



HiMTF RFQ – FT/API application protocol

User guide for FT/API developers

Version 1.3

TABLE OF CONTENTS

HISTORY OF CHANGES	4
REFERENCED DOCUMENTS	5
1 SCOPE.....	6
2 HIMTF RFQ MARKET MODEL.....	7
3 RFQ WORKFLOW	10
4 DATA STRUCTURES	15
4.1 How to send a Request for Quote.....	15
4.2 How to answer to a Request for Quote.....	18
4.3 How to hit/lift quotes	21
4.4 Market Data	24
4.5 Sell-Side Summary Information	26
TO CONTACT US	28

HISTORY OF CHANGES

v	date	changes
DRAFT 1.0	10-09-2015	First version, not applicable
DRAFT 1.1	25-09-2015	<p>Pg 7,15: Clarified the usage of minimum quantity in RFQs (Leg[n].MinQty fields).</p> <p>Pg 7,17: Clarified the usage of timeouts in RFQs when limit price/spread is not specified (RfcqDurationType field).</p> <p>Pg 7,17: Clarified mandatoriness of limit price/spread for Switch RFQs (RfcqPriceType field).</p> <p>Pg 7,20: Clarified the usage of timeouts in class FT_C_RFQ_QUOTE (ValidityThreshold field).</p> <p>Pg 19,20: in FT_C_RFQ_QUOTE_leg, added ExecutedQty field and deleted OffsetSettlDays and SettlDate fields. Added Automatic field to FT_C_RFQ_QUOTE.</p> <p>Pg 21,22: clarified usage of RfqRefID field in transactions on class FT_C_RFQ_ORDER.</p>
1.2	01-10-2015	<p>Pg 5: updated versions of referenced documents</p> <p>Pg 21: added a clarification on the distribution of FT_C_RFQ_ORDER class in case of Market best acceptance.</p> <p>Pg 25: added paragraph 4.5 Sell-side summary information</p>
1.3	18-12-2015	<p>Pag 8. Changed description of conditions to automatic accept a Rfq</p> <p>Pag 11 Changed description of conditions to automatic accept a Rfq</p> <p>Page 18: Added description of fields: LegExecQty[0]. ExecutedQty and LegExecQty[1]. ExecutedQty</p> <p>Pag 24, 25: changed description of some fields in the FT_C_RFQ_EVENT structure</p> <p>Pag 26: Rewritten description of paragraph 4.5: Sell Side Information Summary</p>

REFERENCED DOCUMENTS

- [1] FastTrade API Application Protocol Programmers Guide v3.1.33_11
- [2] FT/API Programmers Guide Version 3.6.2
- [3] JFT/API Programming Manual Version 4.0.0
- [4] .NET FastTrade API Programming Manual Version 1.3.0.1

1 SCOPE

This document is intended as an addendum to document [1] “FastTrade API Application Protocol Programmers Guide” to help developers to connect to the RFQ market of the HiMTF exchange.

Document [1] must be used as the main guide to connect to the HiMTF exchange, while this document describes HiMTF RFQ market model and workflow, as well as usage notes for FT/API messages and fields specific for RFQs.

FastTrade API Application Protocol v.3.1.33 (develop 11) or later is needed.

For a technical reference to FT/API usage and supported programming languages, see [2], [3] and [4]. Upgrading to the latest version of FT/API libraries is not mandatory but always recommended.

2 HiMTF RFQ MARKET MODEL

This section describes the specifications of the HiMTF RFQ market model.

The following definitions are used, corresponding to member's profiles on the market:

- *Customer (or Proposal)*: Member enabled to send RFQs
- *Dealer (or Aggressor)*: Member enabled to receive and responds to RFQs

A member may be profiled as both Customer (Proposal) and Dealer (Aggressor).

The basic features of HiMTF RFQ market model are

- *RFQs are anonymous*: Dealers cannot identify RFQ originators, as well as Customers cannot identify the member who is quoting the request
- all trades are guaranteed by a Central Counterpart
- *RFQs are competitive*: any RFQ is forwarded to all members profiled as Dealers
- a single RFQ may generate multiple trades with one or more different Dealers at different prices
- both Outright (single-leg) and Switch (double-leg) RFQs are allowed.

An RFQ always specifies a security and a buy or sell quantity for each leg. Optionally, it may specify:

- a limit price (one for each leg) or a spread between the two legs (only for Switch RFQs). The limit price (or spread) is mandatory for Switch RFQs.
- whether the RFQ is "all-or-nothing" (minimum quantity equal to the total quantity)
- a custom Settlement date
- whether the RFQ has a timeout (the value is a market default) or it is valid until market closure. If a limit price (or a spread) is not specified, the timeout is mandatory.

The Dealer may respond to an RFQ with a quote, specifying a price and a quantity for each leg. The quoted price must be coherent with the limit price in the request (if any) and the quantity must be coherent with the minimum quantity in the request (if any). The quote may optionally contain a minimum quantity for each leg, under which the price is not valid. In case of Switch RFQ, the quote must specify an explicit price for each leg, even if the original request indicated a spread.

A quote always has two distinct timeouts: an Expiration timeout, after which the quote cannot be hit/lifted any longer, and an Automatching timeout after which, if the quote is hit/lifted, the Dealer is asked for last look (for more details see Section 3). The Expiration timeout is always set as a market default value. The Automatching timeout can either be specified by the Dealer in the quote or a market default value is assumed.

Both automatic and manual executions are allowed. A valid (not cancelled or expired) RFQ is automatically executed by the market against a new quote or quote edit when the following conditions are verified:

1. For Outright RFQs, the RFQ specifies a limit price. For SWITCH RFQs, the RFQ specifies both prices or a spread.
2. No manual executions have been requested yet by the Customer
3. For Outright RFQ, for each leg, the proposed price is equal to or better than the limit price in the RFQ. For SWITCH RFQs, the proposed yield spread is equal or better than the yield spread of the RFQ.
4. The quantity expressed in the quote is lower than or equal to the quantity specified in the request
5. The trade quantity respects the MinQty possibly specified both in the request and in the quote.

If the requested quantity is not completely filled, the RFQ remains active and may generate further deals with the same or other Dealers.

The Customer can also manually execute the RFQ. Two different manual execution modes are available:

1. The Customer hits/lifts a specific quote

- The Customer may specify a quantity lower than the RFQ's Qty, the RFQ's MinQty (if any) and the quoted quantity, provided that it respects the MinQty indicated in the quote by the Dealer (if any)
- By hitting/lifting a specific quote, the Customer accepts the price specified in the quote, even if it is worse than the RFQ's original limit price (if any)
- If the Automatching timeout of the quote has expired, the Dealer is asked for last-look: if the Dealer accepts, the trade is executed, otherwise the manual action is rejected.
- If the requested quantity is not completely filled, the RFQ remains active and may generate further trades with the same or other Dealers.

2. The Customer asks for execution at Market's best

- The Customer delegates to the market the execution of the RFQ at the best conditions available at the time the request is managed. The market executes the RFQ against a set of active quotations chosen according to a predefined algorithm, which takes into account the combination of proposed prices, quantities, min quantities and temporal priority. For details please refer to market regulations.
- An expired quote (Expiration timeout elapsed) does not participate in the Market's Best execution. A quote whose Automatch timeout has elapsed participates in Market's Best execution but the Dealer is asked for last-look.
- Execution at Market's Best does not take into account the limit price and the Min Qty possibly specified in the original RFQ.
- The total executed quantity cannot be larger than the quantity requested in the original RFQ.

