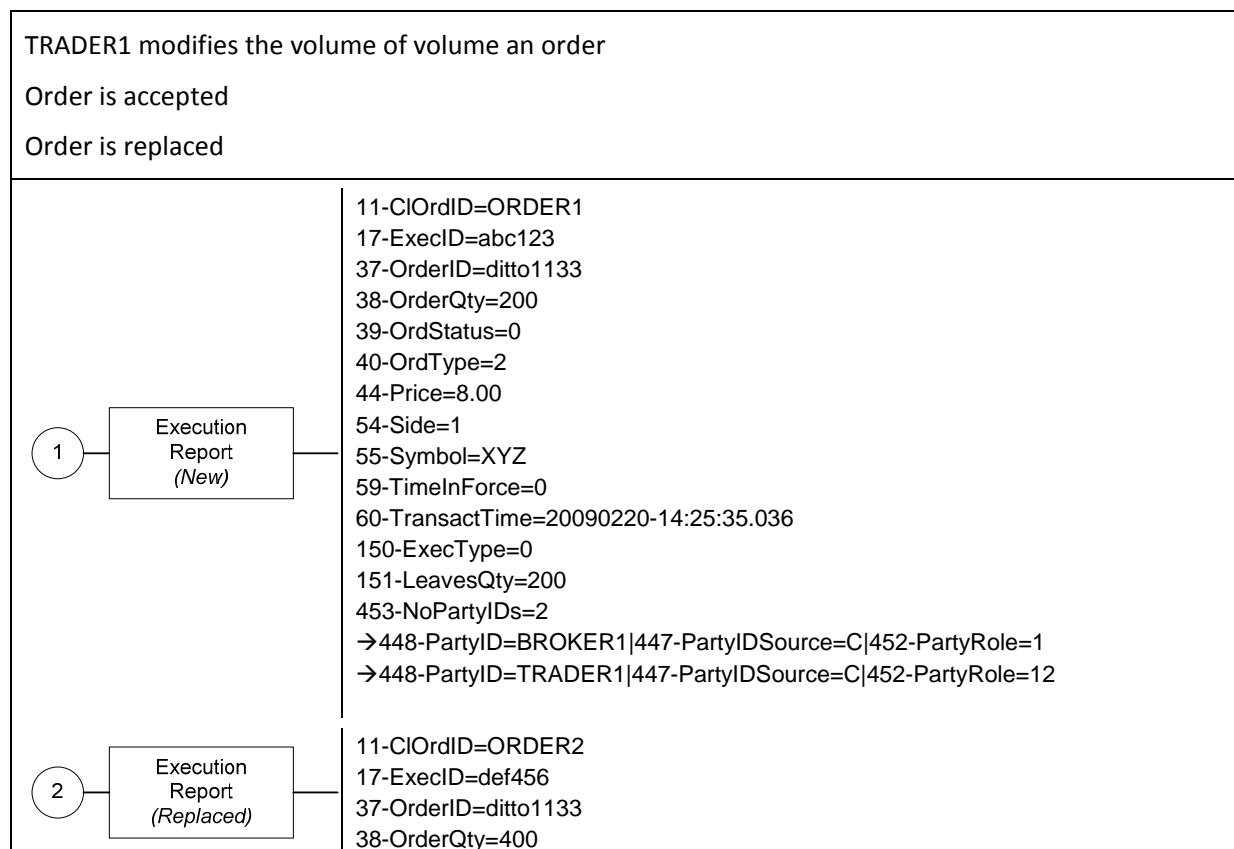


### 3.10 Immediate or Cancel (IOC) order partially filled (cont'd)



### 3.11 Order modification (Static OrderID) [D1]

Figure 13: Order Modification (Static OrderID)



39-OrdStatus=0 40-OrdType=2 41-OrigClOrdID=ORDER1 44-Price=8.00 54-Side=1 55-Symbol=XYZ 59-TimelInForce=0 60-TransactTime=20090220-14:47:35.036 150-ExecType=5 151-LeavesQty=400 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12
--

### 3.12 Order modification (Dynamic OrderID) – Settlement Date [RFU]

Figure 14: Order Modification (Dynamic OrderID)

