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UBS Fx2B Liquidity API
FIX Interface - Rules of Engagement

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1. Introduction

1.1 Revision

Version	Date	Remarks
1.0	22 March 2007	First draft, for internal review
1.1	26 March 2007	Updated section 4.9 after feedback from Daniel Bader.
1.2	30 May 2007	Updated section 4.5 with details of additional scenario for sending MarketDataRequestReject. Updated Section 7.4 clarified accepted values of tag 453 of NewOrderSingle message. Added Section 8, example message sequences.
1.3	07 June 2007	Fixed mistake in section 4.9.1. (OrdType field is tag 40, not tag 38 as previously stated.)
1.4	26 July 2007	Updated section 7.4: Definition of NewOrderSingle message now includes HandlInst field (tag 21), which is mandatory in FIX4.3 specification. Updated example messages in section 8.6 accordingly. Updated section 7.3. to add clarification that the value of field 271(MDEntrySize), may be zero. Updated section 7.5. Corrected mistake in description of field 151 (LeavesQty). This will additionally be zero when OrdStatus field has the value Cancelled(4).
1.5	27 August 2007.	Updated section 7.1: Allow new optional field: MDEntrySize 271 in Market Date Request message. Updated section 4.9.1 & 7.4 to clarify interpretation of Side(54) in New Order Single message.
1.6	8 October 2007	Updated section 7 to include additional fields to support streaming FX Forwards. Updated section 4.13 to clarify message resend handling.
1.7	2 November 2007	Updated sections 2.3, 4.8 and 7 to include additional messages to support Request-for-Quote for FX Forwards.
1.8	12 December 2007	Updated section 4.13 to document scheduled sequence number reset.
1.9	22 February 2008	Updated Section 7.8: field 64 (FutSettDate) is now provided in Execution Reports for FX Spot if the report is for a fill or partial fill.
1.9.1	15 April 2009	Corrected typo in section 8.5: Example unsubscription message should use same MDReqId 262, as original subscription request.
1.10	24-July-2009	Updated sections 2.1, 4.8, 7 to include support Request-for-Quote for FX Spot and FX Swap.
1.10.1	21 August 2009	Updated RFQ to reflect mandatory use of Parties group if using enhanced RFQ
1.10.2	3 September 2009	Updated Execution Report section to fix typo and add missing swaps related attributes
1.11	16 March 2010	Updated tenor code lists
1.12	23 August 2010	Added MDReqID(optional) to "New order – Single Message". "MarketDatarequestReject" as unsubscribe confirmation.
1.13	16 September 2010	Updated section 7.1 to include <Parties> block for stamm-based subscriptions
1.13.1	5 November 2010	Updated section 7.7 to state that MDReqID is required on the order if multiple amounts are subscribed for the same instrument.
1.14	1 December 2010	Added Volatility Quote messages to UBS.
1.15	5 January 2011	Updated for average limit price and strict limit plus minor correction (Quote ValidUntilTime).
1.16	21 January 2011	Updates to Volatility Quote messages to UBS.

1.17	26th May 2011	Minor corrections
1.18	16th Oct 2012	Corrected typographical in Section 8.4, error affecting order of tags in example message.
1.19	23rd Nov 2012	Added USI fields to NewOrderSingle and Execution Report.
1.20	28th May 2013	Clarify requirement to (not) have a market data subscription when trading market or limit orders in Section 4.10.2.
1.21	7th Feb 2014	Corrected USI field ordering of tag name for Far Leg in NewOrderSingle specification.
1.22	6th Jan 2015	Added Instrument block for PM, updated tenor and settlement date MD subscription. Add valid unit time to Quote.

1.2 Purpose

This document is provided as a guide for clients, as to how the FIX Protocol may be used to establish connectivity with UBS for the purposes of Foreign Exchange trading.

It is intended as a supplement to the published FIX Protocol Specification, which may be found at http://www.fixprotocol.org.

1.3 Content

Included in this document are the following:

- General definitions and specifications for clients using FIX to transmit orders to UBS
- FIX message formats to be used and details of their expected parameters.

1.4 Feedback

Feedback and questions on any of the issues covered by this document are of course welcome.

If you have any queries or suggestions for improvement regarding any of the contents, then please discuss this with your UBS account manager.

2. Overview

2.1 Scope

The UBS Fx2B FIX Interface supports the following functionality:

1. Subscription to dealable streaming FX rates for multiple instruments.
2. FX Spot, Forward Outright, NDF and FX Swap order submission
3. Provision of order execution notifications.

2.2 FIX Protocol version

The UBS Fx2B FIX Interface is based upon the FIX version 4.3 protocol, with some minor extensions. These extensions (which take the form of some additional message fields and values) have been taken from the set defined in later FIX versions, typically the FIX Foreign Exchange Extension Pack in FIX 5.0, rather than using completely bespoke values. For clarity, such non-standard fields are displayed using a shaded background in the message definitions.

2.3 Supported Message Set

The supported message set is as follows:

2.3.1 Business Messages

Direction	Message Name	FIX Code	Purpose
In	Market Data Request	V	Subscription and unsubscription to/from FX Spot or Forward price streams
Out	Market Data Request Reject	Y	To reject a price subscription / unsubscription
Out	Market Data – Snapshot/Full Refresh	W	To provide streaming FX Spot or Forward price information
In	Quote Request	R	To request a quote for an FX Forward price
Out	Quote	S	To provide a quoted price for an FX Forward.
Out	Quote Request Reject	AG	To reject a quote request
In	New Order – Single	D	To submit orders to UBS
Out	Execution Report	8	To provide notification of: order acceptance, rejected orders, order fills & partial fills & order cancellations.
In	Don't Know Trade	Q	Used by the client to indicate a problem with an order fill notification.
Out	Business Message Reject	j	Used to reject an invalid Don't Know Trade message
In	Volatility Quote	S	To submit a volatility quote to UBS.

2.3.2 Session level Messages

Direction	Message Name	FIX Code	Purpose
In, Out	Logon	A	Establish connection, trigger message sequence number reset.
In, Out	Heartbeat	0	Monitor connection status
In, Out	TestRequest	1	Inquire connection status
In, Out	ResendRequest	2	Fill in message gaps
In, Out	Reject	3	Reject a single invalid message
In, Out	Sequence Reset	4	Resynchronize sequence numbers
In, Out	Logout	5	Disconnect

3. Connectivity

3.1 Secure Connectivity

The UBS Fx2B FIX Interface supports secure connectivity over the internet , co-located cross connects and leased line.

In order to simplify configuration, both client's and UBS' FIX engines communicate using plain, unencrypted TCP sockets.

Secure connectivity is achieved using a separate product running at both client's & UBS' sites to "tunnel" the plain TCP connection used by the FIX engines over a secure, encrypted SSL connection.

