



**FIX Protocol Limited
Exchanges and ECNs Working Group**

**Recommended Practices for Continuous Mass
Quoting**

Version 1.00

July 10, 2007

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1 Introduction

1.1 Background

The FIX (Financial Information eXchange) protocol has been developed to allow participants in the financial services industry transmit certain types of information in a common format. It was originally developed for pre-trade and trade messaging and has since been extended to include various market data messages.

The protocol is administrated by FIX Protocol Ltd., whose aims are to ensure the continuing development and improvement of the protocol, to market its existence and to assist the industry in its uptake. The FIX Exchanges/ECNs Working Group (EEWG) operates within this framework and exists to fulfill these three objectives in particular with regard to Exchange/ECN messaging.

This document is a product of the Exchanges and ECNs Working Group. These recommendations are intended to be supported with FIX 5.0 Service Pack 1 (SP1) which contains extensions endorsed by the Exchanges/ECNs Work Group. However, it is also possible to implement on a limited basis using earlier versions of the FIX specification such as 4.4.

1.2 Purpose and Scope

Objective of this Document

This document aims to be a guide to implementing the Mass Quotation function for equities, listed derivatives, foreign exchange and fixed income transactions using version 5.0 SP1 of the FIX protocol. It does not seek to replace the FIX Protocol Specification, rather to complement it by providing specific instructions and examples relating to best-practice implementations of the messages contained within the Specification.

This document focuses on the Mass Quote function in general and continuous quoting obligations for Exchanges and ECNs in particular. There is a section at the end of this document that discusses the single quote function however the message structure is quite different for the single quote.

Why This Document Exists

The FIX 5.0 Protocol Specification provides, through its message definitions (volume 3) and data dictionary (volume 6) details as to how FIX messages should be constructed and formatted. It also contains some details as to how messages should be used. It has been kept deliberately flexible, in order to ensure that it is able to support as many business scenarios as possible. The drawback of this from an implementation point of view is that the Specification does not dictate a single way of implementing specific functionality.

The purpose of this document is to define an agreed sub-set of permissible message implementations and, in doing so; provide a definitive statement as to how these messages should be implemented in practice. Adherence to the standards laid out in this document should result in implementations that are wholly compatible with each other. Please note that a specific implementation may need fields, messages and/or workflows not discussed here.

Who Should Read It

This document is intended for the following audience:

- Anybody involved in or considering an implementation of Mass Quotation functionality using version 5.0 SP1 of the FIX protocol. Note that the majority of recommendation may also be applied to FIX 4.4.
- Suppliers of trading technology.

1.3 Document Structure and Format

1.4 Acknowledgements

Some entities/trademarks are referred to in this document. Further details together with contact points can be obtained from the respective web-sites:

FIX Protocol Limited at <http://www.fixprotocol.org/>.

Many thanks to all that have helped to review and provide input to this document. If you have comments or questions on this document please raise them through the FIX 5.0 forum which can be accessed at <http://www.fixprotocol.org/discuss/47>. Contact details are available on the FIX Protocol website under 'FPL Organization', 'Exchanges/ECNs Working Group' (http://www.fixprotocol.org/working_groups/exchwg).


1.5 Related Documentation

FIX 5.0 Protocol Specification, available on the FIX Protocol website (<http://www.fixprotocol.org/specifications/>) under 'Technical Specifications'. This is itself made up of 7 volumes – 1 Introduction, 2 Session, 3 Pre-Trade Messages, 4 Order/Execution Messages, 5 Post-Trade Messages, 6 Data Dictionary, 7 Usage by Product. For further information regarding the FIX quotations message set, please refer to volumes 3 (for the messages) and 6 (for the field definitions). For information regarding the creation of a FIX session, refer to volume 2 and FIX Transport 1.1. For other product-specific information, refer to volume 7.

A variety of other supporting and reference documents are available on the FIX protocol website.

1.6 Disclaimer

This document is intended as a guide to implementing certain FIX messages to perform certain functions. It makes no representation as to the legality or otherwise, or conformance to market practice, local regulations or any organizational rules of any of the processes referred to in this document. Before undertaking any implementation of these messages, your own organization's relevant control departments (e.g. compliance, legal, risk management/control) should be made aware of the functionality being supported by these messages and be confident that all necessary internal and external controls, data auditing requirements and similar are being met.



2 Overview of the Quotation function

2.1 Introduction

The FIX Exchanges and ECNs Working Group has defined a set of messages and protocols with the objective of creating a standard that allows Quote Issuers and Exchanges/ECNs to connect quickly and reliably across a range of markets.

Please note that all materials included herein are recommended guidelines with respect to implementing a continuous mass quoting mechanism, not hard and fast rules. The specification provides flexibility in applying different techniques to manage and organize quotation data.

Nomenclature

To avoid any ambiguity, the following words shall be used throughout this document to take the following meanings. This may differ from convention in certain markets or organizations, but has been done for consistency and to ensure complete understanding of the document's content.

- *Exchange/ECN* is the entity/system that is receiving orders and quotes from its trading participants and integrating those orders and quotes into an orderbook.
- An *Order* is an instruction to purchase or sell an instrument. A trader may have many orders in any instrument. The orders are separately identified and may carry over from day to day. There are many types of orders that have different trading properties.
- *Quote Issuers*: Exchanges often require some trading participants to supply continuous bids and offers to the market so that other participants in the market have continuous prices in all products. The trading participants that supply the continuous prices are often called Market Makers and usually have special message types to assist them in the role of providing these continuous two sided prices. In the FIX protocol, the Market Makers are also called Quote Issuers. Who a quote issuer is varies, but is normally a broker firm or an organizational unit within a firm. In other models the quote issuer may be an individual trader. Examples:
 - Firm ABC
 - Firm ABC FX desk / Firm ABC equity desk
 - Trader John Doe
- A *Quote* is the price and size at which the Quote Issuer is willing to buy and sell an instrument. A quote includes: Instrument identifier, bid-price, bid-quantity, ask-price and ask quantity. A Quote may be one-sided or two-sided. As market conditions change, the Quote Issuers updates their quotes and there is an implicit instruction that the new quotes replace the previous quotes.
- A *Mass Quote* is a message that contains many quotes for many instruments. Implementations vary but a single message can e.g. contain quotes for derivatives that relate to and are grouped per the same underlying instrument. There will often be a limit in the number of single quotes in the message, e.g. in the range of 100 two-sided quote items.