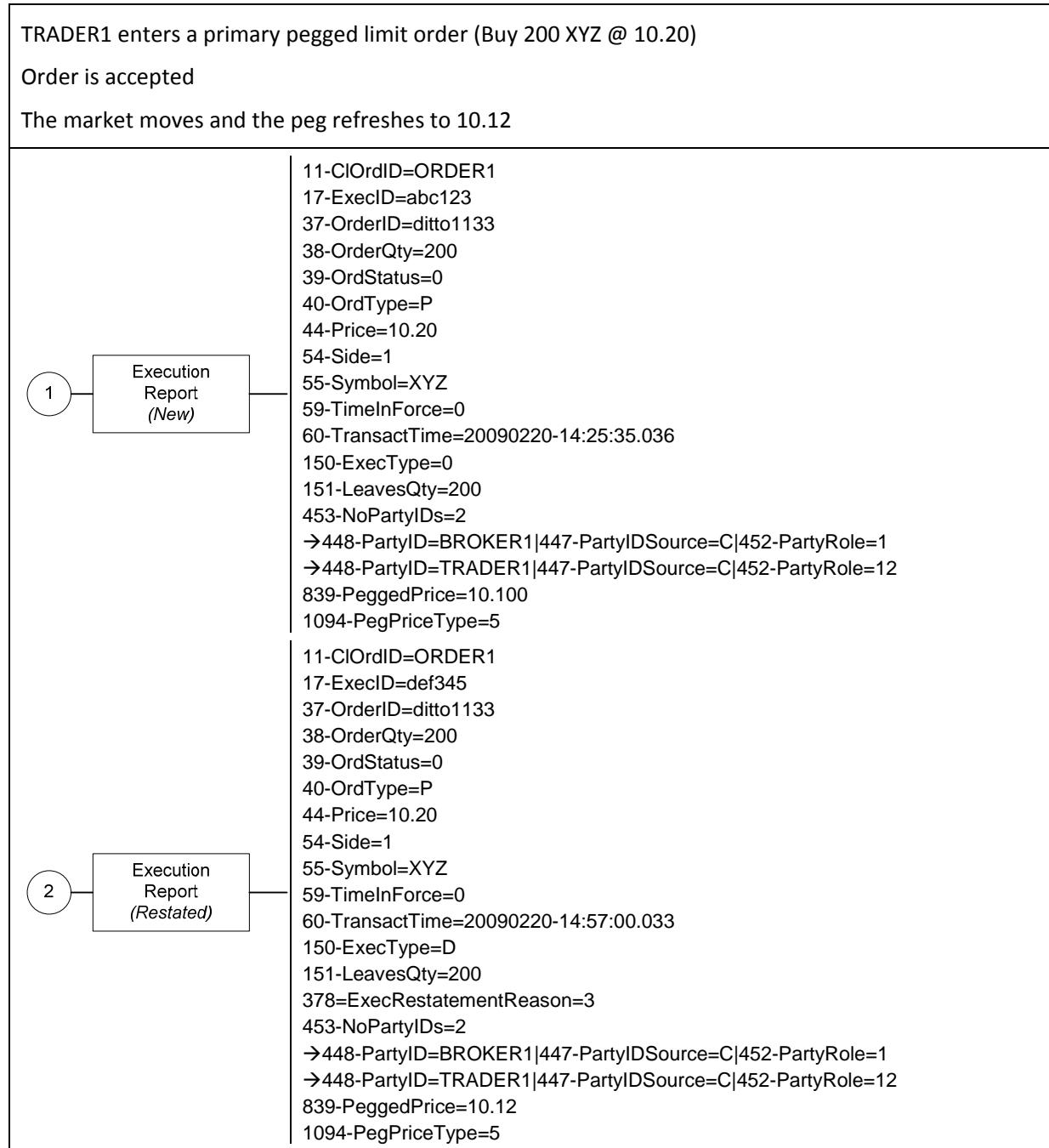
TRADER1 modifies the order to same day settlement Order is accepted Original order is cancelled by the market	
 <b>Execution Report (New)</b>	11-CIOrdID=ORDER1 17-ExecID=abc123 37-OrderID=ditto1133 38-OrderQty=200 39-OrdStatus=0 40-OrdType=2 44-Price=8.00 54-Side=1 55-Symbol=XYZ 59-TimelInForce=0 60-TransactTime=20090220-14:30:35.000 150-ExecType=0 151-LeavesQty=200 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12
 <b>Execution Report (Cancelled)</b>	11-CIOrdID=ORDER1 17-ExecID=def456 37-OrderID=ditto1133 38-OrderQty=200 39-OrdStatus=4 40-OrdType=2 44-Price=8.00 54-Side=1 55-Symbol=XYZ 59-TimelInForce=0 60-TransactTime=20090220-14:47:35.036 150-ExecType=4 151-LeavesQty=200 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12

