FX INSIDE™

FIX Client API Guide
DRAFT

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integral

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Foreword

About This Document

This document describes the FIX Client API that FX Inside market participants can use to access FX Inside trading functionality.

About FX Inside

FX Inside offers access to a global real-time system of liquidity providers and liquidity takers that provides the most robust and lowest cost means of electronically connecting leading market participants amongst each other for dynamic and customizable outsourcing and in-sourcing of FX and interest rate liquidity. Market participants connect to the network through a single interface (API) from which they can interact with other participants for negotiation, execution, and settlement of trades. FX Inside provides a single point of liquidity to communicate with other market participants, by providing adaptors that translate each participant's communications messages into the message format of the recipient.

Organization of This Document

The following chapters discuss the configuration of the FIX Client API in general and the supported trading workflows in specific:

- "FIX Solution Overview" on page 10
- "Session Management" on page 62
- "Trading Workflow" on page 68

In addition, the appendix “Changes” on page 159 lists the revisions made to the content of this document.

Typographic Conventions

This document presents information with consistent conventions to make the information easy to understand and use.

Table F-1 *Character Formatting Conventions*

Format	Description
Italic	New terms (the *system monitoring* service)
Bold	User-interface elements (the **Update** button)
Sans Serif	■ Names of classes, instances, messages, and examples of code (the Counterparty class) ■ Filenames, pathnames, commands, and other operating-system constructs (the /cust/usr directory)
Italic Sans Serif	Variable elements for which you must substitute a value (the *yourFilename*.xml file)
Blue color	URLs and cross-references that you can click when viewing the document online (“Typographic Conventions” on page 8)

This document uses the following symbols and conventions to designate certain items or relationships.

Table F-2 *Structural Conventions*

Format	Description
OrdStatus (#39)	The FIX field name with the FIX field number in parentheses
PathnameRoot	Root path references In file names, a directory name that ends with "Root" is a variable representing a root path that depends on your installation. For example: *integralProductRoot*/broker/appLogs/ could refer to the path: /cust/usr/integral/broker/appLogs/
singleSourceCodeElement WrappedToTheNextLine	A long element name or line of code that is wrapped and indented to fit a cell, column, or page For example: anObjectWithVeryLongName. methodOnObject To avoid confusion between different programming languages, this document does not use special symbols to identify the break unless the programming language provides such a mechanism.

CHAPTER 1

FIX Solution Overview

This document describes the FX Inside FIX Client API, a FIX-based channel that allows clients to deal with liquidity providers offering foreign exchange liquidity through FX Inside.

- “Business Rules” on page 10
- “FIX Implementation” on page 44
- “Configuration” on page 48

1.1 Business Rules

The following sections describe how the FIX Client API applies the general FIX protocol to satisfy your business needs.

- “Rates To Discard” on page 11
- “Sessions” on page 11
- “Trading Workflows” on page 12
- “Supported Deal Types” on page 26
- “Supported Tenors” on page 27
- “Orders” on page 28
- “Business Day End and Start” on page 40
- “Server Synchronization” on page 40
- “Sequence Number Reset” on page 41
- “Event Sequencing” on page 42
- “Client Roles” on page 42

- "Quote Types" on page 43

1.1.1 Rates To Discard

There are several cases when you should discard a rate as these are situations under which the rate is inactive or is not tradeable:

On the Market Data Snapshot/Full Refresh message:

- QuoteCondition (#276)=B (Closed/Inactive)
- MDEntryPx (#270)=0 (not tradeable)
- MDEntrySize (#271)=0 (not tradeable)

On the Quote message, if any of the following are included and have a value of 0 (zero):

- BidSpotRate (#188)
- OfferSpotRate (#190)
- BidPx (#132)
- OfferPx (#133)
- BidSize (#134)
- OfferSize (#135)

In each of these cases, your client should ignore the incoming quote.

1.1.2 Sessions

The FIX Client API distinguishes between two session types to optimize your trading message flows:

- Quote: Session for sending/receiving quotes. Messages are time-sensitive and transient to enable the high message volume typically associated with quotes and quote streams. The server does not resend quote session messages in response to a resend request from the client. You must establish a quote session to initiate all trading workflows. See "Trading Workflows" on page 12.
- Order: Session for order submission and trade execution. Messages are transactional and persistent with no lost messages allowed, reflecting their business criticality. The

server resends order session messages in response to a resend request from the client. How you use an order session depends on the trading workflow you employ:

- ❏ Executable Streaming Prices (ESP) workflow: You establish the order session to hit quotes received in the form of market data messages on the quote session. New Order – Single messages sent in this session refer to the QuoteEntryID (#299) value on a quote and have an OrdType (#40) of D for "previously quoted". See "Executable Streaming Prices (ESP) Workflow" on page 13.
- ❏ Order workflow: You establish the order session to submit, replace, and cancel limit orders. New Order – Single messages sent in this session have an OrdType (#40) of 2 for "limit". See "Order Workflow" on page 14.
- ❏ Request for Stream (RFS) workflow: You establish a quote session to request and receive quotes from a provider and then use the order session to hit the quotes. New Order – Single messages sent in this session refer to the QuoteEntryID (#299) value on a quote and have an OrdType (#40) of D for "previously quoted". See "Request for Stream (RFS) Workflow" on page 17.

You must establish each FIX session separately with the server. You use the same credentials for each session type. You can have multiple FIX sessions under one server connection. You do not have to reconnect for each session.

The ID that you set for your organization ID on messages includes an indicator of the session type. See "Your Organization Client ID" on page 50.

1.1.3 Trading Workflows

The FIX protocol defines the messages for a general representation of trading workflow (request > quote > order > execution > post-trade).

The FIX Client API extends this general approach to model specific trading workflows that more closely match your business requirements.

- ■ "Request/Quote Workflows" on page 13
- ■ "Post-Order Workflows" on page 19
- ■ "Post-Trade Workflows" on page 22

Request/Quote Workflows

(FIX workflow: **request > quote > order** > execution > post-trade)

The FIX Client API currently supports the following request/quote workflows:

- "Executable Streaming Prices (ESP) Workflow" on page 13
- "Order Workflow" on page 14
- "Request for Stream (RFS) Workflow" on page 17

These workflow examples have been simplified by assuming successful post-order trade execution. For the details of possible trading workflows after order submission, see "Post-Order Workflows" on page 19.

Executable Streaming Prices (ESP) Workflow

The Executable Streaming Prices (ESP) workflow involves the quote and order sessions. For more information about sessions, see "Sessions" on page 11.

The client requests market data in a quote session, receives executable quotes on the same quote session, and then in an order session sends orders that refer to a quote's QuoteEntryID (#299).

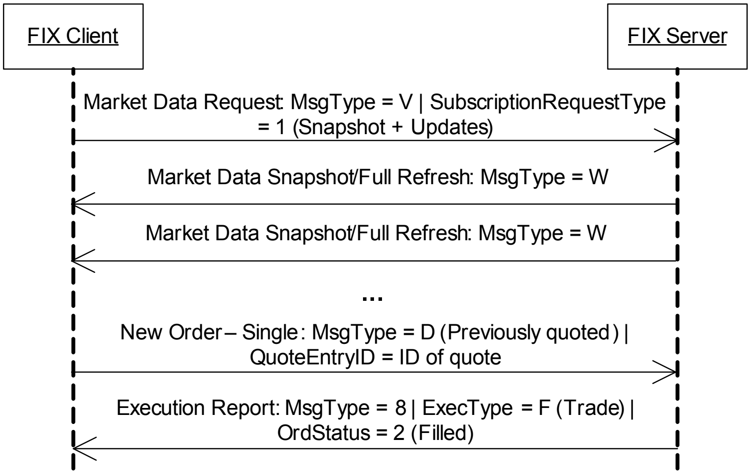
FIX Client
FIX Server
Market Data Request: MsgType = V | SubscriptionRequestType = 1 (Snapshot + Updates)
Market Data Snapshot/Full Refresh: MsgType = W
Market Data Snapshot/Full Refresh: MsgType = W
...
New Order – Single : MsgType = D (Previously quoted) | QuoteEntryID = ID of quote
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 2 (Filled)

Figure 1-1 *Typical ESP Trading Workflow*

The following trading messages are applicable to the ESP workflow:

***Table 1-1** ESP Trading Messages*

Message (Direction)	Session	Comments
"Market Data Request (Client to FX Inside)" on page 70	Quote	Client requests ESP
■ "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76 ■ "Market Data – Incremental Refresh (FX Inside to Client)" on page 78	Quote	Server sends prices for the requested currency pairs
"Market Data Request Reject (FX Inside to Client)" on page 82	Quote	Server rejects the market data request (for example, the currency pair is not supported)
"New Order – Single (Client to FX Inside)" on page 94	Order	Client submits an order to the server in response to a price received in a Market Data Snapshot/Full Refresh or Market Data – Incremental Refresh message
"Execution Report (FX Inside to Client)" on page 122	Order	Server sends the current order status to the FIX client. An Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See "Order Status" on page 38 for details.