- After an execution at Market's Best, the RFQ is closed, independently of the total quantity that the market managed to execute. The remaining quantity, if any, will not be executed.

Depending on configuration, a Customer can request execution at Market's best only, or it may be enabled to both execution modes. If the Customer is enabled to manually hit/lift a specific quote, the Customer is also enabled to reject a specific quote.

As soon as a Customer accepts or rejects a specific quote on a given RFQ, the execution at Market's Best on the same RFQ is no longer available.

3 RFQ WORKFLOW

This section describes the RFQ workflow showing a variety of scenarios, with particular attention to:

- Actions that each member has to do at each step of the negotiation
- Data exchanged between the central system and members, at each step of the negotiation.

Details on how to fill/read the specific class fields are given in Section 4.

In order to start the negotiation, a Customer needs first to send an RFQ via the FT_C_REQUEST_FOR_QUOTE_MLEG class. All members configured as Dealers will receive the RFQ via the FT_C_REQUEST_FOR_QUOTE_MLEG class.

An FT_C_REQUEST_FOR_QUOTE_MLEG must always specify a Qty and optionally it can also specify:

- a Price
- a Minimum Qty
- a Timeout indicator
- a Settlement Date

An FT_C_REQUEST_FOR_QUOTE_MLEG can be cancelled by the sender at any time.

The Dealer can then choose to:

- Respond to the RFQ with one quotation via the FT_C_RFQ_QUOTE class
- Reject the RFQ by sending a FT_C_RFQ_QUOTE indicating "No interest"
- Do nothing

The Customer will receive all FT_C_RFQ_QUOTE messages sent by Dealers including those indicating "No interest".

An FT_C_RFQ_QUOTE may optionally contain a minimum quantity under which the price is not valid, as well two distinct timeout periods:

- *Expiration timeout:* After this period the quotation will expire. No actions can be performed on an expired quotation. It cannot generate any trade. This parameter cannot be set by the Dealer: it is always set to a market default value.
- *Automatching timeout:* After this period, if the quote is hit/lifted, the trade is done only upon acceptance of the Dealer (last-look).

If any of the two timeouts is not specified by the Dealer, a market default value is assumed.

Dealers can edit their FT_C_RFQ_QUOTE continuously via the same FT_C_RFQ_QUOTE class or via the FT_C_RFQ_QUOTE_SLIM class (RFQ STREAMING). After a quote has been edited, the previous quote image is no longer valid and it cannot be hit/lifted any longer, even though the Expiration or Automatching timeout have not elapsed yet.

The FT_C_RFQ_QUOTE_SLIM class is used only to send an edit to the market. As a result of the edit request the market will distribute an updated FT_C_RFQ_QUOTE class. The described workflow is shown in Figure 1.

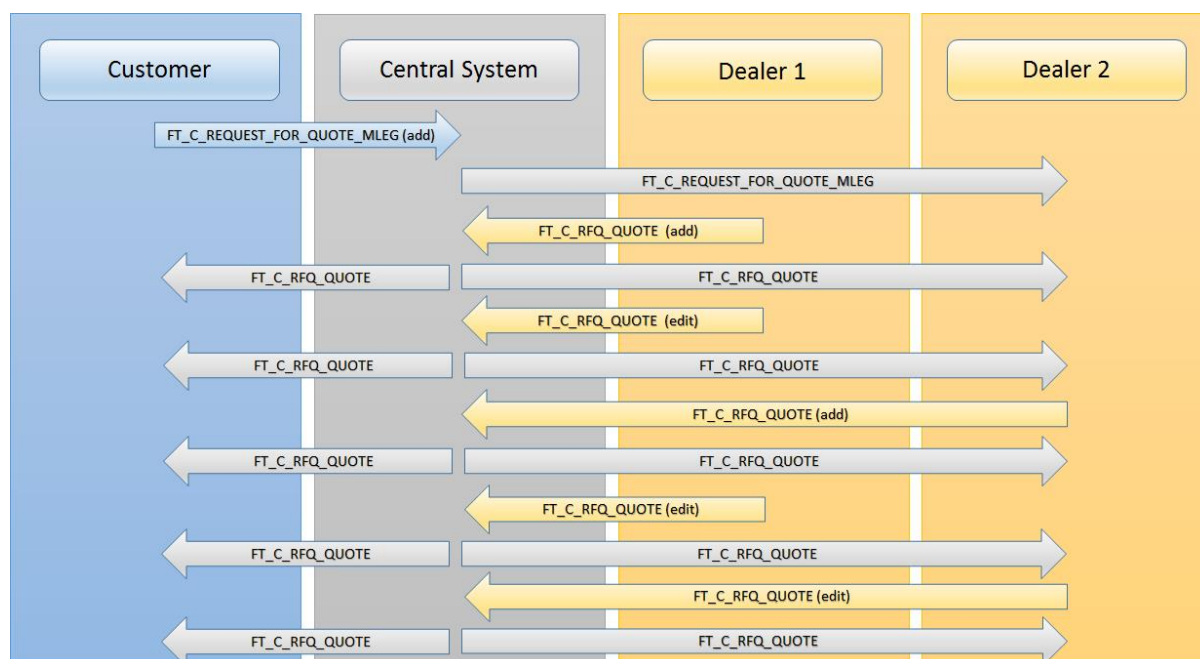


Figure 1: Quote streaming by two Dealers

- Under particular circumstances the market can automatically generate a trade following the reception of an `FT_C_RFQ_QUOTE` by a Dealer. Conditions for automatic acceptance have been explained at page 8

The workflow is shown in Figure 2.

Besides the automatic acceptance described above, the Customer can always manually generate one or more trades, accepting (hit/lift) a single `FT_C_RFQ_QUOTE` or requesting to the market the automatic acceptance at "Market Best".

To manually accept a single `FT_C_RFQ_QUOTE` the Customer must send an `FT_C_RFQ_ORDER` indicating the `FT_C_RFQ_QUOTE` to be accepted (see Figure 3).

