

# FIX Messages Requirements Trading and Drop Copy HiMTF - Certificates

*Version 1.23*

*Highly Confidential*





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## HISTORY OF CHANGES

Version	Date	Description
1.0	06/2020	<ul style="list-style-type: none"> <li>Initial version</li> </ul>
1.1	07/2020	<ul style="list-style-type: none"> <li>Added custom tag 4003 to message 8</li> <li>Added custom tag 5002 to message AI</li> </ul>
1.2	10/2020	<ul style="list-style-type: none"> <li>Message S - tag 423: removed value 9</li> <li>Message AI - tag 297 removed values 10 and 17 – tag 528: removed value I</li> <li>Message 8 – tag 423 removed values 6 and 9 – removed tag 693, 117, 19</li> <li>Corrected description of tag 60 and 52</li> </ul>
1.3	23/10/2020	<ul style="list-style-type: none"> <li>Message f: added value "MLQ" to tag 336</li> </ul>
1.4	11/2020	<ul style="list-style-type: none"> <li>Message D: removed tag 111 as iceberg orders are not managed in the Certificates segment</li> </ul>
1.5	03/2021	<ul style="list-style-type: none"> <li>Message S: tag 528 and 529 added</li> </ul>
1.6	04/2021	<ul style="list-style-type: none"> <li>Execution Report (Type 8): tag 19 added</li> </ul>
1.7	05/2021	<ul style="list-style-type: none"> <li>Added value 17 to tag 297</li> </ul>
1.8	05/2021	<ul style="list-style-type: none"> <li>Removed tag 19 from RegulatoryTradeIDGrp group</li> </ul>
1.9	12/2021	<ul style="list-style-type: none"> <li>Added "MGT" = Management to tag 336</li> </ul>
1.10	02/2022	<ul style="list-style-type: none"> <li>Tag 4003, Tag 4004, and Tag 4005 added to SecurityDefinition (Type d)</li> <li>Tag 59 in NewOrder (Type D): value 6 added</li> <li>Tag 432 and Tag 126 added to NewOrder (Type D)</li> </ul>
1.11	03/2022	<ul style="list-style-type: none"> <li>In Security Definition (type d): Amended TradingStartTime (from tag 4003 to tag 4004); TradingStopTime (from tag 4004 to 4005); ESG (from tag 4005 to 4006)</li> </ul>
1.12	04/2022	<ul style="list-style-type: none"> <li>In NewOrder (Type D): amended descriptions for ExpireTime(126) and ExpireDate (432) tags</li> <li>In CancelReplace (Type G): added ExpireTime(126) and ExpireDate (432) tags</li> <li>In ExecutionReport (Type 8): added ExpireTime(126), ExpireDate (432) tags</li> </ul>
1.13	05/2022	<ul style="list-style-type: none"> <li>In Quote (Type S): the Component Block &lt;Parties&gt; was replaced</li> <li>In Quote (Type S): 528 tag, G is the only admitted value</li> <li>In Quote (Type S): 529 tag becomes mandatory</li> <li>In Quote (Type S): 647 and 648 tags become mandatory</li> <li>In Quote Status Report (AI): 647 and 648 tags become mandatory</li> </ul>
1.14	06/2022	<ul style="list-style-type: none"> <li>In Quote (S): ExchangeQuoteID (5001) tag was added</li> <li>In Quote (S): BidPx (132), OfferPx (133), BidSize (134) and OfferSize (135) tags switched to Req = Y</li> <li>In Quote Status Report (AI): 453, 448, 447, and 452 tags were removed and replaced by Component Block&lt;Parties&gt;</li> </ul>

		<ul style="list-style-type: none"> <li>In Quote Status Report (AI): Side (54) tag is removed</li> <li>In Quote Status Report (AI): BidPx (132), OfferPx (133), BidSize (134), and OfferSize (135) tags switched to Req = Y. The condition "Present only if Side = x" was removed</li> <li>In Quote Status Report (AI): In MinBidSize (647) and MinOfferSize (648) tags, the condition "Present only if Side = x" was removed</li> <li>In Execution Report (8): TrdType (828) tag was removed</li> <li>In Execution Report (8): NoTradePriceConditions (1838) and TradePriceCondition (1839) were removed</li> <li>In Execution Report (8): TradePriceCondition (1430) tag was added</li> </ul>
1.15	07/2022	<ul style="list-style-type: none"> <li>New Order (Type D):</li> <li>tag 423: Percentage is the only admitted value</li> <li>tag 2594 and 2595 removed and replaced by Component Block &lt;OrderAttributeGrp&gt;</li> <li>Order Cancel (Type F) / Cancel/Replace (Type G): tag 167 removed</li> <li>Edit Quote: new description</li> <li>Cancel Quote section replaced by Suspend Quote section</li> <li>Quote (Type S): Zero as an allowed value for 647 and 648 tags</li> <li>QuoteStatus Report (Type AI): Zero as an allowed value for 647 and 648 tags</li> <li>Execution Report (Type 8):</li> <li>Tag 1430 replace by TradePriceConditionGrp block</li> <li>Tag 2594 and 2595 added</li> <li>Market Data - Snapshot / Full Refresh Sent following every Trade: tag 262 always "dummyid"</li> </ul>
1.16	08/2022	<ul style="list-style-type: none"> <li>New "Z" value for the Trading Application Level Message</li> <li>New Cancel Single Quote section in Quote Workflow</li> <li>New introduction for Quote Status Report (AI) section</li> <li>New Quote Cancel (Z) section</li> <li>Tag 1430 – TradePriceCondition in Execution Report (Type 8) was replaced by tag 1430 – VenueType</li> </ul>
1.17	08/2022	<ul style="list-style-type: none"> <li>New tag 311 in Security Definition (type d)</li> <li>New Introduction for Quote Status Report (AI)</li> </ul>
1.18	08/2022	<ul style="list-style-type: none"> <li>Tag 1166 added to Quote Cancel (35=Z) message</li> <li>Tag 1166 added to QuoteStatusReport (35=AI) message</li> </ul>
1.19	12/2022	<ul style="list-style-type: none"> <li>Tag 271: description changed in "Total volume (quantity) traded" when MDEntryType=5</li> </ul>
1.20	12/2022	<ul style="list-style-type: none"> <li>Tag 11 added to Business Message Reject (j)</li> </ul>
1.21	12/2022	<ul style="list-style-type: none"> <li>Cancel All Quotes (Panic Action) section added in Quote workflow</li> <li>Quote Cancel (Z) section: header renamed</li> <li>Quote Cancel (Z) for Mass Quote Cancellation: new section added</li> <li>Mass Quote Acknowledgement (35=b): new section added</li> <li>Quote Status Report (AI): field 1166 amended</li> </ul>
1.22	01/2023	<ul style="list-style-type: none"> <li>Tag 35: Quote Cancel value added</li> <li>Tag 52: format for trading session added</li> </ul>

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1.23	05/2023	<ul style="list-style-type: none"><li>Fix Versions section: table added</li></ul>
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## 1 STATEMENT OF NON-DISCLOSURE

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All the information contained in this document is proprietary and confidential, and is for the exclusive internal use of the recipient of this document.

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## 2 INTRODUCTION

### 2.1 FTX PLATFORM OVERVIEW

An FTX platform is a solution for running an electronic market: financial institutions who wish to create an MTF or regulated markets to improve the trading software.

Both types of platforms supports Government Bonds, Corporate Bonds, Equities, Certificates and Covered Warrant.

### 2.2 PURPOSE

This document describes the specifications for communicating with an MTF provided by HiMTF for Certificates negotiation via FIX protocol. FIX ("Financial Information eXchange Protocol") is a messaging standard developed specifically for the real-time electronic exchange of securities transactions.

It is a public-domain specification owned and maintained by FIX Protocol, Ltd. More information about the FIX protocol may be found at <http://www.fixprotocol.org>.

Clients can submit orders, quotes and RFQs on an FTX platform with a standardized method via FIX.

This document covers the FIX messages and fields that are supported by an FTX platform, describing the message flows and the requirements for integrating with an FTX platform using FIX. When there are no specifications, clients should refer to the standard FIX protocol.

FTX platform ignores any tags that are not specified in this document (i.e. FTX platform does not manage these tags) whenever such tags are in the header of the messages or in the messages itself.

### 2.3 FIX VERSIONS

The FIX versions managed depend on the type of message as shown in the table below.

Type of Message	Version 4.4	Version 5
New Order	✓	✓
Order Cancel / Cancel/Replace	✓	✓
Order Cancel Reject	✓	✓
Quote	✓	✓
Quote Status Report	✓	✓
Quote Cancel	✓	✓

Mass Quote Acknowledgement	✓	✓
Execution Report	✓	✓
Security Definition Request	✓	✗
Security Status Request	✓	✗
Market Data Request	✓	✗
Security Definition	✓	✗
Security Status	✓	✗
Market Data – Snapshot/Full Refresh	✓	✗

The transactions sent with versions lower than 4.4 are rejected.

## 2.4 FIX SESSION

An FTX platform provides three FIX session types:

- Trading: standard users' trading
- Drop Copy: users who are allowed to receive all messages related to the member they belong to
- Deal Capture: users who are allowed to receive all trades related to the member they belong to.

Market reference data are available through a dedicated fix session.

This document only describes Trading and Drop Copy sessions. The Deal Capture session is described in the *FTX-FIX\_Messages\_Requirements\_DealCapture.pdf* document.

## 2.5 DOCUMENT CONVENTIONS

Each message is represented as a table, where each row is a message field or component block. The following characteristics are described for each field:

- **Tag:** unique field identifier
- **Field Name:** field name
- **Content:** list of the valid values and additional information
- **Data Type:** field type
- **Req:** indicates whether the field is required or not in appropriate message or component block. The possible values are:
  - **'Y':** tag is required (mandatory)
  - **'N':** tag is not required (optional)

- 'C': tag is conditionally required

## 3 SESSION MESSAGES

The following sections outline the standard tags used in the supported message types.

The following convention is used in this document to indicate message direction:

- **In:** a message sent to the FTX platform
- **Out:** a message sent by the FTX platform
- **In/Out:** a message that can be sent to or from the FTX platform

The session messages are the following:

- **Message In:** Logon, Logout, Test Request, Heartbeat, Resend Request and Sequence Reset
- **Message Out:** Logon, Logout, Test Request, Heartbeat, Session Reject.

### 3.1 STANDARD HEADER

All messages contain a standard set of header fields, described below.

Tag	Field Name	Req	Comments
8	BeginString	Y	Always the first field of the message and set to: FIX 4.4
9	BodyLength	Y	Message length in bytes. Always the second field of the message
35	MsgType	Y	Message type. Always the third field of the message. <ul style="list-style-type: none"> <li>• j = Business Message Reject</li> <li>• D = NewOrderSingle</li> <li>• F = OrderCancelRequest</li> <li>• G = OrderCancelReplaceRequest</li> <li>• 9 = OrderCancelReject</li> <li>• S = Quote</li> <li>• AI = Quote Status Report</li> <li>• Z = Quote Cancel</li> <li>• 8 = Execution Report</li> <li>• c = Security Definition Request</li> <li>• e = Security Status Request</li> <li>• V = market Data Request</li> <li>• d = Security Definition</li> <li>• f = Security Status</li> <li>• W = Market Data – Snapshot / Full Refresh</li> </ul>
34	MsgSeqNum	Y	Message sequence number
49	SenderCompID	Y	Assigned value used to identify message sender

115	OnBehalfOfCompID	N	Sender Member ID
56	TargetCompID	Y	TargetCompID For incoming orders
52	SendingTime	Y	Time of message transmission. Format: YYYYMMDD-hh:mm:ss.mmm  Format for Trading sessions: YYYYMMDD-hh:mm:ss.mmmμμμ
43	PossDupFlag	N	Indicates possible retransmission of message with this sequence number. <ul style="list-style-type: none"><li>N = Original transmission</li><li>Y = Possible duplicate</li></ul> Not Applicable for Market Data Messages.
97	PossResend	N	Indicates that the message may contain information that has been sent under another sequence number. <ul style="list-style-type: none"><li>N = Original transmission</li><li>Y = Possible resend.</li></ul> Not Applicable for Market Data Messages.

## 3.2 STANDARD TRAILER

All messages contain a standard trailer field, described below.

Tag	Field Name	Req	Comments
10	Checksum	Y	Per FIX Specification

## 3.3 LOGON (IN)

This message is sent to initiate a FIX session to the FTX Platform. The Logon message establishes the communication session, authenticates the client connecting, and initializes the message sequence number.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = A
98	EncryptMethod	Y	Method of encryption
108	HeartBtInt	Y	Heartbeat interval (seconds)
141	ResetSeqNumFlag		Indicates that both sides of the FIX session should reset sequence numbers.

553	Username	Y	The username must be set as follows: operator@member
554	Password		Password
	Standard Trailer	Y	

### 3.4 HEARTBEAT (IN/OUT)

This message sent by The FTX Platform during periods of application inactivity to ensure connection validity. The receiving party should always respond with a heartbeat message.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = 0
112	TestReqID		Identifier included in Test Request message to be returned in resulting Heartbeat
	Standard Trailer	Y	

### 3.5 RESEND REQUEST (IN/OUT)

It is a request that certain messages be resent. Often used when gaps detected in the sequence numbering, when a message is lost, or during the initialization process.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = 2
7	BeginSeqNo	Y	Message sequence number of first message in range to be resent
16	EndSeqNo	Y	Message sequence number of last message in range to be resent. If request is for a single message BeginSeqNo (7) = EndSeqNo. If request is for all messages subsequent to a particular message, EndSeqNo = "0" (representing infinity)
	Standard Trailer	Y	

### 3.6 SEQUENCE RESET

This message is used to skip administrative messages on resend and to reset sequence on client request.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = 4

123	GapFillFlag	N	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent. <ul style="list-style-type: none"> <li>Y = Gap Fill message, MsgSeqNum field valid</li> <li>N = Sequence Reset, ignore MsgSeqNum</li> </ul>
36	NewSeqNo	Y	New sequence number
	Standard Trailer	Y	

### 3.7 TEST REQUEST (IN/OUT)

This message is used to verify session connectivity and to synchronize sequence numbers. The receiving party should always respond with a heartbeat message.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = 1
112	TestReqID	Y	Identifier included in Test Request message to be returned in resulting Heartbeat
	Standard Trailer	Y	

### 3.8 LOGOUT (IN)

This message signals the normal termination of a trading session. A session terminated without a Logout message will be considered an abnormal condition.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = 5
58	Text		MsgType tag 35 = 1
	Standard Trailer	Y	

## 4 DROP COPY APPLICATION MESSAGES

The Drop Copy solution allows the connected clients to receive a carbon copy of each eligible outgoing event immediately after it has been published for orders, quotes and request for quotes transactions.

In a Drop Copy session, initiators will not be able to send transactions but will only be able to receive the messages listed in the table below.

The messages are detailed in the Section 5.

Type	Name	Direction	Description
AI	Quote Status Report	OUT	Used as acknowledgement message to quote request, quote and quote response.  Quote Status Report status variation notified: <ul style="list-style-type: none"> <li>Quote Request accepted/rejected</li> <li>Quote accepted/rejected</li> <li>Quote Response accepted/rejected</li> </ul>
8	Execution Report	OUT	Used to convey order status information and Execution information.  Execution reports status variation notified: <ol style="list-style-type: none"> <li>Order accepted</li> <li>Order rejected</li> <li>Order or quote executed</li> <li>Order expired</li> <li>Order cancelled</li> <li>Order cancel/replaced</li> <li>Trade cancellation</li> <li>Order status</li> </ol>

## 5 TRADING APPLICATION LEVEL MESSAGES

The following application level messages are currently supported.