Order Workflow

The Order workflow involves the quote and order sessions. For more information about sessions, see "Sessions" on page 11.

The client requests market data for price discovery only on a quote session. Price discovery is an optional part of the order workflow. The client sends orders on an order session. The value of the ExecInst (#18) field on the order message determines how the order is executed, for example whether the order is crossed with quotes on the server or broadcast to and lifted by other market participants. For more information about order execution options, see "Order Execution" on page 29. For information about the field, see "ExecInst" on page 96.

After the client submits an order, the server sends a “Pending New” message to confirm receipt of the order. Once the order’s validity is checked by the FIX server, a “New” execution report is sent to the FIX client.

The basic workflow for all order types is the same with minor differences. For stop and stop limit orders, the server sends an additional Execution Report message with WorkingIndicator (#636) set to “Y” when the order is triggered.

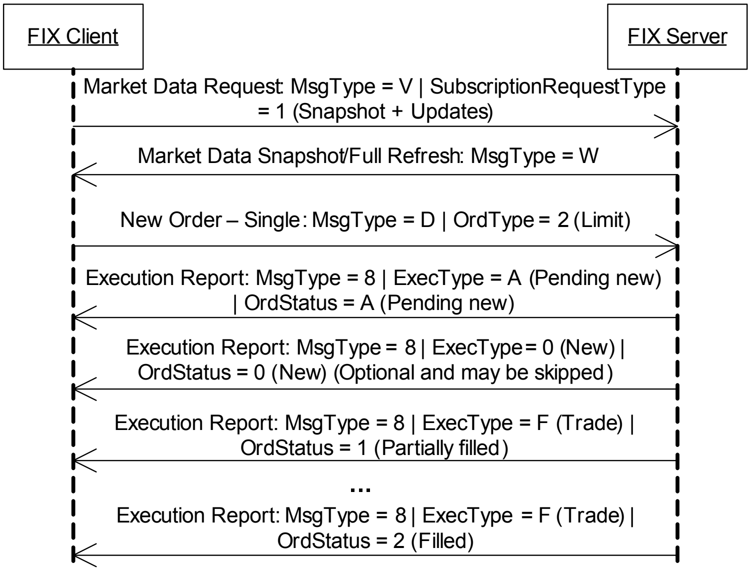
FIX Client
FIX Server
Market Data Request: MsgType = V | SubscriptionRequestType = 1 (Snapshot + Updates)
Market Data Snapshot/Full Refresh: MsgType = W
New Order – Single: MsgType = D | OrdType = 2 (Limit)
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 0 (New) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 1 (Partially filled)
...
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 2 (Filled)

Figure 1-2 *Order Trading Workflow (Limit Orders)*

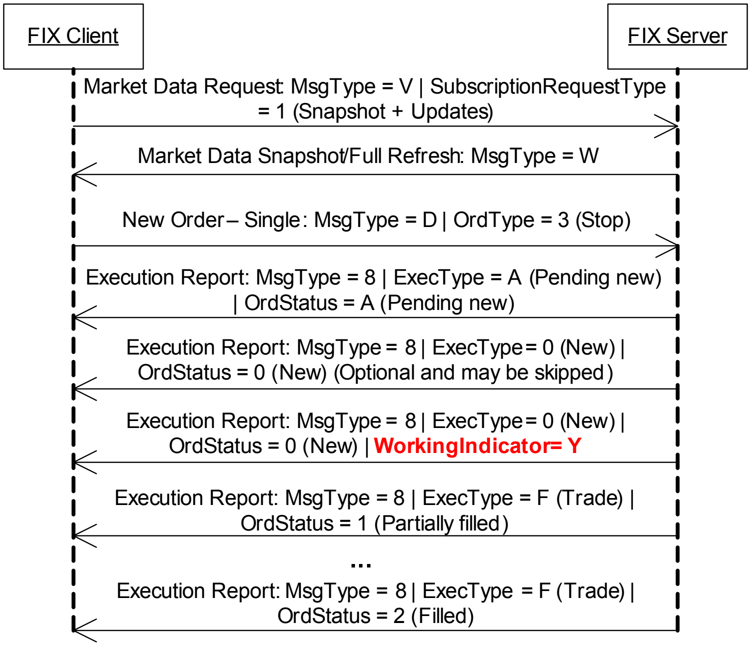
FIX Client
FIX Server
Market Data Request: MsgType = V | SubscriptionRequestType = 1 (Snapshot + Updates)
Market Data Snapshot/Full Refresh: MsgType = W
New Order – Single: MsgType = D | OrdType = 3 (Stop)
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 0 (New) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = 0 (New) | OrdStatus = 0 (New) | WorkingIndicator= Y
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 1 (Partially filled)
...
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 2 (Filled)

Figure 1-3 *Order Trading Workflow (Stop and Stop Limit Orders)*

Table 1-2 *Order Trading Messages*

Message (Direction)	**Session**	**Comments**
"New Order – Single (Client to FX Inside)" on page 94	Order	Client submits an unsolicited order to the server
"Execution Report (FX Inside to Client)" on page 122	Order	Server sends the current order status to the FIX client. The Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See "Order Status" on page 38 for details. When a stop or stop limit order has been triggered, an Execution Report with WorkingIndicator (#636) set to "Y" (see "WorkingIndicator" on page 131).
"Order Cancel Request (Client to FX Inside)" on page 103	Order	Client cancels an order that was previously submitted to the server
"Order Cancel/Replace Request (Client to FX Inside)" on page 106	Order	Client replaces an exiting order with a new order

***Table 1-2** Order Trading Messages (continued)*

Message (Direction)	**Session**	**Comments**
"Order Cancel Reject (FX Inside to Client)" on page 112	Order	Server rejects the client's request to cancel an order
"Order Mass Cancel Request (Client to FX Inside)" on page 114	Order	Client cancels all open orders on sever
"Order Mass Cancel Report (FX Inside to Client)" on page 116	Order	Server responds to client's order mass cancel request
"Order Status Request (Client to FX Inside)" on page 118	Order	Client requests the current status of a specific order
"Order Mass Status Request (Client to FX Inside)" on page 120	Order	Client requests the current statuses of all open order
"Business Message Reject (Bidirectional)" on page 136	Order	Server sends to reject an order status request if the order does not exist

Request for Stream (RFS) Workflow

The RFS workflow involves the quote and order sessions. For more information about sessions, see "Sessions" on page 11.

The client requests a quote on a quote session and receives executable quotes the same quote session, and then in an order session sends orders that refer to a quote's QuoteEntryID (#299).

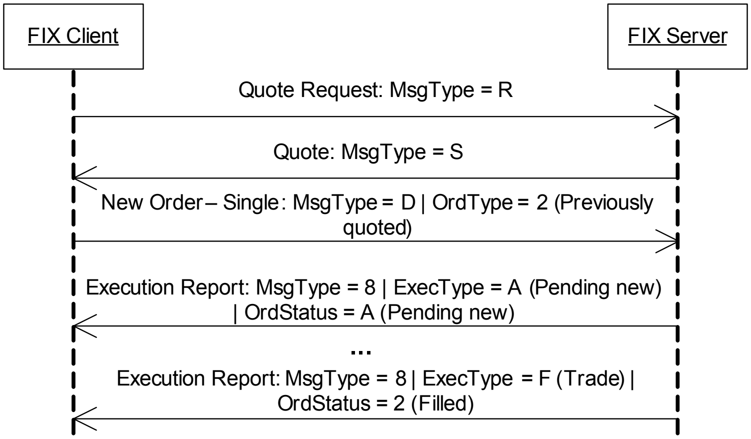
FIX Client
FIX Server
Quote Request: MsgType = R
Quote: MsgType = S
New Order– Single: MsgType = D | OrdType = 2 (Previously quoted)
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
...
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 2 (Filled)

Figure 1-4 *RFS Trading Workflow*

Table 1-3 *RFS Trading Messages*

Message (Direction)	Session	Comments
"Quote Request (Client to FX Inside)" on page 83	Quote	Client requests streaming quotes from the server
"Quote Request Reject (FX Inside to Client)" on page 86	Quote	Server rejects client request for quotes
"Quote (FX Inside to Client)" on page 88	Quote	Server sends a quote to the FIX client. The quote can be streaming. Subsequent quotes override the previous quote.
"Quote Cancel (Bidirectional)" on page 92	Quote	■ Server cancels the quote ■ Client cancels a Quote Request
"New Order – Single (Client to FX Inside)" on page 94	Order	Client submits an order to the server in response to a quote
"Execution Report (FX Inside to Client)" on page 122	Order	Server sends the current order status to the FIX client. An Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See "Order Status" on page 38 for details.

