



London
Stock Exchange

Service & Technical Description

Request for Quote (RFQ)

Version 1.1

30 August 2018



London
Stock Exchange Group

Contents

1	REVISION HISTORY	3
2	INTRODUCTION.....	4
2.1	PURPOSE.....	4
2.2	READERSHIP.....	4
2.3	OVERVIEW OF THE REQUEST FOR QUOTE SERVICE	4
2.4	ENQUIRIES.....	6
2.5	TRADING SERVICES ENABLED	7
3	FUNCTIONALITY	9
3.1	OVERVIEW	9
3.1.1	<i>Manual RFQ model behaviour:</i>	11
3.1.2	<i>Auto-Complete RFQ model behaviour:</i>	11
3.1.3	<i>Requester submits RFQ</i>	12
3.1.4	<i>RFQ Market Maker receives an RFQ</i>	15
3.1.5	<i>RFQ Market Maker responds to the RFQ</i>	16
3.1.6	<i>Requester receives RFQ Quotes (Manual model only)</i>	18
3.1.7	<i>Requester hits/lifts the RFQ Quote (Manual model only)</i>	20
3.1.8	<i>Requester cancels the RFQ</i>	22
3.1.9	<i>Termination</i>	23
3.2	INTERFACES.....	25
3.2.1	<i>Native Trading Gateway</i>	25
3.2.2	<i>FIX Trading Gateway</i>	25
3.2.3	<i>FIX Drop Copy Gateway</i>	26
3.2.4	<i>FIX Post Trade Gateway</i>	26
3.2.5	<i>MITCH Market Data</i>	26
3.2.6	<i>GTP Market Data</i>	26
3.2.7	<i>Message rate throttling</i>	27
3.3	TRADING SESSIONS	27
4	HOW TO REQUEST RFQ ENABLEMENT?.....	29
4.1	MEMBER FIRM ACCESS.....	29
4.2	CUSTOMER TESTING	29
4.3	REFERENCE DATA.....	30

1 Revision History

History of changes	
04/08/2016	Section 3.4 changes
22/11/2016	Select and Match model changes
31/07/2017	Tick size application details added (section 3.1)
29/08/2018	Introduction of RFQ for Equities, Auto-Complete RFQ changes and for pre-trade transparency model for RFQs below the ESMA Large In Scale threshold
30/08/2018	Customer Testing section updated to include list of ETPs available in CDS

2 Introduction

London Stock Exchange is one of the leading global markets for Equities, Exchange Traded Products (ETPs) and Deposit Receipts with a diverse range of participating member firms. To support the varied trading needs of our customers, London Stock Exchange will introduce an optional Manual and Auto-Complete Request for Quote (RFQ) functionality for Equities, Exchange Traded Products (ETPs) and Deposit Receipts traded on the SETS,ETF – Euroclear Bank Settlement and International Order Book (IOB) trading services. The new RFQ functionality supports on Exchange execution of bilateral trades by institutional clients.

2.1 Purpose

The purpose of this document is to provide participants with an understanding of the RFQ functionality.

2.2 Readership

This Service & Technical Description provides an overview of the functional work required to support the new service. This document is particularly relevant to trading, compliance and technical staff within London Stock Exchange's member firms and the software providers that service them.

2.3 Overview of the Request for Quote service

London Stock Exchange will offer Manual and Auto-Complete RFQ functionality for Equities, ETPs and Deposit Receipts traded on SETS, ETF – Euroclear Bank and the CCP-cleared IOB trading services. All securities in the trading segments for these products will have the functionality enabled.

Further information can be found in the [Millennium Exchange Business Parameters](#).

Member firms will be able to request enablement of the new functionality once the production go live date has been announced.

Other relevant documentation & resources

- ***Rules of the London Stock Exchange***

The latest Rules of the London Stock Exchange in force can be found at:

www.londonstockexchange.com/traders-and-brokers/rules-regulations/rules-regulations.htm

Changes to the Rules of the London Stock Exchange and other key regulatory announcements are made via Stock Exchange Notices.

- **Stock Exchange Notices**

To sign up to e-mail notification of future Stock Exchange Notices and view the library of previous ones please see:

www.londonstockexchange.com/traders-and-brokers/rules-regulations/change-and-updates/stock-exchange-notices/sen-home.htm

- **Trading Services webpage**

For more details of London Stock Exchange's Trading Services, including the latest versions of:

- **MIT 201 Guide to the Trading System**
(high level technical overview of Millennium Exchange)
- **Millennium Exchange and TRADEcho Business Parameters document**
(specific configuration of each Trading Service)

www.londonstockexchange.com/tradingservices

- **Market Data**

Technical details for this service are available at:

Level 2-MITCH:

www.londonstockexchange.com/products-and-services/technical-library/millennium-exchange-technical-specifications/millennium-exchange-technical-specifications.htm

Group Ticker Plant:

www.londonstockexchange.com/products-and-services/millennium-exchange/documentation/documentation.htm

- **Full Technical Specifications**

The full series of Millennium Exchange technical specifications can be found at:

<http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm>

- **Service Announcements**

Live Service changes and other trading and product news are notified by Service Announcements. To sign up to e-mail notification of future Service Announcements and view the library of previous ones please see:

<http://www.londonstockexchange.com/products-and-services/technical-library/service-announcements/service-announcements.htm>

- **Live Service Portal**

The current system status of London Stock Exchange's services is displayed on its Live Service Portal. This is the mechanism via which London Stock Exchange communicate any market intervention actions it takes as result of a service interruption. Participants can also register to receive both SMS text and e-mail notification of status changes of the portal which can be found at:

<http://liveservice.lseg.com>

- **Trading database tools**

To help you keep your trading database synchronised on a real time basis, you may wish to subscribe to either the Datasync Email Service or the Datasync Daily Tradable Instrument Report (DTI). To find out more please see:

[STX: 33009](#)

[Telephone: +44 \(0\)20 7797 3009](#)

E-mail: unavistadatasolutions@lseg.com

2.4 Enquiries

- **Technical enquiries**

For functional queries, client on-boarding and technical advice about the Millennium Exchange:

Telephone: +44 (0)20 7797 3939

E-mail: londontam@lseg.com

- **Membership Team**

For enquiries relating to trading profile amendments and clearing & settlement static data

Telephone: +44 (0)20 7797 1900

E-mail: membership@lseg.com

- **Trading Services enquiries**

Enquiries with regard to business operation of the new trading functionality may be directed to:

Telephone: +44 (0)20 7382 7650

E-mail: clients@lseg.com

2.5 Trading services enabled

The following Trading Services and Segments will have the RFQ functionality enabled:

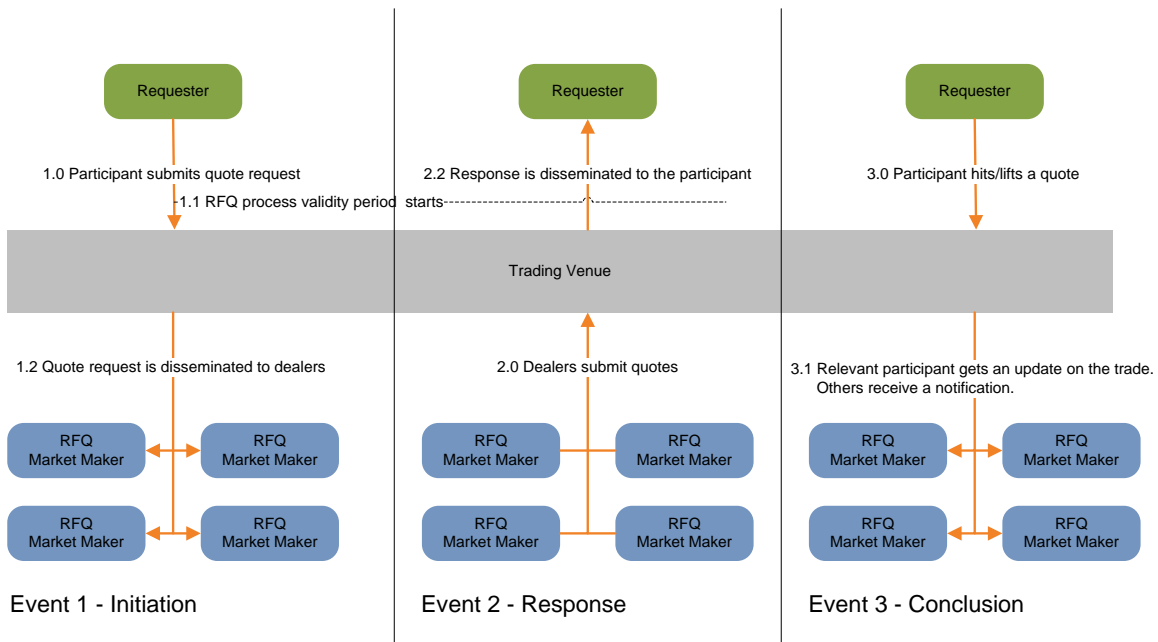
Trading Service	Segment Code	Segment Description
SETS	SET1	FTSE 100
	STMM	FTSE 250
	SSMM	Small Cap
	SET3	OTHER
	SSMU	SETS STANDARD LISTED OR AIM EURM
	SFM1	SETS - Specialist Fund Segment
	HGS1	SETS - High Growth Segment
	AMSM	AIM ON SETS
	ETFS	EXCHANGE TRADED FUNDS
	ETF2	EXCHANGE TRADED FUNDS (MULTI-CURRENCY)
	ETFU	EXCH. TRADED FUNDS MULTI-CURR. 3
	ETCS	EXCHANGE TRADED PRODUCTS
	ETC2	EXCHANGE TRADED PRODUCTS MULTI-CURR. 2

	ETCU	EXCHANGE TRADED PRODUCTS MULTI-CURR. 3
	IECR	non-UCITS ETFs
	IECF	non-UCITS ETFs (Multi-currency)
	ODTT	TEST SEGMENT ORDERS
	SET0	Reserved for future re-use
	SET2	Reserved for future re-use
ETFS - Euroclear Bank settlement	EUET	ETFs – Euroclear Bank settlement
	EUE2	ETFs – Euroclear Bank settlement (Multi-Currency)
	EUE3	ETFs – Euroclear Bank settlement (Multi-Currency3)
International Order Book	IOBE	INT. ORDER BOOK CCP (EUROCLEAR BANK)
	IOBS	IOB - Stock Connect CCP (EUROCLEAR BANK)