Type	Name	Direction	Description
j	Business Message Reject	IN	Used to reject application-level message under certain conditions
8	Execution Report	OUT	Used to convey order status information and Execution information
9	Order Cancel Reject	OUT	Used to reject a Cancel request or Cancel/replace request message that cannot be fulfilled
D	New Order	IN	Used to submit a new order
F	Order Cancel Request	IN	Used to request the cancellation of the whole remaining quantity of an existing order
G	Order Cancel/Replace	IN	Used to change the parameters of an existing order
S	Quote	IN	Used to submit a quote
AI	Quote Status Report	OUT	Used either to acknowledge a Quote
Z	Quote Cancel	IN	Used to remove one quote or all quotes from the market

## 5.1 BUSINESS MESSAGE REJECT (j)

This message is used by the system to reject application-level message, which fulfills session-level rules but does not fulfill business rules that access FIX recognizes before forwarding it to the market.

Tag	Field Name	Req	Comments
	Standard Header	Y	MsgType tag 35 = j
45	RefSeqNum	N	MsgSeqNum <34> of rejected message
372	RefMsgType	Y	The MsgType <35> of the FIX message being referenced.
379	BusinessRejectRefID	N	The value of the business-level 'ID' field on the message being referenced. Required unless the corresponding ID field (see list above) was not specified.
380	BusinessRejectReason	Y	Code to identify reason for a Business Message Reject <j> message.
58	Text	N	Where possible, message to explain reason for rejection
354	EncodedTextLen	N	Must be set if EncodedText <355> field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text <58> field in the encoded format specified via the MessageEncoding <347> field.
11	ClOrdID	N	Unique Identifier assigned by the client
	Standard Trailer	Y	

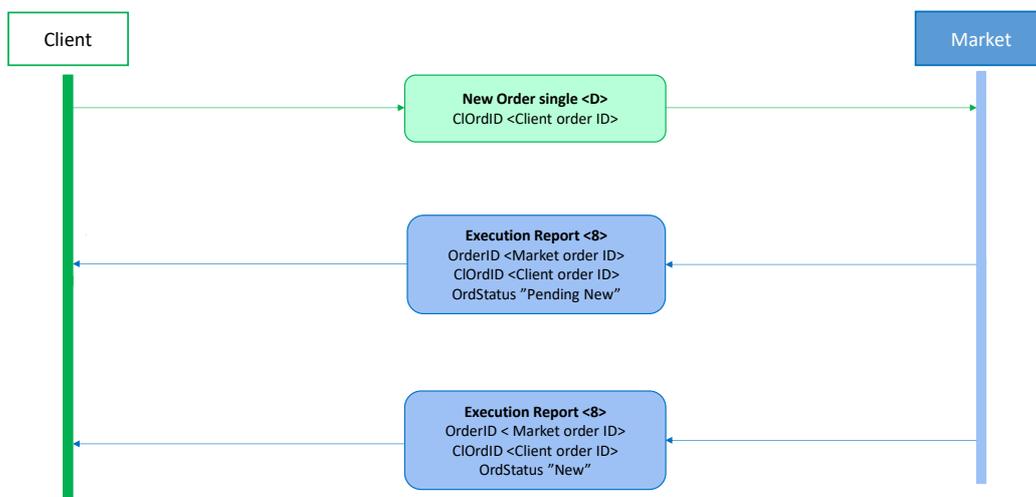
## 5.2 ORDER ENTRY

This subsection details the workflows and the messages for the order negotiations. The FTX platform is called Market in the following schemas.

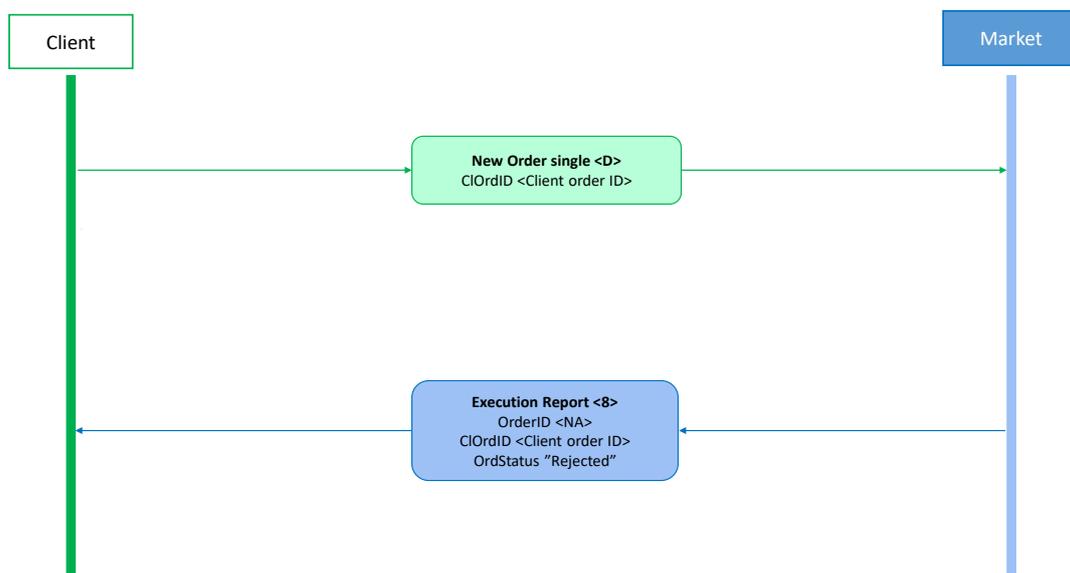
### 5.2.1 Order workflow

#### New Order

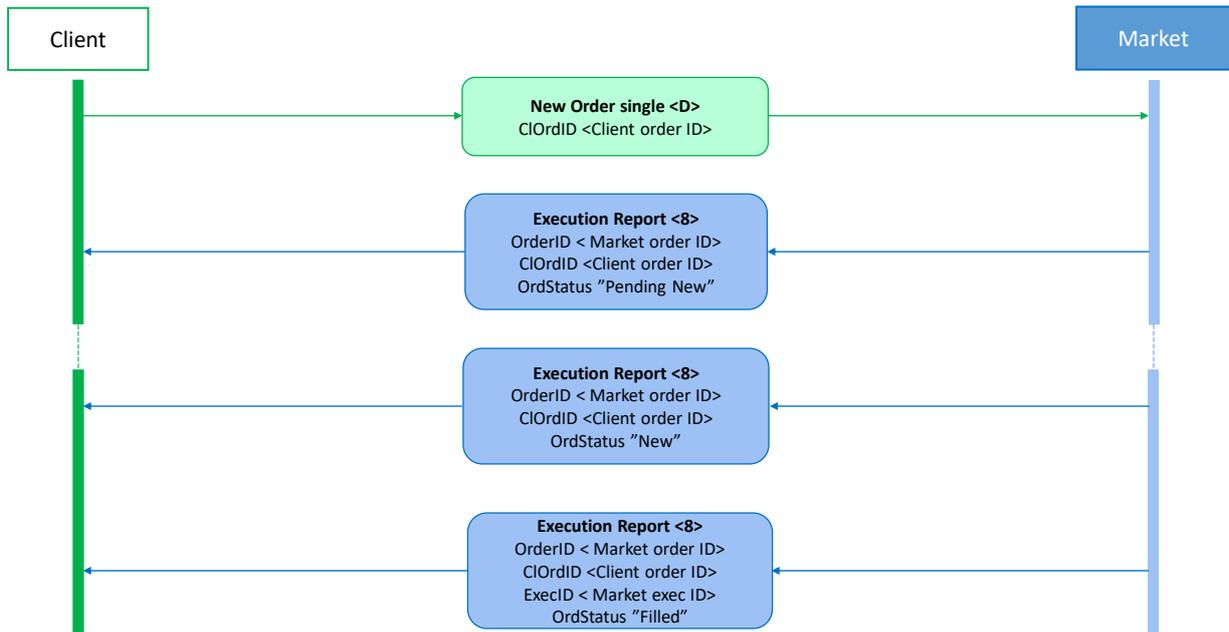
The client sends a new order. The order is accepted.



The client sends a new order. The order is rejected.

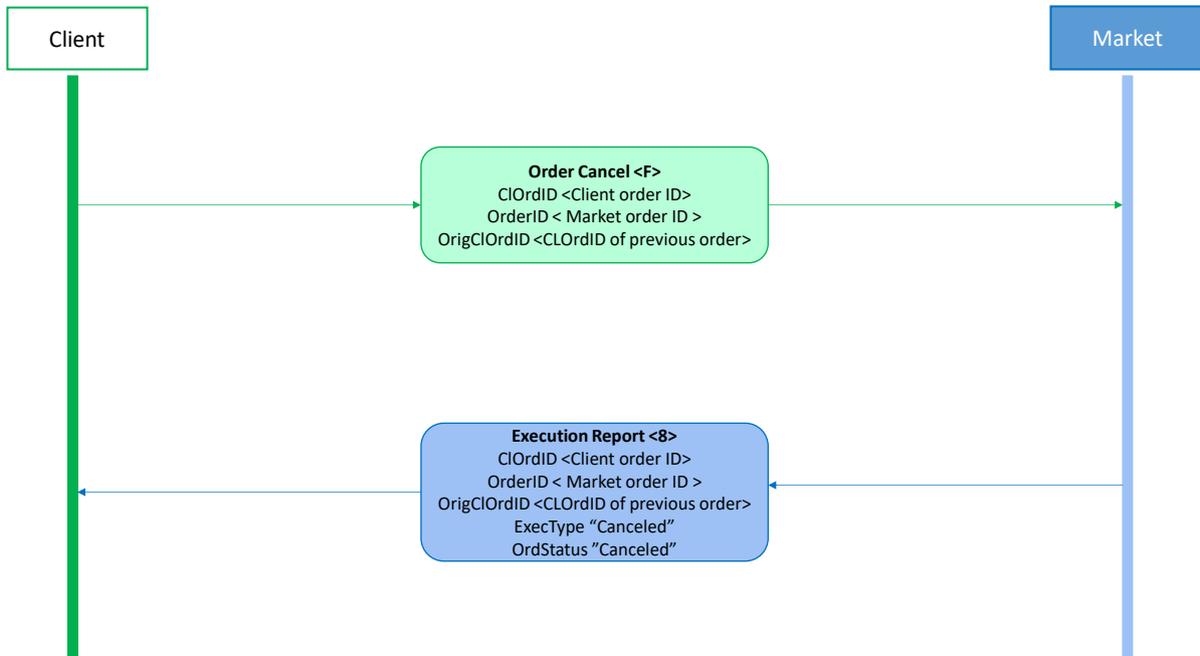


The client sends a new order. The order is accepted. A trade is made.

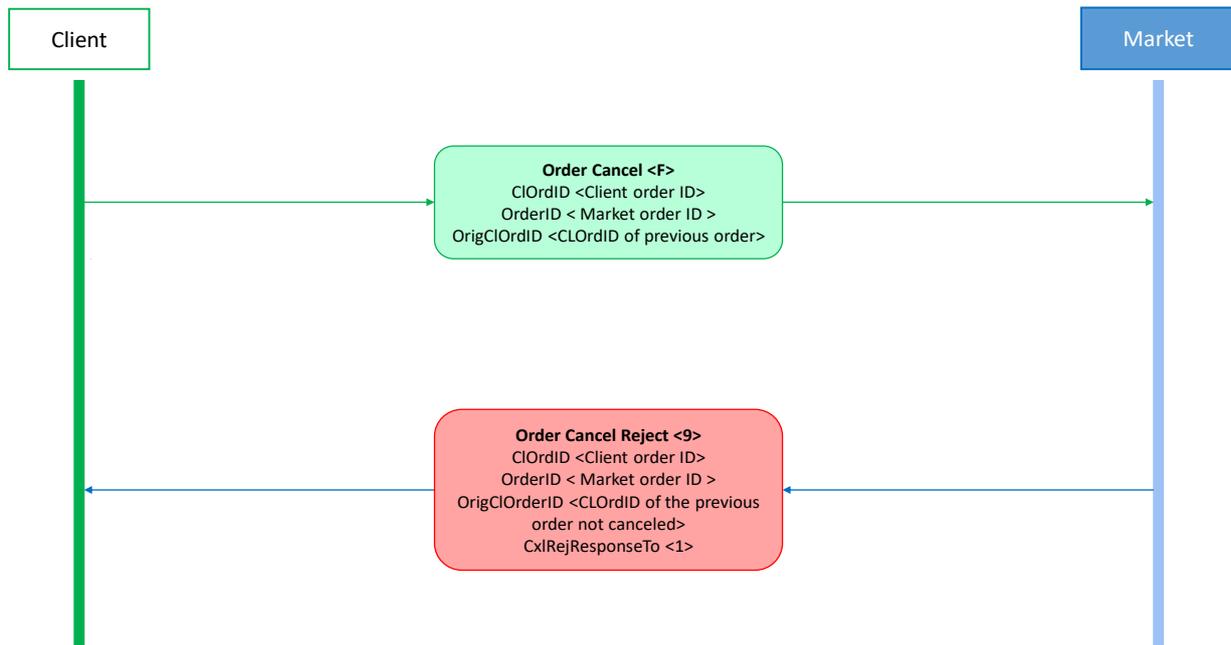


### Order Cancel (Type F) Workflow

The client cancels an existing order. The order is cancelled.

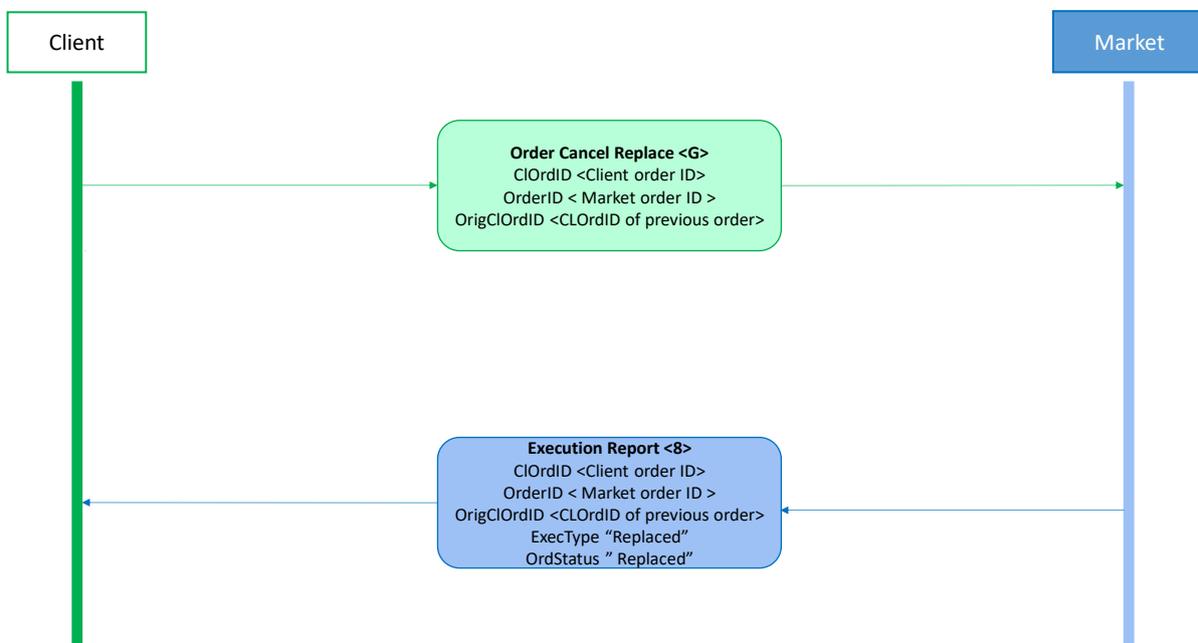


The client cancels an existing order. The cancellation request is rejected.