The Mass Quote message exists for efficiency reasons. Derivative markets have many instruments that relate to the same Underlying instrument. When the Underlying Instrument changes price, many of the derivative instruments must be adjusted. The Quote Issuer's system will recalculate all of the Derivative prices that resulted from the change in underlying price. The Mass Quote message allows the Quote Issuer to send all of the updated prices in a single message. Similar principles apply in fixed income markets where a benchmark replaces the underlying. Mass Quotes are also relevant for index instruments as e.g. ETFs. In stock markets there is less reason to group the quotes on an underlying or similar, but the Mass Quote may still be used. Mass Quotes may also be useful when quoting a number of strategies which share a common prominent leg, such as the front month leg in futures markets. When the front month leg changes all strategies referencing that leg can be requoted using a single message.

The Mass Quote function is prominent in the US Option Markets where an Exchange can list 200,000 derivative instruments over 2000 underlying instruments. While the average is 100 derivatives per underlying, some of the more volatile underlyings can have up to 1500 derivatives. The Mass quote function is designed to allow hundreds of quotes to be sent in a single message. The behavior is similar in Futures Markets where options on futures are generally quoted by series.

The objective of this document is to recommend standards for all aspects of mass quoting. This includes;

- How Quotes are sent, and acknowledged
- How identifiers are used to reference quotes
- How quotes are cancelled
- Unsolicited alters and cancels by the Exchange/ECN
- Trading limits, how they are set, activated and reset
- How quotes are managed over multiple FIX sessions and sites
- Relationship to Market Data

3 Mass Quote Function

3.1 General Concepts

The quotation function as described herein is used when a party, the Quote Issuer, is providing continuous bid/offer prices for many instruments.

A key feature of Mass Quotes is that a new quote will automatically replace the previous quote.

Quotes are two sided. The general format is: Instrument, bid-size, bid-price, ask-size, ask-price. A Mass Quote message will have many such two-sided quotes that relate to the same underlying instrument, known as a Quote Set, into a single message. It is also possible to join Quote Sets, quotes for different underlyings into a single Mass Quote message, although this feature is not supported by all Exchanges.

Some Exchanges will apply the quotes in the Mass Quotes message to the orderbook simultaneously, avoiding the risk that another trading participant executes while the quotes are being updated. When quotes relate to multiple underlyings, the quotes for different underlyings might be updated separately.

QuoteID is the key that tracks quotes and there is one QuoteID in the header of the Mass Quote message. All quotes in the mass quote message share the same QuoteID.

A market maker does not update all quotes for an underlying with each mass quote message. At any time, a market maker might have quotes in the various strikes of one underlying that originated from many different Mass Quote messages and with many different QuoteIDs.

Orders have unique identifiers (ClOrdID, tag 11) so that trades can be matched to the originating order and sent back to the originating customer. Quotes on the other hand are generated on a continual basis by one party. The Quote issuer tracks the current values of its quotes in the market. Upon receipt of a trade, the Quote Issuer will update its tables if it affects the current quote and possibly adjust its quote. Upon receipt of a trade, the quote issuer will use the QuoteID carried in the ClOrdID of the execution report, to see if the trade is related to the current quote in that instrument.

A mass Quote message should be optimized for high performance. To reduce the size of the message, an Exchange may allow the Quote Issuer to only send fields that have changed. For example, if only the bid price has changed then only the bid price is sent. It is assumed that the other fields are unchanged; however the Exchange will update the QuoteID as though the Quote Issuer sent in a full two sided quote.

An Exchange often limits the number of quotes a Quote Issuer can submit into an instrument. Many markets limit the Quote Issuer to having only one quote in the market at any time. Sending another quote in an instrument will automatically replace the previous quote for that Quote Issuer. Some Exchanges/ECNs permit multiple quotes in an instrument. This is often the case in Price-Time priority markets where the quote Issuer will put a second quote in at worse price to lock in the first position at a lower price level. Additional functionality is required to identify each quote and to specify which of the existing quotes is to be replaced with the new quote. The identification of which quote is to be updated is done using QuoteEntryID.

Some markets have the ability to request public quotes for non-active instruments, or to request quotes for larger size. The Mass Quote can also be used to respond to quote requests. The response to a particular quote request can be sent along with other quotes as they are being updated.

Many concepts in this document refer to unique identifiers for the Quote Issuer. It may be the case that the Quote Issuer is considered the same as a FIX session but it can be the case that multiple issuers reside on the same FIX session, or that one Quote Issuer has multiple FIX sessions. While these concepts are not defined within FIX at present, there is a discussion of some alternatives in Chapter 8.

3.2 Message Format

A single Quote consists of QuoteID, Instrument Identifier, Bid Quantity, Bid Price, Ask Quantity, Ask Price.

A Mass Quote is similar to many single quotes that relate to the same underlying instrument, strung together as a repeating group. The quotes that relate to the same underlying instrument is called a Quote Set. It is also possible to have multiple quote sets in a Mass Quote message. QuoteID is used as the root level message identifier and is the key for all quotes in the message.

A repeating group of quote items that relate to an underlying is called a Quote Set and is preceded with a unique key called a QuoteSetID. The QuoteSetID is either:

- a simple sequence number within each Mass Quote message meaning the Security must be provided in every message. In this case the QuoteSetID need only be unique per Mass Quote or
- a key that identifies the underlying where the Exchange associates the QuoteSetID with the Security when the first Mass Quote is sent and the Security can be left out on subsequent Mass Quotes.

QuoteSetID cannot be used to perform updates and cancels to a set of quotes nor should it be used to index the quote entries.

The grouping of multiple quote sets within a Mass Quote Message may contain some restrictions by Exchanges. Some Exchanges might require that only one quote set exists within a Mass Quote message while others permit multiple quote sets but each will receive a separate response.

The table below shows an abbreviated version of the Mass Quote message to illustrate the structure of the message. The complete Mass Quote message has many more fields to process different asset classes, the ability to respond to quote request, and to handle multiple parties. The full specification of the Mass Quote Message and the Mass Quote response are listed in appendix A.

Table 1. Abbreviated Mass Quote Message format.