At the application level, the encrypted connection is transparent to the FIX engines; hence they require no special SSL configuration.

The SSL-tunneling functionality is provided by a freely-available open source product, for which UBS provides the necessary setup and configuration details.

This configuration is conceptually similar to using a simplified VPN (Virtual Private Network), but requires only minimal configuration and zero cost.

3.2 Failover

The UBS Fx2B FIX Interface is implemented upon a fault-tolerant cluster using a virtual external IP address. In the event of system failure within UBS, clients could be temporarily disconnected, but after a short interval will be able to reconnect using the same connection details; i.e. there is no requirement for clients to reconfigure before reconnecting in the event of a failover.

In accordance with the FIX specification, messages are persisted by the UBS FIX Server and are available for resend after an outage, using the standard FIX recovery procedures.

4. FIX Implementation

4.1 Message Formats

This document defines the set of supported messages, the expected fields to be contained in those messages and the range of accepted values which the fields may take.

The UBS Fx2B FIX Interface will ignore any messages that it receives which are not in the supported message set.

Messages not adhering to the specified format, containing fields with values outside the set defined here or containing any additional fields other than those defined in this document will be rejected.

4.2 FIX Message Encryption

Encryption of FIX messages themselves is not supported. Instead the secure network connection is used to guarantee data security.

4.3 Connection / Disconnection

4.3.1 Connection

Connection to the system is initiated by the client issuing a FIX Logon message. The message must contain the password that has been issued to the client by UBS.

If the connection can be accepted, then UBS will send a Logon message as acknowledgement.

Any FIX messages received before the Logon is sent as acknowledgement will be ignored.

In the event of an incorrect password being specified, a Logout message containing an error message will be sent in response, and then the connection will be terminated immediately by UBS.

4.3.2 Disconnection

Closing of a connection to the system is initiated by sending a Logout message to the other party. This should then be acknowledged by the other party by replying with a Logout message.
Either the client or UBS may initiate disconnection.

4.4 Session Management

If agreed with UBS, support can be provided for a client to have multiple concurrent FIX connections to UBS. This may be used, for example to provide market data over a separate connection from order requests and notifications.

In this event, UBS will allocate the client a unique "SenderCompID" value for each concurrent connection that they wish to establish. This value must be included in the FIX message header of each FIX message sent.

Each connection will be provided with the same capabilities, hence a client may choose which session to use for market data and which to use for order placement. Responses to any FIX request message will be sent over the same connection upon which the request was received.

4.5 Streaming Price Subscription

Subscription to an instrument's price stream is achieved by the client issuing a Market Data Request message for the instrument, with the "SubscriptionRequestType" field set to 1 (subscribe).

For simplicity, UBS supports just a single instrument in each market data request, hence separate Market Data Requests should be sent in order to subscribe to multiple instruments.

Market Data Requests which contain more than one instrument will be rejected.

The number of liquidity bands to which the client wishes to subscribe must be specified in the Market Data Request message, using the "MarketDepth" field. If zero, or a number of bands exceeding that supported by UBS, is specified for the value of this field; then the maximum number of bands supported by UBS will be published.

If the subscription cannot be accepted for any reason, then UBS will reply with a Market Data Request Reject message, which will provide the reason for the subscription failure.

If the subscription is successful, then UBS will begin sending price data using Market Data Snapshot/Full Refresh messages. These will continue to be sent until unsubscription is requested, or the connection is closed.

If, after a successful subscription, the supply of price data cannot be continued for any reason, UBS will send a Market Data Request Reject message, to notify the client that the subscription has terminated.

Note that under some circumstances, subscriptions to FX Forward prices may be allowed for limited durations. Should such a subscription's expire or become invalid; UBS will send a Market Data Request Reject message to indicate this. The client should clarify any such restrictions with their UBS Account Manager.

If the connection is closed for any reason, subscriptions need to be re-requested to start the sending of price updates after reconnecting to the system.

Note that, if multiple subscription requests are submitted in rapid succession, there is no guarantee that any reject responses to these requests will be sent back to the client in the same order.

4.6 Streaming Price Updates

Price updates are sent using Market Data Snapshot/Full Refresh Messages, each containing the price information for a single instrument.

Each message typically contains a series of bid and ask rates for a range of liquidity bands as requested in the Market Data Request.

Since each update is a full refresh, the set of prices provided in a message should be considered to replace all previous prices supplied for the instrument.

4.7 Unsubscription

To unsubscribe from a price stream, the client should send a further Market Data Request message for the instrument, with the "SubscriptionRequestType" field set to 2 (unsubscribe). The message should contain the request id (MDReqID) of the original subscription.

If the message is successfully processed a confirmation in the form of a Market Data Request Reject with a text of "The unsubscription was requested by the client." is sent. Following that no further market data messages will be sent to the client for the specified instrument, until the client re-subscribes to that instrument.

If such a message is sent when the client is not currently subscribed, then the message will be rejected by issuing a Market Data Request Reject message.

4.8 Request for Quote

As an alternative to a streaming price subscription, a "Request for Quote" (RFQ) model is supported for FX Spot, FX Forward Outright, NDF & FX Swaps.
To request a quote, the client may send a Quote Request message.

If the quote request cannot be accepted for any reason, then UBS will reply with a Quote Request Reject message, which will provide the reason for the failure.

If the request is accepted, then UBS will send a single Quote message containing dealable prices for the requested instrument.

4.9 Price Conventions

4.9.1 "Quote Units"

Prices published over the FIX Interface are quoted in normalized form, in accordance with the FIX convention, rather than being scaled by a "quote unit" factor, as is often the case for market quoted prices.

For example a JPY/CHF rate is quoted in the form "0.010343", *not* as "1.0343" with an implied quote unit of 100.

Prices specified on orders placed by the client must follow the same convention.

4.9.2 Decimal Places

The number of decimal places given in published prices and honoured upon prices on submitted orders will be configured by agreement between the client and UBS.

4.10 Order Submission

In order to place an order the client should submit a New Order – Single message.

4.10.1 Order Side

The side (buy/sell) of the order as specified by the "Side<54>" field is interpreted as being:

a) from the client's (rather than UBS's) perspective
b) relating to the currency in which the order quantity is specified (as defined by the Currency<15> field.)

e.g.

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=113000000, Currency<15>=JPY
would be interpreted as an order for the client to buy 113M JPY for USD

whilst:

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=1000000

or

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=1000000, Currency<15>=USD
would be interpreted as orders for the client to buy 1M USD for JPY.