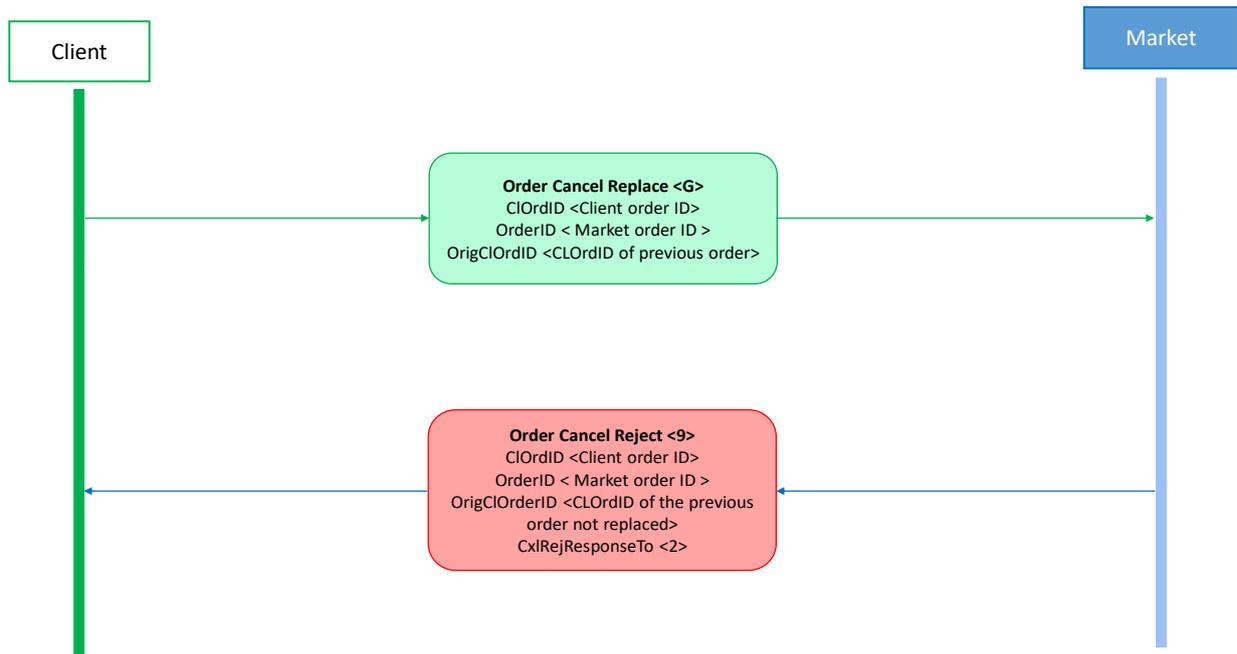


### Order Cancel/Replace (Type G) Workflow

The client edits an existing order. The order is edited.



The client edits an existing order. The order edit request is rejected.



## 5.2.2 New Order (Type D)

Initiation of a new order by the client.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
<Standard Header>		MsgType <35> = D		Y
11	COrdID	Unique identifier assigned by the client	String (32)	Y
40	OrdType	Valid values: <ul style="list-style-type: none"> <li>2 = LIMIT</li> <li>K = MARKET_WITH_LEFTOVER_AS_LIMIT</li> </ul>	Char	Y
54	Side	Valid values: <ul style="list-style-type: none"> <li>1 = Buy</li> <li>2 = Sell</li> </ul>	Char	Y
100	ExDestination	Execution destination.	String (24)	Y

Component Block<Instrument>				
55	Symbol	Common representation of the security. SecurityID <48> value can be specified if no symbol exists or if the instrument has an ISIN code. Use "[N/A]" for products which do not have a symbol.	String (48)	Y
48	SecurityID	Security identifier value of SecurityIDSource (22) type, valid value ISIN. Requires SecurityIDSource (22).	String (12)	Y
22	SecurityIDSource	<ul style="list-style-type: none"> <li>4 = ISIN number</li> </ul>	String (1)	Y
End Component Block<Instrument>				
44	Price	Price per contract	Float	Y
423	PriceType	Code to represent the price type. Valid value: <ul style="list-style-type: none"> <li>1 = Percentage</li> </ul>	Char	N
15	Currency	Price currency	String (3)	N
Component Block<OrderQtyData <a href="#">javascript:expand_component('FinancingDetails');</a> >				
38	OrderQty	Number of contracts	Integer	Y
End Component Block<OrderQtyData <a href="#">javascript:expand_component('FinancingDetails');</a> >				
110	MinQty	Minimum quantity of an order to be executed.	Integer	N
1	Account	Account for which the contracts are to be bought or sold.	String (32)	N
59	TimeInForce	Valid values: <ul style="list-style-type: none"> <li>0 = Day</li> <li>3 = Immediate or Cancel (IOC)</li> <li>4 = Fill or Kill (FOK)</li> <li>6 = Good Till Date or Good Till Time</li> </ul>	Char	N
528	OrderCapacity	Valid values: <ul style="list-style-type: none"> <li>G = Proprietary</li> <li>I = Individual (Client)</li> </ul>	Char	Y
529	OrderRestrictions	Valid values: <ul style="list-style-type: none"> <li>5 = Acting as Market Maker or Specialist in the security. It can be used only if OrderCapacity is G (Proprietary)</li> </ul>	String (1)	N
58	Text	Free Text	String (64)	N

9215	LiqProvOnly	<p>This flag is used to indicate whether the order is related to any sort of liquidity provision activity, as defined under MiFID II.</p> <ul style="list-style-type: none"> <li>0 = Not Liquidity Provision (default)</li> <li>1 = Liquidity Provision</li> </ul>	Char	N
Component Block <Parties>				
453	NoPartyIDs	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.	Integer	N
->448	PartyID	<p>Party identifier/code. See PartyIDSource (447) and PartyRole (452).</p> <p><u>The PartyID can contain a generic string only if PartyRole = 3 (ClientID). In this case, PartyIDSource must be D (Custom Code). For the other values of PartyIDSource, the PartyID must contain a number (number 0,1,2,3 are currently reserved for NoClient, ALGO, PNAL and CLIENT).</u></p> <p>Note that if PartyRole = 3 or 5, the Party Identifier must be between 0 and 4294967295</p>	String (32)	N
->447	PartyIDSource	<p>Identifies class or source of the PartyID (448) value</p> <ul style="list-style-type: none"> <li>D = Proprietary/Custom code</li> <li>M = Algorithm Short Code</li> <li>N = Natural Person Short Code</li> </ul> <p>Requested for MiFID II requirements.</p>	Char	N
->452	PartyRole	<p>Identifies the type or role of the PartyID</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>3 = ClientID</li> <li>5 = Investor ID (the Investment Decision Maker)</li> <li>12 = Executing Trader (the Executing Decision Maker)</li> </ul>	Integer	N
End Component Block <Parties>				
60	TransactTime	<p>Time this order request was initiated/released by the trader, trading system, or intermediary.</p> <p>Timestamp with following format: YYYYMMDD-hh:mm:ss.µµµµµµ E.g.: 20200620-10:06:51.453765</p>	String (24)	Y
Component Block <OrderAttributeGrp>				
2593	NoOrderAttributes	Number of OrderAttributeType (2594) and OrderAttributeValue (2595) entries.	Integer	N
2594	OrderAttributeType	<p>Indicates if the order was sent to reduce risk in an objectively measurable way in accordance with Article 57 of Directive 2014/65/EU</p> <p>Only possible value: R</p>	Char	N
2595	OrderAttributeValue	<p>Mandatory if OrderAttributeType is specified.</p> <p>Only possible value: Y</p>	Char	N
End Component Block <TradePriceConditionGrp>				

		•		
432	ExpireDate	<p>Date the order expires which must be a future date.</p> <p>Required if TimelnForce (59) is GTD (6) and ExpireTime (126) is not specified.</p> <p>If the New Order message contained the ExpireDate (432), the server processes only the expire date and ignores ExpireTime (126) even if it is specified.</p> <p>The value specified fro this field will be ignored for non-GTD orders</p> <p>Format: YYYYMMDD</p>	String (8)	N
126	ExpireTime	<p>Time the order expires which must be a future time during the current trading day. Required if TimelnForce (59) is GTD (6).</p> <p>If the New Order message contained the ExpireTime (126), the server processes only the expire time and ignores ExpireDate (432) even if it is specified.</p> <p>The value specified for this field will be ignored for non-GTD orders.</p> <p>Format: YYYYMMDD-HH:MM:SS[.sss]. [sss] are optional.</p>	String (24)	N
<Standard Trailer>				Y

### 5.2.3 Order Cancel (Type F) / Cancel/Replace (Type G)

Client request to cancel-replace a pre-existing order.

For the fields with a data type "String", a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = F or G		Y
11	ClOrdID	Unique identifier assigned by the client	String (32)	Y
100	ExDestination	Execution destination.	String (24)	Y
Component Block<Instrument>				
55	Symbol	Common representation of the security. SecurityID <48> value can be specified if no symbol exists or if the instrument has an ISIN code. Use "[N/A]" for products which do not have a symbol.	String (48)	N
48	SecurityID	Security identifier value of SecurityIDSource (22) Requires SecurityIDSource.	String (12)	Y
22	SecurityIDSource	<ul style="list-style-type: none"> <li>4 = ISIN number</li> </ul>	Char	Y
End Component Block<Instrument>				
54	Side	Valid values: <ul style="list-style-type: none"> <li>1 = Buy</li> <li>2 = Sell</li> </ul>	Char	Y
37	OrderID	Exchange order id	String (32)	Y
41	OrigClOrdID	ClOrdID of previous order	String (32)	Y
44	Price	Price Used only in Order Cancel/Replace Request (type G)	Float	N
Component Block< OrderQtyData <a href="#">javascript:expand_component('FinancingDetails');</a> >				
38	OrderQty	Quantity ordered	Qty	N
End Component Block< OrderQtyData <a href="#">javascript:expand_component('FinancingDetails');</a> >				
60	TransactTime	Time this order request was initiated/released by the trader, trading system, or intermediary. Timestamp with following format: YYYYMMDD-hh:mm:ss.µµµµµµ E.g.: 20200620-10:06:51.453765	String (24)	Y

126	ExpireTlme	ExpirationTime when TimelnForce (59) is GTD (6). Format: YYYYMMDD HH:MM:SS[.sss] [.sss] are optional.  Admitted but not required in case TimelnForce (59) is GTD (6).  If TimelnForce (59) is GTD (6) and ExpireTime is not set ExpireTime of the order will not be changed.	String (24)	
432	ExpireDate	Date the order expires when it is of Good Till Date type (59=6) Format: YYYYMMDD  Admitted but not required in case TimelnForce (59) is GTD (6).  If TimelnForce (59) is GTD (6) and ExpireDate is not set ExpireDate of the order will not be changed.	String (8)	
	<Standard Trailer>			Y

## 5.2.4 Order Cancel Reject (Type 9)

FTX platform sends a rejection of a cancel/replace order request from the client.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = 9		Y
11	ClOrdID	Unique identifier assigned by the client	String (32)	Y
41	OrigClOrderID	It contains the ClientOrderID that has not been canceled/replaced. Please note that the ClientOrderID found in this tag is the last accepted order (NOT the initial order of the day)	String (32)	Y
39	OrdStatus	OrdStatus value after the CancelReject is applied	Char	Y
37	OrderID	Exchange order id	String (32)	Y
434	CxlRejResponseTo	Identifies the type of request that a Cancel Reject is in response to.  Valid values: <ul style="list-style-type: none"> <li>1 = Order Cancel Request</li> <li>2 = Order Cancel/Replace Request</li> </ul>	Char	Y
102	CxlRejReason	Code to identify reason for order rejection  Valid Values: <ul style="list-style-type: none"> <li>0 = Too late to cancel</li> <li>1 = Unknown order</li> <li>3 = Order already in Pending Cancel or Pending Replace status</li> <li>6 = Duplicate ClOrdID (11) received</li> <li>99 = Other</li> </ul>	Integer	N
58	Text	Error String	String (64)	N

	<Standard Trailer>			Y
--	--------------------	--	--	---

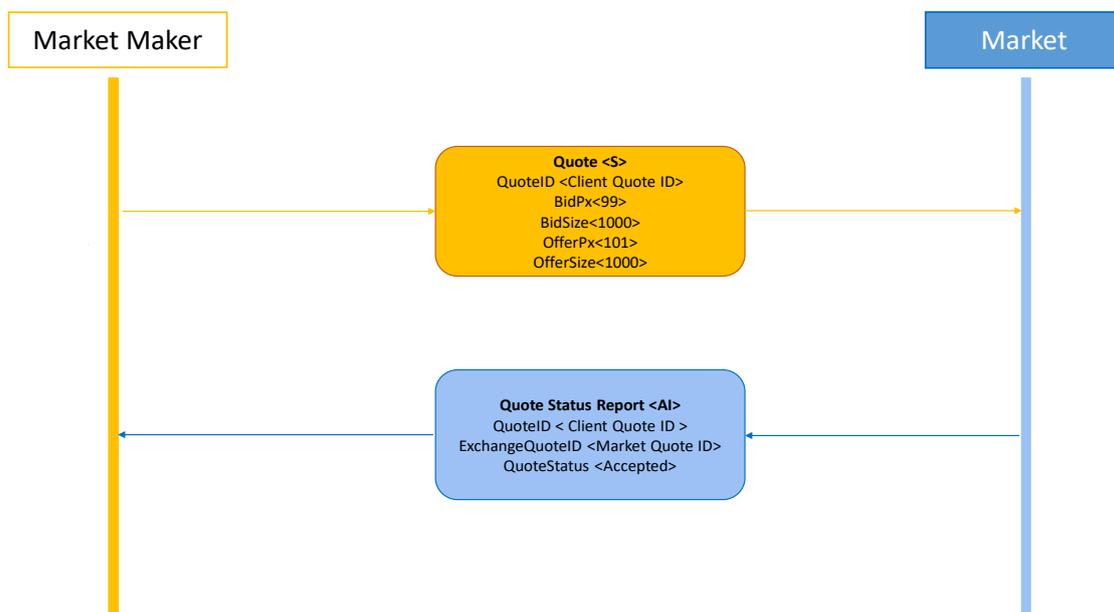
## 5.3 QUOTE ENTRY

This subsection describes the workflows and the messages for market making activities. The FIX platform is called Market in the following schemas.

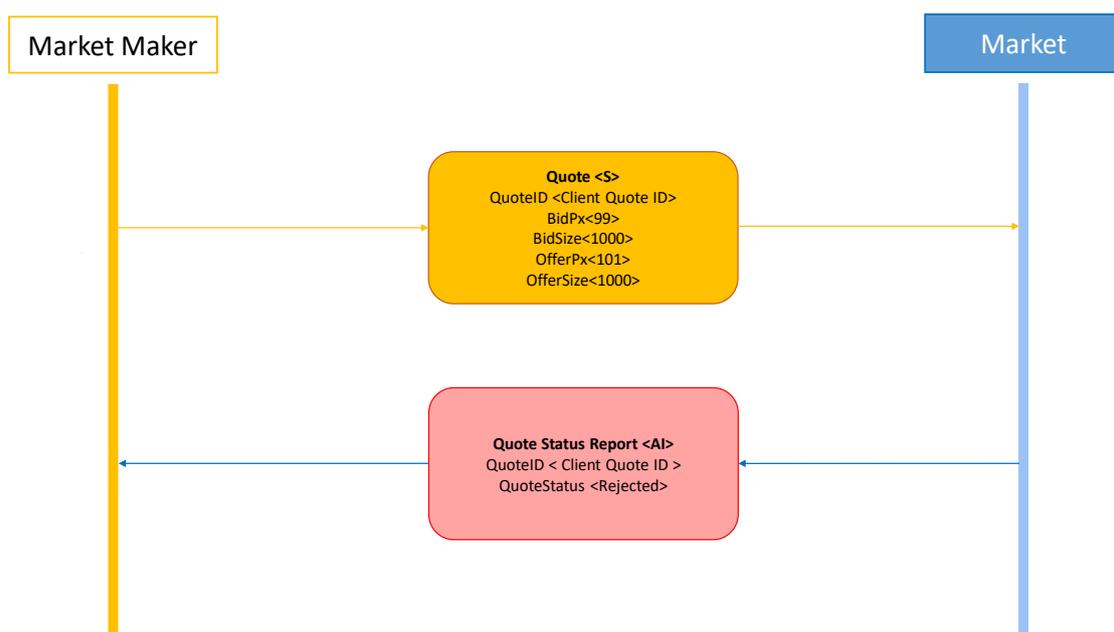
### 5.3.1 Quote workflow

#### New Quote

The Market maker sends a new quote. The quote is accepted.