Post-Order Workflows

(FIX workflow: request > quote > **order > execution** > post-trade)

After you submit your order, FIX Client API represents the possible outcomes with four post-order workflows:

- "FIX Rejection" on page 19
- "Application Rejection" on page 19
- "Business Rejection" on page 20
- "Trade Done/Verified" on page 20
- "Partial Fill with Unfilled Amount Canceled" on page 21

FIX Rejection

If your New Order – Single message contains invalid values or is not formatted correctly, the FIX server rejects your message as invalid and sends a Business Message Reject message (see "Business Message Reject (Bidirectional)" on page 136).

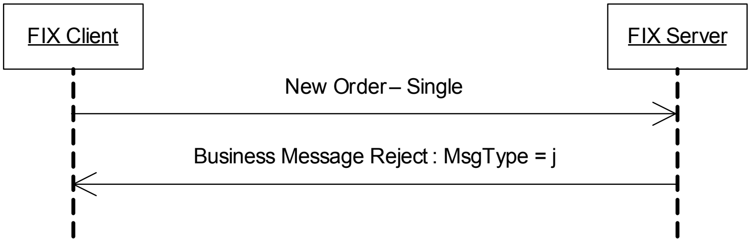

Figure 1-5 *FIX Rejection*

Application Rejection

If your order is a valid FIX message, your request can still fail because of a network connection error between the trading server and the provider. In this case, the FIX server sends a Execution Report message.

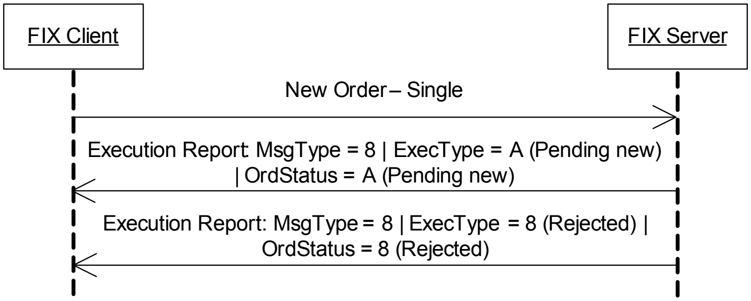
FIX Client
FIX Server
New Order – Single
Execution Report MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 8 (Rejected) | OrdStatus = 8 (Rejected)

***Figure 1-6** Application Rejection*

Business Rejection

If your order fails because of a business reason, such as the end of the provider's business day or a failed credit check, the FIX server sends an Execution Report with an order rejection reason in the OrdRejReason (#103) field. See "Order Rejection Reasons" on page 134 for more information. The Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See "Order Status" on page 38 for details.

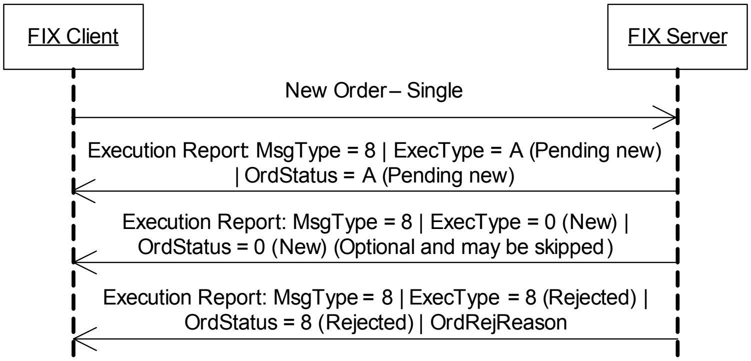
FIX Client
FIX Server
New Order – Single
Execution Report MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 0 (New) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = 8 (Rejected) | OrdStatus = 8 (Rejected) | OrdRejReason

***Figure 1-7** Business Rejection*

Trade Done/Verified

If your order is accepted and executed, the FIX server sends an Execution Report message with the details of the trade. The FIX server may send multiple Execution Report messages if you have allowed multiple fills of your order and the trading workflow supports multiple fills. The Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See "Order Status" on page 38 for details.

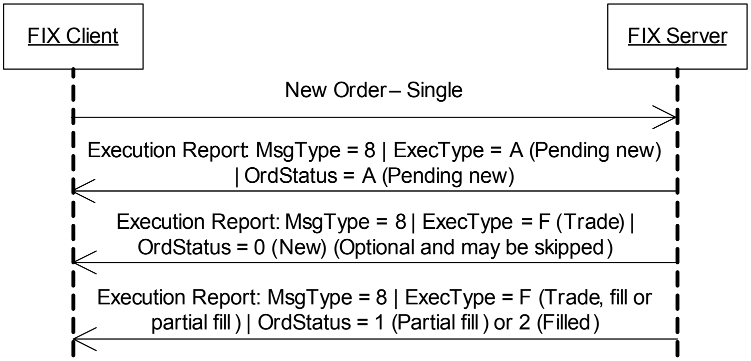
FIX Client
FIX Server
New Order– Single
Execution Report MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = F (Trade, fill or partial fill) | OrdStatus = 1 (Partial fill) or 2 (Filled)

Figure 1-8 *Trade Done/Verified*

Partial Fill with Unfilled Amount Canceled

Your originating New Order – Single request allows partial fills (see "Partial Fills" on page 33) and has a time in force of Immediate or Cancel (IOC, see "Order Expiry"on page 32). If execution results in a partial fill, the remaining amount of your order is canceled. The server sends two Execution Report messages:

- The partially filled amount with ExecType (#150) value of "F" (trade, partial fill or fill) OrdStatus (#39) with a value of "1" (partially filled).
- The canceled amount with an ExecType (#150) value of "4" (canceled) and OrdStatus (#39) with a value of "4" (canceled)

The LeavesQty (#151) and CumQty (#14) fields of both Execution Report messages are set to reflect the done and canceled amounts of the order.

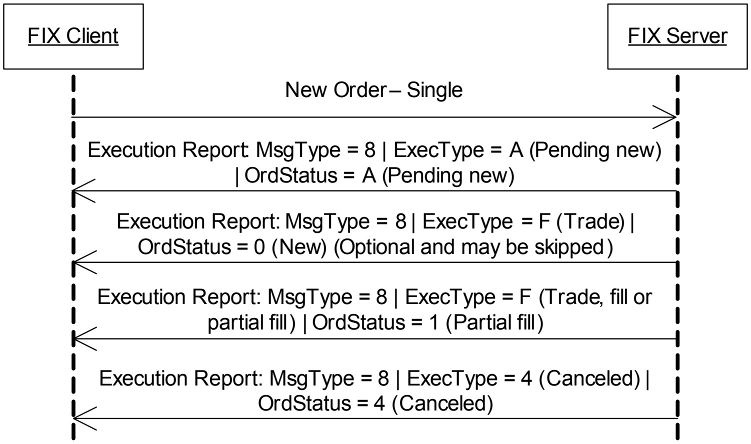
FIX Client
FIX Server
New Order– Single
Execution Report MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = F (Trade, fill or partial fill) | OrdStatus = 1 (Partial fill)
Execution Report: MsgType = 8 | ExecType = 4 (Canceled) | OrdStatus = 4 (Canceled)

Figure 1-9 *Partial Fill with Unfilled Amount Canceled (IOC Workflow)*

Post-Trade Workflows

(FIX workflow: request > quote > order > execution > **post-trade**)

The FIX Client API includes messages for post-trade activity, such as STP download and trade status query.

STP Download

You can choose to receive STP download via FIX. When a trade is done, a Trade Capture Report is sent to the FIX client asynchronously.

If a FIX session is not available when the trade is done, the trade message is persisted on the server side. When a FIX session is re-established, Trade Capture Reports are issued to the FIX client.

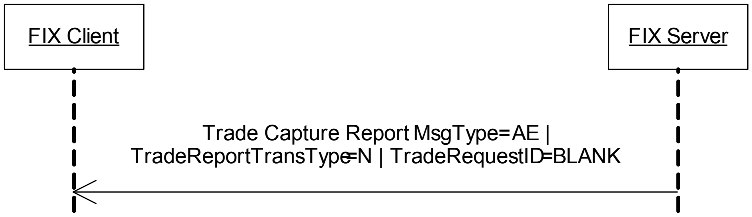
FIX Client
FIX Server
Trade Capture Report MsgType=AE |
TradeReportTransType=N | TradeRequestID=BLANK

Figure 1-10 *STP Download Workflow*

STP Resend

If you receive STP download via FIX, STP resends can be triggered by system administrators. The workflow is the same as for STP download: a Trade Capture Report is sent to the FIX client asynchronously.