### 3.12 Order modification (Dynamic OrderID) – Settlement Date [D1]

New order is generated with OrigClOrdID (41) provided on the Execution Report	
<p>3</p> <p>Execution Report (New)</p>	<p>11-CIOrgID=ORDER2 17-ExecID=ghi789 37-OrderID=ditto2244 38-OrderQty=200 39-OrdStatus=0 40-OrdType=2 41-OrigClOrdID=ORDER1 44-Price=8.00 54-Side=1 55-Symbol=XYZ 59-TimelInForce=0 60-TransactTime=20090220-14:48:35.036 150-ExecType=0 151-LeavesQty=200 453-NoPartyIDs=2 →448-PartyID=BROKER1 447-PartyIDSource=C 452-PartyRole=1 →448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12</p>

### 3.13 Pegged order entered and pegged price refreshes [D1]

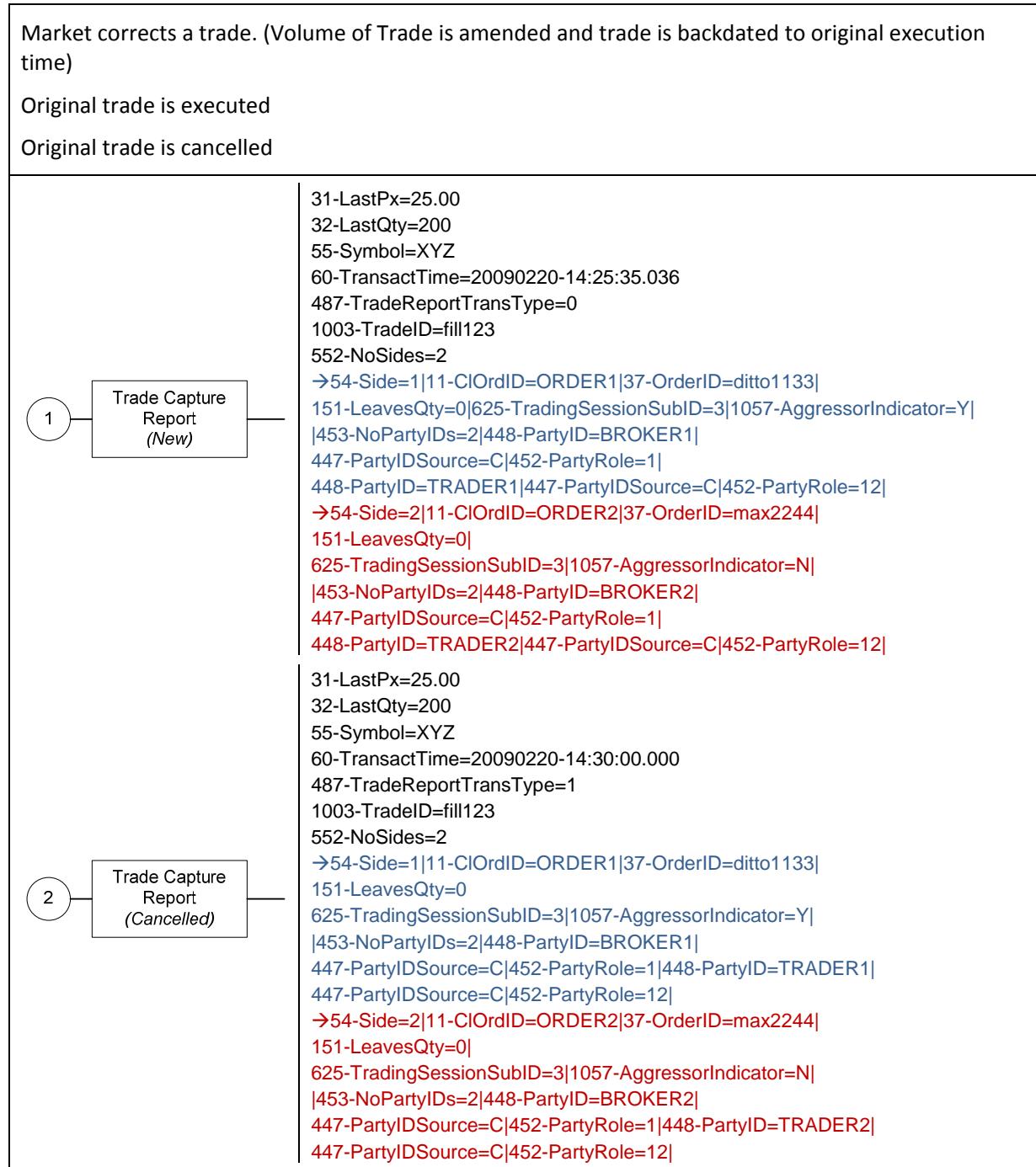
Figure 15: Pegged Order Refresh



**3.14**

## Trade correction [D1\_IMSS]

Figure 16: Manual Trade Correction



### 3.14 Trade Correction (cont'd)

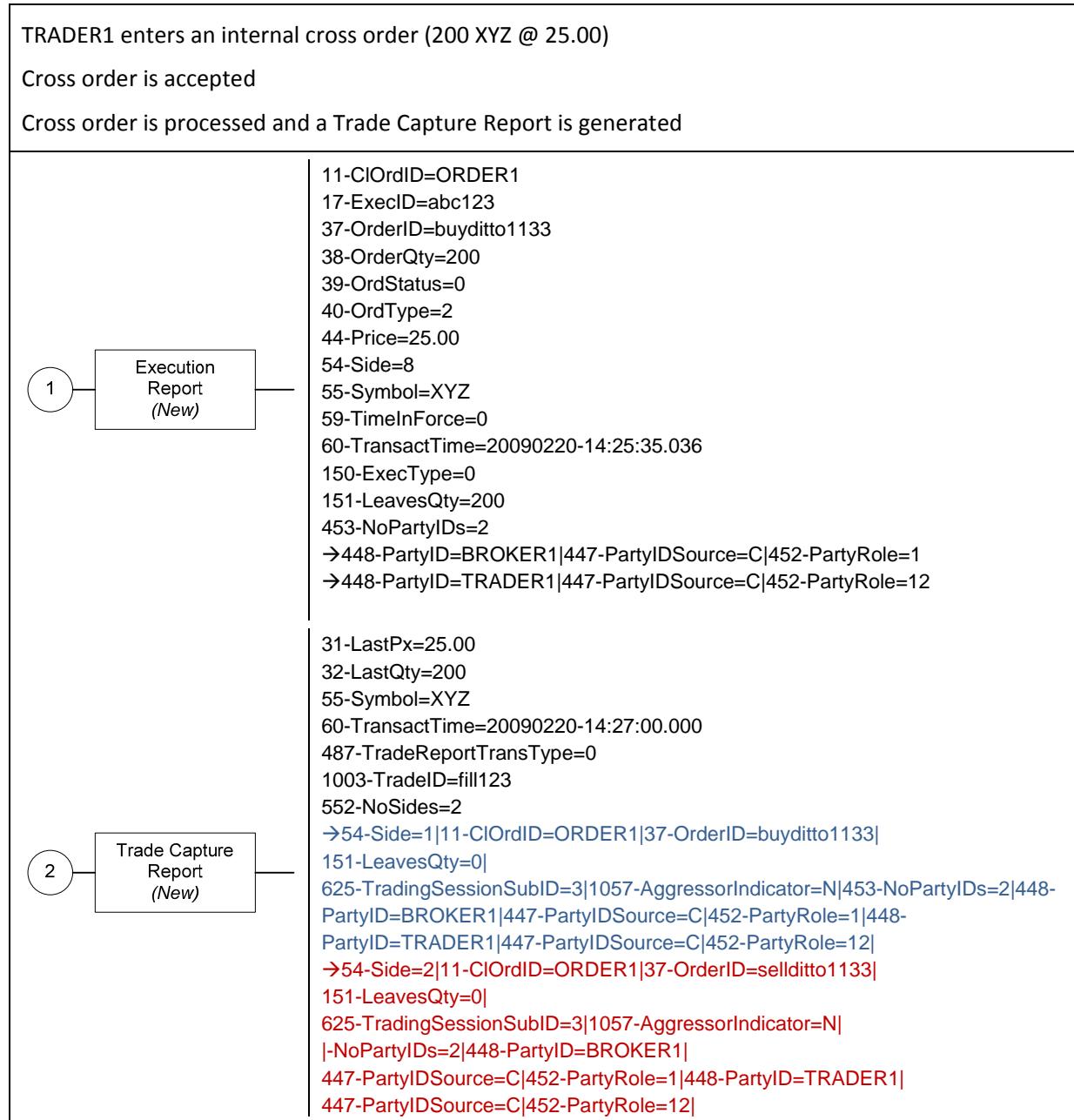
Market corrects a trade. (Volume of trade is amended and trade is backdated to original execution time)	
Original trade is corrected	
<p>3</p> <p>Trade Capture Report (Replaced)</p>	<p>31-LastPx=25.00 32-LastQty=300 55-Symbol=XYZ 60-TransactTime=20090220-14:30:65.238 487-TradeReportTransType=2 1003-TradeID=fill456 1126-OrigTradeID=fill123 768-NoTrdRegTS=1 →769-TrdRegTimestamp=20090220-14:25:35.036  →770-TrdRegTimestampType=1 552-NoSides=2 →54-Side=1 11-CIOrdID=ORDER1 37-OrderID=ditto1133  151-LeavesQty=0  625-TradingSessionSubID=3 1057-AggressorIndicator=Y  453-NoPartyIDs=2 448-PartyID=BROKER1  447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER1  447-PartyIDSource=C 452-PartyRole=12  →54-Side=2 11-CIOrdID=ORDER2 37-OrderID=max2244  151-LeavesQty=0  625-TradingSessionSubID=3 1057-AggressorIndicator=N   453-NoPartyIDs=2 448-PartyID=BROKER2  447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER2  447-PartyIDSource=C 452-PartyRole=12 </p>