4.10.2 Order Types & Execution Strategies

The order type and execution strategy to be used are specified using combinations of the "OrdType" and "TimeInForce" fields. The set of supported execution strategies, along with the restrictions that they impose on other fields, are summarized in the following table:

Execution Strategy	**OrdType(40)**	**TimeInForce(59)**	**Notes.**
FILL OR KILL (limit)	2 = Limit	4 = Fill or Kill	Price (44) must be set. This will be interpreted as the limit price of the Order.
FILL AND KILL (limit)	2 = Limit	3 = Immediate or Cancel	
FILL OR KILL (quote)	D = Previously Quoted	4 = Fill or Kill	Price (44) and QuoteID (117) must be specified. The quote id must be valid and the price must match that of the issued quote.
FILL AND KILL (quote)	D = Previously Quoted	3 = Immediate or Cancel	
FILL AT BEST OR KILL	1 = Market	4 = Fill or Kill	
FILL AT BEST AND KILL	1 = Market	3 = Immediate or Cancel	

Other combinations of the "OrdType" and "TimeInForce" fields are not supported and will result in rejection of the order.

It is not necessary to have a market data subscription in order to submit Limit or Market orders. However, market data subscriptions are useful in order to understand if, and at approximately what price, orders might be executed.

4.10.3 Trader / Counterparty Identification

The "Parties" component/repeating block of the New Order – Single message is used to hold details of both counterparty and trader.
This block should *always* contain one party identifier indicating the counterparty, as below:

PartyID	PartySource	PartyRole
counterparty identifier	D = Proprietary/ Custom code	13 = Order Origination Firm

The appropriate counterparty identifier to be used will be determined by agreement with UBS:

If required, a second party identifier may be specified in order to indicate the trader, as follows:

PartyID	PartySource	PartyRole
trader id	D = Proprietary/ Custom code	11 = Order Origination Trader

Note that, at most one counterparty and one trader may be specified; otherwise the request will be rejected.

4.11 Order Execution notifications

UBS will send a series of Execution Report messages to the client to provide notification regarding order execution.

Execution Report messages are used to indicate:

- order accepted
- order partially filled
- order filled
- order cancelled
- order rejected

The meaning of the execution report will be indicated by a combination of the "ExecType" and "OrdStatus" fields, as follows:

Meaning	ExecType (150)	OrdStatus (39)
Order Accepted	0= New	0 = New
Order Partially Filled	F = Trade	1 = Partially Filled
Order Filled	F = Trade	2 = Filled
Order Cancelled	4 = Cancelled	4 = Cancelled
Order Rejected	8 = Rejected	8 = Rejected

4.12 "Don't Know Trade" messages

If, upon receipt of an Execution Report indicating a fill or partial fill, a serious problem with the trade is identified by the client, then a "Don't Know Trade" message may be sent to alert UBS to the problem.

The Don't Know Trade message must indicate the execution report to which it relates, and the nature of the problem.

Note that that this doesn't cancel the trade, it simply alerts UBS support staff that there is a potential issue, and will trigger a manual investigation. Depending upon the nature of the issue, this may result in the price feed being temporarily suspended.

4.13 Message Sequence Number reset

Two modes of operation for the resetting of FIX message sequence numbers are now supported. These are "scheduled reset" and "client-initiated reset". The preferred mode of operation should be discussed and agreed with UBS.

4.13.1 Client-Initiated Sequence Number Reset

In client-initiated mode, the client is responsible for triggering the reset of FIX message sequence numbers. This should be performed at least once every 24 hours, unless otherwise agreed with UBS.

In general, sequence number reset should triggered whilst the client is already connected to the system. The FIX 4.3 specification, Volume 2, page 7 outlines the preferred approach (send Test Request message, await Heartbeat message, then send Logon message with the "ResetSeqNumFlag" set to 'Y').

It is also possible to trigger a sequence number reset by setting the ResetSeqNumFlag on the Logon message used to initially connect to the system. However, it is strongly recommended that this approach is not used unless the last disconnection from the system was client-initiated and happened cleanly (i.e. a Logout acknowledgement was received from UBS). Otherwise, triggering a sequence number reset whilst reconnecting to the system after an outage will cause any messages that were missed due to the outage to be discarded, and orders or order confirmations could well be lost.

4.13.2 Scheduled Sequence Number Reset

In scheduled mode, a time should be agreed with UBS at which the sequence number reset will take place each day. At the agreed time, the UBS FIX server will reset the sequence numbers of (each of) the client's FIX sessions. The client is expected to configure their FIX Server to do the same.
Note that if any sessions are active at the time of reset, then they will first be disconnected by UBS through sending a Logout message.

4.14 Message Resend Handling

4.14.1 Possible Resend

Under certain (rare) circumstances the "PossResend" field of the FIX message header may be populated and set to 'Y'. This indicates that there is a chance that the message is a duplicate of another which was sent under a different sequence number. Client's systems should be designed to detect and handle such duplicates should they occur.

4.14.2 Possible Duplicate

After a FIX session-level resend request, messages which are re-sent will be flagged as possible duplicates by populating the "PossDupFlag" of the FIX message header with 'Y'. Client's systems should be designed to detect and handle such duplicate notifications should they occur.

4.14.3 Possible Duplicate or Resent Orders

For safety, any Order requests received from the client which are flagged as "possible duplicate" or "possible resend" will be automatically rejected by the UBS server.

4.14.4 Filtering of Resent messages

In the event of a resend request being received from a client the UBS FIX engine will reply by resending either the original messages, or a SequenceReset (gap fill) message in accordance with the FIX Protocol. All messages resent will be flagged as "possible duplicates".
Note that the following message types will never be resent (will be "gap-filled"):

- Market Data – Snapshot/Full Refresh (W)

4.15 Client Order Identifiers

Order identifiers provided by the client when sending an order request, should be unique for at least the duration of the message reset interval, and a minimum of a 24 hour period.

5. Order Execution Scenarios

The following tables provide examples of the content of the execution reports that would be expected, for a range of different order execution scenarios, in response to an example order for quantity = 5000. (The "*Notes*" column is simply to explain the examples. It is not a message field.)

5.1 Order Filled in Single Execution

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	*Notes*
New	New	5000	0	5000	0	Accepted
Trade	Filled	5000	5000	0	5000	Filled in single execution

5.2 Order Filled in Multiple Executions

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	*Notes*
New	New	5000	0	5000	0	Accepted…
Trade	Partially Filled	5000	1000	4000	1000	.. then filled in 3 executions (1000,2000,2000)
Trade	Partially Filled	5000	3000	2000	2000	
Trade	Filled	5000	5000	0	2000	

5.3 Fill and Kill Order with Partial Fill

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	*Notes*
New	New	5000	0	5000	0	Accepted…
Trade	Partially Filled	5000	2000	3000	2000	… partial fill (2000)
Cancelled	Cancelled	5000	2000	0	0	… remainder is cancelled

5.4 Order Rejected

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	*Notes*
Rejected	Rejected	5000	0	0	0	Order Rejected

5.5 Failed Execution

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	*Notes*
New	New	5000	0	5000	0	Accepted
Cancelled	Cancelled	5000	0	0	0	Execution failed

6. Session Level Message Definitions

6.1 Standard Message Header

This standard FIX 4.3 header will be present on all FIX messages

FIX Tag	Field Name	Reqd?	Value / Comments
8	BeginString	Y	FIX.4.3
9	BodyLength	Y	The message length in bytes
35	MsgType	Y	The message type code
49	SenderCompID	Y	Used to identify the message sender. Determined in agreement between client and UBS.
56	TargetCompID	Y	Used to identify the message recipient. Determined in agreement between client and UBS.
34	MsgSeqNum	Y	The message sequence number
43	PossDupFlag	N	Populated for retransmitted messages
97	PossResend	N	Populated when there is a chance that the message is a duplicate of a message sent under a different sequence number
52	Sending Time	Y	The time of message transmission, in UTC.