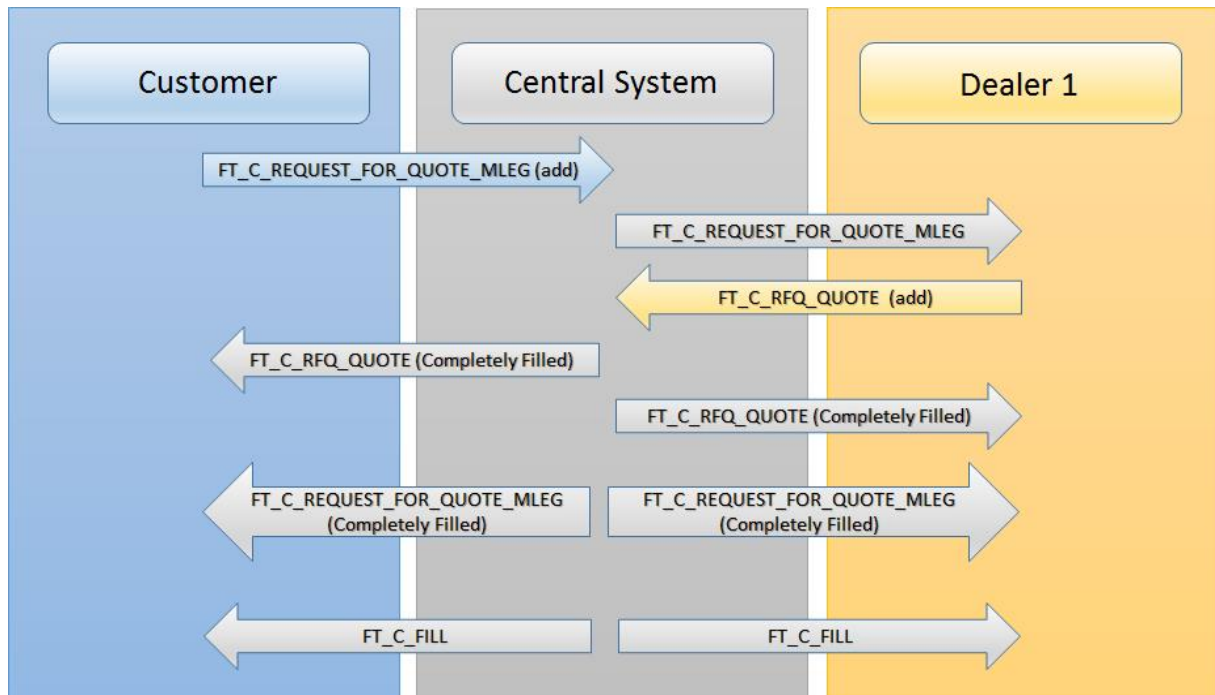


Figure 2: RFQ, Quote and automatic matching

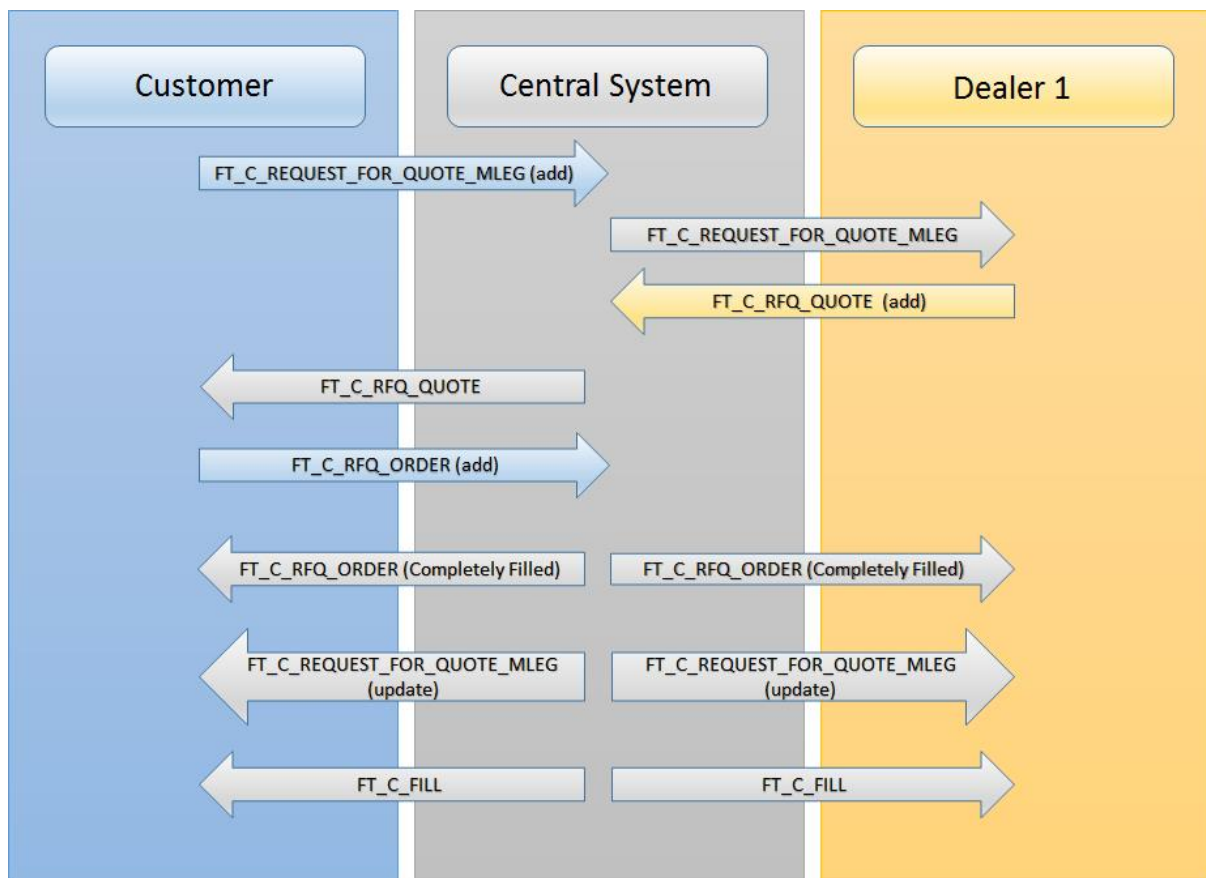


Figure 3: RFQ, Quote, hit/lift of the quote and Trade

To manually request the automatic acceptance at “Market Best”, the Customer must send an FT_C_RFQ_ORDER with no indication of the FT_C_RFQ_QUOTE to accept.

As a result the market will generate one or more trades according to best prices and quantity specified in all FT_C_RFQ_QUOTE sent by Dealers (Figure 4).

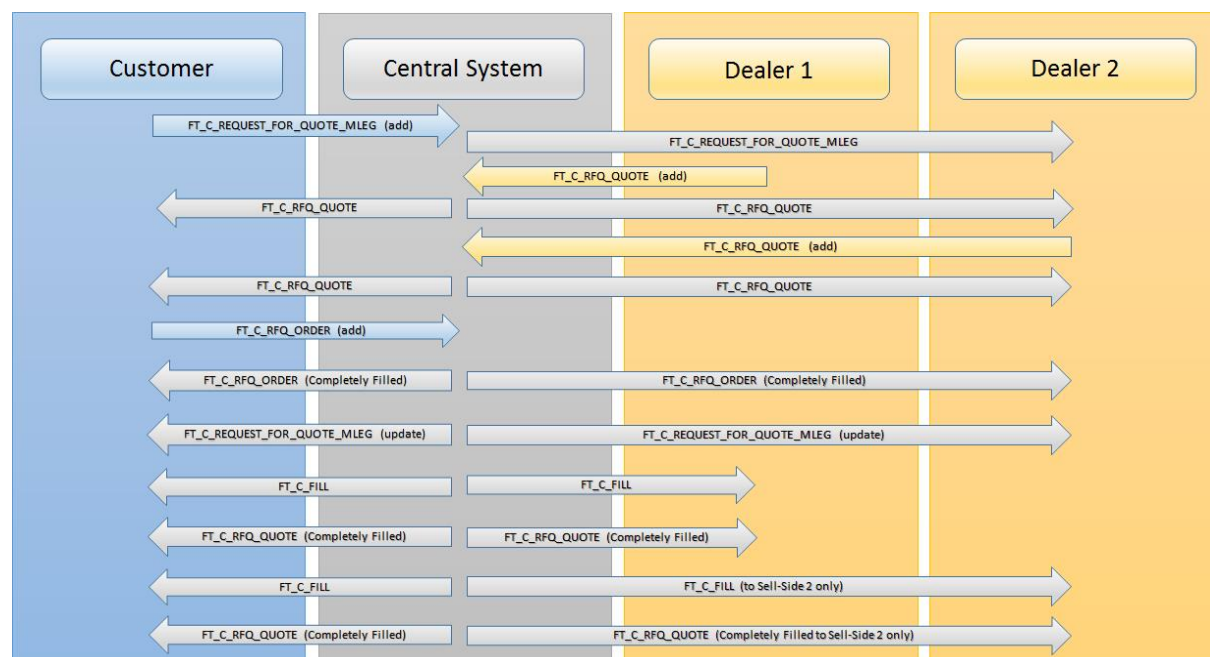


Figure 4: “Market Best” execution

In all the scenarios above, each time an FT_C_RFQ_QUOTE is manually accepted by the Customer (either with a single acceptance or via the “Market Best” facility) the market always checks the Expiration and Automatch timeout of the FT_C_RFQ_QUOTE. If the Expiration time has elapsed, the request is rejected. If the Automatch timeout has elapsed, the market requires a “Last Look” from the Dealer in order to confirm the acceptance and generate the trade.