If a FIX session is not available when the trade is done, the trade message is persisted on the server side. When a FIX session is re-established, Trade Capture Reports are issued to the FIX client.

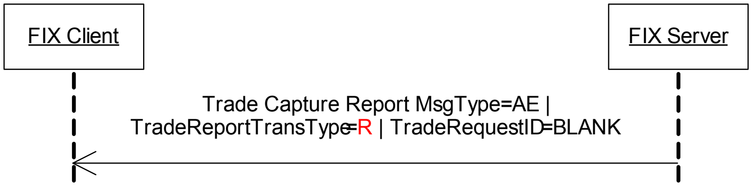
FIX Client
FIX Server
Trade Capture Report MsgType=AE |
TradeReportTransType=R | TradeRequestID=BLANK

Figure 1-11 *STP Resend Workflow*

Trade Status Query

The FIX client can query the status of trades by providing a specific trade ID or a date/ time range in which trades were done. The FIX server responds with a series of Trade Capture Reports for each requested trades.

A status query returns all trades that match the request criteria, not just trades that have been initiated from the FIX session.

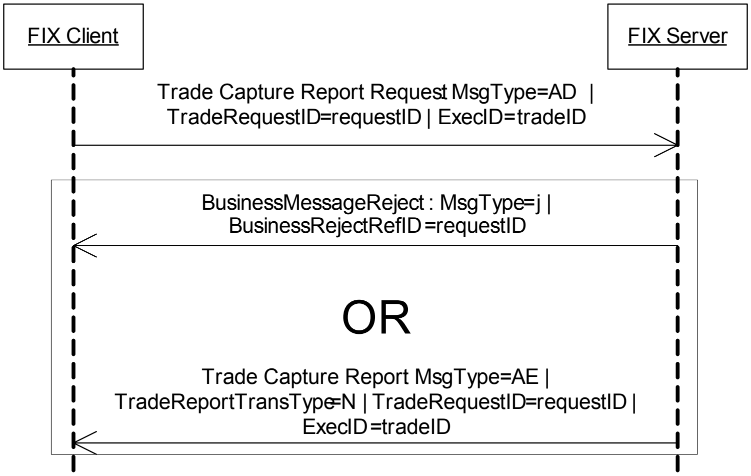
FIX Client
FIX Server
Trade Capture Report Request MsgType=AD |
TradeRequestID=requestID | ExecID=tradeID
BusinessMessageReject : MsgType=j |
BusinessRejectRefID=requestID
OR
Trade Capture Report MsgType=AE |
TradeReportTransType=N | TradeRequestID=requestID |
ExecID=tradeID

Figure 1-12 *Trade Status Query (Trade ID) Workflow*

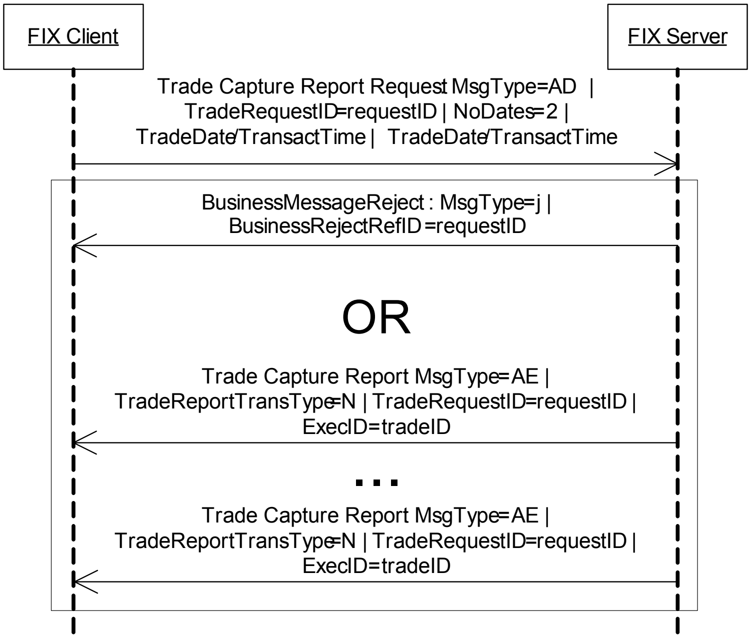
FIX Client
FIX Server
Trade Capture Report Request MsgType=AD |
TradeRequestID=requestID | NoDates=2 |
TradeDate/TransactTime | TradeDate/TransactTime
BusinessMessageReject : MsgType=j |
BusinessRejectRefID=requestID
OR
Trade Capture Report MsgType=AE |
TradeReportTransType=N | TradeRequestID=requestID |
ExecID=tradeID
...
Trade Capture Report MsgType=AE |
TradeReportTransType=N | TradeRequestID=requestID |
ExecID=tradeID

Figure 1-13 *Trade Status Query (Date Range) Workflow*

Positions Management

The FIX client can query the status of your open and settled positions. Broker can also request the positions that a customer has with liquidity providers. You can request a snapshot of positions or a position subscription that updates incrementally as trades are executed.

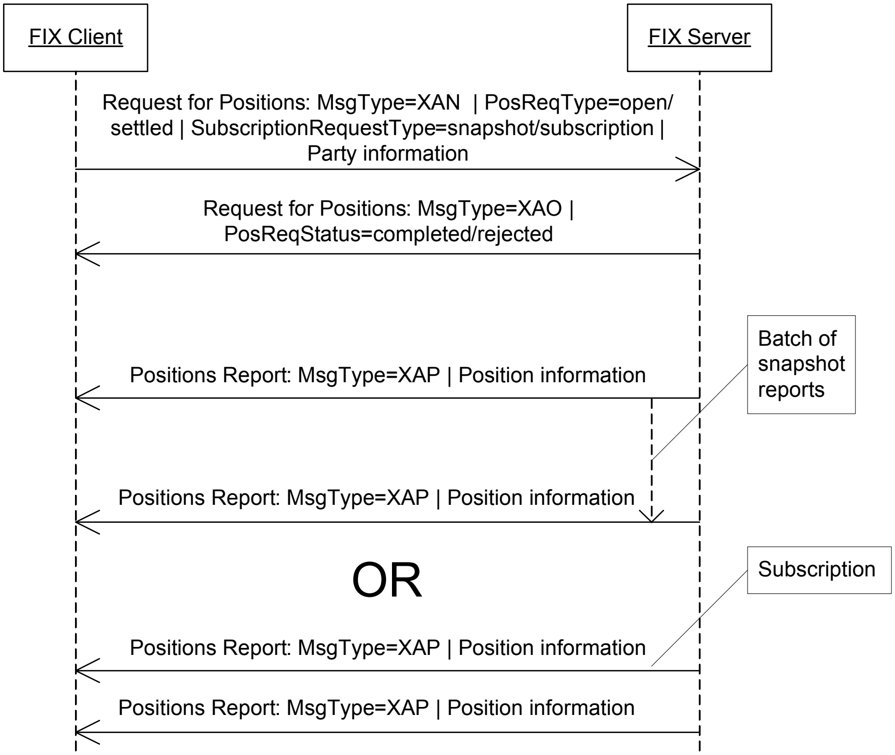
FIX Client
FIX Server
Request for Positions: MsgType=XAN | PosReqType=open/ settled | SubscriptionRequestType=snapshot/subscription | Party information
Request for Positions: MsgType=XAO | PosReqStatus=completed/rejected
Batch of snapshot reports
Positions Report: MsgType=XAP | Position information
Positions Report: MsgType=XAP | Position information
OR
Subscription
Positions Report: MsgType=XAP | Position information
Positions Report: MsgType=XAP | Position information

Figure 1-14 *Positions Workflow*

Applicable Messages

The following messages are used for post-trade workflows:

Table 1-4 *Post-Trade Messages*

Message (Direction)	Session	Comments
"Trade Capture Report Request (Client to FX Inside)" on page 143	Order	Client requests trade status with a specific trade ID or a date/time range
"Trade Capture Report (FX Inside to Client)" on page 145	Order	Server sends trade status. This can be triggered by: ■ STP Download ■ STP Resend ■ Trade Capture Report Request
"Business Message Reject (Bidirectional)" on page 136	Quote	Server rejects an invalid Trade Capture Report Request
"Request for Positions (Client to FX Inside)" on page 137	Order	Client requests position information by counterparty, currency pair, position status (open/settled), by date range for open positions, and by request type (snapshot/snapshot+subscription)
"Request for Positions Ack (FX Inside to Client)" on page 140	Order	Server sends acknowledgement indicating success or failure of the request
"Positions Report (FX Inside to Client)" on page 141	Order	Server sends a snapshot of position information as a batch of messages, one Positions Report message per currency pair. If the client requested snapshot+subscriptions, the server sends additional unsolicited Positions Report messages for incremental updates as trades are executed.