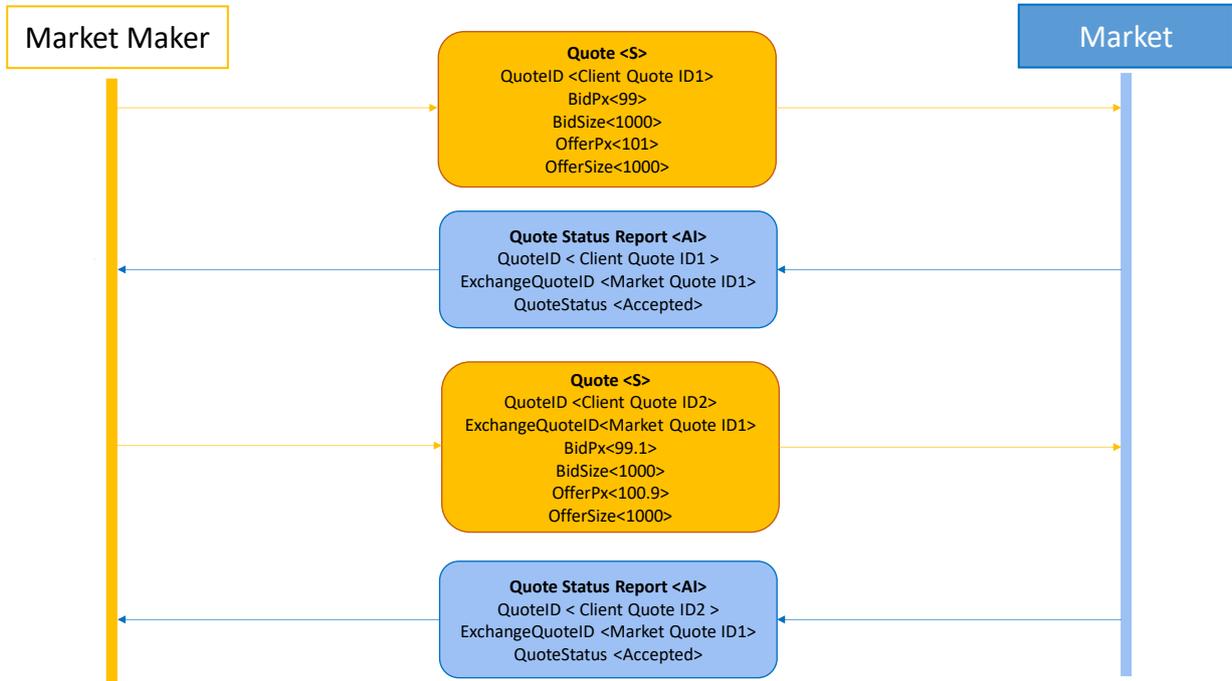


The Market maker sends a new quote. The quote is rejected.



## Edit Quote

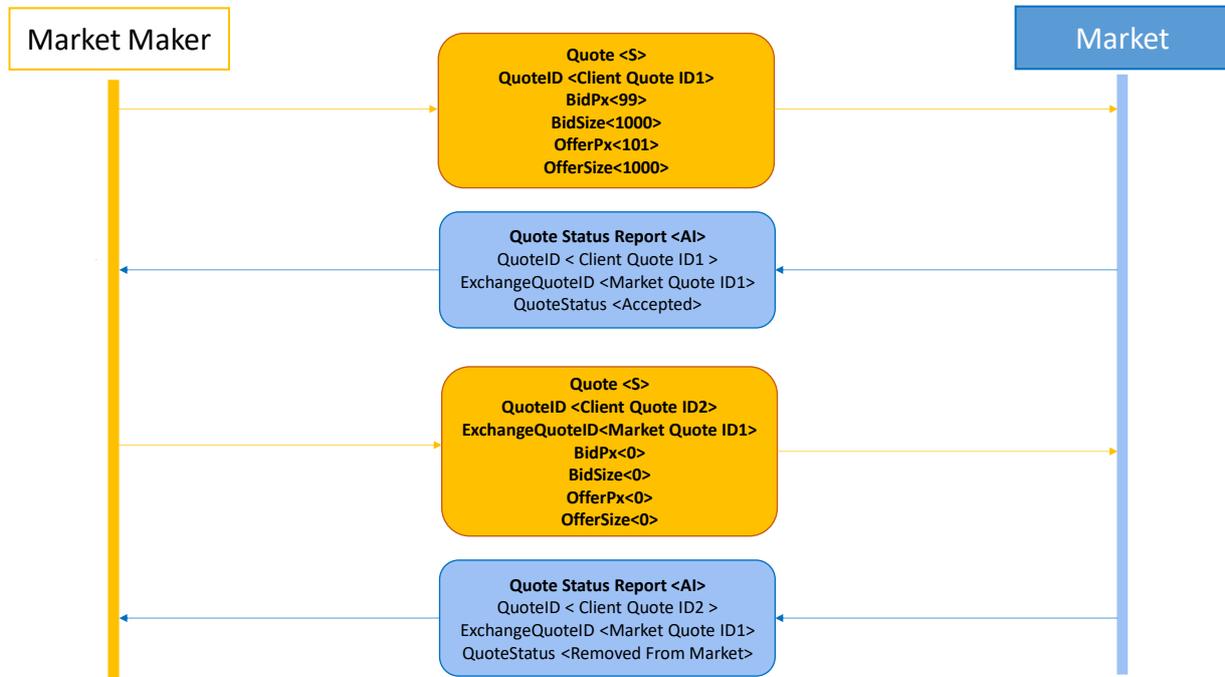
The Market Maker edits an existing quote. The quote is accepted. This workflow also allows the reactivation of a suspended quote, by sending an edit of the suspended quote with nonzero quantities and prices for both legs.



## Suspend Quote

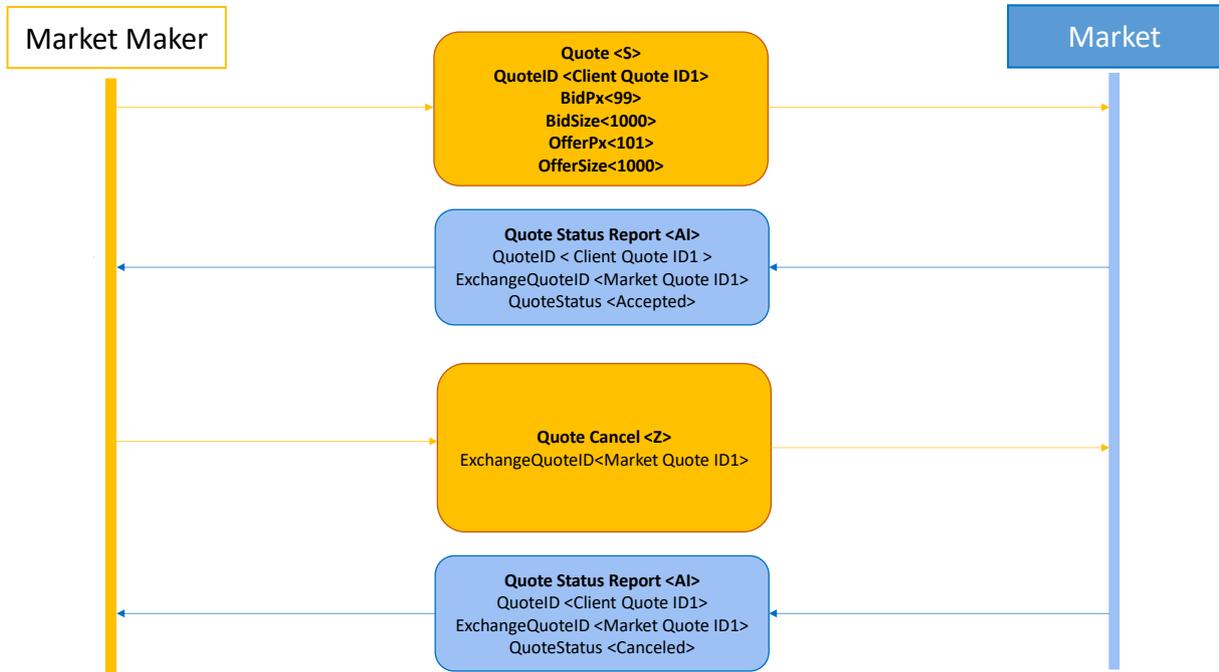
The Market Maker suspends a quote. To suspend a quote the market maker can send a quote edit specifying "0" in the following fields:

- BidSize
- BidPx
- OfferSize
- OfferPx



## Cancel Single Quote

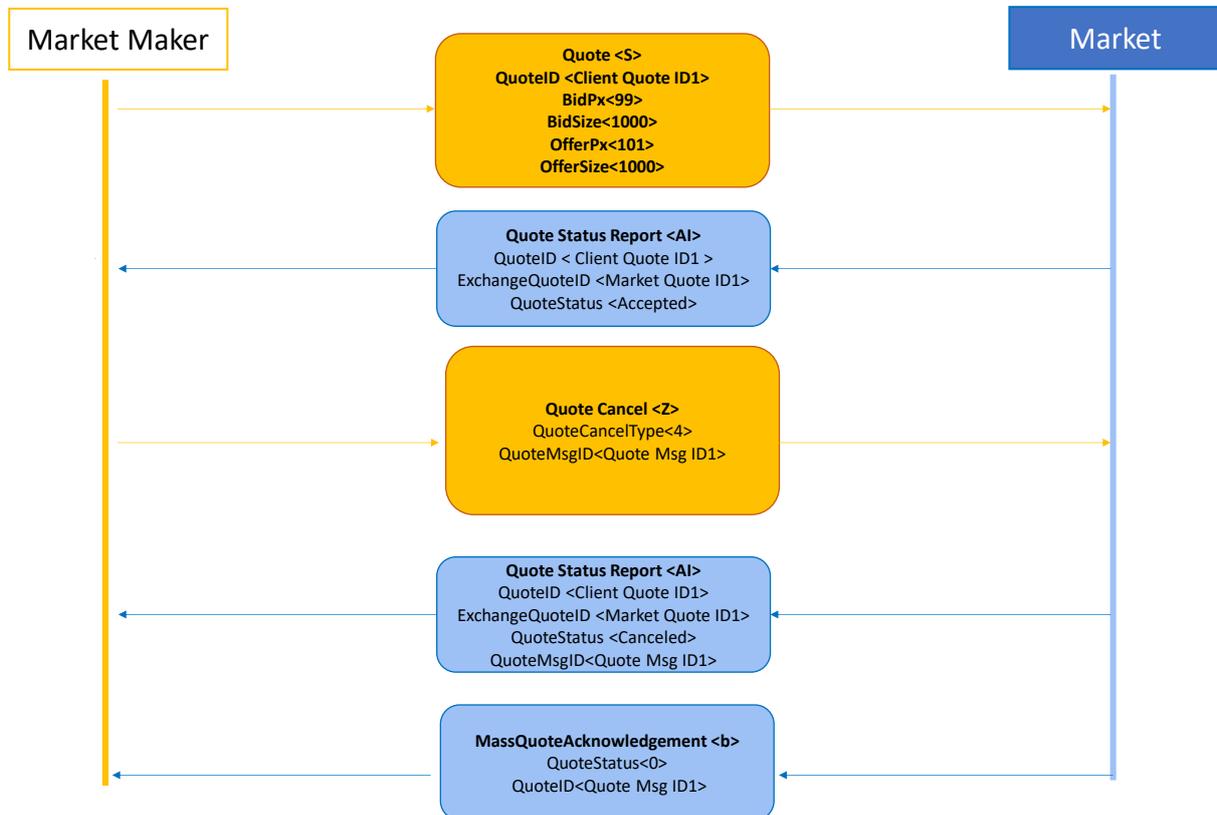
The Market maker deletes an existing quote. The quote is deleted.



## Cancel All Quotes (Panic Action)

The Market Maker deletes all its outstanding quotes. All quotes are deleted.

Please note that the respective order of the QuoteStatusReport(s) and MassQuoteAcknowledgement messages is not guaranteed.



## 5.3.2 Quote (Type S)

Initiation of a new quote by the market maker.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = S		Y
117	QuoteID	Client-assigned identification of the outgoing quote (new or streaming)	String (32)	Y
537	QuoteType	Valid value: <ul style="list-style-type: none"> <li>1 = Tradable (default)</li> </ul>	Char	Y
100	ExDestination	Code of the market section.	String (24)	Y
Component Block<Parties>				
453	NoPartyIDs	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.	Integer	N
->448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452). <u>The PartyID can contain a generic string only if PartyRole = 3 (ClientID). In this case, PartyIDSource must be D (Custom Code). For the other values of PartyIDSource, the PartyID must contain a number (number 0,1,2,3 are currently reserved for NoClient, ALGO, PNAL and CLIENT).</u> Note that if PartyRole = 3 or 5, the Party Identifier must be between 0 and 4294967295	String (32)	N
->447	PartyIDSource	Identifies class or source of the PartyID (448) value <ul style="list-style-type: none"> <li>D = Proprietary/Custom code</li> <li>M = Algorithm Short Code</li> <li>N = Natural Person Short Code</li> </ul> Requested for MiFID II requirements.	Char	N
->452	PartyRole	Identifies the type or role of the PartyID Valid values <ul style="list-style-type: none"> <li>3 = ClientID</li> <li>5 = Investor ID (the Investment Decision Maker)</li> <li>12 = Executing Trader (the Executing Decision Maker)</li> </ul>	Integer	N
End Component Block<Parties>				
60	TransactTime	TimeStamp with following format: YYYYMMDD-hh:mm:ss.µµµµµµ E.g.: 20200620-10:06:51.453765	String (24)	Y
58	Text	User text	String (64)	N

55	Symbol	= [N/A]	String (12)	Y
423	PriceType	Code to represent the type of BidPx/OfferPx. Valid values: <ul style="list-style-type: none"> <li>1 = Percentage (default)</li> </ul>	Char	N
15	Currency	Price Currency	String (3)	N
48	SecurityID	Security identifier value of SecurityIDSource (22) type, valid value ISIN. Requires SecurityIDSource.	String (12)	C
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"> <li>4 = ISIN number</li> </ul>	Char	C
132	BidPx	Bid Price	Float	Y
133	OfferPx	Offer Price	Float	Y
647	MinBidSize	Minimum bid quantity. Zero is an allowed value	Integer	Y
134	BidSize	Bid quantity	Integer	Y
648	MinOfferSize	Minimum offer quantity. Zero is an allowed value	Integer	Y
135	OfferSize	Offer quantity	Integer	Y
5002	RFEIndicator	Possible values: <ul style="list-style-type: none"> <li>0 = Subject</li> <li>1 = Firm</li> </ul> <p>If the quote is Firm, a trade is automatically made when the quote is hit. Otherwise, with a Subject quote, the Liquidity provider is required to confirm for a trade to be concluded.</p>	Char	N
528	OrderCapacity	Valid value: G = Proprietary	Char	Y
529	OrderRestrictions	Valid value: 5 = Acting as Market Maker or Specialist in the security	String (1)	Y
5001	ExchangeQuoteID	Required to edit a Quote already in the market	String (64)	C
	<Standard Trailer>			Y

### 5.3.3 Quote Status Report (AI)

FTX platform uses the Quote Status Report (AI) message to acknowledge Quote (S) and QuoteCancel (Z) messages from a market maker. In case an Operator with active Quotes disconnects and is configured with the functionality "cancel on disconnect", at re-connection, he/she will receive a Quote Status Report (35=AI) message for each cancelled Quote).