The Dealer confirms or rejects the acceptance sending back to the market the FT_C_RFQ_ORDER received from the Customer specifying if it is accepted or not.

The “last-look” workflow is depicted in Figure 5.

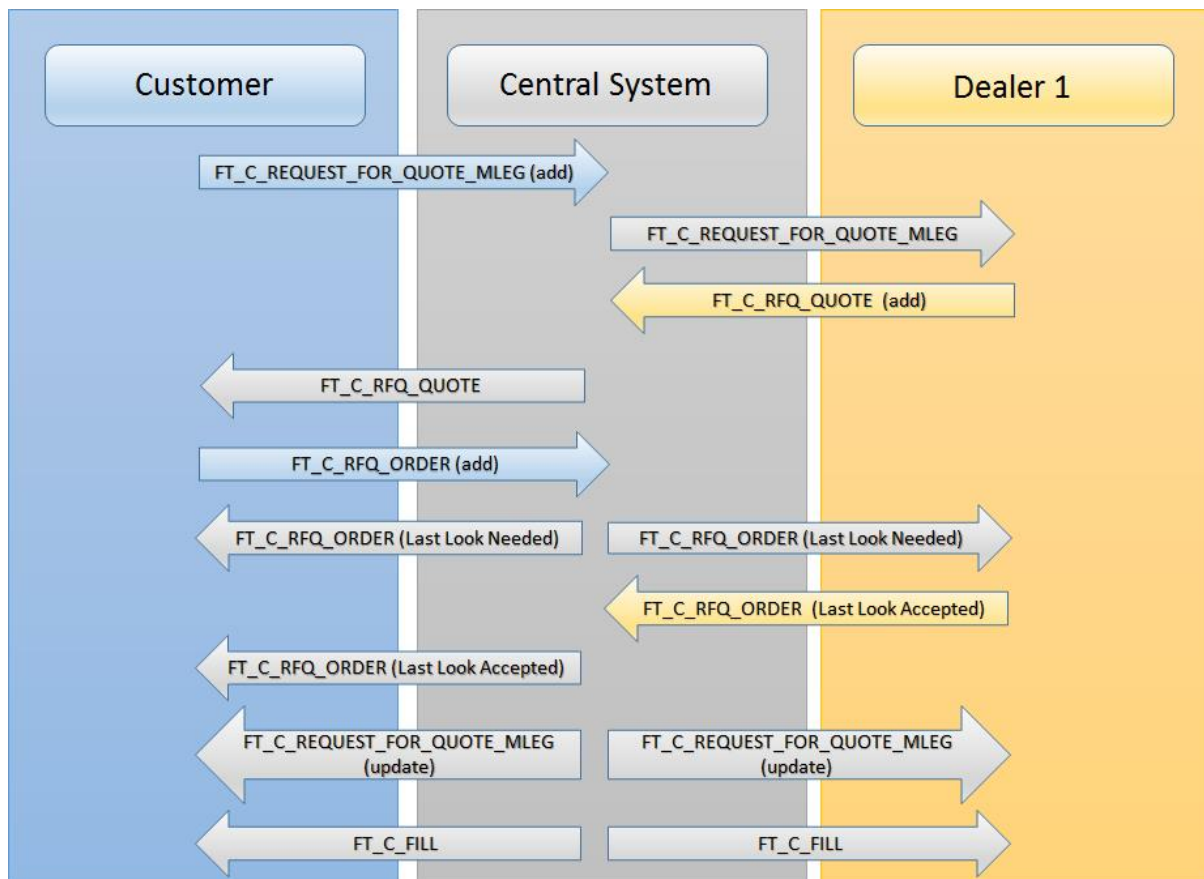


Figure 5: Last-look

4 DATA STRUCTURES

This section describes the data structures involved in the HiMTF RFQ market model. FT_C_REQUEST_FOR_QUOTE_MLEG is a quite complex class, since it supports a variety of market models and rules. This document only lists the fields and values that are relevant in the HiMTF exchange.

In all class descriptions, the last column indicates whether the field can be sent in a transaction (W = Write) or can be received from the market (R = Read). WM means that the field is Mandatory in the transaction, while WO stands for Optional. Fields that are mandatory only under condition are marked as WC. If a field is marked as "R", values sent by a client application will be ignored by the market. Fields not listed in the table are not used in the Hi-MTF market.

4.1 HOW TO SEND A REQUEST FOR QUOTE

To start negotiation, the Customer sends an RFQ using the FT_C_REQUEST_FOR_QUOTE_MLEG class. The same class must be used either to send an Outright or a Switch RFQ. The type of the RFQ (e.g. Outright or Switch) is specified in the RfcqType field. Leg[0] and Leg[1] only are allowed. The Leg product is specified in the Leg[i].FTSecID field. To send a single leg RFQ, the "Leg[0].FTSecID" will be filled, while the "Leg[1].FTSecID" and "Leg[2].FTSecID" fields will be empty. A Switch RFQ will have the "Leg[0].FTSecID" and "Leg[1].FTSecID" filled, but it will have the "Leg[2].FTSecID" empty.

To send a new RFQ the RfqID field must be empty. To change an RFQ previously sent, the RfqID field must be filled using the value you received in transaction response during the creation of the RFQ.

FT_C_REQUEST_FOR_QUOTE_MLEG

Field Name	Notes	W/R
RfqID	Unique identifier of the RFQ assigned by the market. When sending a new RFQ, the field must be empty, otherwise to edit a previously sent RFQ it must be filled with the ID received in the transaction response.	WM / R
Leg[0].FTSecID	Security of first leg of the RFQ. It must always be filled Domain: FT_C_SECURITY.FTSecID	WM
Leg[0].Qty	Quantity of the first leg of the RFQ	WM
Leg[0].MinQty	Minimum quantity that must be filled for the first leg of the RFQ. MinQty must be either zero or equal to Qty, meaning "All Or Nothing" RFQ. In case of automatic acceptance, the market guarantees that the total amount of fills is higher than or equal to MinQty and lower than or equal to Qty. MinQty is ignored in case of manual acceptance, either single quote hit/lift or Market Best.	WO