1.1.4 Supported Deal Types

The FIX Client API currently supports the following deal types:

- ESP workflow: FX spot only
- Orders workflow: FX spot only
- RFS workflow: FX spot, FX outright, and FX swap (spot-forward and forward-forward)

1.1.5 Supported Tenors

The RFS workflow supports outrights and swaps. For future dates, you can specify a broken date or a standard tenor. The FIX Client API supports the following tenors:

Table 1-5 *Supported Tenors*

Tenor	Definition
Today	Today
TOD	Today
ON	Overnight (today)
TN	Tomorrow
SP	Spot
SN	Spot next (spot+1)
*n*D	A number of days after the current business date (for example, 1D, 2D, 10D)
*n*W	A number of weeks after the current business date (for example, 1W, 2W, 3W)
*n*M	A number of months after the current business date (for example, 1M, 2M, 3M)
*n*Y	A number of years after the current business date (for example, 1Y, 2Y, 3Y)
*n*IMM	The next International Monetary Market (IMM) settlement date. IMM dates are the third Wednesday of the last month of every quarter (March, June, September, December). Entering IMM results in the next IMM date on or after the spot date. Entering 2IMM results in two IMM dates after the spot date.
S*n*IMM	(spot + IMM) for swaps
T*n*IMM	(tomorrow + IMM) for swaps

1.1.6 Orders

The following sections describe how the FIX Client API supports order workflows:

- "Supported Order Types" on page 28
- "Order Execution" on page 29
- "Order Expiry" on page 32
- "Partial Fills" on page 33
- "Minimum Order Size" on page 34
- "Order Visibility" on page 34
- "Multiple Execution Attempts" on page 35
- "One-Cancels-the-Other (OCO) Orders" on page 36
- "Order Status" on page 38

Supported Order Types

The FIX Client API supports orders with the following OrdType (#40) values:

Table 1-6 *Order Types*

Order Type	OrdType (#40) Value	Description	Trading Workflow
Previously Quoted	D	The client sends new orders with a reference to a previously received executable price in QuoteEntryID (#299) from a quote ("Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76).	■ ESP ("Executable Streaming Prices (ESP) Workflow" on page 13) ■ RFS ("Request for Stream (RFS) Workflow" on page 17)
Limit	2	Orders executed according to your specifications ("Order Execution" on page 29) at the limit price or better ("Price" on page 97) until they are filled, canceled, or expired ("Order Expiry" on page 32).	Order ("Order Workflow" on page 14)

Table 1-6 *Order Types (continued)*

Order Type	OrdType (#40) Value	Description	Trading Workflow
Market	1	Orders are executed immediately at the best available price in the system. The PegOffsetValue (#211) field of the order must not be specified. See "PegOffsetValue" on page 99.	Order ("Order Workflow" on page 14)
Market Range	1	Orders are executed immediately at the best available price in the system as long as the slippage is within the range specified by the PegOffsetValue (#211) field of the order. See "PegOffsetValue" on page 99.	Order ("Order Workflow" on page 14)
Stop	3	Orders are active but do not execute until the market price reaches the order's trigger price ("StopPx" on page 98). Orders are then executed as market or market range orders depending on whether or not the PegOffsetValue (#211) field is specified. See "PegOffsetValue" on page 99.	Order ("Order Workflow" on page 14)
Stop Limit	4	Orders are active but do not execute until the market price reaches the order's trigger price ("StopPx" on page 98). Orders are then executed as limit orders at the order limit price or better ("Price" on page 97).	Order ("Order Workflow" on page 14)
One Cancels the Other (OCO)	N/A	OCO orders consist of two orders submitted separately and tied by their order IDs.	

FX Inside rejects order messages for unsupported order types and in response sends an Order Execution Report message with an OrdStatus (#39) field value of 8 (Rejected). See "Execution Report (FX Inside to Client)" on page 122 for details.

Order Execution

The ExecInst (#18) field on the New Order – Single message determines how and when the order is executed. As applicable to the order type, you can specify more than one value by separating each value with a space. For example, a stop limit order with crossing allowed ("B"), a bid trigger rate ("9"), and best-price execution ("P") would have an

ExecInst (#18) field value of “B 9 P”. For information about the field in the message, see “ExecInst” on page 96.

Table 1-7 Execution Instructions and Applicable Order Types

ExecInst (#18) Field Value	Description	Applicable Order Types
Empty	If the ExecInst (#18) field is left empty, the order is filled only by hits from other market participants at the best price that fills the order. For your order to be executable, it must be a displayed order. See “Order Visibility” on page 34 for more information.	■ Limit
B	Cross with incoming rates and with other market participants (displayed order) depending on the visibility of the order. See “Order Visibility” on page 34 for more information. Market range orders (PegOffsetValue (#211) specifying slippage) can be submitted as displayed orders. “Pure” market orders (PegOffsetValue (#211) undefined) cannot be submitted as displayed orders because they do not include a price.	■ Limit ■ Market Range ■ Stop ■ Stop Limit
B not specified	Do not cross with incoming rates. Fill only by hits from other market participants. For your order to be executable, it must be a displayed order. See “Order Visibility” on page 34 for more information.	■ Limit ■ Stop ■ Stop Limit
ST	Strategy order. Currently the supported strategy is Time Weighted Average Price (TWAP). TWAP execution executes trades evenly over a specified time period so that the order is less likely to affect the market price. You can further specify best price execution (“P”) or VWAP execution (“W”). For example, a TWAP order with VWAP execution would have a value of “ST W”.	■ Limit ■ Market
P	Best price: Execute at the best price only	■ Limit ■ Stop ■ Stop Limit
P not specified	Price at depth: The order is filled with the best price in the size that allows the entire order to be filled. If “P” (best price) is not specified, then execution defaults to price at depth.	■ Limit ■ Stop ■ Stop Limit

Table 1-7 Execution Instructions and Applicable Order Types

ExecInst (#18) Field Value	Description	Applicable Order Types
W	VWAP (Volume Weighted Average Price): The order is filled with prices so that average execution price is equal to or better than the limit price. Some fills can be at a price worse than the order rate, but the average price remains equal to or better. For market range orders, the average execution price is kept within the market range.	■ Limit ■ Stop ■ Stop Limit
9	Bid trigger: Indicates that the bid rate is the trigger rate compared to the stop price (see “StopPx” on page 98).	■ Stop ■ Stop Limit
0	Offer trigger: Indicates that the offer rate is the trigger rate compared to the stop price (see “StopPx” on page 98).	■ Stop ■ Stop Limit
M	Mid trigger: Indicates that the mid rate is the trigger rate compared to the stop price (see “StopPx” on page 98).	■ Stop ■ Stop Limit
R	At rate: If specified, the stop is triggered if the market price equals or is greater than the stop price. If not specified, the stop is only triggered if the market price is greater than the stop price (see “StopPx” on page 98).	■ Stop ■ Stop Limit
Stop trigger not specified	If a stop order is submitted with no specified stop trigger (the ExecInst (#18) field does not include 9, 0, M, or R), then the following is assumed: ■ A buy stop order has an offer trigger. ■ A sell stop order has a bid trigger.	■ Stop ■ Stop Limit

Order Expiry

The FIX Client API supports orders with the following TimeInForce (#59) values:

Table 1-8 *Order Expiry*

Expiry Type	Description	TimeInForce (#59)	Applicable Order Types
Day	The order remains active for the entire day until it is completely filled, canceled by the customer, or until the end of the business day (the roll time).	0=Day	■ Market ■ Limit ■ Stop ■ Stop Limit
Good Till Cancel (GTC)	The order remains active until either it is completely filled or is canceled by the customer.	1=GTC	■ Market ■ Limit ■ Stop ■ Stop Limit
Immediate or Cancel (IOC)	The order is matched with the available order book in the system after the submission. Any unfilled amount is immediately canceled with an Execution Report message with OrdStatus (#39)=4 and ExecType (#150)=4 (Canceled). This expiry type is not valid for component orders of an OCO order or for stop/stop limit orders. Orders of these types with this expiry type are rejected.	3=IOC	■ Market ■ Limit ■ Previously Quoted
Fill or Kill (FOK)	The order is matched with the available order book in the system after the submission. The order amount is either completely filled or canceled in its entirety. No partial fill is allowed. The unfilled order is canceled with an Execution Report message with OrdStatus (#39)=4 and ExecType (#150)=4 (Canceled).This expiry type is not valid for component orders of an OCO order or for stop/stop limit orders. Orders of these types with this expiry type are rejected.	4=FOK	■ Market ■ Limit

Table 1-8 Order Expiry (continued)

Expiry Type	Description	TimeInForce (#59)	Applicable Order Types
Good Till Date/Time (GTD)	The order remains active until one of following conditions is met: ■ Fully filled ■ Canceled/Replaced by the customer ■ Expired For GTD orders, the order expiry time must be specified in GMT in the ExpireTime (#126) field. Applicable to all order types except previously quoted. See "Order Workflow" on page 14.	6=GTD	■ Market ■ Limit ■ Previously Quoted ■ Stop ■ Stop Limit

Partial Fills

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 12 for information about trading workflows.