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = AI		Y
117	QuoteID	Client identifier of the message to be acknowledged	String (32)	Y
5001	ExchangeQuoteID	Market assigned identifier for the quote	String (32)	N
297	QuoteStatus	<ul style="list-style-type: none"> <li>0 = "ACCEPTED"</li> <li>5 = "REJECTED"</li> <li>6 = "REMOVED_FROM_MARKET"</li> <li>17 = "CANCELLED"</li> </ul>	char	Y
58	Text	Contains details about the reason of the rejection in case QuoteStatus = 5	String (64)	N
537	QuoteType	Valid value: <ul style="list-style-type: none"> <li>1 = Tradable (default)</li> </ul>	Char	Y
100	ExDestination	Code of the market section.	String (24)	Y
Component Block<Parties>				
453	NoPartyIDs	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.	Integer	N
->448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452). <u>The PartyID can contain a generic string only if PartyRole = 3 (ClientID). In this case, PartyIDSource must be D (Custom Code). For the other values of PartyIDSource, the PartyID must contain a number (number 0,1,2,3 are currently reserved for NoClient, ALGO, PNAL and CLIENT).</u> Note that if PartyRole = 3 or 5, the Party Identifier must be between 0 and 4294967295	String (32)	N
->447	PartyIDSource	Identifies class or source of the PartyID (448) value <ul style="list-style-type: none"> <li>D = Proprietary/Custom code</li> <li>M = Algorithm Short Code</li> <li>N = Natural Person Short Code</li> </ul> Requested for MiFID II requirements.	Char	N
->452	PartyRole	Identifies the type or role of the PartyID Valid values: <ul style="list-style-type: none"> <li>3 = ClientID</li> <li>5 = Investor ID (the Investment Decision Maker)</li> <li>12 = Executing Trader (the Executing Decision Maker)</li> </ul>	Integer	N
End Component Block<Parties>				

60	TransactTime	TimeStamp with following format: YYYYMMDD-hh:mm:ss.µµµµµµ E.g.: 20200620-10:06:51.453765	String (24)	Y
55	Symbol	= [N/A]	String (12)	Y
423	PriceType	Code to represent the type of <i>BidPx</i> / <i>OfferPx</i> . Valid values: <ul style="list-style-type: none"> <li>1 = Percentage (default)</li> <li>9 = Yield</li> </ul>	Char	N
528	OrderCapacity	Valid values: <ul style="list-style-type: none"> <li>G = Proprietary</li> </ul>	Char	N
9215	LiqProvOnly	This flag is used to indicate whether the order is related to any sort of liquidity provision activity, as defined under MiFID II. <ul style="list-style-type: none"> <li>0 = No Liquidity Provision (default)</li> <li>1 = Liquidity Provision</li> </ul>	Char	N
5002	RFEIndicator	Possible values: <ul style="list-style-type: none"> <li>0 = Subject</li> <li>1 = Firm</li> </ul> <p>If the quote is Firm, a trade is automatically made when the quote is hit. Otherwise, with a Subject quote, the Liquidity provider is required to confirm for a trade to be concluded.</p>	Char	N
<p><i>The following fields must be specified for a quote related to an outright request. They will be ignored for multi-leg quotes (field NoLegs specified with value &gt; 1)</i></p>				
48	SecurityID	Security identifier value of <i>SecurityIDSource</i> (22) type, valid value ISIN. Requires <i>SecurityIDSource</i> .	String (12)	C
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"> <li>4 = ISIN number</li> </ul>	Char	C
132	BidPx	Bid Price	Float	Y
133	OfferPx	Offer Price	Float	Y
647	MinBidSize	Minimum bid quantity. Zero is an allowed value	Integer	Y
134	BidSize	Bid quantity	Integer	Y
648	MinOfferSize	Minimum offer quantity. Zero is an allowed value	Integer	Y
135	OfferSize	Offer quantity	Integer	Y
1166	QuoteMsgID	Maps to tag QuoteMsgID (1166) of a QuoteCancel (35=Z) message, if related to it.	String (64)	C
	<Standard Trailer>			Y

### 5.3.4 Quote Cancel (Z) for Single Quote Cancellation

Client requests to cancel a pre-existing quote.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = Z		Y
100	ExDestination	Execution destination	String (24)	Y
298	QuoteCancelType	<ul style="list-style-type: none"> <li>5 = CancelSpecifiedSingleQuote</li> </ul>	String (1)	Y
5001	ExchangeQuoteID		String (64)	Y
1166	QuoteMsgID	Unique identifier assigned by the client.	String (64)	Y
Component Block<Instrument>				
48	SecurityID	ISIN code for the Security	String (12)	Y
22	SecurityIDSource	<ul style="list-style-type: none"> <li>4 = ISINNumber</li> </ul>	String (1)	Y
End Component Block<Instrument>				
	<Standard Trailer>	Required to cancel a quote already in the market		

### 5.3.5 Quote Cancel (Z) for Mass Quote Cancellation (Panic action)

Client requests to cancel all its outstanding quotes.

The platform will generate one QuoteStatusReport (35=A) for each cancellation and a single MassQuoteAck (35=b).

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = Z		Y
100	ExDestination	Execution destination	String (24)	Y
298	QuoteCancelType	<ul style="list-style-type: none"> <li>4 [CancelAllQuotes]</li> </ul>	String (1)	Y
1166	QuoteMsgID	Unique identifier assigned by the client.	String (64)	Y
	<Standard Trailer>			Y

### 5.3.6 Mass Quote Acknowledgement (35=b)

This message is sent by the platform to acknowledge the processing of a CancelAllQuotes (298=4) QuoteCancel (35=Z) message.

If the entire request is completed either successfully or unsuccessfully (meaning respectively all quotes have been cancelled or no quotes could be cancelled), then field QuoteStatus (297) is present and applies to the entire request.

If only some cancellations failed, then the QuoteEntry repeating group details the status of each quote individually.

Please note no guarantee is made about the ordering of the MassQuoteAck message itself and the QuoteStatusReport messages related to the mass cancellation request.

Tag	Field Name	Content	Data Type	Req	
	<Standard Header>	MsgType <35> = b		Y	
117	QuoteID	Maps to QuoteMsgID (1166) of QuoteCancel.	String (32)	Y	
297	QuoteStatus	Required if NoQuoteEntries missing. <ul style="list-style-type: none"> <li>0 [Accepted]</li> <li>5 [Rejected]</li> </ul>	Char	C	
58	Text	Required if QuoteStatus = 5. Textual explanation for rejection.	String (256)	C	
295	NoQuoteEntries	Required if QuoteStatus missing.	Integer	C	
>	5001	ExchangeQuoteID	Required if NoQuoteEntries present. Market assigned identifier for the quote.	String (32)	C
>	1167	QuoteEntryStatus	Required if NoQuoteEntries present. <ul style="list-style-type: none"> <li>0 [Accepted]</li> <li>5 [Rejected]</li> </ul>	Char	C
>	58	Text	Required if QuoteEntryStatus = 5. Textual explanation for rejection.	String (256)	C
	<Standard Trailer>			Y	

## 5.4 EXECUTION REPORT (TYPE 8)

Execution reports sent back to the client.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = 8		Y
11	ClOrdID	Unique identifier assigned by the client to the original request (order or RFCQ)	String (32)	Y
41	OrigClOrdID	ClOrdID of previous order. Required when the message is sent after order modification / cancellation	String (32)	C
1	Account	Account for which the contracts are to be bought or sold	String (32)	N
54	Side	Valid values: <ul style="list-style-type: none"> <li>1 = Buy</li> <li>2 = Sell</li> </ul>	Char	Y
Component Block< OrderQtyData>				
38	OrderQty	Ordered quantity (Number of lots)	Integer	Y
End Component Block< OrderQtyData;>				
44	Price	Price	Float	Y
423	PriceType	Code to represent the price type. Valid values: <ul style="list-style-type: none"> <li>1 = Percentage (default)</li> </ul>	Char	N
40	OrdType	Valid values: <ul style="list-style-type: none"> <li>2 = LIMIT</li> <li>K = MARKET_WITH_LEFTOVER_AS_LIMIT</li> </ul>	Char	Y
37	OrderID	Order ID to which current execution report refers.	String (32)	Y

150	ExecType	<p>Describes the purpose of the specific Execution Report (i.e. Pending Cancel).</p> <p>Note that the <i>OrdStatus</i> will always identify the current order status.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>• 0 = New</li> <li>• 4 = Canceled</li> <li>• 5 = Replaced</li> <li>• 6 = Pending Cancel</li> <li>• 8 = Rejected</li> <li>• A = Pending New</li> <li>• E = Pending_Replace</li> <li>• F = Trade (partial fill or fill)</li> <li>• G = Trade Correct (formerly an ExecTransType)</li> <li>• H = Trade Cancel (formerly an ExecTransType)</li> </ul>	Char	Y
4003	SettlMode	<p>Code to identify if the market sends the trade to a settlement system.</p> <p>The value in this field should only be considered if the ExecType is set to (F) or (G) or (H)</p> <p>Valid Values:</p> <ul style="list-style-type: none"> <li>• M: Manual</li> <li>• A: Automatic</li> </ul>	Char	C
39	OrdStatus	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• 0 = New</li> <li>• 1 = Partially filled</li> <li>• 2 = Filled</li> <li>• 4 = Canceled</li> <li>• 5 = Replaced</li> <li>• 6 = Pending Cancel (e.g. result of Order Cancel Request)</li> <li>• 8 = Rejected</li> <li>• A= Pending New</li> <li>• E = Pending_Replace</li> </ul>	Char	Y
17	ExecID	Unique identifier of execution message as assigned by the marketplace	String (32)	Y
31	LastPx	Price of last fill	Float	N
32	LastQty	Quantity of last fill	Qty	N
6	AvgPx	Current average price of all fills on current order. This will always be set to 0.	Float	Y
14	CumQty	Total executed contracts on the current order.	Integer	Y
151	LeavesQty	Remaining contracts to be executed on the current order.	Integer	Y

432	ExpireDate	Date order expires when order type is Good Till Date (59=6). Format: YYYYMMDD	String (8)	N
126	ExpireTime	ExpirationTime, taken from the order. Format: YYYYMMDD-hh:mm:ss.μμμμμμ	String (24)	N
528	OrderCapacity	Valid values: <ul style="list-style-type: none"> <li>G = Proprietary</li> <li>I = Individual (Client)</li> </ul>	Char	Y
529	OrderRestrictions	Valid value: <ul style="list-style-type: none"> <li>5 = Acting as Market Maker or Specialist in the security</li> </ul>	String (1)	N
9215	LiqProvOnly	This flag is used to indicate whether the order is related to any sort of liquidity provision activity, as defined under MiFID II. <ul style="list-style-type: none"> <li>0 = No Liquidity Provision (default)</li> <li>1 = Liquidity Provision</li> </ul>	Char	N
Component Block<Parties>				
453	NoPartyIDs	Number of <i>PartyID</i> (448), <i>PartyIDSource</i> (447), and <i>PartyRole</i> (452) entries. Possible parties entries: <ul style="list-style-type: none"> <li>1-First Party: is the member</li> <li>2-Second Party: is the member operator.</li> <li>3-Third Party: is the counterpart</li> <li>4-Fourth Party: is the counterpart capacity</li> </ul>	Integer	N
->448	PartyID	Party identifier/code. See <i>PartyIDSource</i> (447) and <i>PartyRole</i> (452). For <i>PartyRole</i> =37, possible values are "C" or "P". "C" is used for third accounts and "P" for Proprietary.	String (16)	N
->447	PartyIDSource	Identifies class or source of the <i>PartyID</i> (448) value. Required if <i>PartyID</i> is specified. Note: applicable values depend upon <i>PartyRole</i> (452) specified. <ul style="list-style-type: none"> <li>D = Proprietary/Custom code</li> <li>M = Algorithm Short Code</li> <li>N = Natural Person Short Code</li> </ul>	Char	N
->452	PartyRole	Identifies the type or role of the <i>PartyID</i> (448) specified. Valid values: <ul style="list-style-type: none"> <li>1 = Executing Firm</li> <li>12 = Executing Trader (associated with Executing Firm - actually executes)</li> <li>17 = Contra Firm</li> <li>37 = Contra Trader, used to receive counterpart capacity</li> </ul>	Integer	N
End Component Block<Parties>				
75	TradeDate	Used when reporting other than current day trades	Date	N

64	SettlDate	Specific date of trade settlement (SettlementDate) in YYYYMMDD format	String (8)	Y
58	Text	Contains the free text entered by the user or error if order status = 8  For more details see Appendix	String (64)	N
60	TransactTime	Time of execution/order creation  YYYYMMDD-hh:mm:ss.µµµµµµ  E.g.  20200620-10:06:51.453765	String (24)	Y
Component Block<Instrument>				
55	Symbol	Common representation of the security. SecurityID <48> value can be specified if no symbol exists or if the instrument have an ISIN code. Use '[N/A]' for products which do not have a symbol.	String (48)	Y
48	SecurityID	Security identifier value of SecurityIDSource (22) type, valid value ISIN.  <ul style="list-style-type: none"> <li>Requires SecurityIDSource.</li> </ul>	String (12)	Y
22	SecurityIDSource	<ul style="list-style-type: none"> <li>4 = ISIN number</li> </ul>	String (1)	Y
End Component Block<Instrument>				
120	SettlCurrency	Settlement Currency	String (3)	Y
9730	TradeLiquidityIndicator	Indicates whether the order added or removed liquidity.  The value in this field should only be considered if the ExecType is Trade (F).  Valid values:  <ul style="list-style-type: none"> <li>A: Provider, Added Liquidity</li> <li>R: Aggressor, Removed Liquidity</li> <li>C: Auction</li> </ul>	Char	N
Component Block <TradePriceConditionGrp>				
1838	NoTradePriceConditions	Number of TradePriceCondition (1839) entries.	Integer	N

1839	TradePriceCondition	<p>This tag, together with tag 828, maps MMT Level 3.1 “Transaction Type: Transaction Category”. It also maps MMT Level 3.6 “Special Dividend” and MMT Level 3.8 “Transaction Type: Ordinary Trades or Trades Outside Price Formation/Discovery Process”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 13 = Special dividend</li> <li>• 14 = Price improvement</li> <li>• 15 = Non-price forming trade</li> <li>• 16 = Trade exempted from trading obligation</li> <li>• 17 = Price or strike price is pending</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document.</p>	Integer	N
End Component Block <TradePriceConditionGrp>				
625	TradingSessionSubID	<p>This tag, together with tag 574, maps the MMT level 2: “Trading Mode”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 8 = Any auction</li> <li>• 2 = Opening or opening auction</li> <li>• 4 = Closing or closing auction</li> <li>• 6 = Intraday auction</li> <li>• 9 = Unscheduled intraday auction</li> <li>• 3 = (Continuous) trading</li> <li>• 5 = Post-trading</li> <li>• 10 = Out of main session trading</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N
574	MatchType	<p>This tag, together with tag 625, maps the MMT Level 2 “Trading Mode”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 3 = Confirmed trade report (reporting from recognized markets)</li> <li>• 1 = One Party Trade Report (privately negotiated trade)</li> <li>• 9 = Systematic Internalizer</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N