Leg[0].Price	Requested price for the first leg of the RFQ. Used when RfcqPriceType = Price or Default, ignored otherwise.	WO
Leg[0].Verb	Verb referred to first leg. Domain: FT_C_RFQ_VERBEnum	WM
Leg[0].OffsetSettlDays	Settlement Period. If value is 0, the settlement date is computed based on the default settlement period for the security (Leg[0].FTSecID). If field Leg[0].SettlDate is filled, this field is ignored. The specified Settlement period, if any, is intended for all legs.	WO
Leg[0].SettlDate	Settlement date. If filled, the value must be a valid day according to the product settlement calendar, otherwise the transaction will be refused. If SettlDate is filled, OffsetSettlDays is ignored. The specified SettlDate, if any, is intended for all legs. Format: YYYYMMDD	WO
Leg[0].Currency	Trading currency of the Leg product	R
Leg[0].ExchangeID	ID of the market place associated with the Leg product	R
Leg[0].MarketID	ID of the market associated with the Leg product	R
Leg[1].FTSecID	Security of second leg of the RFQ. It must be filled for Switch RFQs only. Domain: FT_C_SECURITY.FTSecID	WO
Leg[1].Qty	Quantity of the second leg of the RFQ. It must be filled for Switch RFQs only.	WO
Leg[1].MinQty	Minimum quantity that must be filled for the second leg of the RFQ. It must be filled for Switch RFQs only. For description and usage see Leg[0].MinQty.	WO
Leg[1].Price	Requested price for the second leg of the RFQ. Used when RfcqType = Switch and RfcqPriceType = Price or Default, ignored otherwise.	WO
Leg[1].Verb	Verb referred to second leg. It must be filled for Switch RFQs only. Domain: FT_C_RFQ_VERBEnum	WO
Leg[0].Currency	Trading currency of the Leg product	R
Leg[0].ExchangeID	ID of the market place associated with the Leg product	R
Leg[0].MarketID	ID of the market associated with the Leg product	R
RfcqType	Domain: FT_C_RFCQ_MLEG_TYPEEnum Allowed values: FT_C_RFCQ_MLEG_TYPE_Outright: Leg[0] fields only must be filled FT_C_RFCQ_MLEG_TYPE_Switch: both Leg[0] and Leg[1] fields must be filled	WM
RfqType	Specifies the expected type of quotation. Domain: FT_C_RFQ_TYPEEnum Allowed values: FT_C_RFQ_TYPE_Price	WM
InOutFlag	Specifies the direction with respect to the client application: FT_C_IN_OUT_FLAG_Out means the client is the originator of the RFQ, while FT_C_IN_OUT_FLAG_In means the client received the RFQ as a destination member. Domain: FT_C_IN_OUT_FLAGEnum	R
ClientRfqID	Client identifier of the RFQ. Not used by the market.	WO
Issuer.MemberID	Originator member of the RFQ	R
Issuer.OperatorID	Originator member's operator of the RFQ	R
Issuer.MrkOperatorID	Originator member's operator of the RFQ	R
DestinationType	In Hi-MTF the list of destination members is predefined by the market. The field must be filled with value FT_C_RFQ_DESTINATION_TYPE_Profile and DestinationProfile field must be filled with a predefined tag (TBD).	WM

	Domain: FT_C_RFQ_DESTINATION_TYPEEnum Allowed values: FT_C_RFQ_DESTINATION_TYPE_Profile	
DestinationProfile	See description of DestinationType field.	WM
IssuerUserText	Free user text. Not used by the market.	WO
Status	Status of the RFQ. Allowed values in transactions: FT_C_REQUEST_FOR_QUOTE_STATUS_FirstRequest: To send a new RFQ FT_C_REQUEST_FOR_QUOTE_STATUS_Cancelled: To cancel an existing RFQ Values filled by the market as the RFQ status changes: FT_C_REQUEST_FOR_QUOTE_STATUS_FirstRequest: the RFQ is active FT_C_REQUEST_FOR_QUOTE_STATUS_Cancelled: the RFQ has been cancelled by the originator FT_C_REQUEST_FOR_QUOTE_STATUS_CancelledByGov: the RFQ has been cancelled by the Governance FT_C_REQUEST_FOR_QUOTE_STATUS_RejectedByTimeout: the RFQ expired FT_C_REQUEST_FOR_QUOTE_STATUS_RejectedBySystem: the RFQ has been rejected by the market FT_C_REQUEST_FOR_QUOTE_STATUS_Suspended: the RFQ has been closed because either it has been completely filled or a Market Best execution has been requested by the originator (see Section 4.3) Domain: FT_C_REQUEST_FOR_QUOTE_STATUSEnum	WM / R
BilateralOnlyFlag	Force a bilateral negotiation of the RFQ, i.e. without a Central Counterpart. Allowed value: FT_C_FLAG_No	WM
ClearingMode	Domain: FT_C_CLEARING_MODEEnum Allowed values: FT_C_CLEARING_MODE_Default FT_C_CLEARING_MODE_Automatic	WM
Client.ClientID	Client Identification. Not used by the market.	WO
Client.ClientAccount	Client Account. Not used by the market.	WO
Client.Position	Client position. Not used by the market. Domain: FT_C_POSITIONEnum	WO
Client.Origin	Indicates whether the RFQ was sent on behalf of a client or on its own account. Domain: FT_C_ORIGINEEnum	WO
RfcqDurationType	Specifies whether the RFQ has a timeout or not. Domain: FT_C_RFCQ_DURATION_TYPEEnum Allowed values: FT_C_RFCQ_DURATION_TYPE_Default: Default timeout set by the market FT_C_RFCQ_DURATION_TYPE_Day: The request is valid until market closure (not allowed if RfcqPriceType = FT_C_RFCQ_PRICE_TYPE_Default)	WM
RfcqPriceType	Indicates the type of price specified in Leg[n].Price. Domain: FT_C_RFCQ_PRICE_TYPEEnum Allowed values: FT_C_RFCQ_PRICE_TYPE_Default: only quantity (not allowed for Switch RFQs) FT_C_RFCQ_PRICE_TYPE_Price: limit price for the security FT_C_RFCQ_PRICE_TYPE_Spread: limit spread between leg 0 and 1 (can be used in Switch RFQ only)	WM
CreationDate	Date of first creation of the RFQ.	R
CreationTime	Time of first creation of the RFQ.	R
UpdateDate	Date of last update of the RFQ.	R
UpdateTime	Time of last update of the RFQ.	R
ValidityDate	Date when the RFQ will expire.	R

ValidityTime	Time when the RFQ will expire.	R
RfqSpread	Requested spread between the two legs of the RFQ. Used when RfcqType = Switch and RfcqPriceType = Spread, ignored otherwise.	WO
SettlSystemID	ID of the settlement system where the RFQ will be settled.	R
ClearingHouseID	ID of the central counterpart, if any.	R
SeqNo	Progressive number assigned by the market. It is increased every time the RFQ is changed by the market or by a transaction	R
LegExecQty[0].ExecutedQty	First leg executed qty	R
LegExecQty[1].ExecutedQty	Second leg executed qty. Only for SWITCH RFQs	R

4.2 HOW TO ANSWER TO A REQUEST FOR QUOTE

A client that receives an RFQ as an incoming request (see description of the InOutFlag field) can send a reply (quotation) using one of the following classes:

- FT_C_RFQ_QUOTE
- FT_C_RFQ_SLIM_QUOTE.

Both classes enable a response to the RFQ, but, as the name suggests, the FT_C_RFQ_SLIM_QUOTE contains fewer fields than the FT_C_RFQ_QUOTE class. FT_C_RFQ_SLIM_QUOTE is recommended for price streaming to save network bandwidth. A suggested practice is to use FT_C_RFQ_QUOTE for the first answer, to set values that are not contained in the slim version of the class, and to use FT_C_RFQ_SLIM_QUOTE for subsequent price edits.