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = i (lowercase)	
117	QuoteID	Y		
293	DefBidSize	N	Default Bid Size for quote contained within this quote message - if not explicitly provided.	Can be used when most or all quotes have default size.
294	DefOfferSize	N	Default Offer Size for quotes contained within this quote message - if not explicitly provided.	
296	NoQuoteSets	Y	The number of sets of quotes in the message	
à	302 QuoteSetID	Y	Sequential number for the Quote Set. For a given QuoteID – assumed to start at 1. Must be the first field in the repeating group.	Unique per Mass Quote message. This field is used to identify first field in set. Some markets might not have equivalent of underlying name.
à	component block <UnderlyingInstrument>	N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "Common Components of Application"	

				Messages"	
à	295	NoQuoteEntries		Y	The number of quotes for this Symbol (instrument) (QuoteSet) that follow in this message. ** Nested Repeating Group follows **
à	à	299	QuoteEntryID	Y	Uniquely identifies the quote across the complete set of all quotes for a given quote provider.
à	à	component	block	N	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
		<Instrument>			Name / identifier for the underlying instrument
à	à	132	BidPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.
à	à	133	OfferPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.
à	à	134	BidSize	N	
à	à	135	OfferSize	N	
StandardTrailer				Y	

3.2.1 Abbreviated Mass Quote Acknowledgement Format

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = b (lowercase)	
131	QuoteReqID	N	Required when acknowledgment is in response to a Quote Request message	
117	QuoteID	N	Required when acknowledgment is in response to a Mass Quote, mass Quote Cancel or mass Quote Status Request message. Maps to: <ul style="list-style-type: none"> • QuoteID (117) of a Mass Quote • QuoteMsgID (tbd) of Quote Cancel • QuoteStatusReqID (649) of Quote Status Request 	Comment text modified in FIX 5.0 SP1

297	QuoteStatus		Y	Status of the mass quote acknowledgement.	
300	QuoteRejectReason		N	Reason Quote was rejected.	
298	QuoteCancelType		N	For use in response to quote cancel	New field in FIX 5.0 SP1
296	NoQuoteSets		N	The number of sets of quotes in the message	
à	302	QuoteSetID	N	First field in repeating group. Required if NoQuoteSets > 0	
à	component block <UnderlyingInstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "Common Components of Application Messages" Required if NoQuoteSets > 0	
à	304	TotNoQuoteEntries	N	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries in each message that has repeating quotes that are part of the same quote set. Required if NoQuoteEntries > 0	
à	1168	TotNoCxlDQuotes	N	Total number of quotes canceled for the quote set across all messages.	New field in FIX 5.0 SP1
à	1169	TotNoAccQuotes	N	Total number of quotes accepted for the quote set across all messages.	New field in FIX 5.0 SP1
à	1170	TotNoRejQuotes	N	Total number of quotes rejected for the quote set across all messages.	New field in FIX 5.0 SP1
à	295	NoQuoteEntries	N	The number of quotes for this Symbol (QuoteSet) that follow in this message.	In response to a Mass Quote, entries are specified only for individual rejected entries In response to Quote Cancel, entries are not specified
à	à	299 QuoteEntryID	N	Uniquely identifies the quote across the complete set of all quotes for a given quote provider. First field in repeating group. Required if NoQuoteEntries > 0.	Comment text modified in FIX 5.0 SP1
à	à	component block <Instrument>	N	Insert here the set of "Instrument" (symbology) fields defined in "Common	

				Components of Application Messages"		
à	à	1167	QuoteEntry Status	N		New field in FIX 5.0 SP1
à	à	368	QuoteEntry RejectReason	N	Reason Quote Entry was rejected.	
StandardTrailer				Y		

3.3 Exchange/ECN Response

The response to a Mass Quote is a Mass Quote Acknowledgement - that contains either a Reference for all quotes, and, in the case of reject, a Reject reason either for the whole message or per individual quote entries. Sometimes the rejection of a single item will result in all items being rejected.

The Acknowledgement to a Mass Quote can be that 1) All Quotes are updated, 2) some are updated and some are rejected, and 3) all quotes are rejected.

When multiple items are rejected in a Mass Quote then individual rejects will be sent with the QuoteEntryID to identify the individual quote being rejected. Although the QuoteResponseLevel/301 supports both the positive and negative acknowledgement of all quote entries it is recommended that the response does not contain the individual accepted quote entries – only rejected ones. In the case the whole message is rejected, the individual quote entries are not passed back.

Quotes are rejected for problems such as improperly formatted messages or non-existent securities, invalid price-ticks, invalid trading session or system failure at the Exchange/ECN. Quotes are not usually rejected if they are too wide. That is usually a surveillance function at the Exchange although some Exchanges will reject quotes if they are too wide.

The Exchange will return the QuoteID as a reference in the quote response that applies to all quote items in the mass quote message.

An important feature of the response is that it is only sent by the Exchange/ECN after the message has been fully processed. If the response is sent from the gateway after initial validation checks, the Exchange faces the issue that internal queues can form. Under heavy loads the Quote Issuer can be sending more quotes when the previous quotes have not been processed. The response going back indicates that the previous quotes have been processed and more quotes can now be sent. This might result in quotes being overwritten at the Quote Issuer's system, but that is better than queuing occurring in the Exchange.

3.4 QuoteID

QuoteID is a unique identifier for the Mass Quote Message (for a single Quote message the QuoteMsgID serves the same purpose). It is normally an ascending sequence number, starting at one each day. QuoteID is unique for the FIX session. When multiple parties share a single FIX session they must ensure that they QuoteID is unique for that session.

The recommended practice for QuoteID is that it is a sequence number that is unique for a FIX session. This allows a Quote Issuer to conduct any number of sessions without managing quote identifiers across sessions which could negatively impact performance. Quote Issuers that operate multiple FIX sessions may choose to keep QuoteID unique across all sessions when updates for the same instrument are sent on multiple sessions. It should start at one and increment throughout the day. Executions messages should use QuoteID to reference an instance of a Quote in trades, rejections, etc.

QuoteEntryID = 1

SecurityID = 1234

SecurityIDSource = 8 (Exchange-assigned Identifier)

BidPx = 10.00

BidSize = 100

OfferPx = 10.10

OfferSize = 100

Repeated for z quote entries

QuoteSetID = 444

UnderlyingSymbol = DELL

NoOfQuoteEntries = y (for this quote set)

QuoteEntryID = 2222

SecurityID = 5678

SecurityIDSource = 8 (Exchange-assigned Identifier)

BidPx = 10.00

BidSize = 100

OfferPx = 10.10

OfferSize = 100

repeated for y quote entries.

Example2:

Using QuoteEntryID to update multiple quotes.

A Quote Issuer sends the first quote into the IBM June 80 Calls

- **QuoteID=100, QuoteEntryID=1, IBM June 80 Call, Buy 10 @ \$1.80, Sell 10 @ \$1.90**

Submit a second quote in the same instrument

- **QuoteID=102, QuoteEntryID=2, IBM June 80 Call, Buy 10 @ \$1.82, Sell 10 @ 1.92**

Update the first Quote

- **QuoteID=105, QuoteEntryID=1, IBM June 80 Call, Buy 10 @ \$1.84, Sell 10 @ 1.94**

Update Second Quote while first quote is still at \$1.82

- **QuoteID=110, QuoteEntryID=2, IBM June 80 Call, Buy 10 @ \$1.86, Sell 10 @ 1.96**

At this point, this Quote Issuer has two quotes in IBM June 80 Calls

- QuoteID 105, QuoteEntryID 1, Buy 10 @ 1.84, Sell 10 @ 1.94
- QuoteID 110, QuoteEntryID 2, Buy 10 @ 1.86, Sell 10 @ 1.96

Note that this is a simple example where the bid and offers moved together. The quote issuer will be moving the bids and offers independently. When either side changes then the quote must be updated and both sides of that pair must be sent together. The Quote issuer must know which bids and offers are paired.