6.2 Trailer

This standard FIX 4.3 trailer will be present on all FIX messages

FIX Tag	Field Name	Reqd?	Value / Comments
10	CheckSum	Y	3 byte checksum calculated in accordance with the FIX specification.

6.3 Logon

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = A
98	EncryptMethod	Y	Allowed value: 0 (None)
108	HeartBtInt	Y	The heartbeat interval. This will be set by agreement between the client and UBS.
141	ResetSeqNumFlag	N	Indicates both sides of the FIX session should reset sequence numbers. Should only be specified when this message is sent to instruct a sequence number reset.
553	Username	N	This should be set for messages sent by the client, to initiate a connection. This field should be populated with the username that has been allocated in agreement with UBS. Not needed for messages used only to reset sequence numbers for an existing connection.
554	Password	N	This should be set for messages sent by the client, to initiate a connection. This field should be populated with the password that has been allocated in agreement with UBS. Not needed for messages used only to reset sequence numbers for an existing connection.
	Standard Trailer	Y	

6.4 Logout

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 5
58	Text	N	Will be populated in the event of a UBS-initiated disconnection to provide a reason for the disconnection.
	Standard Trailer	Y	

6.5 Heartbeat

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 0
112	TestReqID	N	Must be populated when the heartbeat is a response to a TestRequest message.
	Standard Trailer	Y	

6.6 Test Request

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 1
112	TestReqID	Y	Test request id. Any string can be used.
	Standard Trailer	Y	

6.7 Resend Request

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 2
7	BeginSeqNo	Y	Sequence number of the first message requested to be resent
16	EndSeqNo	Y	Sequence number of the last message requested to be resent, or zero if all messages subsequent to BeginSeqNo are to be resent.
	Standard Trailer	Y	

6.8 Reject

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 3
45	RefSeqNo	Y	The sequence number of the rejected message
371	RefTagID	N	The tag number of the FIX field being referenced
372	RefMsgType	N	The type code for the message being referenced
373	SessionRejectReason	N	Code to identify the reason for a session level reject message, if appropriate
58	Text	N	Message to explain the reason for rejection, where possible
	Standard Trailer	Y	

6.9 Sequence Reset

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = 4
123	GapFillFlag	N	Used to indicate that message is being used in gap-fill-mode
36	NewSeqNo	Y	The new next message sequence number to be used.
	Standard Trailer	Y	

7. Business Message Definitions

Note: Message fields or values displayed with a shaded background are non-standard in FIX4.3. Where possible, non-standard tags and values have been chosen to correspond to those recommended in the Foreign Exchange Extension Pack of FIX 5.0.

7.1 Market Data Request Message

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = V
262	MDReqID	Y	Must be unique, or the ID of previous Market Data Request to disable if SubscriptionRequestType <263> = 2 (Unsubscribe)
263	SubcriptionRequestType	Y	Accepted values: 1 = Subscribe 2 = Unsubscribe
264	MarketDepth	Y	Used to specify the number of bands to be requested. Accepted values: 0 = the maximum number of bands, as configured by UBS. > 0 the number of bands requested. Note that if the number of bands requested exceeds the maximum number of levels supported by UBS in this instrument, then all the levels supported by UBS will be published.
265	MDUpdateType	N	Required if SubscriptionRequestType <263> = 1 (subscribe). Accepted values: 0 = Full refresh
267	NoMDEntryTypes	Y	Number of MDEntryType <269> fields requested Accepted values: 2
=> 269	MDEntryType	Y	Must be the first field in this repeating group. This is a list of all the types of Market Data Entries that the firm requesting the Market Data is interested in receiving. Accepted values: Note that both: 0 = Bid , and 1 = Offer must be specified.
146	NoRelatedSym	Y	Number of symbols (instruments) requested Accepted values: 1 – Note: only one instrument will be accepted per Market Data Request message.
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" Rates are expressed as "currency1 in currency2" (or "currency2 per currency1") e.g. "GBP/USD" represents a rate expressed as USD per GBP, "USD/JPY" represents a rate expressed as JPY per USD, etc.). CCY1 and CCY2 are ISO currency codes
=> 461	CFICode	N	Must be provided if the product is a forward. Used to distinguish deliverable, versus non-deliverable forwards. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF)
=> 48	SecurityID	N	Valor for Precious Metals

			Requires SecurityIDSource. Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15. See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
63	SettlmntTyp	N	Can be used to set a tenor for forwards instead of a date in field 64. See 7.12for a list of valid tenor codes.
64	FutSettDate	N	Must be provided if the product is a forward and field 63 is not provided. Overrides field 63 if provided. See 7.14 for validation rules. Used to specify the value date of the forward, in the format YYYYMMDD.
271	MDEntrySize	N	The target amount for the price subscription, expressed in units of CCY1. Note: if this field is present, then MarketDepth<264> field must have value "1".
[Component Block - <Parties>]			
453	NoPartyIDs	N*	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>
=> 448	PartyID	N*	The party id (counterparty.)
=> 447	PartdIDSource	N*	The type of party id. Accepted value: D = Proprietary / Custom Code
=> 452	PartyRole	N*	The type of party: Accepted values: 13 = Order Origination Firm (when counterparty id is given for field 448)

7.2 Market Data Request Reject Message

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = Y
262	MDReqID	Y	Will refer to the MDReqID <262> of the request.
281	MDReqRejReason	N	Where appropriate, contains a code representing the reason for the subscription or unsubscription failure.
58	Text	Y	Contains a textual description of the reason for the subscription/unsubscription failure.
	Standard Trailer	Y	