Even if the transaction is sent using FT_C_RFQ_SLIM_QUOTE, the market always distributes the FT_C_RFQ_QUOTE class in subscription. To save bandwidth on data received from the market, masked subscriptions can be used (for details see FT/API technical manual).

In both classes, the identifier of the RFQ to reply must be indicated in the RfqRefID field.

FT_C_RFQ_QUOTE

Field Name	Notes	W/R
RfqQuoteID	Unique identifier of the RFQ Quote assigned by the market. When sending a new quote, the field must be empty, otherwise to edit a previously sent quote, it must be filled with the ID received in the transaction response.	WM
RfqRefID	The ID of the RFQ to reply	WM
Leg[0].FTSecID	Contains the product of first leg of the RFQ. It must always be filled and equal to the corresponding product in the RFQ	WM

	Domain: FT_C_SECURITY.FTSecID	
Leg[0].Qty	Quoted quantity for the first leg of the RFQ	WM
Leg[0].MinQty	Minimum quantity that must be filled for the first leg of the RFQ.	WO
Leg[0].ExecutedQty	Executed Qty for the first leg of the RFQ.	R
Leg[0].Price	Quoted price for the first leg of the RFQ	WM
Leg[0].Verb	Verb referred to first leg. Domain: FT_C_RFQ_VERBEnum	WM
Leg[0].Currency	Trading currency of the Leg product	R
Leg[0].ExchangeID	ID of the market place associated with the Leg product	R
Leg[0].MarketID	ID of the market associated with the Leg product	R
Leg[1].FTSecID	Security of second leg of the RFQ. It must be filled for Switch RFQs only, equal to the corresponding product in the RFQ. Domain: FT_C_SECURITY.FTSecID	WO
Leg[1].Qty	Quoted quantity for the second leg of the RFQ. It must be filled for Switch RFQs only.	WO
Leg[1].MinQty	Minimum quantity that must be filled for the second leg of the RFQ. It must be filled for Switch RFQs only.	WO
Leg[1].ExecutedQty	Executed Qty for the second leg of the RFQ.	R
Leg[1].Price	Quoted price for the second leg of the RFQ. It must be filled for Switch RFQs only.	WO
Leg[1].Verb	Verb referred to second leg. It must be filled for Switch RFQs only. Domain: FT_C_RFQ_VERBEnum	WO
ClientRfqQuoteID	Client identifier of the RFQ. Not used by the market.	WO
Issuer.MemberID	Member who sent the RFQ QUOTE.	R
Issuer.OperatorID	Member's operator who sent the RFQ QUOTE.	R
Issuer.MrkOperatorID	Member's operator who sent the RFQ QUOTE.	R
Destination.MemberID	Member who sent the RFQ.	R
Destination.OperatorID	Member's operator who sent the RFQ.	R
Destination.MrkOperatorID	Member's operator who sent the RFQ.	R
CreationDate	Date of first creation of the RFQ QUOTE.	R
CreationTime	Time of first creation of the RFQ QUOTE.	R
UpdateDate	Date of last update of the RFQ QUOTE.	R
UpdateTime	Time of last update of the RFQ QUOTE.	R
Status	Domain: FT_C_RFQ_QUOTE_STATUSEnum Allowed values in first response transaction and forwarded to Customer: FT_C_RFQ_QUOTE_STATUS_Active: valid response FT_C_RFQ_QUOTE_STATUS_NoInterest: no interest in responding the RFQ Allowed values in edit transaction and forwarded to Customer: FT_C_RFQ_QUOTE_STATUS_Active: quotation edit or reactivation FT_C_RFQ_QUOTE_STATUS_Suspended: temporary suspend, can be reactivated FT_C_RFQ_QUOTE_STATUS_Cancelled: permanently cancel Unsolicited (final statuses): FT_C_RFQ_QUOTE_STATUS_Expired FT_C_RFQ_QUOTE_STATUS_CompFilled: completely filled FT_C_RFQ_QUOTE_STATUS_PartFilled: partially filled	WM

	FT_C_RFQ_QUOTE_STATUS_CancelledByGov: cancelled by governance FT_C_RFQ_QUOTE_STATUS_AutomaticallyRejected: cancelled by system	
ValidityThreshold	Expiration timeout expressed in number of seconds. Allowed value: 0 (market default value is used).	WO
ValidityDate	Date when the RFQ QUOTE will expire. Computed by the market based on ValidityThreshold.	R
ValidityTime	Time when the RFQ QUOTE will expire. Computed by the market based on ValidityThreshold.	R
AutomaticMatchingThreshold	Automatching timeout expressed in number of seconds. If missing, a market default value is assumed.	WO
AutomaticMatchingValidityDate	Date after which, the dealer will have to give a second acceptance (last look) before having the fill done. Computed by the market based on AutomaticMatchingThreshold.	R
AutomaticMatchingValidityTime	Time after which, the dealer will have to give a second acceptance (last look) before having the fill done. Computed by the market based on AutomaticMatchingThreshold.	R
UserText	Free user text. Not used by the market.	WO
Client.ClientID	Client Identification. Not used by the market.	WO
Client.Account	Client Account. Not used by the market.	WO
Client.Position	Client position. Not used by the market. Domain: FT_C_POSITIONEnum	WO
Client.Origin	Indicates whether the RFQ was sent on behalf of a client or on its own account. Domain: FT_C_ORIGINEEnum	WO
ClearingMode	Domain: FT_C_CLEARING_MODEEnum Allowed values: FT_C_CLEARING_MODE_Default FT_C_CLEARING_MODE_Automatic	R
SettlSystemID	ID of the settlement system where the RFQ will be settled.	R
ClearingHouseID	ID of the central counterpart, if any.	R
SeqNo	Progressive number assigned by the market. It is increased every time the RFQ QUOTE is changed by the market or by a transaction	R
InOutFlag	Specifies the direction with respect to the client application: FT_C_IN_OUT_FLAG_Out means the client is the originator of the quote, while FT_C_IN_OUT_FLAG_In means the client received the quote as a destination member. Domain: FT_C_IN_OUT_FLAGEnum	R
Automatic	Flag indicating whether the RFQ quote has been accepted or rejected automatically accordingly to the status	

FT_C_RFQ_SLIM_QUOTE

This class contains a subset of the fields in FT_C_RFQ_QUOTE. For description and usage rules, see FT_C_RFQ_QUOTE.

Field Name	Notes	W/R
RfqQuoteID		
RfqRefID		
Leg[0].FTSecID		

Leg[0].Price		
Leg[1].FTSecID		
Leg[1].Price		
Status		
AutomaticMatchingThreshold		

4.3 HOW TO HIT/LIFT QUOTES

The third step of the RFQ negotiation process is the acceptance/rejection of the RFQ quotes received by the dealers. Having received some RFQ quotes as a reply to the initial RFQ, the Customer (RFQ Issuer) can choose which one(s) to hit/lift or reject using the FT_C_RFQ_ORDER class.

The Customer can either ask the market to execute the RFQ at the current best conditions using QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest (see Section 2 "HiMTF RFQ Market Model"), or hit/lift or reject a specific quote. In the former case, the FT_C_RFQ_ORDER must contain the exact reference to the initial RFQ (RfqRefID). In the latter case, the FT_C_RFQ_ORDER must contain the exact reference to the quote to hit/lift or reject, given by quote ID (RfqQuoteID), the update date/time and the SeqNo of the quote. This will prevent the acceptance of an old image of the RFQ quote.