The Quote Issuer can send one side only but it is treated as though both sides were sent.

- **QuoteID=120, QuoteEntryID=2, IBM June 80 Call, Sell 10 @ 1.92**

At this point, this Quote Issuer has two quotes in IBM June 80 Calls

- QuoteID=105, QuoteEntryID 1, Buy 10 @ 1.84, Sell 10 @ 1.94
- QuoteID=120, QuoteEntryID 2, Buy 10 @ 1.86, Sell 10 @ 1.92

4 Trades

Trades that result from Quotes are sent to the Quote Issuer in the regular fashion, i.e. through an Execution Report and often in a Trade Capture Report. Some differences can be implemented by the Exchange:

- The trade specifies that the execution was with a quote (e.g. using OrderCategory = 2 – Quote)
- A Mass Quote is referenced with ClOrdID = QuoteID and SecondaryClOrdID = QuoteEntryID, a single Quote is referenced with ClOrdID = QuoteMsgID and SecondaryClOrdID = QuoteID

The Execution Report is often sent on a dedicated session, different to the session sending the quotes. The Quote Issuer is specified in the Parties block.

- Where the Quote Issuer has multiple FIX sessions, drop copies of the Execution Report can be sent on multiple sessions. In this case all Execution Reports should be sent, including those that inform the Quote Issuer of changes to the current quote.

5 Cancelling Quotes

5.1 Cancelling Quotes

A Cancel request can be sent to cancel quotes. Quotes can be cancelled at varying levels from individual quote to market wide. A request to cancel quotes will result in a response that indicates the number of quotes that were cancelled. This response means that all quotes in the specified range are now out of the market. Some Exchanges have functionality where some quotes cannot be deleted for temporary trading situations such as intermarket linkage. Quotes can be cancelled at Six levels.

- 1) An individual bid may be set to zero by setting quantity and price to zero in the Mass Quote (or single Quote) message. The Quote Cancel message provides the same functionality through providing the id for the quote (and the appropriate Quote Cancel Type). This is treated as a valid quote even though there is no actual bid-quote entry in the market. Zero bids are not always stored in the market as a quote of zero price, it is simply not there at all.
- 2) Remove all quotes in an instrument.
- 3) Remove all quotes in an underlying
- 4) Remove all quotes market wide. This message is often split up by the Exchange and forwarded to each Exchange server. The Quote Issuer will receive one response from each underlying or one response from each server. The Quote Issuer does not get a single response for the whole market unless the Exchange is running on a single server.
- 5) Remove a specific quote
- 6) At the instrument Type level (e.g. all options, or all futures)

The response to a quote cancellation is a Mass Quote Acknowledgement when multiple quotes are cancelled and a Quote Status Report when a single quote is cancelled. However, in the case the Mass Quote is used to zero out a quote entry, a Quote Status Report is not issued.

The Mass Quote Ack can be used to report the total number of cancelled quotes per Quote Set (e.g. underlying) instead of reporting each individual quote entry.

When quotes are cancelled from multiple underlyings, a separate Mass Quote Acknowledgement is sent for each underlying, reporting the number of quotes cancelled in that underlying.

5.1.1 *Cancel Pending*

There are some situations where the Exchange cannot cancel some quotes upon receipt of the Cancel request. These situations mostly relate to Intermarket linkage situations. The Exchange can have as part of its response that a number of quotes cannot be deleted as they are locked. The Exchange will note that cancel request and will cancel the quotes when the trading situation is over if there is any quantity remaining. A further OUT (Mass Quote Acknowledgement or Quote Status Report) is sent to indicate that the remaining quotes are cancelled, unless they trade in which case a Trade message (Execution Report) is sent.

5.2 Quote Cancel Message Format

5.2.1 Quote Cancel

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = Z	
131	QuoteReqID	N	Required when quote is in response to a Quote Request message	
117	QuoteID	N	Conditionally required when QuoteCancelType = 5 (cancel quote specified in QuoteID) Maps to: <ul style="list-style-type: none"> QuoteID (117) of a single Quote QuoteEntryID (299) of a Mass Quote 	Comment text modified in FIX 5.0 SP1
1166	QuoteMsgID	N	Optionally used to supply a message identifier for a quote cancel.	New field in FIX 5.0 SP1
298	QuoteCancelType	Y	Identifies the type of Quote Cancel request.	
301	QuoteResponseLevel	N	Level of Response requested from receiver of quote messages.	
component block <Parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	
1	Account	N		
660	AcctIDSource	N		
581	AccountType	N	Type of account associated with the order (Origin)	
336	TradingSessionID	N		
625	TradingSessionSubID	N		
295	NoQuoteEntries	N	The number of securities (instruments) whose quotes are to be canceled Not required when cancelling all quotes.	
à	component block	N	Insert here the set of	

	<Instrument>			"Instrument" (symbology) fields defined in "Common Components of Application Messages"	
à	component	block	N	Insert here the set of "FinancingDetails" (symbology) fields defined in "Common Components of Application Messages"	
	<FinancingDetails>				
à	711	NoUnderlyings	N	Number of underlyings	
à	à	component	N	Must be provided if Number of underlyings > 0	
		<UnderlyingInstrument>			
à	555	NoLegs	N	Number of legs Identifies a Multi-leg Execution if present and non-zero.	
à	à	component	N	Must be provided if Number of legs > 0	
		<InstrumentLeg>			
	StandardTrailer		Y		

5.2.2 Quote Status Report

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = AI	
649	QuoteStatusReqID	N		
131	QuoteReqID	N	Required when quote is in response to a Quote Request message	
117	QuoteID	Y	Maps to: <ul style="list-style-type: none"> QuoteID (117) of a single Quote QuoteEntryID (299) of a Mass Quote. 	Comment text modified in FIX 5.0 SP1
1166	QuoteMsgID	N	Maps to: <ul style="list-style-type: none"> QuoteMsgID (tbd) of a single Quote or Quote Cancel QuoteID (117) of a Mass Quote. 	New field in FIX 5.0 SP1
693	QuoteRespID	N	Required when responding to a Quote Response message.	
537	QuoteType	N	Quote Type	