7.3 Market Data – Snapshot/Full Refresh Message

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = W
262	MDReqID	Y	The MDReqId of the Market Data Request that started this price subscription.
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2"
=> 461	CFICode	N	Will be provided if the product is a forward. Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF)
=> 48	SecurityID	N	Valor for Precious Metals If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
268	NoMDEntries	Y	The number of entries following. The message will contain a number of entries, detailing bid and offer quotes for a range of size bands.
=> 269	MDEntryType	Y	Used to indicate the side of the quote. Will contain: 0 = Bid 1 = Offer
=> 270	MDEntryPx	Y	The price of the quote, in currency 2 per currency 1. Note that for forwards, this is the all-in rate.
=> 15	Currency	Y	Indicates the denomination of the quantity fields. Typically currency1.
=> 271	MDEntrySize	Y	Indicates the size/quantity associated with the quote. Note that this may be zero, indicating that no liquidity is available.
=> 272	MDEntryDate	Y	Represents the value date of the quote.
=> 276	QuoteCondition	Y	Used to indicate dealable versus indicative prices. Will contain: A =active (dealable) price I = non-Firm (indicative) price
=> 299	QuoteEntryId	Y	Provides a unique reference id for this quote, which may be used to place an order against it, if it is active.
=> 1026	MDEntrySpotRate	N	Provided for forwards. This will contain the spot rate, in currency2 per currency1.
=> 1027	MDEntryForwardPoints	N	Provided for forwards. This will contain the forward points.
	Standard Trailer	Y	

7.4 Quote Request Message

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = R
131	QuoteReqID	Y	Must be a unique client-provided identifier
146	NoRelatedSym	Y	Number of symbols (instruments) requested Accepted values: 1 – Note: only one instrument will be accepted per Quote Request message.
[Component Block - <Parties>]			
453	NoPartyIDs	Y*	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>
=> 448	PartyID	Y*	The party id (counterparty.)
=> 447	PartdIDSource	Y*	The type of party id. Accepted value: D = Proprietary / Custom Code
=> 452	PartyRole	Y*	The type of party: Accepted values: 13 = Order Origination Firm (when counterparty id is given for field 448)
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" Rates are expressed as "currency1 in currency2" (or "currency2 per currency1") e.g. "GBP/USD" represents a rate expressed as USD per GBP, "USD/JPY" represents a rate expressed as JPY per USD, etc.). CCY1 and CCY2 are ISO currency codes
=> 461	CFICode	N	Used to distinguish between asset types. Spot is assumed if not set. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals Requires SecurityIDSource. Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
38	OrderQty	Y	The target amount for which the quote request. Expressed in units of the currency indicated by tag Currency<15>, where specified, otherwise assumed to be in units of CCY1. In case of a swap, it is the near leg amount.
192	OrderQty2	N	The amount of the far leg of a swap.
63	SettlmntTyp	N	Can be used to set a tenor for forwards or a swap near leg instead of a date in field 64. See 7.12for a list of valid tenor codes.
64	FutSettDate	N	Used to specify the value date of a forward, or the near leg date of a swap, in the format YYYYMMDD. Overrides field 63.
6600	SettlmntTyp2	N	Can be used to set a tenor for a swap far leg instead of a date in field 193. This is a custom field. See 7.12for a list of valid tenor codes.
193	FutSettDate2	N	Used to specify the far leg date of a swap, in the format YYYYMMDD.

15	Currency	N	Used to specify to denomination of the amount given by the OrderQty field. If this is not specified, then CCY1 is assumed.
	Standard Trailer	Y	

7.5 Quote Request Reject Message

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = AG
131	QuoteReqID	Y	Will refer to the client-provided identifier supplied in the Quote Request message.
658	QuoteRequestRejectReason	Y	Will always contain: 99 = Other Note that the Text<58> field is used to give the reason for the rejection.
146	NoRelatedSym	Y	Number of symbols (instruments) requested in the Quote Request message. Will contain: 1
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol provided in the Quote Request
=> 461	CFICode	N	Will match the CFICode specified in the QuoteRequest Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
38	OrderQty	Y	The order quantity, as specified in the Quote Request.
192	OrderQty2	N	Far leg swap quantity, as specified in the Quote Request.
63	SettlmntTyp	N	Tenor code as specified in Quote Request.
64	FutSettDate	N	The value date of a forward or near leg of a swap, as specified in the Quote Request.
6600	SettlmntTyp2	N	Tenor code as specified in Quote Request.
193	FutSettDate2	N	The value date of a far leg of a swap, as specified in the Quote Request.
15	Currency	N	The currency specified in the Quote Request, if one was present.
58	Text	Y	This will contain a message indicating the reason for rejection of the Quote Request.
	Standard Trailer	Y	

7.6 Quote Message

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = S
131	QuoteReqID	Y	Will refer to the client-provided identifier supplied in the Quote Request message.
117	QuoteID	Y	Unique reference for this quote message.
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol provided in the Quote Request
=> 461	CFICode	Y	Will match the CFICode specified in the QuoteRequest . Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
62	ValidUnilTime	Y	UTC Timestamp for validity of the quote
132	BidPx	Y	The bid "all-in" forward rate. For a swap, the BUY quote near leg rate. For spots, the BidSpotRate.
133	OfferPx	Y	The offer "all-in" forward rate. For a swap, the SELL quote near leg rate. For spots, the OfferSpotRate.
134	BidSize	Y	Indicates the bid size
135	OfferSize	Y	Indicates the offer size
188	BidSpotRate	Y	The bid spot rate. For a swap, the spot rate supporting the BUY quote
190	OfferSpotRate	Y	The offer spot rate. For a swap, the spot rate supporting the SELL quote
189	BidForwardPoints	N	The bid forward points
642	BidForwardPoints2	N	SELL quote forward points for swap far leg.
191	OfferForwardPoints	N	The offer forward points
643	OfferForwardPoints2	N	BUY quote forward points for swap far leg.
64	FutSettDate	N	The value date of a forward or near leg of a swap, as specified in the Quote Request. Tenors (SettlmntTyp) are converted to absolute dates.
193	FutSettDate2	N	The value date of the far leg of a swap, as specified in the Quote Request.
192	OrderQty2	N	The amount of a swap far leg
15	Currency	Y	Indicates the denomination of the BidSize and OfferSize fields
1065	BidSwapPoints	N	Swap points of a swap SELL quote
1066	OfferSwapPoints	N	Swap points of a swap BUY quote
	Standard Trailer	Y	