829	TrdSubType	<p>This tag maps the MMT level 3.3: "Transaction Type: Agency Cross Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 37 = Crossed trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
1430	VenueType	<p>This tag maps the MMT level 1: "Market Mechanism".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• B = Central limit order book</li> <li>• Q = Quote driven market</li> <li>• D = Dark order book</li> <li>• O = Off-market</li> <li>• A = Auction driven market</li> <li>• N = Quote negotiation</li> <li>• H = Hybrid Market</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Char	N
1115	OrderCategory	<p>This tag, together with tags 2669 and tag 2670, maps Level 3.2 "Transaction Type: Negotiation Indicator".</p> <p>Possible values are</p> <ul style="list-style-type: none"> <li>• 3 = Privately negotiated trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Char	N
Component Block <TrdRegPublicationGrp>				
2668	NoTrdRegPublications	Number of TrdRegPublicationType (2669) and TrdRegPublicationReason (2670) entries.	Integer	N
->2669	TrdRegPublicationType	<p>This tag, together with tags 1115 and tag 2669, maps Level 3.2 "Transaction Type: Negotiation Indicator". It maps also MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator", MMT Level 3.9 "Transaction Type: algorithmic indicator" and MMT Level 4.1 "Publication Mode and Post Trade Deferral"</p> <p>Possible values are</p> <ul style="list-style-type: none"> <li>• 0 = Pre-trade transparency waiver</li> <li>• 1 = Post-trade deferral</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N

->2670	TrdRegPublicationReason	<p>This tag, together with tags 1115 and tag 2670, maps Level 3.2 "Transaction Type: Negotiation Indicator". It maps also MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator", MMT Level 3.9 "Transaction Type: algorithmic indicator" and MMT Level 4.1 "Publication Mode and Post Trade Deferral"</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = No preceding order in book as transaction price depends on system-set reference price for an illiquid instrument)</li> <li>• 0 = No preceding order in book as transaction price set within average spread of a liquid instrument)</li> <li>• 2 = No preceding order in book as transaction price is subject to conditions other than current market price</li> <li>• 3 = No public price for preceding order as public reference price was used for matching orders</li> <li>• 4 = No public price quoted as instrument is illiquid</li> <li>• 5 = No public price quoted as order size is above standard market size</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
End Component Block <TrdRegPublicationGrp>				
855	SecondaryTrdType	<p>This tag, together with tags 2669 and 2670, maps MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 64= Benchmark</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
2405	ExecMethod	<p>This tag maps Level 3.7 "Transaction Type: Off Book Automated Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Undefined/unspecified</li> <li>• 1 = Manual (the transaction was executed in a manual or other non-automated manner)</li> <li>• 2 = Automated (the transaction was executed on an automated execution platform such as an automated systematic internalizer system, broker crossing network, dark pool trading, "direct to capital" systems, broker position unwind mechanisms, etc.)</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N

2667	AlgorithmicTradeIndicator	<p>This tag, together with tags 2669 and tag 2670, maps MMT Level 3.9 "Transaction Type: algorithmic indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Algorithmic trade</li> <li>• 0 = Non-algorithmic trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
1390	TradePublishIndicator	<p>This tag maps MMT Level 4.1 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Publish trade</li> <li>• 2 = Deferred publication</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
1934	RegulatoryReportType	<p>This tag maps MMT Level 4.2 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 11 = Limited details trade</li> <li>• 12 = Daily aggregated trade</li> <li>• 13 = Volume omission trade</li> <li>• 14 = Four weeks aggregation trade</li> <li>• 15 = Indefinite aggregation trade</li> <li>• 16 = Volume omission trade, eligible for subsequent enrichment in aggregated form</li> <li>• 17 = Full details of earlier "limited details trade"</li> <li>• 18 = Full details of earlier "daily aggregated trade"</li> <li>• 19 = Full details of earlier "volume omission trade"</li> <li>• 20 = Full details of earlier "four weeks aggregation trade"</li> <li>• 21 = Full details of earlier "volume omission trade, eligible for subsequent enrichment in aggregated form"</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
19	ExecRefID	<p>If a contract has been canceled, it contains the identifier of the canceled contract</p>	String (32)	N
Component Block < RegulatoryTradeIDGrp >				
1903	RegulatoryTradeID	RegulatoryTradeID populated with TVTIC	Integer	N
1906	RegulatoryTradeIDType	Populated with 5 (Trading venue transaction identifier)	Integer	N

End Component Block < RegulatoryTradeIDGrp >				
2594	OrderAttributeType	Indicates if the order was sent to reduce risk in an objectively measurable way in accordance with Article 57 of Directive 2014/65/EU Only possible value: <ul style="list-style-type: none"><li>R</li></ul>	Char	N
2595	OrderAttributeValue	Mandatory if OrderAttributeType is specified. Only possible value: <ul style="list-style-type: none"><li>Y</li></ul>	Char	N
	<Standard Trailer>			Y

## 6 MARKET REFERENCE DATA APPLICATION MESSAGES

This chapter details the messages used by the client to request/receive market static data to/from the FTX Platform. It also describes the messages that FTX Platform sends automatically.

The following messages are currently supported:

Type	Name	Direction	Description
c	Security Definition Request	In	Request for security information
e	Security Status Request	In	Request for the status of a security
d	Security Definition	Out	Response to a Security Definition Request
f	Security Status	Out	Response to a Security Status Request
V	Market Data Request	In	Request to get the latest snapshot of all the market prices for a security
W	Market Data Snapshot / Full Refresh	Out	Reponses to a Market Data Request and automatic refresh in case data are modified in the FTX platform

### 6.1 SECURITY DEFINITION REQUEST (TYPE C)

This message enables the client to request information about a security to FTX Platform. Every valid Security Definition Request message would be responded with a Security Definition (type d) see subsection 6.4.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = c		Y
320	SecurityReqID	Unique ID of a Security Definition Request assigned by the client	String (63)	Y
321	SecurityRequestType	Type of Security Definition Request. Valid value: <ul style="list-style-type: none"> <li>3 – request list securities</li> </ul>	Integer	Y
	<Standard Trailer>			Y

## 6.2 SECURITY STATUS REQUEST (TYPE E)

The Security Status Request message enables the client to request the status of a security. Every valid Security Status Request message would be responded with a Security Status (type f) see subsection 6.5.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = e		Y
324	SecurityStatusReqID	ID of a Security Status Request assigned by the client	String (63)	Y
48	SecurityID	Exchange Security Identifier. Valid values can be retrieved by Security Definition Request enquiry.	String (64)	Y
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"> <li>• 8 = Exchange Symbol</li> </ul>	Char	Y
263	SubscriptionRequestType	Subscription Request Type Valid values: <ul style="list-style-type: none"> <li>• 0 = Snapshot</li> <li>• 1 = Snapshot + Updates (Subscribe)</li> <li>• 2 = Disable previous Snapshot + Update Request (Unsubscribe)</li> </ul>	Char	Y
	<Standard Trailer>			Y

## 6.3 MARKET DATA REQUEST (TYPE V)

When the client logs on to FTX Platform, it can send a Market Data Request message to get the latest snapshot of all the market prices for the security. The response message for this request will be the Market data snapshot with the latest price, see subsection 6.6. It will not send all the executed trades from the last logon.

For the fields with a "String" data type, a maximum length is specified. If a received string is longer than the maximum specified, it will be truncated to the maximum length declared it will be truncated to the maximum length declared. The message will not be rejected.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = V		Y
262	MDReqID	Request ID set by the client	String (63)	Y
263	SubscriptionRequestType	Subscription Request Type Valid value: <ul style="list-style-type: none"> <li>1 = Snapshot + Updates (Subscribe)</li> </ul>	Char	Y
264	MarketDepth	Depth of market for Book Snapshot Valid value: <ul style="list-style-type: none"> <li>0 = Full Book (5 Level)</li> </ul>	Integer	Y
265	MDUpdateType	Specifies the type of Market Data update. Valid value: <ul style="list-style-type: none"> <li>0 = Full Refresh</li> </ul>	Integer	Y
267	NoMDEntryTypes	Will be set to 0: <u>All the available market entry types will be sent</u>	Integer	Y
146	NoRelatedSym	Number of symbols (i.e. Security) requested. Value always set to 0 – It means that Market data response will be sent for all securities.	Integer	Y
4001	BookType	Indicates whether the client needs to subscribe the Depth (aggregated book), the Book or both. The possible values are: <ul style="list-style-type: none"> <li>P = Price book</li> <li>O = Order Book</li> <li>B = Both (default P).</li> </ul>	Char	N
	<Standard Trailer>			Y

## 6.4 SECURITY DEFINITION (TYPE D)

In response to a Security Definition Request, the FTX Platform will send the complete list of all securities available for trading into the system. The FTX Platform will respond with one message for each security.

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = d		Y
320	SecurityReqID	Unique ID of a Security Definition Request assigned by the client	String (63)	Y
322	SecurityResponseID	Identifier for the Security Definition message	String (63)	Y

323	SecurityResponseType	Type of Security Definition message response. Valid values: <ul style="list-style-type: none"><li>= 4 if list of securities is returned</li><li>= 5 if the request is rejected.</li></ul>	Integer	N	
55	Symbol	ISIN Code	String (12)	Y	
48	SecurityID	Exchange Security Identifier	String (64)	Y	
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"><li>8 = Exchange Symbol</li></ul>	Char	Y	
460	Product	Valid values: <ul style="list-style-type: none"><li>3 = CORPORATE</li><li>5 = EQUITY</li><li>6 = GOVERNMENT</li><li>12 = OTHER</li></ul>	Integer	Y	
231	ContractMultiplier	Lot Size (minimum lot value of the security)	Float	Y	
223	CouponRate	Coupon Rate	Float	N	
106	Issuer	Name of security issuer	String (64)	N	
107	SecurityDesc	Security Description	String (64)	N	
15	Currency	Contain the standard international currency code, which represents the trading currency of the Security	String (3)	N	
58	Text	Settlement information	String (6)	N	
562	MinTradeVol	Minimum fill quantity	Qty	Y	
5564	QtyTick	Qty tick	Float	Y	
5565	TradingStartDate	Trading Start Date Format YYYYMMDD	String (8)	Y	
5566	TradingStopDate	Trading Stop Date Format YYYYMMDD	String (8)	Y	
541	MaturityDate	Maturity Date Format YYYYMMDD	String (8)	Y	
5568	MinOrderQty	Minimum Order Qty	Qty	Y	
336	TradingSessionID	Section of the security	String (24)	Y	
5600	NoTicks	Number of tick values	Integer	Y	
→	5601	MinPrice	Minimum price value for current tick	Float	Y

→	5602	MaxPrice	Maximum price value for current tick (0 means not specified)	Float	Y
→	5563	PriceTick	Tick value for price interval defined by MinPrice, MaxPrice	Float	Y
64	SettlDate		Settlement Date in YYYYMMDD format	Date	Y
461	CFICode		CFICode of the instrument	String (6)	Y
454	NoSecurityAltID		The number of parties specified in the repeating group. Always 1	Integer	Y
→	455	SecurityAltID	FISNCode	String (35)	Y
→	456	SecurityAltIDSource	FISNCode Source, value = W, this value could change when FIX protocol committee will decide about it	Char	Y
4000	RFEEnabled		Specifies whether the liquidity provider can quote with the RFE indicator set to subject or not.  Possible values: <ul style="list-style-type: none"> <li>• 0 = No</li> <li>• 1 = Yes</li> </ul>	Char	N
4004	TradingStartTime		Trading Start Time of the instrument Format: hh:mm	String (5)	Y
4005	TradingStopTime		Trading Stop Time of the instrument Format: hh:mm	String (5)	Y
4006	ESG			String (50)	N
311	UnderlyingSymbol		Underlying security's Symbol.	String (12)	N
	<Standard Trailer>				Y

## 6.5 SECURITY STATUS (TYPE F)

The FTX Platform uses this message as an answer to a security status request (type e).

Tag	Field Name	Content	Data Type	Req
	<Standard Header>	MsgType <35> = f		Y
324	SecurityStatusReqID	Request ID set by the client	String (63)	Y
48	SecurityID	Exchange Security Identifier	String (64)	Y
22	SecurityIDSource	Valid value:	Char	Y

		<ul style="list-style-type: none"> <li>8 = Exchange Symbol</li> </ul>		
55	Symbol	ISIN code	String (12)	Y
326	SecurityTradingStatus	Identifies the trading status applicable: it has to be defined according to FTX Platform. Valid values: <ul style="list-style-type: none"> <li>17 = Ready to trade (start of session)</li> <li>2 = Trading Halt</li> <li>18 = Not Available for trading (end of session)</li> <li>30 = Request For Execution</li> </ul>	Integer	Y
336	TradingSessionID	Identifies the phase of the market the security belongs to Valid values: <ul style="list-style-type: none"> <li>"CLO" = Closure</li> <li>"PRA" = Pre Auction</li> <li>"AUC" = Auction</li> <li>"PRT" = Pre Trading</li> <li>"NEG" = Negotiation</li> <li>"NOP" = No Operation</li> <li>"CRB" = Circuit Breaker</li> <li>"MLQ" = Missing Liquidity (Provider)</li> <li>"MGT" = Management</li> </ul>	String (3)	Y
	<Standard Trailer>			Y

## 6.6 MARKET DATA - SNAPSHOT /FULL REFRESH (TYPE W)

The client will not have a mechanism to request all the market data messages sent since the last disconnection. The client can request a complete market snapshot on re-connection to have the latest market data.

Market data snapshot full refresh is used in two different ways:

- 1 it is the answer to a Market Data Request, see [Market Data Snapshot full Refresh \(type W\)](#) used as a response
- 2 It is an automatic refresh sent if a modification occurs in FTX Platform. The modifications can generate the 3 types of messages (Market Data Snapshot full refresh) described below:
  - Static market data: This message, which provides market open and closing prices, sends opening or closing price changes, see [Market Data Snapshot full Refresh \(type W\) used as a response](#) (**MDEntryType = 4 and 5**)
  - A Market Data message is sent on every change to the order book and represents the top 5 price levels of the book, see [Market Data - Snapshot / Full Refresh Sent when there is a change in the Order Book](#) (**MDEntryType = 0 or 1**)
  - When a trade occurs, it will also result in a Market Data message being sent, see [Market Data - Snapshot / Full Refresh Sent following every Trade](#) (**MDEntryType = 2**)

## 6.6.1 Market Data Snapshot full Refresh (type W) used as a response

This message will be sent in response to a Market Data request. There will be one message for every instrument in the market. The client must send a request only once during a session. If the client application re-connects, it can send a request again.