			If not specified, the default is an indicative quote	
298	QuoteCancelType	N	For use in response to quote cancel	New
component block <Parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	
336	TradingSessionID	N		
625	TradingSessionSubID	N		
component block <Instrument>		N	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"	
component block <FinancingDetails>		N	Insert here the set of "FinancingDetails" (symbology) fields defined in "Common Components of Application Messages"	
711	NoUnderlyings	N	Number of underlyings	
à	component block <UnderlyingInstrument>	N	Must be provided if Number of underlyings > 0	
54	Side	N		
component block <OrderQtyData>		N	Required for Tradeable quotes of single instruments	
63	SettlType	N		
64	SettlDate	N	Can be used with forex quotes to specify a specific "value date"	
193	SettlDate2	N	(Deprecated in FIX.5.0) Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.	
192	OrderQty2	N	(Deprecated in FIX.5.0) Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.	
15	Currency	N	Can be used to specify the currency of the quoted prices. May differ from the 'normal' trading currency of the instrument being quoted	
component block <Stipulations>		N		

1	Account		N		
660	AcctIDSource		N		
581	AccountType		N	Type of account associated with the order (Origin)	
555	NoLegs		N	Required for multileg quote status reports	
à	component	block	N	Required for multileg quote status reports For Swaps one leg is Buy and other leg is Sell	
	<InstrumentLeg>				
à	687	LegQty	N		
à	685	LegOrderQty	N	When reporting an Execution, LegOrderQty may be used on Execution Report to echo back original LegOrderQty submission. This field should be used to specify OrderQty at the leg level rather than LegQty (deprecated).	
à	690	LegSwapType	N		
à	587	LegSettlType	N		
à	588	LegSettlDate	N		
à	component	block	N		
	<LegStipulations>				
à	component	block	N		
	<NestedParties>				
735	NoQuoteQualifiers		N		
à	695	QuoteQualifier	N	Required if NoQuoteQualifiers > 1	
126	ExpireTime		N		
44	Price		N		
423	PriceType		N		
	component	block	N		
	<SpreadOrBenchmarkCurveData>				
	component	block	N		
	<YieldData>				
132	BidPx		N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
133	OfferPx		N	If F/X quote, should be the "all-in" rate (spot rate adjusted for	

			forward points). Note that either BidPx, OfferPx or both must be specified.	
645	MktBidPx	N	Can be used by markets that require showing the current best bid and offer	
646	MktOfferPx	N	Can be used by markets that require showing the current best bid and offer	
647	MinBidSize	N	Specifies the minimum bid size. Used for markets that use a minimum and maximum bid size.	
134	BidSize	N	Specifies the bid size. If MinBidSize is specified, BidSize is interpreted to contain the maximum bid size.	
648	MinOfferSize	N	Specifies the minimum offer size. If MinOfferSize is specified, OfferSize is interpreted to contain the maximum offer size.	
135	OfferSize	N	Specified the offer size. If MinOfferSize is specified, OfferSize is interpreted to contain the maximum offer size.	
62	ValidUntilTime	N		
188	BidSpotRate	N	May be applicable for F/X quotes	
190	OfferSpotRate	N	May be applicable for F/X quotes	
189	BidForwardPoints	N	May be applicable for F/X quotes	
191	OfferForwardPoints	N	May be applicable for F/X quotes	
631	MidPx	N		
632	BidYield	N		
633	MidYield	N		
634	OfferYield	N		
60	TransactTime	N		
40	OrdType	N	Can be used to specify the type of order the quote is for	
642	BidForwardPoints2	N	(Deprecated in FIX.5.0) Bid F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a	

			negative value	
643	OfferForwardPoints2	N	(Deprecated in FIX.5.0) Offer F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	
656	SettlCurrBidFxRate	N	Can be used when the quote is provided in a currency other than the instrument's 'normal' trading currency. Applies to all bid prices contained in this message	
657	SettlCurrOfferFxRate	N	Can be used when the quote is provided in a currency other than the instrument's 'normal' trading currency. Applies to all offer prices contained in this message	
156	SettlCurrFxRateCalc	N	Can be used when the quote is provided in a currency other than the instruments trading currency.	
13	CommType	N	Can be used to show the counterparty the commission associated with the transaction.	
12	Commission	N	Can be used to show the counterparty the commission associated with the transaction.	
582	CustOrderCapacity	N	For Futures Exchanges	
100	ExDestination	N	Used when routing quotes to multiple markets	
1133	ExDestinationIDSource	N		
297	QuoteStatus	N	Quote Status	
300	QuoteRejectReason	N	Reason Quote was rejected	New field in FIX 5.0 SP1
58	Text	N		
354	EncodedTextLen	N		
355	EncodedText	N		
	StandardTrailer	Y		

6 Quote Issuer Protection

This concept is supported in a number of Exchanges however it is not defined in the FIX specification at the time of writing. The concept will be defined in a future release of the FIX protocol.

An issue for Derivative markets is that a Quote Issuer is willing to trade a certain number of contracts across all derivative instruments within an underlying, but is required to post firm markets in every instrument in that underlying. The mechanism often called a "Speedbump" allows the Quote Issuer to specify the maximum size that it is willing to execute in that underlying, regardless of which instrument the trades occur. In the event that the limit is exceeded, all remaining quotes are removed and further quotes are rejected until the Quote Issuer resets the protection mechanism.

Example: A Quote Issuer may be willing to trade a total of 100 contracts in any option relating to IBM. The Quote Issuer will set the protection mechanism to 100 for IBM, then set the size in each option to 100. If more than 100 contracts are executed by that Quote Issuer in IBM in less than the specified timeframe, then all quotes for that Quote Issuer in IBM are removed before the next transaction should occur.

The Quote Issuer specifies the parameters for each underlying in advance. Parameters generally include Underlying name, Maximum Quantity, Maximum number of trades and Time Interval. If the Maximum Quantity or Maximum Number of Trades should occur in options relating to that underlying, within the specified time interval, all remaining quotes in that underlying are cancelled and a speedbump message is sent to the Quote Issuer. The speedbump message contains a speedbump reference number. Once the speedbump has been activated, all further quotes for that underlying, by that Quote Issuer are rejected until the speedbump is reset.

The speedbump can be reset by including the speedbump reference number on the next quote or by sending a special speedbump reset message that contains the speedbump reference. The Exchange will again accept mass quotes in that underlying once the speedbump has been reset.

The Quote Issuer can send quotes where the quantity on each of the quotes is larger than the size of the speedbump for the entire underlying. The Exchange/ECN will execute against the size specified on the quote. At the completion of each transaction the speedbump is checked and if the speedbump quantity is exceeded, the speedbump is activated.

Combination orders can execute against multiple legs at the same time. The speedbump is only checked after each transaction.