### 3.15 Trade cancellation [D1]

	<p>Market cancels a trade.</p> <p>Original trade is executed</p> <p>Trade is cancelled</p>
1	<pre> 31-LastPx=25.00 32-LastQty=200 55-Symbol=XYZ 60-TransactTime=20090220-14:25:35.036 487-TradeReportTransType=0 1003-TradeID=fill123 552-NoSides=2 →54-Side=1 11-CIOrdID=ORDER1 37-OrderID=ditto1133  151-LeavesQty=0 625- TradingSessionSubID=3 1057-AggressorIndicator=Y   453-NoPartyIDs=2 448-PartyID=BROKER1  447-PartyIDSource=C 452-PartyRole=1  448-PartyID=TRADER1 447-PartyIDSource=C 452-PartyRole=12  →54-Side=2 11-CIOrdID=ORDER2 37-OrderID=max2244  151-LeavesQty=0  625-TradingSessionSubID=3 1057-AggressorIndicator=N   453-NoPartyIDs=2 448-PartyID=BROKER2  447-PartyIDSource=C 452-PartyRole=1  448-PartyID=TRADER2 447-PartyIDSource=C 452-PartyRole=12  </pre>
2	<pre> 31-LastPx=25.00 32-LastQty=200 55-Symbol=XYZ 60-TransactTime=20090220-14:30:00.000 487-TradeReportTransType=1 1003-TradeID=fill123 552-NoSides=2 →54-Side=1 11-CIOrdID=ORDER1 37-OrderID=ditto1133  151-LeavesQty=0  625-TradingSessionSubID=3 1057-AggressorIndicator=Y   453-NoPartyIDs=2 448-PartyID=BROKER1  447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER1  447-PartyIDSource=C 452-PartyRole=12  →54-Side=2 11-CIOrdID=ORDER2 37-OrderID=max2244  151-LeavesQty=0  625-TradingSessionSubID=3 1057-AggressorIndicator=N   453-NoPartyIDs=2 448-PartyID=BROKER2  447-PartyIDSource=C 452-PartyRole=1 448-PartyID=TRADER2  447-PartyIDSource=C 452-PartyRole=12  </pre>