7.7 New Order – Single Message

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = D
11	ClOrdID	Y	Unique identifier of the order as assigned by the client
262	MDReqID	N	Required if multiple subscriptions are present for the same instrument. Will refer to the unique, client-provided, identifier supplied in the Market Data Request.
[Component Block - <Parties>]			
453	NoPartyIDs	Y	The number of repeating groups to follow. Accepted values = 1or 2. (2 if optional trader id is specified) The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>.
=> 448	PartyID	Y	The party id (counterparty, trader etc.)
=> 447	PartdIDSource	Y	The type of party id. Accepted value: D = Proprietary / Custom Code
=> 452	PartyRole	Y	The type of party: Accepted values: 11 = Order Origination Trader (when trader id is given for field 448) 13 = Order Origination Firm (when counterparty id is given for field 448)
64	FutSettDate	N	If the product is a forward or swap, must be specified to indicate the (near leg) settlement date, in YYYYMMDD format.
193	FutSettDate2	N	Required for swaps. The far leg date.
21	HandlInst	Y	Instructions for order handling Accepted value: 1 = Automated execution order, private, no Broker intervention
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2"
=> 461	CFICode	N	Used to distinguish between asset types. Spot is assumed if not set. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals Requires SecurityIDSource. Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
54	Side	Y	Buy or sell side. This is relative to the currency set by field 15, or currency 1 if field 15 not specified. Accepted values: 1 = Buy 2 = Sell
60	TransactTime	Y	The time that this order request was initiated
[Component Block – <OrderQtyData>]			
=> 38	OrderQty	Y	The quantity of the order, in units of the denomination currency as set by field 15 (Currency)
192	OrderQty2	N	The swap far leg amount.
40	OrdType	Y	Accepted values: 1 = Market

			2 = Limit D = Previously Quoted.
44	Price	N	The rate, expressed as currency2 per currency1. This is required if OrdTyp <40> is 2 (Limit) or D (Previously Quoted) For forwards this should be the all-in rate.
640	Price2	N	All-in far leg swap rate if OrdTyp <40> is 2 (Limit) or D (Previously Quoted)
15	Currency	N	The currency in which the OrderQty is specified. If not specified, then currency1 is assumed.
117	QuoteID	N	Required if OrdType <40> is D (previously quoted.) Accepted values: the value of a QuoteEntryId (field 299) received on an MDEntry item within a MarketData message.
59	TimeInForce	Y	The execution strategy to be used. Accepted values: 3 = Immediate or Cancel ("Fill *and* Kill") 4 = Fill or Kill
18	ExecInst	N	Instructions for order handling as per FIX 4.3. Additionally accepted values: b = Strict Limit
20001	USIIssuerId	N	Dodd-Frank USI field. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
20002	USITradeId	N	Dodd-Frank USI field. Trade Id the second part of USI. Both the Issuer and Trade Id need to be present if set.
20003	FarUSIIssuerId	N	Dodd-Frank USI field for Swap far leg. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
20004	FarUSITradeId	N	Dodd-Frank USI field for Swap far leg. Trade Id, the second part of USI. Both the Issuer and Trade Id need to be present if set.
9645	LimitPxType	N	Allows user to specify an average limit price. Accepted values: 2= Average Limit Price
	Standard Trailer	Y	

7.8 Execution Report Message

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = 8
37	OrderID	Y	Unique identifier of the order as assigned by UBS.
11	ClOrdID	Y	The identifier of the order as assigned by the client in the New Order – Single message.
17	ExecID	Y	Unique identifier of the execution report, as assigned by UBS.
150	ExecType	Y	Describes the purpose of the execution report. Values used will be: 0 = New (order accepted) 4 = Cancelled (order cancelled / failed) 8 = Rejected (order rejected) F = Trade (partial fill, or fill)
39	OrdStatus	Y	Describes the current status of the order Values used will be: 0 = New (order accepted) 1 = Partially Filled 2 = Filled 4 = Cancelled (order cancelled / failed) 8 = Rejected (order rejected)
103	OrdRejReason	N	May be supplied when ExecType = 8 (Rejected), to indicate the reason for the rejection, if the reason corresponds to one of the standard codes for this field.
64	FutSettDate	N	Used to specify the value date in the format YYYYMMDD. Will always be provided if the product is a forward or swap. Will be provided if ExecType = F (Trade) if the product is spot.
193	FutSettDate2	N	Used to specify the value date in the format YYYYMMDD. Will always be provided if the product is a forward or swap.
[Component Block - <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol specified in the order request.
=> 461	CFICode	Y	Used to distinguish between asset types. Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
54	Side	Y	Specifies the side of the order. Values used will be 1 = Buy 2 = Sell This will match the side specified in the order request.
[Component Block - <OrderQtyData>]			
=> 38	OrderQty	Y	The quantity, as specified in the order request
192	OrderQty2	N	The swap far leg amount.
40	OrdType	Y	The order type, as specified in the order request
44	Price	N	The price specified on the order request, if one was present
640	Price2	N	All-in far leg swap rate
15	Currency	N	The currency specified on the order request, if one was present

59	TimeInForce	Y	The time in force value as specified on the order request.
32	LastQty	Y	If ExecType(150) = Trade(F), then this will contain the quantity of the order fill being reported. Otherwise this field will contain zero.
31	LastPx	N	If ExecType(150) = Trade(F), then this will contain the rate at which the fill being reported was executed. Otherwise this field will not be specified For forwards, this will be the all-in rate. For swaps the near leg rate.
194	LastSpotRate	N	If ExecType(150) = Trade(F), then this will contain the spot rate used for the fill being reported. Otherwise this field will not be specified
195	LastForwardPoints	N	If ExecType(150) = Trade(F), and the product is a forward or swap, then this will contain the forward points used for the fill being reported (near leg). Otherwise this field will not be specified
641	LastForwardPoints2	N	If ExecType(150) = Trade(F), and the product is a swap, then this will contain the forward points used for the fill being reported (far leg). Otherwise this field will not be specified
151	LeavesQty	N	The quantity open for further execution. If OrdStatus(39) is Cancelled (4) or Rejected(8) then this will be zero. Otherwise it will take the value: OrderQty(38) – CumQty(14)
14	CumQty	N	The cumulative, currently executed quantity for the order. Swaps are fully filled only and this value will contain the near leg amount.
20001	USIIssuerId	N	Dodd-Frank USI field. Issuer, the first part of USI. Echoed back if present in the fill execution reports.
20002	USITradeId	N	Dodd-Frank USI field. Trade Id, the second part of USI. Echoed back if present in the fill execution reports.
20003	FarUSIIssuerId	N	Dodd-Frank USI field for Swap far leg. Issuer, the first part of USI. Echoed back if present in the fill execution reports.
20004	FarUSITradeId	N	Dodd-Frank USI field for Swap far leg. Trade id, the second part of USI. Echoed back if present in the fill execution reports.
6	AvgPx	N	The average price of all fills for this order. For swaps the near leg rate. If CumQty(14) is zero, i.e. no fills have occurred for the order, then this field will contain zero.
58	Text	N	May be used to return an error message if the ExecType = 8 (Rejected) or 4 (Cancelled).
	Standard Trailer	Y	