7 Unsolicited Changes

There are a number of situations that can cause quotes to be altered by the Exchange/ECN:

- Trades
- Quote trade to less than minimum size; moved back to next price, minimum size
- Overlaps National quoted market or other quotes in local market; altered to unlock
- Quotes cancelled as a result of speedbump or network disconnect to Quote Issuer.

Such events are communicated to the Quote Issuer through the use of a Quote Status Report. The Mass Quote Acknowledgement is also be used in the case multiple quotes are affected by the same event. The report identifies the quote through the use of Quote Issuer, Instrument, QuoteID, and QuoteEntryID. The report will often specify one side on the quote and provide new size and price for just that one side. However, if needed both sides could be relayed.

For example, if the Quote Issuer submits a quote 100 @ \$2.00 x 300 @ 2.20 and the National market is \$1.80 x \$1.95. The Exchange might not be permitted to lock or cross the National Market and will "Adjust to Post" meaning that it is adjust so as not to cross the national market. A message is sent to say that the bid was adjusted to 100@1.94.

If the individual quotes are cancelled the Quote Issuer will receive an OUT for individual quote items. This is a one sided message, e.g., IBM7JUN80.0C, BID, QuoteID=12345, QuoteEntryID=2.

In the event of a Speedbump being triggered, all quotes in all instruments relating to that underlying are removed. In this event a Mass Quote Acknowledgement can be sent saying that all quotes for the underlying are removed.

If the Quote Issuer system should disconnect then all quotes can be removed by the Exchange. This facility is implemented by some Exchanges and will be activated if all network connectivity is lost to the Quote Issuer. In some Derivative markets there are simply too many instruments to send a message for each instrument. Note that the Quote Issuer can have listener applications from other sites which will get the OUT messages. The Mass Quote Acknowledgement will normally have a repeating group of underlyings and specify the number of quotes canceled in each Underlying. There is often one message sent from each Exchange server.

7.1 Queries for current Quote State

Some Exchanges/ECNs provide queries where a Quote Issuer can query to get the current state of all quotes. This is often redundant as it is easier for the Quote Issuer to pull quotes and resubmit quotes rather than query to find the current state of quotes. Queries are not further discussed in this document – please refer to the FIX Specification.

8 Multiple Sessions and Sites

This chapter discusses the relationship between Quote Issuer and FIX Session. The concepts in this document specify that the reference numbers are unique to the Quote Issuer. This leaves open the possibility that multiple Quote Issuers can share a common FIX session and that one Quote Issuer can operate over multiple FIX sessions.

This concept is supported in a number of Exchanges, however it is not defined in the FIX specification at the time of writing. The concept will be defined in future releases of the FIX protocol.

Smaller Quote Issuers combined on a single FIX session.

Some Exchanges/ECNs support multiple issuers on a single FIX session. A Market Maker organization can use single user Workstations where each person is trading independently. The quotes from each workstation can be combined and sent to an Exchange on a single FIX session. In this situation the individual market maker is identified in the Parties block. The requirement for this configuration is that every message to the Exchange has a unique QuoteID. Execution messages from the Exchange will contain the Party block to allow the execution to be routed back to the originator.

Larger Quote Issuers on Multiple FIX Sessions.

Some Exchanges support a Quote Issuer sending quotes over multiple FIX sessions. Market Makers that are quoting all instruments on an Exchange need very high throughput rates. To obtain the high rates, multiple FIX sessions are required. The Quote Issuer might be generating the quotes which are then sent on whichever FIX session has the smallest queue. Execution reports might be processed on a separate FIX session to that which is sending the quotes. In this configuration, the Quote Issuer might assign unique QuoteIDs across all FIX sessions so that the execution reports can be matched to the current quotes, regardless of which FIX session the mass quote was sent.

Multiple Sites

Both Market Makers and Exchanges operate systems that reside in multiple sites for redundancy. This often creates a crossover configuration where lines connect each of the market maker sites with each of the Exchange sites. Multiple FIX sessions connect each of the sites. In this configuration the same principles for Mass Quoting are applied. The QuoteID is unique for the Quote Issuer and the execution report will contain the QuoteID, regardless of which FIX session is used. Execution reports can be broadcast to multiple FIX sessions, which can be different to the one that sent in the Mass Quote message.

The concepts in this chapter are still under review. To discuss further, please contact the FIX Exchanges/ECNs working group.

9 Relationship to Market Data

The Quote Issuer is submitting quotes to the Exchange/ECN which stores the quotes into an orderbook for each instrument. The Exchange/ECN will then publish one or multiple data feeds:

- Top of Book being the Best Bid Offer for each instrument
- Aggregated Depth (Price Depth), being the total quantity available at each price level
- Full Depth of Book (Order Depth) being a description of each orders and Quote at each price level. Some Exchanges disclose the identity and the ClOrdID of each order on the public feed while others keep this information private and assign a reference ID to each order or quote with "MDEntryID". This reference is NOT the Quote Issuers reference. It is only a reference used by the Market Data system to reference that order.

Some Exchanges apply a holdback timer before disseminating quotes to the Market.

Some Exchanges will not send market information for certain series unless there is some trading activity, or some other criteria for which symbols are quoted. This does not normally relate to the requirements on the Quote Issuers to provide quotes.

10 Checklists

The following checklists are provided for Market Makers and Exchanges/ECNs to assist in the implementation of the Mass Quote Function.

10.1 Market Makers

- Use sequentially incrementing QuoteID on all Mass Quote messages
- QuoteID should start from one at the beginning of each day.
- When using multiple FIX sessions, QuoteID should be unique across all sessions
- QuoteID will be in ClOrdID of trades and can be used to see if a trade relates to the current quote
- When providing multiple quotes to one instrument, use QuoteEntryID to specify which quote is to be updated.
- Check which features are supported by the Exchange.
 - Multiple issuers on a single FIX session
 - Multiple sessions for a single Issuer
 - Multiple quotes in an instrument at the same time
 - Quotes for multiple instruments in one Mass Quote message

10.2 Exchanges/ECNs

- Do not check that QuoteID is unique
- QuoteID should be copied onto execution reports
- Be clear as to which features are supported
 - Multiple issuers on a single FIX session
 - Multiple sessions for a single Issuer
 - Multiple quotes in an instrument at the same time
 - Quotes for multiple instruments in one Mass Quote message