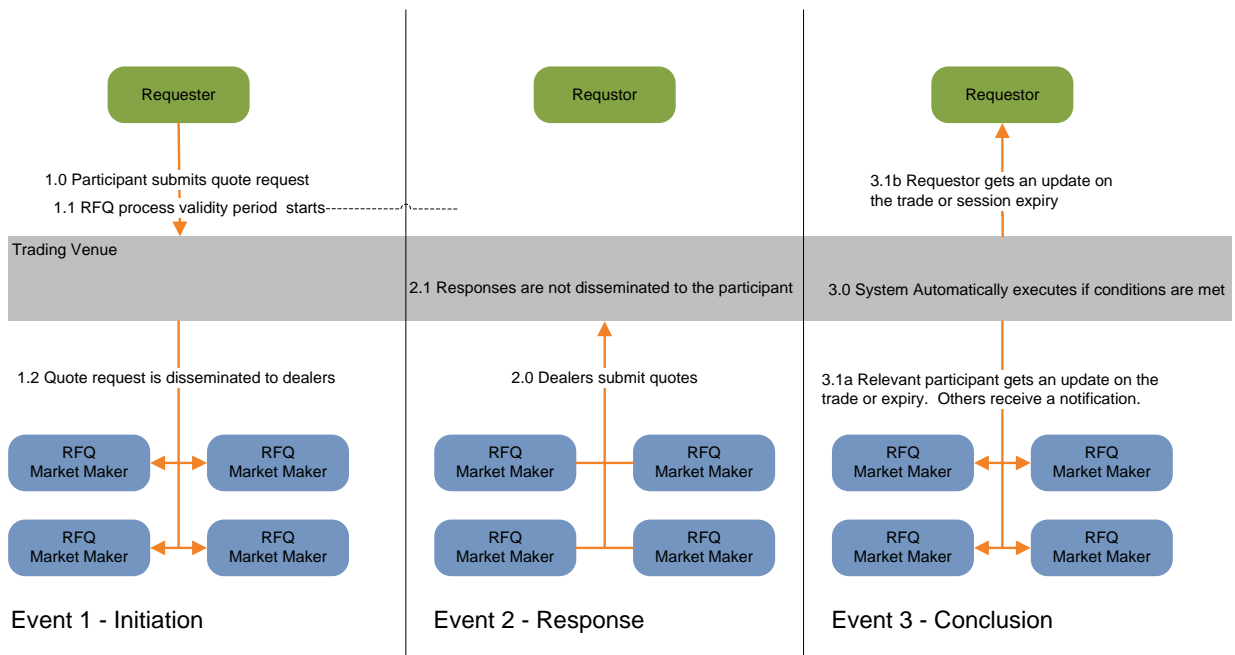
3 Functionality

3.1 Overview

Manual RFQ model



Auto-Complete RFQ model



A member firm can request a quote for a particular instrument via the FIX or Native Trading Gateway by sending a private¹ Request for Quote (RFQ)

For the Manual RFQ model, the requester must specify the following in their initial Quote Request, after which they will close the session by sending a Quote Response message to execute against Quotes received:

- Quantity – will be passed to the RFQ market makers
- Anonymous or named – requesters may choose to appear anonymous or named in the request sent to RFQ market makers
- Side (optional) – requesters may choose to state whether they are a buyer or seller
- Disclose Side – requesters may choose to disclose their Side or not to RFQ market makers
- Limit price (optional) – requesters' limit price will not be passed to RFQ market makers
- Expiry time (optional) – requesters' expiry time will not be passed to RFQ market makers.

For the Auto-Complete RFQ model, the requester must specify the following in their initial Quote Response, after which the session will close automatically:

- Quantity – will be passed to the RFQ market makers
- Anonymous or named – requesters may choose to appear anonymous or named in the request sent to RFQ market makers
- Side (required) – requesters must state whether they are a buyer or seller
- Disclose Side – requesters may choose to disclose their Side
- Limit price (optional) – requesters' limit price will not be passed to RFQ market makers
- Expiry time (optional) – requesters' expiry time will not be passed to RFQ market makers
- RFQ minimum number of quotes – requesters may state the minimum number of RFQ market maker quotes which must be received for the RFQ session to be considered valid and the execution process commence. If not stated then the system default will be used
- RFQ execution delay – requesters may state the minimum number of seconds from the time of RFQ submission to be elapsed before the execution process commences. If 0 (zero) seconds is stated, the system will default to the system minimum delay of 200ms. Following the Execution Delay, the system will check for necessary condition to be met (see 3.1.2) before a random duration of up to 50ms will commence for execution against the best available Quote.

The value of the requested Quantity should be within London Stock Exchange defined limits (Minimum RFQ value and Maximum RFQ value, found in the XLON instrument reference data file).

The RFQ will remain valid until such time specified by the Requester, or until it exceeds the maximum allowed duration (180 seconds). RFQ Market Makers will receive the RFQ via the trading gateway and may accept the request by submitting an RFQ Quote or reject the request; there is no obligation to respond to a RFQ. The RFQ Quote should indicate quantity, price and the related RFQ ID. The quantity must be equal to or greater than the RFQ quantity received in the request, and the price must be within the prevailing best bid and offer (BBO) in the parallel order book for the instrument +/- RFQ Price Deviation%, as stated in the Millennium Exchange and TRADEcho Business Parameters document. If the BBO is not available, the Last Trade Price (LTP) will be used. In the absence of an LTP, the Previous Close price will be used. In the absence of the BBO, the LTP and the Previous Close, the quote will be rejected.

¹ Private RFQs are not published to all market participants but to the eligible Market Makers only.

Minimum tick size for Quote Response price can be found in the XLON instrument reference data file.

RFQ Quotes are sent to the Requester via the trading gateway for the Manual RFQ model only. RFQ quotes will not be passed through to the requester in the Auto-Complete RFQ model.

When the resulting execution from an RFQ session is expected to be of a value below the ESMA Large In Scale threshold for the instrument, RFQ Quotes are made pre-trade transparent via Market Data feeds in both the Manual and Auto-Complete models.

Each RFQ is performed on a dedicated 'RFQ trades' order book and is allowed when the normal book is in Regular Trading. Requesters can submit multiple RFQs for the same instrument.

3.1.1 Manual RFQ model behaviour:

RFQ Quotes will be prioritised on a Price-Time priority basis in the 'RFQ trades' book. All existing order book rules for maintaining and losing priority due to quote replacement will be applied to the 'RFQ trades' book.

The Requester can choose, via the Quote Response message, to match against the best available RFQ Quote (named 'Best Execution' model) or against specific RFQ quote (named 'Select and Match' model):

- The 'Best Execution' model can be utilised by the Requester by specifying the side of their response in the Quote Response message but not the relevant Bid ID or Offer ID, and the system will execute it against the best available quote. The Requester is not permitted to specify the Price.
- The 'Select and Match' model can be utilised by the Requester by specifying the side, Limit Price of the quote selected (Bid Price or Offer price) and Identifier of the corresponding quote (Bid ID or Offer ID). If the Limit Price specified by the Requester does not match the price of the stated Bid ID or Offer ID, the Quote response will be rejected.

Quotes are not made available to the market pre-trade unless the expected execution is below the ESMA Large In Scale threshold for the instrument, in which case all open Quotes will be published just before the RFQ trade on Market Data feeds.

Unexecuted RFQ Quotes expire automatically upon execution of a trade from the relevant session. RFQ trades are automatically trade reported to the Exchange and routed to a central counterparty for clearing. RFQ trades are published via Market Data feeds.

3.1.2 Auto-Complete RFQ model behaviour:

RFQ Quotes will be prioritised on a Price-Time priority basis in the 'RFQ trades' book. All existing order book rules for maintaining and losing priority due to quote replacement will be applied to the 'RFQ trades' book.