7.9 Don't Know Trade Message

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = Q
37	OrderID	Y	The OrderID corresponding to the problem execution.
17	ExecID	Y	The Execution ID of the problem execution.
127	DKReason	Y	The reason code corresponding to the problem. (If appropriate; use Z=other if not).
[Component Block – <Instrument>]			
=> 55	Symbol	Y	"CCY1/CCY2" This should correspond to the execution report.
=> 461	CFICode	N	Must be provided if the product is a forward. This should correspond to the execution report.
54	Side	Y	This should correspond to the execution report.
[Component Block – <OrderQtyData>]			
=> 38	OrderQty	Y	This should correspond to the execution report.
32	LastQty	N	Required if specified on the execution report
31	LastPx	N	Required if specified on the execution report
58	Text	Y	This should contain an error message indicating the nature of the problem.
	Standard Trailer	Y	

7.10 Business Message Reject

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = j
45	RefSeqNum	N	The sequence number of the rejected message
372	RefMsgType	Y	The type code for the message being rejected
379	BusinessRejectRefID	N	The "business-level" ID field for the message being rejected. For a Don't Know Trade message, this will be the ExecID field.
380	BusinessRejectReason	Y	Code to identify the reason for the rejection.
58	Text	N	This will contain an error message indicating the nature of the problem.
	Standard Trailer	Y	

7.11 Volatility Quote Message

FIX Tag	Field Name	Reqd?	Value / Comments
	Standard Header	Y	MsgType <35> = S
117	QuoteID	Y	Unique reference for this quote message.
537	QuoteType	Y	Accepted values: 0 = Indicative 1 = Tradeable
55	Symbol	Y	"CCY1/CCY1"
461	CFICode	Y	OMECXN
167	SecurityType	Y	FXMLEG
9133	SecuritySubType	Y	Risk
9131	CutName	Y	Cut
9127	PriceDelta	N	Is required for for DeltaBasis values other than DeltaNeutral. In case of SecuritySubType being "RR" or "BF" this field identifies the delta level. Accepted values: 0.00 – 1.00
9128	DeltaBasis	Y	Accepted values: 0 = Spot 1 = Forward 2 = DeltaNeutral
9129	PremiumCurrency	Y	Identifies the premium currency on the contract. Should be CCY1 or CCY2.
9132	Tenor	Y	See 7.12 for a list of valid tenor codes.
541	MaturityDate	Y	8 digits; example 20100909.
75	TradeDate	Y	Current trade date. 8 digits; example 20100909.
9072	Favor	N	Only for risk reversal, for example AUD_Call, AUD_Put.
423	PriceType	N	If left out it means this is a volatility price.
64	FutSettlDate	Y	Settlement date in YYYYMMDD format; for example 20100909.
63	SettlmntTyp	N	Settlement type; possible values: 0 = Spot 1 = Forward.
132	BidPx	N	Volatility price on the bid side, expressed in percentage; for example 14.23.
134	BidSize	N	The size of the bid, full number; for example 10000000. Unit is CCY1 a.k.a. "FaceCurrency".
133	OfferPx	N	Volatility price on the ask side, expressed in percentage; for example 15.65.
135	OfferSize	N	The size of the ask side.
62	ValidUntilTime	N	Validity of quote in seconds. Leave field out if quote is not expiring.
284	DeskId	N	If UBS is part of the best price, the DeskId of the contributor is shown.
9134	SpotSettlementDate	Y	Spot rate settlement date in YYYYMMDD format.
9135	SpotLevel	Y	Spot level at calculation; for example 1.6547.
9136	MinSpotLevel	N	Minimum spot level at calculation; for example 1.0.

9137	MaxSpotLevel	N	Maximum spot level at calculation; for example 1.3.
	Standard Trailer	Y	

7.12 Appendix: Tenor Codes

Tenor Code	Description	Example
ON	Overnight	
Mx	Spot + x months	M1
Wx	Spot + x weeks	W1
Yx	Spot + x years	Y1

7.13 Appendix: Cuts

Cut	Local Time
BEIJING	09:15
BOGOTA	17:00
BUCHAREST	13:00
BUDAPEST	12:00
BUENOSAIRES	17:00
ISTANBUL	14:00
JAKARTA	12:30
KAZAKHSTAN	12:00
KUALALUMPUR	11:00
LIMA	17:00
LONDON	12:00
MANILA	11:30
MOSCOW	16:30
MUMBAI	12:00
NYORK	10:00
NYORK_BULLION	09:30
NYORK_EM	12:30
SANTIAGO	16:30
SAOPAOLO	18:00
SEOUL	15:30
SINGAPORE	14:00
SINGAPORE_11	11:00
TAIPEI	11:00
TELAVIV	15:00
TELAVIV_FRIDAY	12:00
TOKYO	15:00
WARZAWA	11:00

7.14 Appendix: MD subscription for Forwards

A Client can subscribe to MD for Forwards using Tenor (field 63) or Settlement Date (field 64) or both. If both field 63 and field 64 are provided then they must match else the subscription will be rejected.

If the subscription is made using both field 63 and field 64 then it will be valid as long as Tenor matches the Settlement Date provided i.e. at date roll the subscription will become invalid.

7.15 Appendix: Default Precious Metals

Metal	Base Currency	Valor (SecurityID)	Valor Description	Location	Grade	Mass Unit	Delivery Code
Gold	XAU	288052	AU MTK LOND	London	995	Oz	Metal Account
Silver	XAG	288051	AG MTK LOND	London	999	Oz	Metal Account
Platinum	XPT	288090	PT MTK OZ	Zurich	9995	Oz	Metal Account
Palladium	XPD	288095	PD MTK OZ	Zurich	9995	Oz	Metal Account

7.16 Appendix: List of SecurityID

Metal	Base Currency	Valor (SecurityID)	Valor Description	Location	Grade	Mass Unit	Delivery Code
Gold	XAU	288052	AU MTK LOND	London	995	Oz	Metal Account
	XAU	288055	AU MTK OZ ZH	Zurich	995	Oz	Metal Account
	XAU	289538	AU MTK KG ZH	Zurich	995	KG	Metal Account
	XAU	288029	AU OZ SD 995	Zurich	995	Oz	Collective Custody
	XAU	288024	AU KG SD 995	Zurich	995	KG	Collective Custody
Silver	XAG	288051	AG MTK LOND	London	999	Oz	Metal Account
	XAG	288080	AG MTK OZ ZH	Zurich	999	Oz	Metal Account
	XAG	289511	AG MTK KG ZH	Zurich	999	KG	Metal Account
Platinum	XPT	288090	PT MTK OZ	Zurich	9995	Oz	Metal Account
	XPT	289774	PT MKT LDN OZ	London	9995	Oz	Metal Account
	XPT	287652	PT MTK KG	Zurich	9995	KG	Metal Account
Palladium	XPD	288095	PD MTK OZ	Zurich	9995	Oz	Metal Account
	XPD	289773	PD MTK LONDON	London	9995	Oz	Metal Account
	XPD	288096	PD MTK KG	Zurich	9995	KG	Metal Account

Clients require enablement for each PM valor they wish to price/trade.