11 Appendix A - Mass Quote Message Formats

11.1 Mass Quote

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = i (lowercase)	
131	QuoteReqID	N	Required when quote is in response to a Quote Request message	Not recommended. Some Exchanges allow quote requests to be answered with a Mass Quote.
117	QuoteID	Y		Identifies the Mass Quote message being submitted and can be used as a version number when used in combination with QuoteEntryID
537	QuoteType	N	Type of Quote Default is Indicative if not specified	Not recommended. Some Exchanges allow quotes to be active or inactive and can change before/after the opening.
301	QuoteResponseLevel	N	Level of Response requested from receiver of quote messages.	Not recommended. Exchanges either send an ack or do not send an ack.
component block <Parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	Who is sending this message
1	Account	N		Not normally on a Mass Quote. Sometimes required by Exchanges to identify the actual trader sending quotes when multiple traders are on the desk.
660	AcctIDSource	N		
581	AccountType	N	Type of account associated with the order (Origin)	Mass Quotes are normally assigned to an account at the session level.
293	DefBidSize	N	Default Bid Size for quote contained within this quote message - if not explicitly provided.	Can be used when most or all quotes have default size.
294	DefOfferSize	N	Default Offer Size for quotes contained within this quote message - if not explicitly	Can be used when most or all quotes have default size.

				provided.		
296	NoQuoteSets		Y	The number of sets of quotes in the message		
à	302	QuoteSetID	Y	Sequential number for the Quote Set. For a given QuoteID – assumed to start at 1. Must be the first field in the repeating group.	This field is used to identify first field in set. Some markets might not have equivalent of underlying name.	
à	component block <UnderlyingInstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "Common Components of Application Messages"		
à	367	QuoteSetValidUntilTime	N		Not used	
à	304	TotNoQuoteEntries	Y	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries in each message that has repeating quotes that are part of the same quote set.	Not recommended. This is used when a Quote Set can go over multiple messages which is not recommended.	
à	893	LastFragment	N	Indicates whether this is the last fragment in a sequence of message fragments. Only required where message has been fragmented.	Not recommended	
à	295	NoQuoteEntries	Y	The number of quotes for this Symbol (instrument) (QuoteSet) that follow in this message. ** Nested Repeating Group follows **		
à	à	299	QuoteEntryID	Y	Uniquely identifies the quote across the complete set of all quotes for a given quote provider.	Comment text modified in FIX 5.0 SP1
à	à	component block <Instrument>	N	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"		
à	555	NoLegs	N	Number of legs Identifies a Multi-leg Execution if present and non-zero.		
à	à	component block <InstrumentLeg>	N	Must be provided if Number of legs > 0		

à	à	132	BidPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
à	à	133	OfferPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
à	à	134	BidSize	N		
à	à	135	OfferSize	N		
à	à	62	ValidUntilTime	N		Not recommended. Mass quotes are good for day.
à	à	188	BidSpotRate	N	May be applicable for F/X quotes	
à	à	190	OfferSpotRate	N	May be applicable for F/X quotes	
à	à	189	BidForwardPoints	N	May be applicable for F/X quotes	
à	à	191	OfferForwardPoints	N	May be applicable for F/X quotes	
à	à	631	MidPx	N		
à	à	632	BidYield	N		
à	à	633	MidYield	N		
à	à	634	OfferYield	N		
à	à	60	TransactTime	N		
à	à	336	TradingSessionID	N		Not Used
à	à	625	TradingSessionSubID	N		Not Used
à	à	64	SettlDate	N	Can be used with forex quotes to specify a specific "value date"	Not Used
à	à	40	OrdType	N	Can be used to specify the type of order the quote is for	Not Used
à	à	193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.	Not Used
à	à	192	OrderQty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.	Not Used

à	à	642	BidForwardPoints2	N	Bid F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	Not Used
à	à	643	OfferForwardPoints2	N	Offer F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	Not Used
à	à	15	Currency	N	Can be used to specify the currency of the quoted price.	Not Used
StandardTrailer				Y		

11.2 Mass Quote Acknowledgement

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = b (lowercase)	
131	QuoteReqID	N	Required when acknowledgment is in response to a Quote Request message	
117	QuoteID	N	Required when acknowledgment is in response to a Mass Quote, mass Quote Cancel or mass Quote Status Request message. Maps to: <ul style="list-style-type: none"> QuoteID (117) of a Mass Quote QuoteMsgID (tbd) of Quote Cancel QuoteStatusReqID (649) of Quote Status Request 	Comment text modified in FIX 5.0 SP1
297	QuoteStatus	Y	Status of the mass quote acknowledgement.	
300	QuoteRejectReason	N	Reason Quote was rejected.	
301	QuoteResponseLevel	N	Level of Response requested from receiver of quote messages. Is echoed back to the counterparty.	
537	QuoteType	N	Type of Quote	
298	QuoteCancelType	N	For use in response to quote cancel	New
component block <Parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	

1	Account		N			
660	AcctIDSource		N			
581	AccountType		N	Type of account associated with the order (Origin)		
58	Text		N			
354	EncodedTextLen		N			
355	EncodedText		N			
296	NoQuoteSets		N	The number of sets of quotes in the message		
à	302	QuoteSetID	N	First field in repeating group. Required if NoQuoteSets > 0		
à	component block <UnderlyingInstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "Common Components of Application Messages" Required if NoQuoteSets > 0		
à	304	TotNoQuoteEntries	N	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries in each message that has repeating quotes that are part of the same quote set. Required if NoQuoteEntries > 0		
à	1168	TotNoCxlQuotes	N	Total number of quotes canceled for the quote set across all messages.	New field in FIX 5.0 SP1	
à	1169	TotNoAccQuotes	N	Total number of quotes accepted for the quote set across all messages.	New field in FIX 5.0 SP1	
à	1170	TotNoRejQuotes	N	Total number of quotes rejected for the quote set across all messages.	New field in FIX 5.0 SP1	
à	893	LastFragment	N	Indicates whether this is the last fragment in a sequence of message fragments. Only required where message has been fragmented.		
à	295	NoQuoteEntries	N	The number of quotes for this Symbol (QuoteSet) that follow in this message.		
à	à	299	QuoteEntryID	N	Uniquely identifies the quote across the complete set of all quotes for a given quote	Comment text modified in FIX 5.0 SP1

					provider. First field in repeating group. Required if NoQuoteEntries > 0.	
à	à	component block <Instrument>		N	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"	
à	555	NoLegs		N	Number of legs Identifies a Multi-leg Execution if present and non-zero.	
à	à	component block <InstrumentLeg>		N	Must be provided if Number of legs > 0	
à	à	132	BidPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
à	à	133	OfferPx	N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
à	à	134	BidSize	N		
à	à	135	OfferSize	N		
à	à	62	ValidUntil Time	N		
à	à	188	BidSpotRate	N	May be applicable for F/X quotes	
à	à	190	OfferSpotRate	N	May be applicable for F/X quotes	
à	à	189	BidForwardPoints	N	May be applicable for F/X quotes	
à	à	191	OfferForwardPoints	N	May be applicable for F/X quotes	
à	à	631	MidPx	N		
à	à	632	BidYield	N		
à	à	633	MidYield	N		
à	à	634	OfferYield	N		
à	à	60	TransactTime	N		
à	à	336	TradingSessionID	N		

à	à	625	TradingSessionSubID	N		
à	à	64	SettlDate	N	Can be used with forex quotes to specify a specific "value date"	
à	à	40	OrdType	N	Can be used to specify the type of order the quote is for	
à	à	193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.	
à	à	192	OrderQty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.	
à	à	642	BidForwardPoints2	N	Bid F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	
à	à	643	OfferForwardPoints2	N	Offer F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	
à	à	15	Currency	N	Can be used to specify the currency of the quoted price.	
à	à	1167	QuoteEntryStatus	N		New field in FIX 5.0 SP1
à	à	368	QuoteEntryRejectReason	N	Reason Quote Entry was rejected.	
StandardTrailer				Y		

12 Message Formats - Single Quotes

This is the format of the Single Quote message. It is provided for comparison purposes only.