Once the requester's stated Execution Delay has concluded, the system will assess for whether (i) the requester's stated minimum number of Quotes have been received and (ii) that at least one of the Quotes received is marketable compared to the requester's Limit Price. Once these conditions are met, a random period will commence after which the Auto-Complete RFQ will execute against the best Quote. If the conditions change during the random period so that either (i) or (ii) should

not be met then the random period will cease and the system will wait until the conditions are again met within the expiry time.

The requester can amend only their limit price within the RFQ session.

Quotes submitted by RFQ market makers are not disclosed to the requester during the RFQ session.

Quotes are not made available to the market pre-trade unless the expected execution is below the ESMA Large In Scale threshold for the instrument, in which case all open Quotes will be published just before the RFQ trade on Market Data feeds.

Unexecuted RFQ Quotes expire automatically upon execution of a trade from the relevant session. RFQ trades are automatically trade reported to the Exchange and routed to a central counterparty for clearing. RFQ trades are published via Market Data feeds.

3.1.3 Requester submits RFQ

3.1.3.1 Requester submits RFQ via FIX interface

The Requester shall submit the *Quote Request (R)* message providing the details below:

Attribute	FIX Tag
Client specified identifier of the RFQ	QuoteReqID (131)
RFQ Type	PrivateQuote (1171) - Y
Order Book	OrderBook (30001) = 11
Expiration Time of RFQ (Optional)	ExpireTime (126)
Capacity of the Order	OrderCapacity (528)
Instrument ID	SecurityID (48) SecurityIDSource (22)
Side (Optional for Manual quote request types)	Side (54)
Quantity	OrderQty (38)
Type of Quote Request	QuoteRequestType (303) Manual = 1 (Named if any RFQ Market Maker IDs are specified, else Anonymous) Automatic = 2 (Named if any RFQ Market Maker IDs are specified, else Anonymous) Manual (Anonymous) = 100 Manual (Named) = 101 Automatic (Anonymous) = 102 Automatic (Named) = 103

Attribute	FIX Tag
Limit Price (optional)	Price (44)
Type of account associated with the request	AccountType (581)
RFQ Execution Delay (only valid for Auto-Complete quote request types)	RFQExecutionDelay (33001)
RFQ minimum number of RFQ market maker quotes to be present before execution can be triggered (only valid for Auto-Complete quote request types)	RFQMinQuotes (33002)
Instructs the system whether to disclose the side of the request to the RFQ market makers	RFQDiscloseSide (33004)
Requester's User ID	PartyID (448) PartyID Source (447) Party Role (452) = 76 OrderOrigination (1724)
RFQ Market Makers Member Firm IDs (Required in the Named model for both Manual and Auto-Complete quote request types)	PartyID (448) PartyID Source (447) Party Role (452) = 66

The request will be accepted via a *Quote Status Report (AI)* message or rejected via a *Quote Request Reject (AG)* message.

3.1.3.2 Requester submits RFQ via the Native interface

The Requester shall submit a *Quote Request (a)* message providing the details below:

Attribute	Native field
Client specified identifier of the RFQ	Quote Req ID
RFQ Type	Private Quote = 2
Order Book	Order Book = 11
Expiration Time of the RFQ (Optional)	Expire Time Expire Time Milliseconds
Instrument ID	Instrument ID
Side (Optional for Manual quote request types)	Side
Quantity	Order Quantity
RFQ Market Makers Member Firm IDs	RFQ Market Makers

Attribute	Native field
(Required in the Named model for both Manual and Auto-Complete quote request types)	(Pipe separated list of RFQ MM Member Firm IDs)
Requester's information	Client ID Investment Decision Maker Executing Trader MiFID Flags Party Role Qualifiers Account Type Order Capacity
Quote Request Type	Quote Request Type Manual = 0 (Named if any RFQ Market Maker IDs are specified, else Anonymous) Anonymous = 1 (Named if any RFQ Market Maker IDs are specified, else Anonymous) Manual (Named) = 2 Manual (Anonymous) = 3 Automatic (Named) = 4 Automatic (Anonymous) = 5
Limit Price (optional)	Price
RFQ Execution Delay (only valid for Auto-Complete quote request type)	RFQ Execution Delay
RFQ minimum number of RFQ market maker quotes to be present before execution can be triggered (only valid for Auto-Complete quote request type)	RFQ Min Quotes
Instructs the system whether to disclose the side of the request to the RFQ market makers	RFQ Disclose Side

The request will be accepted via a *Quote Status Report (c)* message or rejected via a *Quote Request Reject (b)* message.

Please refer to the RFQ Market Makers by Security file (<https://www.londonstockexchange.com/products-and-services/trading-services/privaterfqenablementbysecurity.xls>) for the list of RFQ Market Makers eligible to receive/respond to RFQs.

3.1.3.3 Validations on RFQ

- RFQ value must be equal to or greater than the Minimum RFQ Value²
- RFQ value must be equal to or less than the Maximum RFQ Value

² Minimum RFQ Value expected to be the higher of £50,000 and 25% of the ESMA Large In Scale threshold for Equities and Depositary Receipts and zero for ETFs

- Quantity must be a multiple of Lot Size
- Limit Price must be consistent with the tick size for the instrument
- RFQ Expiry time, if specified, must be greater than the Execution Delay plus maximum random duration (Auto-Complete Model only) and less than the Maximum RFQ Duration defined at the exchange level³
- RFQ submission is allowed only when the Normal book is in Regular Trading⁴.

3.1.4 RFQ Market Maker receives an RFQ

3.1.4.1 RFQ Market Maker receives an RFQ via the FIX interface

Each eligible RFQ Market Maker will receive a *Quote Request (R)* message through the FIX Trading gateway with the information below:

Attribute	FIX Tag
Unique identifier automatically assigned to the RFQ by the system	RFQID (30006)
RFQ Type	PrivateQuote (1171) - Y
Order Book	OrderBook (30001) = 11
Instrument ID	SecurityID (48) SecurityIDSource (22)
Side (if specified and disclosed by the Requester)	Side (54)
Quantity	OrderQty (38)
RFQ Market Maker User ID	PartyID (448) PartyID Source (447) Party Role (452) = 76
Requester's User ID (Named model only for both Manual and Auto-Complete quote request types)	PartyID (448) PartyID Source (447) Party Role (452) = 37
Requester's Member Firm ID (Named model only for both Manual and Auto-Complete quote request types)	PartyID (448) = Member Firm ID PartyID Source (447) Party Role (452) = 17
Quote Request Type (Note that RFQ MM Quotes are sent to the requester during the RFQ session in the Manual	QuoteRequestType (303) Manual = 1

³ Maximum RFQ duration will be set to 180 seconds

⁴ Refer to Section 3.3 for information when the normal book is in a session other than Regular Trading.