You can specify how limit orders are filled with the MinQty (#110) field in the New Order – Single message:

- Partial fill: The order amount can be filled multiple times until the entire amount is filled.
- Partial fill with market minimum: The order amount can be filled multiple times with each fill no less than the market minimum defined by the MinQty (#110) field. If the residual order amount is less than the market minimum, the order is considered as fully filled and done. The residual amount is implicitly canceled by the server.
- No partial fill: The order amount must be filled in its entirety with exactly one fill.

If you allow partial fills of your order, the server executes against your order only with new quotes that match your order. The server may execute multiple fills against a single liquidity provider as long as your order is open and incoming quotes from the provider match your order.

For more details about partial fills, see the "MinQty" field in the "New Order – Single (Client to FX Inside)" message on page 98.

Minimum Order Size

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 12 for information about trading workflows.

The FIX server can be configured for a minimum order size that is used at two points in the Order trading workflow:

- Limit order submission: When the order is first submitted, if the order amount is lower than the server's minimum order amount, the order is rejected.
- Partial fills: After each partial fill, if the residual amount of the order is lower than the minimum order amount, the residual amount is canceled automatically and an order cancellation message is sent to the client. The value of the MinQty (#110) field specifies whether the order allows partial fills and the field's value overrides the minimum order size setting on the server. For more details, see the "MinQty" field in the "New Order – Single (Client to FX Inside)" message on page 98.

Order Visibility

You can determine the amount of the limit order that is visible to other market participants based on the value of the MaxShow (#210) and OrderQty (#38) fields in the New Order – Single message:

- Hidden: The order is a hidden and is not visible to other customers. Fills are made by the trading application from incoming rates. The MaxShow (#210) value is 0 (zero).
- Display: The order is completely visible to other customers. The full order amount is disclosed. The MaxShow (#210) value equals the OrderQty (#38) value.
- Iceberg: The order is visible to other customers, but only a fraction of the actual order amount is displayed. The MaxShow (#210) value is less than the OrderQty (#38) value.

NOTE Regardless of order visibility, if you want your order crossed with incoming market prices, you must set the ExecInst (#18) field of the New Order – Single message to “B”. For example, if you submit a hidden order (MaxShow (#210) is zero) and do not include “B” as a value of the ExecInst (#18) field, then your order is not crossed with incoming market prices and cannot be filled.

For more details, see:

- “OrderQty” field on page 96
- “MaxShow” field on page 99
- “ExecInst” field on page 96

Multiple Execution Attempts

To reduce price slippage and improve execution efficiency in the ESP and RFS workflows, the client can send multiple execution requests for the same order. For example, the client submits an order execution and, before it receives an execution report from the server, the market moves in favor of the client. The order is unfilled so the client submits another order execution request for the same order.

To prevent double booking the order, the client must use the same value of the ClOrdID (#11) field in the New Order – Single messages sent as multiple execution attempts for the same order.

The server maintains a time-based cache for the current session of ClOrdID (#11) values of filled and active orders (pending, new, and partially filled orders). The server rejects execution requests for filled and active orders in the session’s ClOrdID (#11) cache.

Furthermore, to prevent duplicate executions, the server rejects New Order – Single messages with the PossDupFlag (#43) or PossResend (#97) fields set. These fields are set by FIX engines when they resend messages, such as after recovering from a network outage. Because the server does not store all past ClOrdID (#11) values, the server cannot determine whether the same ID was used previously and it rejects any order with the PossDupFlag (#43) or PossResend (#97) field set.

One-Cancels-the-Other (OCO) Orders

The FIX Client API represents OCO orders as two component orders that you submit separately and that are linked by their respective order IDs. A fill or partial fill of one component order results in the system cancelling the other component order.

The ContingencyType (#1385) field indicates that an order is a component of an OCO order. The ClOrdLinkID (#583) field of a component order contains the ID of the linked order.

Please refer to the following files for examples of OCO component orders:

examples\NewOrderSingle_OCO_FirstOrder.txt
examples\NewOrderSingle_OCO_SecondOrder.txt

The overall life cycle of an OCO orders is:

1 You submit the first component order. The order's TimeInForce (#59) expiry must be something other than IOC or FOK.

2 Receive an Execution Report message indicating that the first component order is valid with the OrdStatus (#39) field set to 0 (zero, New).

3 Submit the second component order with ContingencyType (#1385)=1 and the ClOrdLinkID (#583) set to the client order ID ClOrdID (#11) of the first component order.

4 The system performs the following validation:

   ❏ Ensures that the first component order is still in the NEW state (has not been expired, cancelled, or filled).

   ❏ Checks that the TimeInForce (#59) expiry of the second component order is not IOC or FOK.

5 If the second component order passes validation:

   ❏ You receive an Execution Report for the second component order.

   ❏ The system sets the ContingencyType (#1385) and the ClOrdLinkID (#583) of the first component order to indicate that it is part of an OCO order and to link it to the second component order.

6 If either one of the component orders is filled or partially filled, then the system cancels the other component order. If one component order is expired or cancelled,

then the other order is not cancelled and remains in effect until it is filled, expired, or cancelled. In all other aspects (execution, expiry, status), each component order behaves the same as any other order with the same expiry and execution characteristics.

Order Persistence

By default, the FIX server cancels all open orders submitted during a session when the FIX users logs out.

The FIX server can be configured to persist orders in the system and allow execution when the FIX user is logged out. Contact Integral Business Support to enable persistent orders.

When the FIX user logs back in, the FIX server sends Execution Report messages with the current status of all persisted orders and Trade Execution Report messages for all trades done since the user logged out.

Users who enable persistent orders must implement FIX STP download so that the FIX server can notify the user of trades executed while logged out. For more information about FIX STP, see “Post-Trade Messages” on page 143.

Orders with the following characteristics cannot be persisted:

- IOC orders (TimeInForce (#59)=3)
- FOK orders (TimeInForce (#59)=4
- Market orders (OrdType (#40)=1 and PegOffsetValue (#211) is empty)

Orders that cannot be persisted are cancelled by the FIX server when the FIX user logs out whether or not persistent orders are enabled.

When the FIX user logs on, the FIX server subscribes the user to prices in the currency pairs for any persisted orders that are still open.

When the FIX server is brought down for planned maintenance, all order execution is suspended and any open IOC, FOK, and market orders are cancelled.

Please refer to the following file for an example of persistent (day) orders:

examples\NewOrderSingle_DayOrder.txt

Order Status

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 12 for information about trading workflows.

The server maintains an order's status as it transitions from one state to another as a result of business and system events. The server notifies the FIX client of order status with the OrdStatus (#39) field of the Order Execution Report message. See "Execution Report (FX Inside to Client)" on page 122 for details.

The following diagram illustrates an order's state transitions and events. Circles represent order status as reported by the OrdStatus (#39) field. The lines between status circles represent state transitions are labelled with the effecting event names as represented by the ExecType (#150) field of the Order Execution Report message.

Note that the same event can result in different orders statuses. The destination status is determined by other attributes of the order. For example, an order with status "New" can transition to "Partially filled" or to "Filled" with a trade event depending on whether the order allows partial fills and whether or not the trade completely fills the order.