If the FT_C_RFQ_ORDER is automatically matched by the market with one or more quotes, its status is set to FT_C_RFQ_ORDER_STATUS_AutomaticallyAccepted. When hitting / lifting a specific quote, if the Automatch timeout of the quote has expired, both the Customer and the Dealer receive the FT_C_RFQ_ORDER class with Status = FT_C_ORDER_STATUS_WaitingForLastLook. The Dealer can accept/reject the order by a transaction on the same FT_C_RFQ_ORDER class (same RfqOrderID) with status FT_C_RFQ_ORDER_STATUS_LastLookAccepted/Rejected and QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_Accept/Reject. In case any other event occur that prevents the order to be executed after the positive transaction response (e.g. the RFQ expires or it is cancelled during the last look), the status of the order is set to FT_C_RFQ_ORDER_STATUS_AutomaticallyRejected. For further details, see also Section 3 "RFQ Workflow".

If the RFQ Order is sent using the "Accept Market Best" action, the market will distribute n images of the RFQ order, where n is the number of RFQ QUOTES that the RFQ order hits. Each RFQ order contains the reference to the RFQ QUOTE it has matched with.

FT_C_RFQ_ORDER

Field Name	Notes	W/R
RfqOrderID	Unique identifier of the RFQ Order assigned by the market. When sending a new order, the field must be empty, otherwise to edit a	WM

	previously sent order, it must be filled with the ID received in the transaction response.	
Leg[0].FTSecID	Contains the product of first leg of the RFQ. It must always be filled and equal to the corresponding product in the RFQ Domain: FT_C_SECURITY.FTSecID	WM
Leg[0].Qty	Ordered quantity for the first leg of the RFQ. Ignored if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WC
Leg[0].MinQty	Copied from the referred quote, if any	R
Leg[0].Price	Copied from the referred quote, if any	R
Leg[0].Verb	Verb referred to first leg. Domain: FT_C_RFQ_VERBEnum	WM
Leg[0].OffsetSettlDays	Copied from the original RFQ.	R
Leg[0].SettlDate	Copied from the original RFQ.	R
Leg[0].Currency	Trading currency of the Leg product	R
Leg[0].ExchangeID	ID of the market place associated with the Leg product	R
Leg[0].MarketID	ID of the market associated with the Leg product	R
Leg[1].FTSecID	Security of second leg of the RFQ. It must be filled for Switch RFQs only, equal to the corresponding product in the RFQ. Domain: FT_C_SECURITY.FTSecID	WO
Leg[1].Qty	Ordered quantity for the second leg of the RFQ (for Switch RFQs only). Ignored if QuoteAction = AcceptMarketBest	R
Leg[1].MinQty	Copied from the referred quote, if any	R
Leg[1].Price	Copied from the referred quote, if any	R
Leg[1].Verb	Verb referred to second leg. It should be filled only for Switch RFQs. Domain: FT_C_RFQ_VERBEnum	R
RfqQuoteID	Unique identifier of the RFQ Quote to hit/lift. Ignored if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WC
RfqQuoteUpdateDate	Update Date of the RFQ Quote to hit/lift. Ignored if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WC
RfqQuoteUpdateTime	Update Time of the RFQ Quote to hit/lift. Ignored if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WC
RfqQuoteSeqNo	Sequence number of the RFQ Quote to hit/lift. Ignored if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WC
RfqRefID	Unique identifier of the initial RFQ. Mandatory in transaction if QuoteAction = FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest otherwise it is ignored.	WC
ClientRfqOrderID	Client identifier of the RFQ. Not used by the market.	WO
Issuer.MemberID	Member who sent the RFQ Order.	R
Issuer.OperatorID	Member's operator who sent the RFQ Order.	R
Issuer.MrkOperatorID	Member's operator who sent the RFQ Order.	R
Destination.MemberID	Member who sent the RFQ quote.	R
Destination.OperatorID	Member's operator who sent the RFQ quote.	R
Destination.MrkOperatorID	Member's operator who sent the RFQ quote.	R
CreationDate	Date of first creation of the RFQ ORDER.	R
CreationTime	Time of first creation of the RFQ ORDER.	R

UpdateDate	Date of last update of the RFQ ORDER.	R
UpdateTime	Time of last update of the RFQ ORDER.	R
Status	Domain: FT_C_RFQ_ORDER_STATUSEnum Allowed values in transaction by Customer: FT_C_RFQ_ORDER_STATUS_Undefined Allowed values in transaction by Dealer and forwarded to the Customer: FT_C_RFQ_ORDER_STATUS_LastLookAccepted FT_C_RFQ_ORDER_STATUS_LastLookRejected Unsolicited: FT_C_RFQ_ORDER_STATUS_WaitingForLastLook FT_C_RFQ_ORDER_STATUS_AutomaticallyRejected FT_C_RFQ_ORDER_STATUS_AutomaticallyAccepted	R
QuoteAction	Domain: FT_C_RFQ_ORDER_QUOTE_ACTION Allowed values: FT_C_RFQ_ORDER_QUOTE_ACTION_Accept FT_C_RFQ_ORDER_QUOTE_ACTION_Reject FT_C_RFQ_ORDER_QUOTE_ACTION_AcceptMarketBest	WM
RFQAction	Domain: FT_C_RFQ_ORDER_RFQ_ACTIONEnum Allowed values: FT_C_RFQ_ORDER_RFQ_ACTION_DecreaseQty	WM
MemberAction	Domain: FT_C_RFQ_ORDER_MEMBER_ACTIONEnum Allowed values: FT_C_RFQ_ORDER_MEMBER_ACTION_NoAction	WM
LastLookValidityDate	If the status is FT_C_ORDER_STATUS_WaitingForLastLook, this field contains the date after which the RFQ ORDER will expire, i.e. the maximum date the RFQ QUOTE issuer can accept (last look)	R
LastLookValidityTime	If the status is FT_C_ORDER_STATUS_WaitingForLastLook, this field contains the time after which the RFQ ORDER will expire, i.e. the maximum date the RFQ QUOTE issuer can accept (last look)	R
UserText	Free user text set by Customer. Not used by the market.	WO
LastLookUserText	Free user text set by Dealer. Not used by the market.	WO
Client.ClientID	Client Identification. Not used by the market.	WO
Client.ClientID	Client Account. Not used by the market.	WO
Client.Position	Client position. Not used by the market. Domain: FT_C_POSITIONEnum	WO
Client.Origin	Indicates whether the RFQ was sent on behalf of a client or on its own account. Domain: FT_C_ORIGINEEnum	WO
SeqNo	Progressive number assigned by the market. It is increased every time the RFQ Order is changed by the market or by a transaction	R
InOutFlag	Specifies the direction with respect to the client application: FT_C_IN_OUT_FLAG_Out means the client is the originator of the order, while FT_C_IN_OUT_FLAG_In means the client received the order as a destination member. Domain: FT_C_IN_OUT_FLAGEnum	R

4.4 MARKET DATA

The market distributes public information on RFQs and quotations in the `FT_C_RFQ_EVENT` class. A new record is published as soon as one of the following events occur:

1. new RFQ
2. new quote or quote edit on an existing RFQ
3. new trade on an existing RFQ
4. an RFQ expires or is cancelled

In case of a trade on a Switch RFQ, two distinct events are published, one for each leg of the RFQ. Therefore, everytime the event refers to a trade, the first leg only is filled.