Attribute	FIX Tag
model but not in the Automatic model)	Automatic = 2

3.1.4.2 RFQ Market Maker receives an RFQ via the Native interface

Each eligible RFQ Market Maker will receive a *Quote Request (a)* message through the Native Trading gateway with the information below:

Attributes	Native Field
Unique identifier automatically assigned to the RFQ by the system	RFQ ID
RFQ Type	Private Quote = 2
Order Book	Order Book = 11
Instrument ID	Instrument ID
Side (if specified and disclosed by the Requester)	Side
RFQ Quantity	Order Quantity
Requester's User ID (Named model only for both Manual and Auto-Complete quote request types)	Contra Trader
Requester's Member Firm ID (Named model only for both Manual and Auto-Complete quote request types)	Contra Member Firm
Quote Request Type	Quote Request Type Manual = 0 Automatic = 1

The Requester's User ID and Member Firm ID are not disclosed to the RFQ Market Makers in the case of an anonymous negotiation.

3.1.5 RFQ Market Maker responds to the RFQ

3.1.5.1 RFQ Market Maker responds to the RFQ via the FIX interface

Market Makers may accept an RFQ by using a *Quote (S)* message with the details below:

Attributes	FIX Tag
Client specified identifier of the quote	QuoteMsgID (1166)
Unique identifier automatically assigned to the RFQ by the system	RFQID (30006)

Attributes	FIX Tag
RFQ Type	PrivateQuote (1171) - Y
Quote Type	QuoteType (537) = 2
Instrument ID	SecurityID (48) SecurityIDSource (22)
Bid Price	BidPx (132)
Bid Size	BidSize (134)
Offer Price	OfferPx (133)
Offer Size	OfferSize (135)
Clearing Account	AccountType (581)
Capacity	OrderCapacity (528)
RFQ Market Maker's User ID	PartyID (448) = User ID PartyID Source (447) Party Role (452) = 76

RFQ Quote will be acknowledged via a *Quote Ack (CW)* message.

3.1.5.2 RFQ Market Maker responds to the RFQ via the Native interface

RFQ Market Makers may accept an RFQ by using an *RFQ Quote (d)* message with the details below:

Attribute	Native Field
Client specified identifier of the quote	QuoteMsgID
The unique ID of the negotiation process	RFQ ID
Instrument ID	Instrument ID
Bid Price	Bid Price
Bid Size	Bid Quantity
Offer Price	Offer Price
Offer Size	Offer Quantity
Cancel RFQ quote on logout/disconnection of session (Optional)	Auto Cancel
Account Type	ClearingAccount

Attribute	Native Field
Order Capacity	Capacity

The RFQ quote will be acknowledged via a Quote Ack (e) message.

RFQ Market Makers may respond with either dual-sided or single-sided quotes if the side is not specified. The side specified in a single sided quote should be the contra side of the quote request⁵.

RFQ Market Makers may update or cancel a quote.

3.1.5.3 Validations on RFQ Quote

- Bid and Offer quantities must be equal to or greater than the initial RFQ quantity
- Value of Bid and Offer quantities must be less than or equal to the Maximum RFQ Value
- Bid Price and Offer Price must be consistent with the tick size for the instrument
- Bid Price and Offer Price must be within the allowed order book best bid offer (BBO) +/- RFQ Price Deviation %⁶. If the BBO is not available, the Last Trade Price (LTP) will be used. In the absence of an LTP, the Previous Close price will be used. In the absence of the BBO, the LTP and the Previous Close, the quote will be rejected.

RFQ Market Makers may reject the RFQ via a 'Quote Request Reject' message, or ignore the request.

A Quote Request Reject may be acknowledged via a 'Quote Response' message.

If a RFQ Market Maker has rejected a RFQ and then submits a RFQ quote for the same RFQ, their quote will be rejected.

3.1.6 Requester receives RFQ Quotes (Manual model only)

Each RFQ quote is routed to the Requester in the Manual model via the trading interface and is not published via any Market Data feeds.

When a RFQ quote is routed to the Requester, Account Type and Capacity are not disclosed to the Requester.

3.1.6.1 Requester receives a RFQ quote via the FIX interface:

Attribute	FIX tag
Client specified identifier of the quote	QuoteMsgID (1166)
The unique ID of the negotiation process	RFQID (30006)
The system generated OrderID of the buy side	BidID (30007)

⁵ It is not relevant if a side was not specified in the RFQ.

⁶ Refer to the 'Millennium Exchange and TRADEcho Business Parameters' document.

Attribute	FIX tag
of the quote	
The system generated OrderID of the sell side of the quote	OfferID (30008)
RFQ Type	PrivateQuote (1171) - Y
Quote Type	QuoteType (537) = 2
Instrument ID	SecurityID (48) SecurityIDSource (22)
Bid Price	BidPx (132)
Bid Size	BidSize (134)
Offer Price	OfferPx (133)
Offer Size	OfferSize (135)
Requester's User ID	PartyID (448) PartyID Source (447) Party Role (452) = 76
RFQ Market Maker's User ID (Named model only)	PartyID (448) = User ID PartyID Source (447) Party Role (452) = 37
RFQ Market Maker's Member Firm ID (Named model only)	PartyID (448) = Member Firm ID PartyID Source (447) Party Role (452) = 66

3.1.6.2 Requester receives an RFQ Quote via the Native interface:

Attributes	Native Field
Client specified identifier of the quote	Quote Msg ID
The unique ID of the negotiation process	RFQ ID
The system generated OrderID of the buy side of the quote	Bid ID
The system generated OrderID of the sell side of the quote	Offer ID
Cancel RFQ quote on logout/disconnection of session (if specified by the RFQ Market Maker)	Auto Cancel
Instrument ID	Instrument ID

Attributes	Native Field
Bid Price	Bid Price
Bid Size	Bid Quantity
Offer Price	Offer Price
Offer Size	Offer Quantity
RFQ Market Maker's User ID (Named model only)	Market Maker
RFQ Market Maker's Member Firm ID (Named model only)	Market Maker Firm

3.1.7 Requester hits/lifts the RFQ Quote (Manual model only)

Requesters can trade against *best* quote as per the Price-Time priority in accordance to the side specified by the Requester.