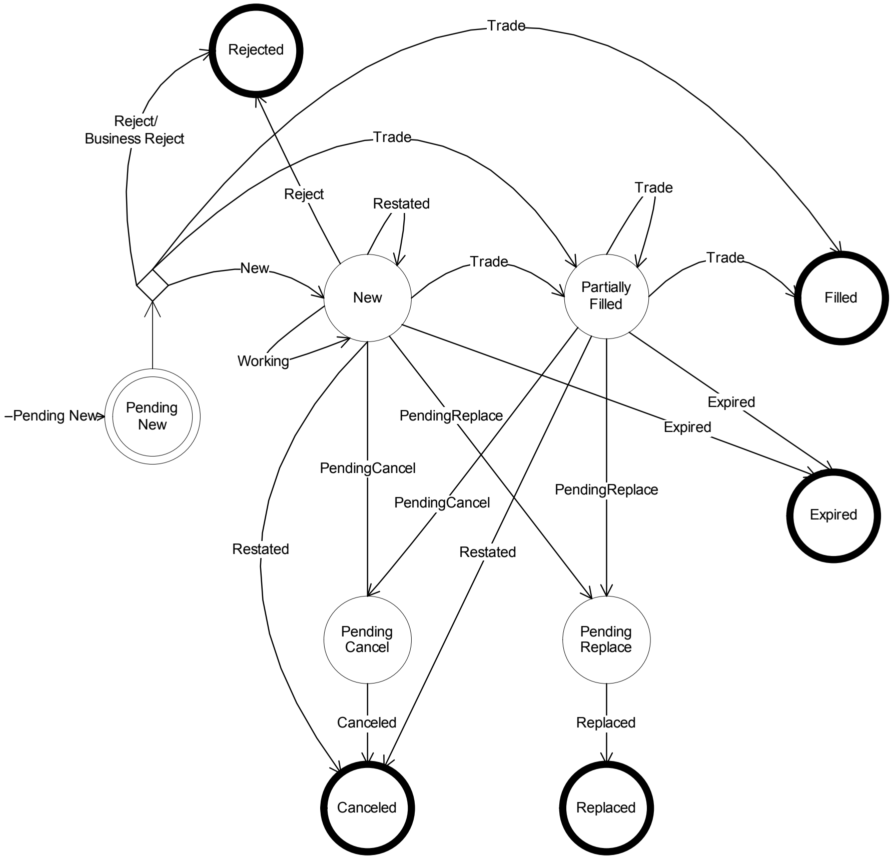

Figure 1-15 *Order State Transitions*

Table 1-9 *Order Status*

Order Status, value of OrdStatus (#39) field	Description
A=Pending New	An order has been received by server.
0 (zero)=New	The server has confirmed that the order is valid. The order has been successfully entered into the server's order management system. This status may be skipped. This status applies to stop and stop limit orders when they have been triggered and are working.
1=Partial fill	The order has been partially filled on the server with a residual amount available.

Table 1-9 *Order Status (continued)*

Order Status, value of OrdStatus (#39) field	Description
2=Fill	The order has been completely filled.
8=Rejected	The server failed to confirm the validity of the order and the order has been rejected.
6=PendingCancel	A cancel request has been received by the server and is being processed.
4=Canceled	An order and any residual amount of the order has been canceled by one of the following mechanisms: ■ Customer action (for example, canceling the order in FX Inside) ■ Unfilled FOK orders ■ Unfilled or partially filled IOC ■ As a result of a fill of an associated component order of an OCO order ■ Unsolicited by the server (for example, a stop order submitted with an invalid time in force)
E=PendingReplace	A cancel/replace request has been received by the server and is being processed.
5=Replace	An existing order has been replaced by a new order. The existing order has been canceled and marked as replaced.
C=Expired	The order has expired. Any residual amount of the order is canceled.

1.1.7 Server Synchronization

Your servers initiating the FIX connection to FX Inside should be synchronized with a reliable NTP source. FX Inside servers are synchronized using clock.redhat.com and clock2.redhat.com. Unsynchronized servers result in a RequestValidationError.TooLateToEnter error.

1.1.8 Business Day End and Start

You must configure your FIX engine for an end of day at 17:00:00 EST and a start of day at 17:10:00 EST. Note that the EST time zone is subject to daylight saving time.

Consult your FIX engine's documentation to find out how to set business day end and start.

1.1.9 Sequence Number Reset

Resetting the sequence number when the client logs on is optional (ResetSeqNumFlag (#141)=Y on the Logon message).

You must configure your FIX engine to reset the sequence number MsgSeqNum (#34)=0 at the end of day and not on disconnect or logout. The end of the business day is 17:00:00 EST irrespective of daylight saving time.

To reset sequence numbers once a day after the business day end, the following session-level FIX parameters need to be set on the server and the client with the following values:

Table 1-10 *Server-side FIX Sequence Number Parameters*

Parameter	Value
ResetOnDisconnect	N
ResetOnLogout	N
StartTime	17:00:05
EndTime	17:00:00

Table 1-11 *Client-side FIX Sequence Number Parameters*

Parameter	Value
ResetOnDisconnect	N
ResetOnLogout	N
StartTime	17:00:10
EndTime	16:59:00

1.1.10 Event Sequencing

The FIX Client API handles messages and trading events on a first-come first-served basis.

1.1.11 Client Roles

When trading through FX Inside as a FIX client, you are either a *direct customer* or a *facilitator*:

- Direct customer: You trade directly with any number of liquidity providers in a one-to-one or one-to-many basis. The prices you see are a market data stream composed of rates from *n* providers, where *n* equals one to the number of providers for which you provisioned to trade. Individual trades are done between you and a single provider.
- Facilitator: You are a sales dealer or facilitator organization who initiates trading with any number of liquidity providers in a one-to-one or one-to-many basis on behalf of a customer. The prices you see are a market data stream composed of rates from *n* providers, where *n* equals one to the number of providers for which you are provisioned to trade. Individual trades are done between the customer and a single provider.

Your client role determines the values of the additional message-routing fields in the message header:

- OnBehalfOfCompID (#115)
- OnBehalfOfSubID (#116)
- DeliverToCompID (#128)

See “Organization and User Identification” on page 49 for details descriptions of the fields and “Summaries of ID Values” on page 55 for a summary of values for both client roles and all message types.

1.1.12 Quote Types

The FIX Client API distinguishes between two types of quotes, each with their own distinct representation and workflow. Each Market Data Snapshot/Full Refresh message received from FX Inside contains only one type of quote.

Multi-price Quotes

For multi-price quotes, each price in a message can be treated like a separate limit order and can be dealt upon independently. You can send an order for each quote entry independently of the others and you can send multiple orders before you receive a refresh message.

Multi-price quotes are represented in the FIX message as repeating groups of related fields. The value of the MDEntryPositionNo (#290) field in each group is zero, indicating that the prices are parts of a multi-price quote. See "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76 for information about quote entry representation.

Multi-tier Quotes

For multi-tier quotes, each price in a message is considered a tier. There is one bid and one offer rate at each tier. The size for the bid and offer rates may differ.

The tiers are mutually exclusive. You can deal on only one tier of a quote at a time. When you submit an order for a quote entry, you must receive a new refresh message before you can place your next order.

Also, the size of the order you place for a tier must be less than or equal to the size of the tier and greater than the size of the previous tier. For example, if the prices are tiers of 10M, 20M and 30M, the order you place for 25M must be submitted for the 30M tier.

Like multi-price quotes, multi-tier quotes are represented in the FIX message as repeating groups of related fields. If the value of the MDEntryPositionNo (#290) field in the repeating group is greater than zero, it indicates both a multi-tier quote and the price's tier position. For example, for a quote with three tiers, the value of the MDEntryPositionNo (#290) field in each tier is "1", "2", and "3" respectively.

See "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76 for information about multi-tier quote representation.

1.2 FIX Implementation

The interface defined by the FIX Client API conforms to the FIX 4.3 specifications. The FIX Protocol Organization provides a complete reference to the protocol at:

http://www.fixprotocol.org

1.2.1 Message Examples

NOTE The FIX Protocol uses the nonprinting ASCII code 1 character (also known as SOH, Start of Header, 0x01, and Ctrl-A) as a field/value delimiter.

Message examples are packaged with this guide as text files in the examples directory.

1.2.2 Supported Message Types

The FX Inside FIX Client API supports the following FIX messages types:

Table 1-12 Supported Message Types

Message Type—MsgType (#35) Field Value	Message Name	Inbound to Client (I), Outbound from Client (O), or Bidirectional (B)
Session Management		
A	Logon on page 62	B
5	Logout on page 64	B
0 (zero)	Heartbeat on page 64	B
1	Test Request on page 65	B

Table 1-12 *Supported Message Types (continued)*

Message Type—MsgType (#35) Field Value	Message Name	Inbound to Client (I), Outbound from Client (O), or Bidirectional (B)
3	Session-Level Reject on page 66	B
Trading Workflow		
V	Market Data Request on page 70	O
W	Market Data Snapshot/Full Refresh on page 76	I
Y	Market Data Request Reject on page 82	I
D	New Order - Single on page 94	O
F	Order Cancel Request on page 103	O
G	Order Cancel/Replace Request on page 106	O
9	Order Cancel Reject on page 112	I
q	Order Mass Cancel Request on page 114	O
r	Order Mass Cancel Report on page 116	I
H	Order Status Request on page 118	O
8	Order Execution Report on page 122	I

1.2.3 Supported and Unsupported Fields

This document only describes the FIX workflows and fields necessary to access FX Inside. All fields not included in this document are unsupported and ignored by FX Inside.

The Req'd column in the message tables indicates whether or not a field is required.

In some cases, a field is conditionally required or the FIX protocol requires fields that are not applicable to the FIX Client API and are therefore ignored by FX Inside. These fields are clearly indicated in their field comments.

1.2.4 String Length

For many fields of type `String`, the FIX protocol defines all possible valid values. Therefore, the maximum string length of these fields is also defined. The maximum string length never exceeds the longest valid value.