Tag	Field Name	Content	Data Type	Req	
	<Standard Header>	MsgType <35> = W		Y	
262	MDReqID	Request ID set by the client	String (63)	N	
48	SecurityID	Exchange Security Identifier	String (64)	N	
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"> <li>8 = Exchange Symbol</li> </ul>	String (1)	Y	
55	Symbol	ISIN Code	String (12)	Y	
268	NoMDEntries	Number of entries	Integer	Y	
→	269	MDEntryType	Must be the first field in this repeating group. Type Market Data entry. Possible value: <ul style="list-style-type: none"> <li>2 = Trade</li> </ul>	Char	Y
→	270	MDEntryPx	Last Traded Price. (Nine integer places and Five decimal places.) E.g.. 999999999.99999. For more details, see page 74	Price	Y
→	271	MDEntrySize	Last Traded Quantity	Float	N
→	272	MDEntryDate	Trade Date YYYYMMDD	String (8)	N
→	273	MDEntryTime	Trade Time HH:MM:SS.μμμ, e.g.: 10:06:51.453	String (15)	N
→	274	TickDirection	Direction of the "tick". Valid values: <ul style="list-style-type: none"> <li>0 – Plus Tick</li> <li>1 – Zero tick</li> <li>2 – Minus Tick</li> </ul>	Char	N

→	1024	MDOriOriginType	<p>It maps MMT Level 1 "Market Mechanism".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Book</li> <li>• 3 = Quote driven market</li> <li>• 4 = Dark order book</li> <li>• 1 = Off-book</li> <li>• 5 = Auction driven market</li> <li>• 6 = Quote negotiation</li> <li>• 8 = Hybrid market</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	5463	TradeID	<p>Unique identifier of the trade that generated</p>	String	N
→	625	TradingSessionSubID	<p>This tag, together with tag 574, maps the MMT level 2: "Trading Mode".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 8 = Any auction</li> <li>• 2 = Opening or opening auction</li> <li>• 4 = Closing or closing auction</li> <li>• 6 = Intraday auction</li> <li>• 9 = Unscheduled intraday auction</li> <li>• 3 = (Continuous) trading</li> <li>• 5 = Post-trading</li> <li>• 10 = Out of main session trading</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N
→	574	MatchType	<p>This tag, together with tag 625, maps the MMT Level 2 "Trading Mode".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 3 = Confirmed trade report (reporting from recognized markets)</li> <li>• 1 = One Party Trade Report (privately negotiated trade)</li> <li>• 9 = Systematic Internalizer</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N

→	828	TrdType	<p>This tag, together with tag 1839, maps the MMT Level 3.1 "Transaction Type, Transaction Category".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 62 = Dark trade</li> <li>• 65 = Package trade</li> <li>• 2 = Exchange for physical</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	829	TrdSubType	<p>This tag maps the MMT level 3.3: "Transaction Type: Agency Cross Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 37 = Crossed trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1838	NoTradePriceConditions	Number of TradePriceCondition (1839) entries	Integer	N
→→	1839	TradePriceCondition	<p>This tag, together with tag 828, maps the MMT Level 3.1 "Transaction Type, Transaction Category", MMT Level 3.6 "Special Dividend", MMT Level 3.8 "Transaction Type: Ordinary Trades or Trades outside price formation".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 13= Special Dividend</li> <li>• 14 = Price improvement</li> <li>• 15 = Non-price forming trade</li> <li>• 16 = Trade exempt from trading obligation</li> <li>• 17 = Price is pending</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1115	OrderCategory	<p>This tag, together with tags 2669 and tag 2670, maps Level 3.2 "Transaction Type: Negotiation Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 3 = Privately negotiated trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Char	N
→	2668	NoTrdRegPublications	Number of TrdRegPublicationType (2669) and TrdRegPublicationReason (2670) entries.	Integer	N

→→	2669	TrdRegPublicationType	<p>This tag, together with tags 1115 and tag 2669, maps Level 3.2 “Transaction Type: Negotiation Indicator”. It maps also MMT Level 3.5 “Transaction Type: Benchmark or reference price indicator”, MMT Level 3.9 “Transaction Type: algorithmic indicator” and MMT Level 4.1 “Publication Mode and Post Trade Deferral”</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Pre-trade transparency waiver</li> <li>• 1 = Post-trade deferral</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→→	2670	TrdRegPublicationReason	<p>This tag, together with tags 1115 and tag 2670, maps Level 3.2 “Transaction Type: Negotiation Indicator”. It maps also MMT Level 3.5 “Transaction Type: Benchmark or reference price indicator”, MMT Level 3.9 “Transaction Type: algorithmic indicator” and MMT Level 4.1 “Publication Mode and Post Trade Deferral”</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = No preceding order in book as transaction price depends on system-set reference price for an illiquid instrument)</li> <li>• 0 = No preceding order in book as transaction price set within average spread of a liquid instrument)</li> <li>• 2 = No preceding order in book as transaction price is subject to conditions other than current market price</li> <li>• 3 = No public price for preceding order as public reference price was used for matching orders</li> <li>• 4 = No public price quoted as instrument is illiquid</li> <li>• 5 = No public price quoted as order size is above standard market size</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	277	TradeCondition	<p>This tag, together with tags 2669 and 2670, maps MMT Level 3.5 “Transaction Type: Benchmark or reference price indicator”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 6= Benchmark</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N

→	2405	ExecMethod	<p>This tag maps Level 3.7 "Transaction Type: Off Book Automated Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Undefined/unspecified</li> <li>• 1 = Manual (the transaction was executed in a manual or other non-automated manner)</li> <li>• 2 = Automated (the transaction was executed on an automated execution platform such as an automated systematic internalizer system, broker crossing network, dark pool trading, "direct to capital" systems, broker position unwind mechanisms, etc.)</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	2667	AlgorithmicTradeIndicator	<p>This tag, together with tags 2669 and tag 2670, maps MMT Level 3.9 "Transaction Type: algorithmic indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Algorithmic trade</li> <li>• 0 = Non-algorithmic trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1390	TradePublishIndicator	<p>This tag maps MMT Level 4.1 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Publish trade</li> <li>• 2 = Deferred publication</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N

→	1934	RegulatoryReportType	<p>This tag maps MMT Level 4.2 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 11 = Limited details trade</li> <li>• 12 = Daily aggregated trade</li> <li>• 13 = Volume omission trade</li> <li>• 14 = Four weeks aggregation trade</li> <li>• 15 = Indefinite aggregation trade</li> <li>• 16 = Volume omission trade, eligible for subsequent enrichment in aggregated form</li> <li>• 17 = Full details of earlier "limited details trade"</li> <li>• 18 = Full details of earlier "daily aggregated trade"</li> <li>• 19 = Full details of earlier "volume omission trade"</li> <li>• 20 = Full details of earlier "four weeks aggregation trade"</li> <li>• 21 = Full details of earlier "volume omission trade, eligible for subsequent enrichment in aggregated form"</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>• 4 = Theoretical Auction Price</li> </ul>	Char	Y
→	270	MDEntryPx	Theoretical Auction Price. (Nine integer places and Five decimal places.)E.g.: 999999999.99999. For more details, see page 74	Price	Y
→	271	MDEntrySize	Quantity traded at the Theoretical Auction Price	Float	N
→	272	MDEntryDate	Trade Date YYYYMMDD	String (8)	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>• 5 = Closing Price</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Closing Price (previous day closing price).</p> <p>(Nine integer places and Five decimal places.)E.g.: 999999999.99999. For more details, see page 74</p>	Price	Y
→	271	MDEntrySize	Total volume (quantity) traded.	Float	Y
→	272	MDEntryDate	<p>Trading date</p> <p>YYYYMMDD</p>	String (8)	N

→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>Q = Auction Closing Price, which is the weighted average price calculated on the basis of executed contracts during the Auction phase.</li> </ul> <p>(Note: this value is not available for all instruments and is not standard in version FIX 4.4)</p>	Char	Y
→	270	MDEntryPx	<p>Auction Closing Price</p> <p>(Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Price	Y
→	271	MDEntrySize	Quantity traded at the Auction Closing Price	Float	N
→	272	MDEntryDate	<p>Trading date</p> <p>YYYYMMDD</p>	String (8)	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>7 = High Price</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Highest Price for the day.</p> <p>(Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Float	Y
→	272	MDEntryDate	<p>Trading date</p> <p>YYYYMMDD</p>	String (8)	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>8 = Lowest Price</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Lowest Price for the day</p> <p>(Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Float	Y
→	272	MDEntryDate	<p>Trading date</p> <p>YYYYMMDD</p>	String (8)	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>0 = Bid</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Bid Price level. (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Float	Y
→	271	MDEntrySize	Best Bid Quantity	Float	N
→	272	MDEntryDate	<p>Trading Date</p> <p>YYYYMMDD</p>	String (8)	N

→	273	MDEntryTime	Time sent from the Exchange HH:MM:SS.μμμ, e.g.: 10:06:51.453	String (15)	N
→	346	NumberOfOrders	Number of orders at this price level	Integer	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"><li>• 1 = Offer</li></ul>	Char	Y
→	270	MDEntryPx	Offer Price level. (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74	Float	Y
→	271	MDEntrySize	Best offer quantity	Float	N
→	272	MDEntryDate	Trading Date YYYYMMDD	String (8)	N
→	273	MDEntryTime	Time sent from the Exchange HH:MM:SS.μμμ, e.g.: 10:06:51.453	String (15)	N
→	346	NumberOfOrders	Number of orders at this price level	Integer	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"><li>• B = Trade Volume</li></ul>	Char	Y
→	270	MDEntryPx	Average Price (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74d	Float	Y
→	271	MDEntrySize	Total volume (quantity) traded.	Float	Y
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"><li>• b = Order bid</li></ul>	Char	Y
→	270	MDEntryPx	Bid Price level. (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74	Float	Y
→	271	MDEntrySize	Bid quantity	Float	N
→	272	MDEntryDate	Trading Date YYYYMMDD	String( 8)	N
→	273	MDEntryTime	Time sent from the Exchange HH:MM:SS.μμμμμ, e.g.: 10:06:51.453765	String( 15)	N
→	37	OrderID	Contains the order ID or the quote ID. This field is mandatory if tag 269 is set to "b".	String (16)	C
→	290	MDEntryPositionNo	Number that indicates the quote position in the book.	Float	C

→	4002	IsTradable	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• A = Automatic</li> <li>• M= Manual</li> </ul>	Char	Y
→	453	NoPartyIDs	<p>Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.</p> <p>Possible parties entries:</p> <ul style="list-style-type: none"> <li>• 1-First Party: is the member</li> <li>• 2-Second Party: is the member operator</li> </ul>	Integer	N
→	->448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String (16)	N
→	->447	PartyIDSource	<p>Identifies class or source of the PartyID (448) value. Required if PartyID is specified. Note: applicable values depend upon PartyRole (452) specified.</p> <ul style="list-style-type: none"> <li>• D = Proprietary/Custom code</li> </ul>	Char	N
→	->452	PartyRole	<p>Identifies the type or role of the PartyID (448) specified.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>• 1 = Executing Firm</li> <li>• 12 = Executing Trader (associated with Executing Firm - actually executes)</li> </ul>	Integer	N
→	269	MDEntryType	<p>Possible value:</p> <ul style="list-style-type: none"> <li>• o = Order Offer</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Offer Price level.</p> <p>(Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Float	Y
→	271	MDEntrySize	Offer quantity	Float	N
→	272	MDEntryDate	<p>Trading Date</p> <p>YYYYMMDD</p>	String(8)	N
→	273	MDEntryTime	<p>Time sent from the Exchange</p> <p>HH:MM:SS.µµµµµµ, e.g.</p> <p>10:06:51.453765</p>	String(15)	N
→	37	OrderID	Contains the order ID or the quote ID. This field is mandatory if tag 269 is set to "o".	String (16)	C
→	290	MDEntryPositionNo	Number that indicates the quote position in the book.	Float	C
→	4002	IsTradable	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• A = Automatic</li> <li>• M= Manual</li> </ul>	Char	Y

→	453	NoPartyIDs	<p>Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.</p> <p>Possible parties entries:</p> <ul style="list-style-type: none"> <li>• 1-First Party: is the member</li> <li>• 2-Second Party: is the member operator</li> </ul>	Integer	N
→	->448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String (16)	N
→	->447	PartyIDSource	<p>Identifies class or source of the PartyID (448) value. Required if PartyID is specified. Note: applicable values depend upon PartyRole (452) specified.</p> <ul style="list-style-type: none"> <li>• D = Proprietary/Custom code</li> </ul>	Char	N
→	->452	PartyRole	<p>Identifies the type or role of the PartyID (448) specified.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>• 1 = Executing Firm</li> <li>• 12 = Executing Trader (associated with Executing Firm - actually executes)</li> </ul>	Integer	N
		<Standard Trailer>			Y

## 6.6.2 Market Data - Snapshot / Full Refresh Sent following every Trade

Tag	Field Name	Content	Data Type	Req	
	<Standard Header>	MsgType <35> = W		Y	
262	MDReqID	Contains the string "dummyid" because it is sent by the system unsolicited	String (63)	N	
48	SecurityID	Exchange Security Identifier	String (64)	N	
22	SecurityIDSource	<p>Valid value:</p> <ul style="list-style-type: none"> <li>• 8 = Exchange Symbol</li> </ul>	String (1)	Y	
55	Symbol	ISIN Code	String (12)	Y	
268	NoMDEntries	Number of Entries	Integer	Y	
→	269	MDEntryType	<ul style="list-style-type: none"> <li>• 2 – Trade</li> </ul>	Char	Y

→	1024	MDOriOriginType	<p>It maps MMT Level 1 "Market Mechanism".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Book</li> <li>• 3 = Quote driven market</li> <li>• 4 = Dark order book</li> <li>• 1 = Off-book</li> <li>• 5 = Auction driven market</li> <li>• 6 = Quote negotiation</li> <li>• 8 = Hybrid market</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	5463	TradeID	<p>Unique identifier of the trade that generated</p>	String	N
→	625	TradingSessionSubID	<p>This tag, together with tag 574, maps the MMT level 2: "Trading Mode".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 8 = Any auction</li> <li>• 2 = Opening or opening auction</li> <li>• 4 = Closing or closing auction</li> <li>• 6 = Intraday auction</li> <li>• 9 = Unscheduled intraday auction</li> <li>• 3 = (Continuous) trading</li> <li>• 5 = Post-trading</li> <li>• 10 = Out of main session trading</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N
→	574	MatchType	<p>This tag, together with tag 625, maps the MMT Level 2 "Trading Mode".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 3 = Confirmed trade report (reporting from recognized markets)</li> <li>• 1 = One Party Trade Report (privately negotiated trade)</li> <li>• 9 = Systematic Internalizer</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N

→	828	TrdType	<p>This tag, together with tag 1839, maps the MMT Level 3.1 “Transaction Type, Transaction Category”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 62 = Dark trade</li> <li>• 65 = Package trade</li> <li>• 2 = Exchange for physical</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	829	TrdSubType	<p>This tag maps the MMT level 3.3: “Transaction Type: Agency Cross Indicator”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 37 = Crossed trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1838	NoTradePriceConditions	Number of TradePriceCondition (1839) entries	Integer	N
→→	1839	TradePriceCondition	<p>This tag, together with tag 828, maps the MMT Level 3.1 “Transaction Type, Transaction Category”, MMT Level 3.6 “Special Dividend”, MMT Level 3.8 “Transaction Type: Ordinary Trades or Trades outside price formation”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 13= Special Dividend</li> <li>• 14 = Price improvement</li> <li>• 15 = Non-price forming trade</li> <li>• 16 = Trade exempt from trading obligation</li> <li>• 17 = Price is pending</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1115	OrderCategory	<p>This tag, together with tags 2669 and tag 2670, maps Level 3.2 “Transaction Type: Negotiation Indicator”.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 3 = Privately negotiated trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Char	N
→	2668	NoTrdRegPublications	Number of TrdRegPublicationType (2669) and TrdRegPublicationReason (2670) entries.	Integer	N

→→	2669	TrdRegPublicationType	<p>This tag, together with tags 1115 and tag 2669, maps Level 3.2 "Transaction Type: Negotiation Indicator". It maps also MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator", MMT Level 3.9 "Transaction Type: algorithmic indicator" and MMT Level 4.1 "Publication Mode and Post Trade Deferral"</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Pre-trade transparency waiver</li> <li>• 1 = Post-trade deferral</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→→	2670	TrdRegPublicationReason	<p>This tag, together with tags 1115 and tag 2670, maps Level 3.2 "Transaction Type: Negotiation Indicator". It maps also MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator", MMT Level 3.9 "Transaction Type: algorithmic indicator" and MMT Level 4.1 "Publication Mode and Post Trade Deferral"</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = No preceding order in book as transaction price depends on system-set reference price for an illiquid instrument)</li> <li>• 0 = No preceding order in book as transaction price set within average spread of a liquid instrument)</li> <li>• 2 = No preceding order in book as transaction price is subject to conditions other than current market price</li> <li>• 3 = No public price for preceding order as public reference price was used for matching orders</li> <li>• 4 = No public price quoted as instrument is illiquid</li> <li>• 5 = No public price quoted as order size is above standard market size</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	277	TradeCondition	<p>This tag, together with tags 2669 and 2670, maps MMT Level 3.5 "Transaction Type: Benchmark or reference price indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 6= Benchmark</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	String	N