It is possible to subscribe only a subset of event types using filtered subscriptions (see FT/API programming manuals [2].[3].[4] for reference).

A user can subscribe the class only if profiled accordingly on the market.

FT_C_RFQ_EVENT

Field Name	Notes
EventType	Domain: <code>FT_C_RFQ_EVENT_TYPEEnum</code> Possible values: <code>FT_C_RFQ_EVENT_TYPE_FirstRequest</code> : new RFQ <code>FT_C_RFQ_EVENT_TYPE_Quote</code> : new quote or quote edit <code>FT_C_RFQ_EVENT_TYPE_Trade</code> <code>FT_C_RFQ_EVENT_TYPE_Cancel</code> <code>FT_C_RFQ_EVENT_TYPE_Expire</code> <code>FT_C_RFQ_EVENT_TYPE_QuoteExpire</code>
RfqID	Unique identifier of the RFQ.
RfqEventID	Unique identifier of the event: QuoteID: if EventType = <code>FT_C_RFQ_EVENT_TYPE_Quote</code> FillID: if EventType = <code>FT_C_RFQ_EVENT_TYPE_Trade</code> Contains the RfqID otherwise.
SeqNo	Progressive number assigned by the market. It is increased every time the RFQ is changed by the market or by a transaction
UpdateDate	Event update date
UpdateTime	Event update time.
RfqEventLeg[0].FTSecID	Security of the first leg of the RFQ/Quote, or security of the trade Domain: <code>FT_C_SECURITY.FTSecID</code>

RfqEventLeg[0].Qty	Quantity of the first leg of the RFQ/Quote, or quantity of the trade
RfqEventLeg[0].MinQty	Minimum quantity specified in the first leg of the RFQ or quote. Empty if EventType=Trade
RfqEventLeg[0].Price	Price of the first leg of the RFQ/Quote, if any, or price of the trade
RfqEventLeg[0].Yield	Yield of the first leg of the RFQ/Quote, if any.
RfqEventLeg[0].Verb	Verb referred to first leg. Domain: FT_C_RFQ_VERBEnum
RfqEventLeg[0].OffsetSettlDays	Settlement Period specified in the RFQ, if any.
RfqEventLeg[0].SettlDate	Settlement date specified in the RFQ, if any. Always filled with the actual settlement date if EventType=Trade.
RfqEventLeg[0].NonStdSettl	Indicates if the settlement date is different from product settlement date.
RfqEventLeg[0].Currency	Trading currency of the Leg product
RfqEventLeg[0].ExchangeID	ID of the market place associated with the Leg product
RfqEventLeg[0].MarketID	ID of the market associated with the Leg product
RfqEventLeg[1].FTSecID	Security of second leg of the RFQ/Quote. Filled for Switch RFQs only. Always empty if EventType=Trade. Domain: FT_C_SECURITY.FTSecID
RfqEventLeg[1].Qty	Quantity of the second leg of the RFQ/Quote. Filled for Switch RFQs only. Always empty if EventType=Trade.
RfqEventLeg[1].MinQty	Minimum quantity specified in the second leg of the RFQ. Filled for Switch RFQs only. Empty if EventType=Trade
RfqEventLeg[1].Price	Price of the second leg of the RFQ/Quote, if any. Filled for Switch RFQs only. Always empty if EventType=Trade.
RfqEventLeg[1].Yield	Yield of the second leg of the RFQ/Quote, if any.
RfqEventLeg[1].Verb	Verb referred to second leg. Filled for Switch RFQs only. Domain: FT_C_RFQ_VERBEnum
RfqEventLeg[1].Currency	Trading currency of the Leg product. Always empty if EventType=Trade.
RfqEventLeg[1].ExchangeID	ID of the market place associated with the Leg product. Always empty if EventType=Trade.
RfqEventLeg[1].MarketID	ID of the market associated with the Leg product. Always empty if EventType=Trade.
RfcqType	Copied from original RFQ. See description in FT_C_REQUEST_FOR_QUOTE_MLEG
RfqType	Copied from original RFQ. See description in FT_C_REQUEST_FOR_QUOTE_MLEG
RfcqDurationType	Copied from original RFQ. See description in FT_C_REQUEST_FOR_QUOTE_MLEG
RfcqPriceType	Copied from original RFQ. See description in FT_C_REQUEST_FOR_QUOTE_MLEG
RfqSpread	Requested spread between the two legs of the RFQ. Always empty if EventType= Quote or EventType = Trade.

4.5 SELL-SIDE SUMMARY INFORMATION

The market distributes private sell-side summary information on RFQs and quotations in the FT_C_RFCQ_SELL_SIDE_SUMMARY class. A Sell Side participant involved in a RFQ will receive one record describing summary info on how the RFQ has been completed/rejected and on their participation in the RFQ.

A user can subscribe the class only if profiled accordingly on the market.

The FT_C_RFCQ_SELL_SIDE_SUMMARY class is fully described in [1] FastTrade API Application Protocol Programmers Guide v3.1.33_develop 11. In the following table there is the list of the fields used in HiMTF RFQ market model, with a short description

Field Name	Notes
MemberID	Sell side Member ID
OperatorID	Sell side Operator ID
MrkOperatorID	Sell side Operator ID
BuySideMemberID	Issuer Member of the RFQ the Sell Side member has replied to. Blank in HiMTF market
BuySideMrkOperatorID	Issuer Operator of the RFQ the Sell Side member has replied to. Blank in HiMTF market
RFQID	Identification of the RFQ the Sell Side member has replied to
CreationDate	Creation date of the RFQ the Sell Side member has replied to
CreationTime	Creation time of the RFQ the Sell Side member has replied to
RfcqType	Type of the RFQ the Sell Side member has replied to. Domain: FT_C_RFCQ_TYPEEnum (e.g. FT_C_RFCQ_TYPE_Outright, FT_C_RFCQ_TYPE_Switch)
Status	Status of the RFQ the Sell Side member has replied to. Values in FT_C_RFCQ_REQUEST_STATUSEnum
ProviderStatus	Provider Status of the RFQ the Sell Side member has replied to. Values
ClosingTime	Update Time of the RFQ the Sell Side member has replied to.
SellSideNumber	Number of competitors that can reply to the RFQ.
Delay	Time interval between RFQ creation time and first reply to that RFQ.
PriceCoverInfo.CoverDefinition	FT_C_RFCQ_COVER_ACCT = ho vinto FT_C_RFCQ_COVER_TIED = uguale al prezzo best ma arrivato dopo FT_C_RFCQ_COVER_COVR= prezzo almeno secondo FT_C_RFCQ_COVER_COVT almeno secondo con qualcun altro con stesso prezzo
PriceCoverInfo.CoverValue	Posizione se ho vinto = 0, in seconda posizione = 1, ecc
NumOfLegs	Number of legs of the RFQ. If the RFQ is Outright, NumOfLegs will be 1, if the RFQ is SWITCH, NumOfLegs will be 2.
LegSummary [0].FTSecID	Security identifier of the first leg of the RFQ the Sell Side member has replied to.

LegSummary [0].ISINCode	ISIN Code of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].Verb	Verb of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].Qty	Quantity of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].Price	Price of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].Yield	Yield of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].SettlementDate	Settlement Date of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].Currency	Currency of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].ExchangeID	Exchange Code of the first leg of the RFQ the Sell Side member has replied to.
LegSummary [0].MarketID	Market Code of the first leg of the RFQ the Sell Side member has replied to.

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