### 3.16 Internal cross order [D1\_IMSS]

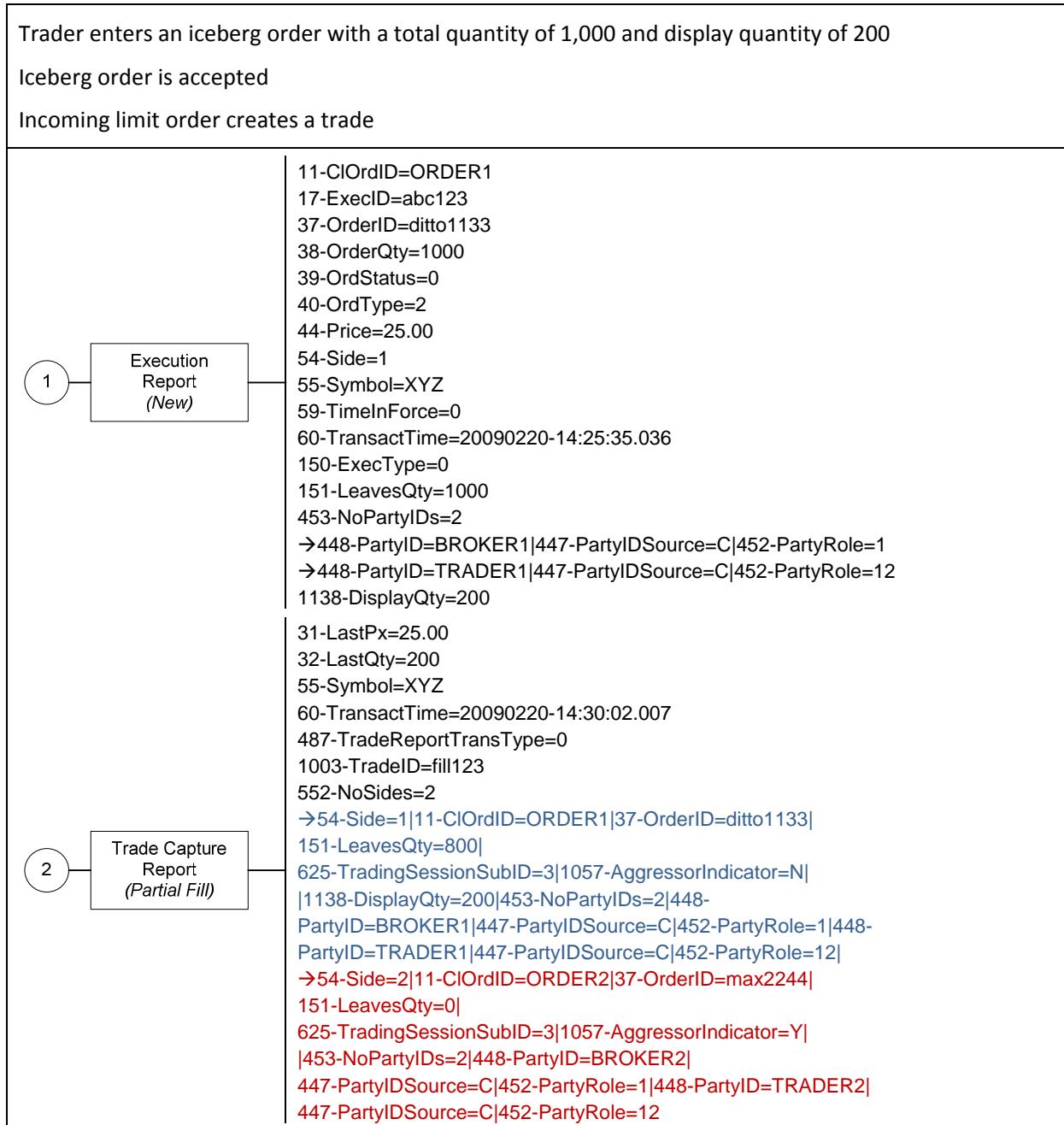
Figure 17: Cross Order (No Interference)



**3.17**

### Passive iceberg order executes with incoming limit order [D1]

Figure 18: Passive iceberg order partially fills



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