3.1.7.1 Requester matches the quote via the FIX interface.

The Requester shall submit a *Quote Response (AJ)* message with the details below:

Attribute	FIX tag
Client specified identifier of the message	QuoteMsgID (1166)
The unique ID of the negotiation process	RFQID (30006)
BidID	The unique identifier of the bid side of the quote being executed against. It should NOT be specified in 'Best Execution' model.
OfferID	The unique identifier of the sell side of the quote being executed against. It should NOT be specified in 'Best Execution' model.
Quote Response Type	QuoteRespType (694) = 1 'Hit/Lift'
Instrument ID	SecurityID (48) SecurityIDSource (22)
Quantity	OrderQty (38)
Price	Bid Price/Offer Price of the quote being executed against. It should NOT be specified in 'Best Execution'

Attribute	FIX tag
	model.
Side	Side (54)
Order Book	OrderBook (30001) = 11
Clearing Account	AccountType (581)
Capacity	OrderCapacity (528)
Requester's User ID	PartyID (448) = User ID PartyID Source (447) Party Role (452) = 76

3.1.7.2 Requester matches the quote via the Native interface.

The Requester shall submit a *Quote Response (f)* message with the details below:

Attribute	Native Field
Client specified identifier of the message	Quote Msg ID
The unique ID of the negotiation process	RFQID
Quote Response Type	QuoteRespType = 1 'Hit/Lift'
Instrument ID	Instrument ID
Quantity	Order Quantity
Price	Bid Price/Offer Price of the quote being executed against. It should NOT be specified in 'Best Execution' model.
Side	Side
Order Book	OrderBook = 11
Bid ID	The unique identifier of the bid side of the quote being executed against. It should NOT be specified in 'Best Execution' model.
Offer ID	The unique identifier of the sell side of the quote being executed against. It should NOT be specified in 'Best Execution' model.

Attribute	Native Field
Clearing Account	ClearingAccount
Capacity	Capacity

3.1.7.3 Validations on Quote Responses:

- Quantity must be
 - equal to the initial RFQ quantity if utilising the 'Best Execution' model (see 3.1.1), or
 - can be greater than or equal to the initial RFQ quantity if utilising the 'Select and Match' model (see 3.1.1) whilst the Quantity must be less than or equal to the quantity of the selected Quote via the Bid ID or Offer ID.
- Following a Quote Response, RFQ trades will only be executed within Normal book BBO +/- allowed price tolerance (%). If the BBO is not available, the LTP will be used. In the absence of an LTP, the Previous Close price will be used. In the absence of the BBO, the LTP and the Previous Close, the quote will be rejected. If the price at which an execution will take place falls outside this range, the Quote Response will be rejected.
- Bid ID, Offer ID and Price must *not* be specified in the 'Best Execution' model and should be specified in the 'Select and Match' model.
- Side should be the same as the one specified in the initial RFQ (if any).

If a Quote Response is rejected, the Requester will receive a 'Quote Status Report'.

If a Quote Response is accepted, RFQ Market Makers and the Requester will receive the following messages through the Trading Gateways upon execution:

- The Requester will receive the Execution Report relating to the trade.
- The Owner of the executed quote will receive the Execution report relating to the trade and Execution Report(s) denoting that the remainder of the quote (if any) has expired.
- Open quotes submitted for the RFQ will be expired. RFQ Market Makers will receive the Quote Response message with Quote Response Type = 'Expired'. If RFQ execution is on the opposite side of a single sided quote submitted by the RFQ Market Maker, they will receive the Quote Response message with Quote Response Type = 'Contra-Side'.
- RFQ Market Makers who did not respond to the RFQ (i.e. have no open quotes) will not be notified about the completion of the RFQ process.

3.1.8 Requester cancels the RFQ

The Requester can cancel an RFQ via a 'Quote Response' message with QuoteRespType = 'End Trade' message. The request will be acknowledged via a 'Quote Status Report'.

Open Quotes submitted for the RFQ will be expired.

RFQ Market Makers and the Requester will receive the following messages through the Trading Gateways upon cancellation:

- The Requester will receive a Quote Response with QuoteRespType = *'Cancelled'*.
- The Requester will receive a Quote Response with QuoteRespType = *'Expired'* for each quote that got expired.
- All RFQ Market Makers who initially received the RFQ will be notified via a Quote Response with QuoteRespType = *'Withdrawn'*.
- RFQ Market Makers who have placed the quotes will receive a Quote Response message with Quote Response Type = *'Expired'* and *'RFQ cancelled by the requester'* expiration reason.

3.1.9 Termination

The RFQ negotiation process will be terminated in the cases described in the table below.

At the point of termination of the RFQ process all open quotes (if any) and the request for quote, will be expired. The RFQ Market Makers who received the RFQ will be notified via Quote Response messages via the FIX and Native Trading Gateways (refer to the table below for message details).