12.1 Quote

Tag	FieldName	Req'd	Comments	EEWG Comments
	StandardHeader	Y	MsgType = S	
131	QuoteReqID	N	Required when quote is in response to a Quote Request message	
117	QuoteID	Y		
1166	QuoteMsgID	N	Optionally used to supply a message identifier for a quote.	New field in FIX 5.0 SP1
693	QuoteRespID	N	Required when responding to the Quote Response message. The counterparty specified ID of the Quote Response message.	
537	QuoteType	N	Quote Type If not specified, the default is an indicative quote	
735	NoQuoteQualifiers	N		
à	695 QuoteQualifier	N	Required if NoQuoteQualifiers > 1	
301	QuoteResponseLevel	N	Level of Response requested from receiver of quote messages.	
component block <Parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	
336	TradingSessionID	N		
625	TradingSessionSubID	N		
component block <Instrument>		N	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"	
component <FinancingDetails> block		N	Insert here the set of "FinancingDetails" (symbology) fields defined in "Common Components of Application Messages"	
711	NoUnderlyings	N	Number of underlyings	

à	component	block	N	Must be provided if Number of underlyings > 0	
54	Side		N	Required for Tradeable or Counter quotes of single instruments	
	component block <OrderQtyData>		N	Required for Tradeable quotes or Counter quotes of single instruments	
63	SettlType		N		
64	SettlDate		N	Can be used with forex quotes to specify a specific "value date"	
193	SettlDate2		N	(Deprecated in FIX.5.0) Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.	
192	OrderQty2		N	(Deprecated in FIX.5.0) Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.	
15	Currency		N	Can be used to specify the currency of the quoted prices. May differ from the 'normal' trading currency of the instrument being quoted	
	component block <Stipulations>		N	Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "Common Components of Application Messages"	
1	Account		N		
660	AcctIDSource		N		
581	AccountType		N	Type of account associated with the order (Origin)	
555	NoLegs		N	Required for multileg quotes	
à	component	block	N	Required for multileg quotes For Swaps one leg is Buy and other leg is Sell	
à	687	LegQty	N		
à	685	LegOrderQty	N	When reporting an Execution, LegOrderQty may be used on Execution Report to echo back original LegOrderQty submission.	

				This field should be used to specify OrderQty at the leg level rather than LegQty (deprecated).	
à	690	LegSwapType	N		
à	587	LegSettlType	N		
à	588	LegSettlDate	N		
à	component block <LegStipulations>		N		
à	component block <NestedParties>		N		
à	686	LegPriceType	N	Code to represent type of price presented in LegBidPx and LegOfferPx. Required if LegBidPx or PegOfferPx is present.	
à	681	LegBidPx	N		
à	684	LegOfferPx	N		
à	component block <LegBenchmarkCurveData>		N		
à	654	LegRefID	N	Initiator can optionally provide a unique identifier for the specific leg. Required for FX Swaps	
à	1067	LegBidForwardPoints	N		
à	1068	LegOfferForwardPoints	N		
132	BidPx		N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
133	OfferPx		N	If F/X quote, should be the "all-in" rate (spot rate adjusted for forward points). Note that either BidPx, OfferPx or both must be specified.	
645	MktBidPx		N	Can be used by markets that require showing the current best bid and offer	
646	MktOfferPx		N	Can be used by markets that require showing the current best bid and offer	
647	MinBidSize		N	Specifies the minimum bid size.	

			Used for markets that use a minimum and maximum bid size.	
134	BidSize	N	Specifies the bid size. If MinBidSize is specified, BidSize is interpreted to contain the maximum bid size.	
648	MinOfferSize	N	Specifies the minimum offer size. If MinOfferSize is specified, OfferSize is interpreted to contain the maximum offer size.	
135	OfferSize	N	Specifies the offer size. If MinOfferSize is specified, OfferSize is interpreted to contain the maximum offer size.	
62	ValidUntilTime	N	The time when the quote will expire	
188	BidSpotRate	N	May be applicable for F/X quotes	
190	OfferSpotRate	N	May be applicable for F/X quotes	
189	BidForwardPoints	N	May be applicable for F/X quotes	
191	OfferForwardPoints	N	May be applicable for F/X quotes	
106 5	BidSwapPoints	N	Bid swap points of an FX Swap quote.	
106 6	OfferSwapPoints	N		
631	MidPx	N		
632	BidYield	N		
633	MidYield	N		
634	OfferYield	N		
60	TransactTime	N		
40	OrdType	N	Can be used to specify the type of order the quote is for	
642	BidForwardPoints2	N	(Deprecated in FIX.5.0) Bid F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a negative value	
643	OfferForwardPoints2	N	(Deprecated in FIX.5.0) Offer F/X forward points of the future portion of a F/X swap quote added to spot rate. May be a	

			negative value	
656	SettlCurrBidFxRate	N	Can be used when the quote is provided in a currency other than the instrument's 'normal' trading currency. Applies to all bid prices contained in this quote message	
657	SettlCurrOfferFxRate	N	Can be used when the quote is provided in a currency other than the instrument's 'normal' trading currency. Applies to all offer prices contained in this quote message	
156	SettlCurrFxRateCalc	N	Can be used when the quote is provided in a currency other than the instruments trading currency.	
13	CommType	N	Can be used to show the counterparty the commission associated with the transaction.	
12	Commission	N	Can be used to show the counterparty the commission associated with the transaction.	
582	CustOrderCapacity	N	For Futures Exchanges	
100	ExDestination	N	Used when routing quotes to multiple markets	
113 3	ExDestinationIDSource	N		
528	OrderCapacity	N		
423	PriceType	N		
	component block <SpreadOrBenchmarkCurveData>	N		
	component block <YieldData>	N		
58	Text	N		
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.	
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.	
	StandardTrailer	Y		