8. Example Message Sequences

8.1 Logon

Logon Request

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	101	
35	MsgType	A	Logon
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	4	
52	SendingTime	20070530-06:57:54	
10	CheckSum	049	
108	HeartBtInt	60	
553	Username	client1-user	
554	Password	client1-password	
98	EncryptMethod	0	NoneOther

Successful Logon Reply

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	63	
35	MsgType	A	Logon
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	4	
52	SendingTime	20070530-06:57:55	
108	HeartBtInt	60	
98	EncryptMethod	0	NoneOther
10	CheckSum	102	

8.2 Logon and Reset Sequence Numbers

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	107	
35	MsgType	A	Logon
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	1	
52	SendingTime	20070530-07:00:17	
10	CheckSum	085	
108	HeartBtInt	60	
553	Username	client1-user	

554	Password	client1-password	
141	ResetSeqNumFlag	Y	YesResetSequenceNumbers

8.3 Request Price Subscription

Request Subscription to EUR/USD stream with 2 liquidity bands

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	118	
35	MsgType	V	MarketDataRequest
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	21	
52	SendingTime	20070530-07:12:27	
10	CheckSum	161	
262	MDReqID	MDREQ101	
263	SubscriptionRequestType	1	Snapshot+Updates
264	MarketDepth	2	
265	MDUpdateType	0	FullRefresh
267	NoMDEntryTypes	2	
269	MDEntryType	0	Bid
269	MDEntryType	1	Offer
146	NoRelatedSym	1	
55	Symbol	EUR/USD	

8.4 Price update

Price update for requested EUR/USD Price subscription

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	463	
35	MsgType	W	MarketDataSnapshotFullRefresh
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	138	
52	SendingTime	20070530-07:15:26	
262	MDReqID	MDREQ101	
55	Symbol	EUR/USD	
268	NoMDEntries	4	
269	MDEntryType	0	Bid
270	MDEntryPx	1.3434	
15	Currency	EUR	
271	MDEntrySize	1000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-296550003705300714317 91-B0	
269	MDEntryType	0	Bid

270	MDEntryPx	1.3433	
15	Currency	EUR	
271	MDEntrySize	2000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-296550003705300714317 91-B1	
269	MDEntryType	1	Offer
270	MDEntryPx	1.3437	
15	Currency	EUR	
271	MDEntrySize	1000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-296550003705300714317 91-A0	
269	MDEntryType	1	Offer
270	MDEntryPx	1.3438	
15	Currency	EUR	
271	MDEntrySize	2000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-296550003705300714317 91-A1	
10	CheckSum	247	

8.5 Unsubscribe

Unsubscribe from the EUR/USD price stream

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	112	
35	MsgType	V	MarketDataRequest
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	31	
52	SendingTime	20070530-07:21:24	
10	CheckSum	145	
262	MDReqID	MDREQ101	
263	SubscriptionRequestType	2	DisablePreviousSnapshot+UpdateRequest
264	MarketDepth	5	
267	NoMDEntryTypes	2	
269	MDEntryType	0	Bid
269	MDEntryType	1	Offer
146	NoRelatedSym	1	
55	Symbol	EUR/USD	

8.6 Order Request

"Immediate or Cancel" market order to buy 5M EUR of EUR/USD.

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	184	
35	MsgType	D	OrderSingle
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	81	
52	SendingTime	20070530-07:57:00	
10	CheckSum	121	
11	ClOrdID	fixorder2	
453	NoPartyIDs	2	
448	PartyID	Cpty1	
447	PartyIDSource	D	ProprietaryCustomCode
452	PartyRole	13	OrderOriginationFirm
448	PartyID	Joe Trader	
447	PartyIDSource	D	ProprietaryCustomCode
452	PartyRole	11	OrderOriginationTrader
21	HandlInst	1	Automated execution order, private, no Broker intervention
55	Symbol	EUR/USD	
54	Side	1	Buy
60	TransactTime	20070530-07:57:00.120	
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel

8.7 Execution Reports

These are example reports for the above order, consisting of:
Order Accept, Partial Fill (1M), Partial Fill (2M), Cancel of remainder.

Order Accept:

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	189	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	283	
52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER120001705300757010 69	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	

40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	0	
37	OrderID	9000170530075701054	
150	ExecType	0	New
39	OrdStatus	0	New
151	LeavesQty	5000000	
14	CumQty	0	
6	AvgPx	0	
10	CheckSum	057	

Trade Partial Fill, for 1000000@1.3439

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	233	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	285	
52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER130001705300757011179	
64	FutSettDate	20070601	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	1000000.0	
37	OrderID	9000170530075701054	
150	ExecType	F	Trade
39	OrdStatus	1	PartiallyFilled
31	LastPx	1.3439	
194	LastSpotRate	1.3439	
151	LeavesQty	4000000.0	
14	CumQty	1000000.0	
6	AvgPx	1.3439	
10	CheckSum	138	

Trade Partial Fill, for 2000000@1.3440

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	234	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	287	

52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER14000170530075701210	
64	FutSettDate	20070601	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	2000000.0	
37	OrderID	9000170530075701054	
150	ExecType	F	Trade
39	OrdStatus	1	PartiallyFilled
31	LastPx	1.3440	
194	LastSpotRate	1.3440	
151	LeavesQty	2000000.0	
14	CumQty	3000000.0	
6	AvgPx	1.34397	
10	CheckSum	168	

Trade Cancel for remainder

Tag	**Field Name**	**Value**	**Meaning**
8	BeginString	FIX.4.3	
9	BodyLength	197	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	288	
52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER15000170530075701210	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	0	
37	OrderID	9000170530075701054	
150	ExecType	4	Canceled
39	OrdStatus	4	Canceled
151	LeavesQty	0	
14	CumQty	3000000.0	
6	AvgPx	1.34397	
10	CheckSum	209	

8.8 Volatility Quote; RiskReversal

Tag	Field Name	Value	Meaning
117	QuoteID	1	
537	QuoteType	1	
55	Symbol	USD/CHF	
461	CFICode	OMECXN	
167	SecurityType	FXMLEG	
9133	SecuritySubType	RR	RiskReversal
9131	CutName	NYORK	
9127	PriceDelta	0.25	
9128	DeltaBasis	0	Spot
9129	PremiumCurrency	USD	
9132	Tenor	M1	
541	MaturityDate	20101118	
75	TradeDate	20101022	
9072	Favor	USD_Call	
64	FutSettlDate	20101022	
63	SettlmntTyp	0	Spot
132	BidPx	0.0	
134	BidSize	0.0	
133	OfferPx	0.0	
135	OfferSize	0.0	
9134	SpotSettlementDate	20101022	
9135	SpotLevel	15	
9136	MinSpotLevel	13	
9137	MaxSpotLevel	17	