Event	Requester	RFQ Market Maker (MM) with open quote(s)	RFQ Market Maker not responded to RFQ
Requester Hit/Lifts a quote	Execution Report for a trade	MM whose quote is executed will receive Execution Reports for a trade and a quote expiration Other MMs will receive Quote Response with QuoteRespType = <i>'Expired'</i> (<i>'End of trade negotiation'</i> reason)	No messages
Requester has cancelled the RFQ	Quote Response with QuoteRespType = <i>'Cancelled'</i> Quote Response message with QuoteRespType = <i>'Expired'</i> for each open quote that got expired	Quote Response with QuoteRespType = <i>'Withdrawn'</i> for RFQ termination Quote Response with QuoteRespType = <i>'Expired'</i> (<i>'RFQ cancelled by the requester'</i> reason) for Quote expiration	Quote Response with QuoteRespType = <i>'Withdrawn'</i>
All recipients have rejected the RFQ	Quote Response with QuoteRespType =	No RFQ Market Makers with open quotes. RFQ Market Makers rejected a	No messages

Event	Requester	RFQ Market Maker (MM) with open quote(s)	RFQ Market Maker not responded to RFQ
	<i>'Expired'</i>	quote will receive Quote Response with Quote Response Type = <i>'Expired'</i> for RFQ Expiration	
RFQ duration has been elapsed	Quote Response with QuoteRespType = <i>'Time out'</i> Quote Response message with QuoteRespType = <i>'Expired'</i> for each open quote that got expired	Quote Response with QuoteRespType = <i>'Time out'</i> for RFQ termination Quote Response message with QuoteRespType = <i>'Expired'</i> (<i>'RFQ expiry time elapsed'</i> reason) for Quote expiration	Quote Response with QuoteRespType = <i>'Time out'</i>
Instrument is suspended	Quote Response with QuoteRespType = <i>'Expired'</i> Quote Response message with QuoteRespType = <i>'Expired'</i> for each open quote that got expired	Quote Response with QuoteRespType = <i>'Expired'</i> for RFQ termination Quote Response message with QuoteRespType = <i>'Expired'</i> (<i>'Interest cancelled due to suspension of instrument'</i> reason) for Quote expiration	Quote Response with QuoteRespType = <i>'Expired'</i> for RFQ termination
RFQ order book moves from Regular Trading to any other session	Quote Response with QuoteRespType = <i>'Expired'</i> Quote Response message with QuoteRespType = <i>'Expired'</i> for each open quote that got expired	Quote Response with QuoteRespType = <i>'Expired'</i> for RFQ termination Quote Response message with QuoteRespType = <i>'Expired'</i> (<i>'Trading session for negotiation ended'</i>) for Quote expiration	Quote Response with QuoteRespType = <i>'Expired'</i> for RFQ termination

3.2 Interfaces

3.2.1 Native Trading Gateway

The interface allows participants to perform the following activities:

- Submit an RFQ
- Cancel an RFQ
- Submit an RFQ Quote
- Amend an RFQ Quote
- Execute an RFQ
- Cancel an RFQ Quote
- Mass Cancel RFQ Quotes

RFQ Market Makers can mass cancel RFQ Quotes via a 'Mass Cancel Request' message with OrderBook (30001) = 11 'RFQ Trades'.

If the 'Mass Cancel on Disconnect' and/or 'Mass Cancel on Logout' feature is enabled for a RFQ Market Maker or they marked an RFQ Quote with the 'Auto Cancel' field, the appropriate RFQ Quote(s) will be expired upon a RFQ Market Maker disconnection or logout respectively.

Participants can recover missed messages via the Recovery Channel similar to existing order management messages.

3.2.2 FIX Trading Gateway

The interface allows Participant to perform the following activities:

- Submit an RFQ
- Cancel an RFQ
- Submit an RFQ Quote
- Update an RFQ Quote
- Cancel an RFQ Quote
- Mass Cancel RFQ Quotes

RFQ Market Makers can mass cancel RFQ quotes via a 'Quote Cancel' message with OrderBook (30001) = 11 'RFQ Trades'.

If the 'Mass Cancel on Disconnect' and/or 'Mass Cancel on Logout' feature is enabled for a RFQ Market Maker, their RFQ Quotes will be expired upon a RFQ Market Maker disconnection or logout respectively.

Any message can be recovered via the 'Resend Request' message similar to existing order management messages.

3.2.3 FIX Drop Copy Gateway

The interface provides copies via an 'Execution Report' message for the events below:

- An RFQ Quote is acknowledged via FIX Trading Gateway or Native Trading Gateway
- An RFQ Quote is updated/cancelled/expired
- An RFQ Trade execution

Participants can use an open order download via the 'Order Mass Status Request' to download the latest status of their RFQ Quotes until they are expired.

Any message can be recovered via the Resend Request (2) message similar to existing order management messages.

3.2.4 FIX Post Trade Gateway

RFQ Trades are classified as order book (flagged as RFQ) and communicated via a Trade Capture Report.

New values have been added for the tags below:

- Match Type (574) = 22 'RFQ Trades'
- TrdType (828) = 99 'RFQ Trades'
- OrderCategory (1115) = r 'RFQ Trades'

Participants can recover trades via a Trade Capture Report request.

3.2.5 MITCH Market Data

In case a pending execution is below the ESMA Large In Scale threshold for the instrument, RFQ quotes are made pre trade transparent via the Add Order message Flag = 6 (Private RFQ).

RFQ Trades are communicated via a Trade message with Sub Book = 11 'RFQ Trades'.

RFQ Trade cancellations are communicated via a Trade Break message with Trade Type = R 'RFQ Trades'.

Trading statuses of the RFQ book are not published. Clients shall rely on the normal order book to identify the status of the instrument and any session transitions of the Private RFQ book.

On book statistics will not get updated by RFQ Trades.

3.2.6 GTP Market Data

In case a pending execution is below the ESMA Large In Scale threshold for the instrument, RFQ quotes are published via the Add Order Incremental with Order Book Type message Flag = 4 (Private RFQ)

RFQ Trades are communicated via a Trade message with Trade Type = 22 'Private RFQ'

RFQ Trade cancellations are communicated via a Trade message with Trade Type = 23 'RFQ Trade Cancellation'.

Trading statuses of the RFQ book are not published.

On book statistics will not be updated by RFQ trades.

The following cumulative statistics for RFQ book will be updated:

- Volume
- VWAP
- Number of Trades
- Turnover
- Trade High All Trades
- Trade Low All Trades
- 52 Wk Trade High All Trades
- 52 Wk Trade Low All Trades

3.2.7 Message rate throttling

Each User/CompID enabled for access to the Native and FIX Trading Gateways will not be allowed to exceed a specified message throughput determined by London Stock Exchange.