→	2405	ExecMethod	<p>This tag maps Level 3.7 "Transaction Type: Off Book Automated Indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 0 = Undefined/unspecified</li> <li>• 1 = Manual (the transaction was executed in a manual or other non-automated manner)</li> <li>• 2 = Automated (the transaction was executed on an automated execution platform such as an automated systematic internalizer system, broker crossing network, dark pool trading, "direct to capital" systems, broker position unwind mechanisms, etc.)</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	2667	AlgorithmicTradeIndicator	<p>This tag, together with tags 2669 and tag 2670, maps MMT Level 3.9 "Transaction Type: algorithmic indicator".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Algorithmic trade</li> <li>• 0 = Non-algorithmic trade</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	1390	TradePublishIndicator	<p>This tag maps MMT Level 4.1 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 1 = Publish trade</li> <li>• 2 = Deferred publication</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N

→	1934	RegulatoryReportType	<p>This tag maps MMT Level 4.2 "Publication Mode and Post Trade Deferral".</p> <p>Possible values are:</p> <ul style="list-style-type: none"> <li>• 11 = Limited details trade</li> <li>• 12 = Daily aggregated trade</li> <li>• 13 = Volume omission trade</li> <li>• 14 = Four weeks aggregation trade</li> <li>• 15 = Indefinite aggregation trade</li> <li>• 16 = Volume omission trade, eligible for subsequent enrichment in aggregated form</li> <li>• 17 = Full details of earlier "limited details trade"</li> <li>• 18 = Full details of earlier "daily aggregated trade"</li> <li>• 19 = Full details of earlier "volume omission trade"</li> <li>• 20 = Full details of earlier "four weeks aggregation trade"</li> <li>• 21 = Full details of earlier "volume omission trade, eligible for subsequent enrichment in aggregated form"</li> </ul> <p>The mapping between MMT level values and tag values can be found in the MMT document attached at the end of this document</p>	Integer	N
→	270	MDEntryPx	<p>Last Traded Price.</p> <p>(Nine integer places and Five decimal places.). E.g.. 999999999.99999. For more details, see page 74</p>	Float	Y
→	271	MDEntrySize	Last Traded Quantity	Float	N
→	272	MDEntryDate	<p>Trade Date</p> <p>YYYYMMDD</p>	String (8)	N
→	273	MDEntryTime	<p>Trade Time</p> <p>HH:MM:SS.μμμ, e.g.: 10:06:51.453</p>	String (15)	N
→	274	TickDirection	<ul style="list-style-type: none"> <li>• 0 = Plus Tick</li> <li>• 1 = Zero Plus tick</li> <li>• 2 = Minus Tick</li> </ul>	Char	N
→	269	MDEntryType	<ul style="list-style-type: none"> <li>• 4 = Theoretical Auction Price</li> </ul>	Char	Y
→	270	MDEntryPx	<p>Theoretical Auction Price.</p> <p>(Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74</p>	Float	Y
→	271	MDEntrySize	Quantity traded at the Theoretical Auction Price	Float	N

→	272	MDEntryDate	Trading Date YYYYMMDD	String (8)	N
→	269	MDEntryType	<ul style="list-style-type: none"> <li>5 = Closing Price</li> </ul>	Char	Y
→	270	MDEntryPx	Closing Price (previous closing price till the day closing price is determined).  (Nine integer places and Five decimal places.) E.g.: 999999999.99999. For more details, see page 74	Price	Y
→	271	MDEntrySize	Total volume (quantity) traded.	Float	Y
→	272	MDEntryDate	Trading Date YYYYMMDD	String (8)	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"> <li>Q = Auction Closing Price which is the weighted average price calculated on the basis of executed contracts during the Auction phase.</li> </ul> (Note: this value is not available for all instruments and is not standard in version FIX 4.4)	Char	Y
→	270	MDEntryPx	Auction Closing Price  (Nine integer places and Five decimal places.) E.g.: 999999999.99999. For more details, see page 74	Price	Y
→	271	MDEntrySize	Quantity traded at the Auction Closing Price	Float	N
→	272	MDEntryDate	Trading date YYYYMMDD	String (8)	N
→	269	MDEntryType	<ul style="list-style-type: none"> <li>7 = High Price</li> </ul>	Char	Y
→	270	MDEntryPx	High Price for the day.  (Nine integer places and Five decimal places.) E.g.: 999999999.99999. For more details, see page 74	Float	Y
→	272	MDEntryDate	Trading Date YYYYMMDD	String (8)	N
→	269	MDEntryType	<ul style="list-style-type: none"> <li>8 = Low Price</li> </ul>	Char	Y
→	270	MDEntryPx	Low Price.  (Nine integer places and Five decimal places.) E.g.: 999999999.99999. For more details, see page 74	Float	Y

→	272	MDEntryDate	Closing Price Trading date YYYYMMDD	String (8)	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"> <li>B = Trade Volume</li> </ul>	Char	Y
→	270	MDEntryPx	Average Price  (Nine integer places and Five decimal places.) E.g.: 999999999.99999. For more details, see page 74d	Float	Y
→	271	MDEntrySize	Total volume (quantity) traded.	Float	Y
		<Standard Trailer>			Y

### 6.6.3 Market Data - Snapshot / Full Refresh Sent when there is a change in the Order Book

This message is sent by the FTX Platform whenever there is a change in the Order Book Price levels. The group will contain bids first and then offers. If only one side of the book is available, the group will contain only bid price levels or offer price levels. FTX Platform will send the best prices in bid and the best prices in ask. Depending on the configuration (market/section/member), FTX Platform can send up to the first twenty price levels, in increments of five. The first twenty prices in bid are sorted in descending order; the first twenty prices in offer are sorted in ascending order. This message will only be sent if there is a price level change. The full snap shot of the price levels is always sent.

Tag	Field Name	Content	Data Type	Req	
	<Standard Header>	MsgType <35> =W		Y	
262	MDReqID	Contains the string "dummyid", because it is sent by the system unsolicited.	String (63)	N	
48	SecurityID	Exchange Security Identifier	String (64)	N	
22	SecurityIDSource	Valid value: <ul style="list-style-type: none"> <li>8 = Exchange Symbol</li> </ul>	String (1)	Y	
55	Symbol	ISIN Code	String (12)	Y	
268	NoMDEntries	Sum of the price levels of bids and offers currently defined in the market. The possible values are: 10, 20, 30, 40.	Integer	Y	
→	269	MDEntryType	Possible values: <ul style="list-style-type: none"> <li>0 = Bid</li> <li>1 = Offers</li> </ul>	Char	Y

→	270	MDEntryPx	Bid or offer Price level. (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74	Float	Y
→	271	MDEntrySize	Quantity available in this bid or offer price level	Float	N
→	272	MDEntryDate	Trading Date YYYYMMDD	String (8)	N
→	273	MDEntryTime	Update time HH:MM:SS.μμμ, e.g. 10:06:51.453	String (15)	Y
→	346	NumberOfOrders	Number of orders at this price level	Integer	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"><li>• b = Order bid</li></ul>	Char	Y
→	270	MDEntryPx	Bid Price level. (Nine integer places and Five decimal places.). E.g.: 999999999.99999. For more details, see page 74	Float	Y
→	271	MDEntrySize	Bid quantity	Float	N
→	272	MDEntryDate	Trading Date YYYYMMDD	String(8 )	N
→	273	MDEntryTime	Time sent from the Exchange HH:MM:SS.μμμμμ, e.g. 10:06:51.453765	String(15)	N
→	37	OrderID	Contains the order ID or the quote ID. This field is mandatory if tag 269 is set to "b".	String (16)	C
→	290	MDEntryPositionNo	Number that indicates the quote position in the book.	Float	C
→	4002	IsTradable	Possible values: <ul style="list-style-type: none"><li>• A = Automatic</li><li>• M= Manual</li></ul>	Char	Y
→	453	NoPartyIDs	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries. Possible parties entries: <ul style="list-style-type: none"><li>• 1= First Party: is the member</li><li>• 2= Second Party: is the member operator</li></ul>	Integer	N
→	- >448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String (16)	N
→	- >447	PartyIDSource	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. Note: applicable values depend upon PartyRole (452) specified. <ul style="list-style-type: none"><li>• D = Proprietary/Custom code</li></ul>	Char	N

→	- >452	PartyRole	Identifies the type or role of the PartyID (448) specified.  Valid values: <ul style="list-style-type: none"> <li>• 1 = Executing Firm</li> <li>• 12 = Executing Trader (associated with Executing Firm - actually executes)</li> </ul>	Integer	N
→	269	MDEntryType	Possible value: <ul style="list-style-type: none"> <li>• o = Order Offer</li> </ul>	Char	Y
→	270	MDEntryPx	Offer Price level.  (Nine integer places and Five decimal places.). E.g. 999999999.99999. For more details, see page 74	Float	Y
→	271	MDEntrySize	Offer quantity	Float	N
→	272	MDEntryDate	Trading Date YYYYMMDD	String(8)	N
→	273	MDEntryTime	Time sent from the Exchange HH:MM:SS.µµµµµµ, e.g.: 10:06:51.453765	String(15)	N
→	37	OrderID	Contains the order ID or the quote ID. This field is mandatory if tag 269 is set to "o".	String (16)	C
→	290	MDEntryPositionNo	Number that indicates the quote position in the book.	Float	C
→	4002	IsTradable	Possible values: <ul style="list-style-type: none"> <li>• A = Automatic</li> <li>• M= Manual</li> </ul>	Char	Y
→	453	NoPartyIDs	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries.  Possible parties entries: <ul style="list-style-type: none"> <li>• 1 = First Party: is the member</li> <li>• 2 = Second Party: is the member operator</li> </ul>	Integer	N
→	- >448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String (16)	N
→	- >447	PartyIDSource	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. Note: applicable values depend upon PartyRole (452) specified. <ul style="list-style-type: none"> <li>• D = Proprietary/Custom code</li> </ul>	Char	N
→	- >452	PartyRole	Identifies the type or role of the PartyID (448) specified.  Valid values: <ul style="list-style-type: none"> <li>• 1 = Executing Firm</li> <li>• 12 = Executing Trader (associated with Executing Firm - actually executes)</li> </ul>	Integer	N
		<Standard Trailer>			Y

## Note: Number Representation

The floating-point representation depends on the number that needs to be represented.

1) If a number is not zero but near to zero (including between -0.0001 and 0.0001): the number is represented as a floating-point number (for example, 0.0000135) or is represented with the scientific notation (for example, 1.35 e-5). The system chooses the representation that requires the least number of characters.

2) If a number is zero, or higher than 0.0001, or smaller than -0.0001: the number always has a floating-point representation (for example 0.000135).

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## Mapping between MMT Flags and FIX tags

The document with the mapping between MMT Flags and FIX tags is available at the following path:  
<https://www.fixtrading.org/mmt/>

## APPENDIX

This subsection details the possible errors for order rejections.

<b>Tag 58 (Possible value)</b>
Security Not Active
Invalid Verb
Invalid Request Member
Invalid Request Operator
Invalid Validity Date
Invalid Validity Time
Invalid Request Status
Section Not Active
Order Not Found
Member Not Active
Operator Not Active
Undefined Section Phase
Undefined Security Phase
Invalid Security
Invalid Order Type
Price Overlap
Maximum Order Exceeded
Invalid Relative Qty
Invalid ConfirmFlag (only IDP)
Invalid IssueOrderFlag (only IDP)
Invalid TimeInForce
Invalid Position (only IDP)
Invalid Origin (only IDP)
Invalid Security Phase
Invalid Section Phase
Invalid Order Status

Invalid Order Qty
Invalid DisclosedQty
Invalid MinQty
Invalid MinFillSize
Invalid Order Price
Invalid MemberID
Invalid Request
Invalid CreditLine
Invalid IndirectLimit
Invalid Qty Parameter
Invalid TimeInForce Parameter
Numeric Overflow
Bid Price has violated Last Price Threshold
Ask Price has violated Last Price Threshold
Bid Price has violated Close Price Threshold
Ask Price has violated Close Price Threshold
Order Already Exist
Best Price Threshold Violated
AT Send Error
Security Not Tradable
Order can not match
Best Price Missing
Tag xxx should have value = yyy
Tag xxx has a wrong value
Only 1 PartyID is supported
Invalid Profile
Member not profiled on Class
Operator not profiled on Security Class
Operator not profiled on Qty Parameter
Operator not profiled on Capacity-TimeInForce

Operator not profiled for editing
Operator can not see other Operator Info
Invalid Bid MinVolQty
Invalid Ask MinVolQty
New Password Repeated
Invalid New Password Characters
New Password Too Easy
Insufficient New Password Length
Maximum Rfq exceeded
Maximum Rfq Quote exceeded
Invalid RFQ Quantity
Invalid RFQ Price
Invalid RFQ Min Qty
Invalid RFQ Destination Number
RFQ Reference Not Found
RFQ Type Not Allowed
RFQ Quote Not Found
RFQ Edit Not Allowed
Invalid RFQ Edit
RFQ Not Found
Not Administrator
Not Enabled Member TradeOn
ForwardForward Label Not Found
Calendar Not Found
Section Property Not Found
Invalid Section Property Value
Invalid Broken Date
Not Enabled CAPS Admin
Min Member Qty Not Enabled"
RFQ Not Allowed

RFQ Invalid Operator Role
Invalid RFQ Destination
Quote not active
Member Min Qty Not Enabled
Member Min Qty Not Compliant With Min Prod Quantity
Invalid RFQ Status
RFQ Not Active
Cannot create administrator
Invalid Hidden Qty
Order not active
Cannot change administrator
Trader Connected
Not Allowed to send Transaction
Counterpart Setup Error
Swap Welcome ValueDenied
Invalid Counterpart
Invalid Currency
Too Many Setup Switches
Invalid Section
Invalid Server Status
Invalid Equal Rate
Invalid Preview Initial Date
Invalid Preview Final Date
Invalid Member Status
Insufficient Guarantee
Fill Already Allocated
Invalid Allocation
Too many securities with same Issue Type
Too many securities with same Issue Country
Too many securities with same Issuer

Too many securities with same Rating
Too many securities with same Currency
Security Price too old for allocation
Security quantity too low for allocation
Cannot use securities issued by you
Invalid Initial Date
Invalid Final Date
Quote Not Tradable
Invalid Settlement Mode
Invalid Transparent Flag
Invalid CCP Only Flag
Invalid Repo Class
RFQ Anonymous Not Allowed
RFQ Anonymous Member Not Allowed
RFQ destination member is Unwelcome
Invalid Spot Price
OtcFill Expired
Invalid Quantity
Invalid Rate
Rfq Reply Too Late
Qty Not Compliant With Member Min Qty
Application not available at this time
Invalid Operator Profile
Invalid Settlement System
Invalid Collaterals Settlement Mode
Not Yet Settled
Not Allowed to Edit Order
Invalid Duration
Invalid ClientID
Invalid Settlement Date

Cannot update, too early
Invalid RFQ action
Invalid RFQ Quote Image
RFQ Invalid Yield
Attention: Accept Not Allowed
There is already an exception. Please restore first
Planning section time earlier than security planning time
Invalid OTC Status
Not Enabled Member
Not Allowed AON
Qty Higher Than Issue Qty
Too many transactions per time unit



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