Additional information is provided in 'MIT201 Guide to the New Trading System' document, and in the Trading Technical Parameters document <http://www.londonstockexchange.com/products-and-services/technical-library/millennium-exchange-technical-specifications/millennium-exchange-technical-specifications.htm>

3.3 Trading sessions

The trading sessions on the RFQ order book are as follows:

Session Name	Summary
Pre-Trading	<ul style="list-style-type: none"> ○ RFQ messages rejected
Regular Trading	<ul style="list-style-type: none"> ➤ Security's Normal book is in Regular trading: <ul style="list-style-type: none"> ○ RFQs and RFQ Quotes all permitted ➤ Security's Normal book is in Auction: <ul style="list-style-type: none"> ○ New RFQs, RFQ responses and RFQ quotes are rejected ○ Existing RFQs remain and are expired upon expiration time ○ Existing RFQ quotes are expired on transition to auction call ➤ Security's Normal book is Halted or Suspended: <ul style="list-style-type: none"> ○ New RFQs, RFQ responses and RFQ quotes are rejected ○ Existing RFQs remain and are expired upon expiration time ○ Existing RFQ quotes are expired on imposition of Halt or Suspension <p>RFQ Cancellation and Quote Request Rejection request is</p>

Session Name	Summary
	allowed all the time
Post Close	<ul style="list-style-type: none"> ○ No RFQs and RFQ Quotes are allowed
Closing Price Crossing Session (CPX)	<ul style="list-style-type: none"> ○ No RFQs and RFQ Quotes are allowed

Refer to the 'Millennium Exchange Business parameters' document for trading schedules.

A Trading Halt may be followed by resumption of the Regular Trading session if the market is not closed before Market Operations resume trading.

Trading sessions on the RFQ book are not published via any market data feeds.

4 How to request RFQ enablement?

4.1 Member Firm Access

In order to be enabled to use RFQs, member firms will be required to have a direct trading connection to the Millennium Exchange trading system with appropriate clearing and settlement arrangements. Non clearing members must obtain the explicit agreement of their general clearing member before they can be enabled to use RFQs.

All members enabling the functionality will be required to sign an updated SETS Static Data Form and/ or ETFs – Euroclear Bank Settlement Static Data Form. Where a firm is a non clearing member, the Static Data Form(s) must also be signed by the member's general clearing member. Member firms should allow up to three weeks for processing.

Static Data Forms can be obtained from the Membership Team at membership@lseg.com or the team can be contact on +44 (0) 20 7797 1900 in case of enquiries.

4.2 Customer Testing

Customers using the RFQ functionality must first pass a software certification test, in accordance with London Stock Exchange Group's certification policy, before being permissioned in the live environment.

Certification guidelines can be found in MIT502 – Guide to Application Certification. This document can be found on London Stock Exchange's website at the following location:

<http://www.londonstockexchange.com/products-and-services/technical-library/millennium-exchange-technical-specifications/millennium-exchange-technical-specifications.htm>

Additionally, customers are advised to test their MITCH and GTP multicast applications to ensure compliance with the specification changes.

Member firms will contact their Technical Account Manager or the Technical Account Management team to schedule their certification test.

In order to access CDS as either a Requester or RFQ Market Maker, member firms should contact their Technical Account Manager.

Telephone: +44 (0)20 7797 3939

E-mail: londontam@lseg.com

Equity, ETP and IOB instruments available with enhanced RFQ functionality in CDS are as follows:

Symbol	Security Description	Trading Parameter	CDS Segment	Prod Segment	ISIN
ASC	ASOS	TP_43	AMSM	AMSM	GB0030927254
BNC	BANCO SAN	TP_43	SSMU	SSMU	ES0113900J37
DRX	DRAX	TP_13	STMM	STMM	GB00B1VNSX38

FSTA	FULLER,SMITH'A'	TP_43	SSMM	SSMM	GB00B1YPC344
GAZ	GAZPROM NEFT	TP_24	IOBE	IOBE	US36829G1076
MKS	MARKS & SP.	TP_12	SET1	SET1	GB0031274896
RKH	ROCKHOPPER	TP_43	AMSM	AMSM	GB00B0FVQX23
RMG	ROYAL MAIL	TP_12	SET1	SET1	GB00BDVZYZ77
SMSN	SAMSUNG EL.GDR	TP_24	IOBE	IOBE	US7960508882
WMH	WILLIAM HILL	TP_13	STMM	STMM	GB0031698896
ISF	ISHARES CORE FTSE100 UCITS ETF GBP(DIST)	TP_95	EUET	EUET	IE0005042456
CSPX	ISHRS CORE S&P 500 UCITS ETF USD (ACC)	TP_85	EUET	EUET	IE00B5BMR087
IEMB	ISHRS J.P. MORGAN \$ EM BOND ETF USD DIST	TP_87	EUET	EUET	IE00B2NPKV68
VUKE	VANGUARD FTSE 100 UCITS ETF	TP_91	ETFS	ETFS	IE00B810Q511
VUSA	VANGUARD S&P 500 UCITS ETF	TP_91	ETFS	ETFS	IE00B3XXRP09
VUSD	VANGUARD S&P 500 UCITS ETF	TP_87	ETF2	ETF2	IE00B3XXRP09
IGLN	ISHARES PHYSICAL GOLD ETC	TP_93	ETCS	ETCS	IE00B4ND3602
GBS	GOLD BULLION SECURITIES	TP_106	ETCS	ETCS	GB00B00FHZ82

4.3 Reference Data

Participants will be informed at a later date when participant and instrument reference data will be available in both CDS and Production. Access to this reference data is via the standard SFTP Reference data service. Full details can be found in **MIT401 – Guide to Reference Data Services**.

Disclaimer

Copyright © August 2018 London Stock Exchange plc.
Registered in England and Wales No. 2075721.

London Stock Exchange plc. has used all reasonable efforts to ensure that the information contained in this publication is correct at the time of going to press, but shall not be liable for decisions made in reliance on it.

London Stock Exchange and the coat of arms device are registered trade marks of London Stock Exchange plc.

London Stock Exchange

10 Paternoster Square, London EC4M 7LS

T: +44 (0)20 7797 1000

www.lseg.com



London
Stock Exchange