The FIX Client API does not impose a maximum length on undefined `String` fields, such as free-form text fields and ID fields.

1.2.5 Message Length

The FIX Client API does not impose a maximum length on FIX messages sent or received by FX Inside.

1.2.6 Encryption

For messages sent over the public Internet, the FIX Client API expects the message to be encrypted. If you use a secure network transport mechanism (VPN, Radianz, or SSL), the FIX messages may be unencrypted. You must work with your Integral relationship manager to establish the message encryption scheme.

1.2.7 Standard Header and Trailer

FIX engines set a message's header and trailer fields automatically according to the message type and the application context as defined by the application's configuration (see "Configuration" on page 48). For these reasons, the standard header and trailer as defined by the FIX protocol are not discussed in detail in this document beyond the expected values of the MsgType (#35) field and the fields that identify message and business senders and targets, such as SenderCompID (#49), and TargetCompID (#56).

***Table 1-13** Standard Message Header Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
8	BeginString	Y	FIX.4.3	String	The identifier at the beginning of a new message that also holds the protocol version. Always set to "FIX.4.3". Always the first field in the message.
9	BodyLength	Y	—	Length	Indicates the message length in bytes. Always the second field in the message.
35	MsgType	Y	—	String	Defines the message type. Always the third field in the message. See "Supported Message Types" on page 44 for the complete list of supported message types.
34	MsgSeqNum	Y	—	SeqNum	This value is an integer message sequence number.
43	PossDupFlag	N	Y=Possible duplicate N=Original transmission	Boolean	Indicates possible retransmission of message with this sequence number.
49	SenderCompID	Y	—	String	The message sender's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	The legal entity of the message sender. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	The message target's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	See descr.	—	String	The legal entity of the message target. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfOfCompID	See descr.	—	String	The ID of the message's business content originator. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.

Table 1-13 *Standard Message Header Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
116	OnBehalfOfSubID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. See "Users" on page 53 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	See descr.	—	String	The ID of the message's business content target. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
129	DeliverToSubID	See descr.	—	String	The ID of the message's business content target. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
52	SendingTime	Y	—	UTCTim estamp	The time of message transmission (GMT) in the format *YYYYMMDD-HH:MM:SS.sss*.
122	OrigSendingTime	N	—	UTCTim estamp	Original time of message transmission when transmitting orders as the result of a resend request in the format *YYYYMMDD-HH:MM:SS.sss*.

Table 1-14 *Standard Message Trailer Field*

Tag	Field Name	Req'd	Value	FIX Format	Comments
10	Checksum	Y	—	String	A three byte, simple checksum that is always the last field on the message.

1.3 Configuration

The following sections described the details involved in establishing a connection via the FIX Client API.

1.3.1 Network Connectivity

The FIX Client API uses TCP/IP sockets. FIX message encryption is not supported. Clients connect to FX Inside using one of the following options to ensure network reliability and security:

- Radianz
- IPSec VPN
- Internet with SSL encryption using Stunnel

1.3.2 Organization and User Identification

The IDs used by the FIX Client API to identify message senders and targets must be received from Integral before you can trade with the FIX Client API through FX Inside.

For a quick summary of how the FIX Client API uses these IDs, see "Summaries of ID Values" on page 55.

The following sections describe these IDs and their values in detail:

- "Message Sender and Target" on page 49
- "Business Sender and Target" on page 51
- "Broadcast Messages" on page 52
- "Users" on page 53
- "Legal Entities and Trading Parties" on page 54

Message Sender and Target

You must receive your organization ID and FX Inside server ID from Integral before you can connect to FX Inside using the FIX Client API. The FIX Client API uses these IDs to identify a message's sender and target in the SenderCompID (#49) and TargetCompID (#56) fields.

NOTE FX Inside does not allow multiple FIX Client API connections using the same organization ID.

- "Your Organization Client ID" on page 50
- "FX Inside Server ID" on page 50

Your Organization Client ID

Your organization ID is expressed as a series of tokens separated by periods, much like an Internet domain name:

sessionType.orgShortName
quote.yourBank4

Table 1-15 *Organization ID Format*

Token	Example	Description
sessionType	**quote**.yourBank4	For a description of the following session types, see "Sessions" on page 11: ■ quote ■ order
orgShortName	quote.**yourBank4**	Your organization's short name ID

All messages that you send to FX Inside must include your ID in the SenderCompID (#49) field.

All messages that you receive from FX Inside include your ID in the TargetCompID (#56) field.

For a summary of how you should set the IDs of messages, see "Direct Users ID Summary Tables" on page 55 and "Facilitator Users ID Summary Tables" on page 58.

FX Inside Server ID

Like your organization ID, the FX Inside server ID looks like an Internet domain name:

environment.client.*otherData*

staging.client.fxgrid.integral.com

Table 1-16 *Organization ID Format*

Token	Example	Description
environment	**staging**.client.fxgrid.integral.com	The specific environment to which you are connected (for example, staging or production)
client	staging.**client**.fxgrid.integral.com	The FIX API (always client)
otherData	staging.client.**fxgrid.integral.com**	Additional data that identifies the server

All messages that you send to FX Inside must include the server ID in the TargetCompID (#56) field.

All messages that you receive from FX Inside include your ID in the SenderCompID (#49) field.

For a message-by-message summary of how you should set the IDs of messages, see "Direct Users ID Summary Tables" on page 55 and "Facilitator Users ID Summary Tables" on page 58.

Business Sender and Target

When you deal directly with liquidity providers, the message sender and target are the same as the business sender and target.

For example, if you send a New Order - Single message to initiate a trade, the SenderCompID (#49) field identifies you as both the message sender and the business sender (the organization initiating the trade). The message target is indicated by the value of the DeliverToCompID (#128) field, either the specific provider organization ID or blank if the order is intended to be matched with prices from all providers.

However, if you deal with liquidity providers on behalf of a customer, the business content of a message is sourced from or intended for your customer rather than you.

The business sender and target is your customer. The FIX Client API uses the following fields to identify your customers as business senders and targets:

Table 1-17 *ID Fields for Facilitator Customers*

ID	Fields
Customer as Sender	■ Customer user/organization: OnBehalfOfCompID (#115) The user ID and organization is expressed in the form *user@custOrg*. If the field contains only the customer organization ID, the organization's default user is assumed. ■ Customer legal entity: OnBehalfOfSubID (#116) If the field is blank, the organization's default legal entity is assumed.
Customer as Target	■ Customer organization/user: DeliverToCompID (#128) The user ID and organization is expressed in the form *user@custOrg*. Customer legal entity: DeliverToSubID (#129).

For example, if you send a New Order - Single message to initiate a trade on behalf of a customer, then you must set the SenderCompID (#49) field with your organization ID and then set the OnBehalfOfCompID (#115) field to the customer's ID, using either *user@custOrg* to specify the user and organization or just *custOrg* to assume the organization's default user.

You must receive these customer IDs from Integral before you can trade with the FIX Client API through FX Inside.

For a summary of how the FIX Client API uses these IDs, see "Direct Users ID Summary Tables" on page 55 and "Facilitator Users ID Summary Tables" on page 58.

See "Client Roles" on page 42 for a description of user roles.

Broadcast Messages

Whether you are a facilitator or a direct user, you can choose to send Market Data Request messages and New Order - Single messages to specific liquidity providers or to broadcast the messages to all subscribed providers.

To send a Market Data Request to a single provider or match a New Order - Single message with prices from a single provider, set the DeliverToCompID (#128) field with the provider organization's ID.

To match New Order - Single message with prices from a specific list of providers, set the DeliverToCompID (#128) field with a comma-separated list of provider organization IDs.

To broadcast a Market Data Request to all providers or match a New Order - Single message with prices from all subscribed providers, leave the DeliverToCompID (#128) field empty. Subscribed providers are providers who are currently streaming prices to the FX Grid and have a trading relationship with the message's business sender.

Users

For both direct customers and facilitators, your organization's trading user ID is sent in the PartyID (#448) field of all user-initiated messages. See "Client Roles" on page 42 if you are not sure whether you are a direct customer or a facilitator.

If you are a sales dealer or facilitator organization who trades with liquidity providers on behalf of a customer, your customer's user ID and organization is captured in the following fields and messages in the form *user@custOrg*:

Table 1-18 *Facilitator Customer User ID Fields and Messages*

Field	Messages
OnBehalfOfCompID (#115)	If the field contains only the customer organization ID, the organization's default user is assumed. ■ New Order – Single ■ Quote Request ■ Quote Cancel ■ Order Cancel Request ■ Order Cancel/Replace Request ■ Order Status Request ■ Order Mass Status Request
DeliverToCompID (#128)	Execution Report

You must receive these user IDs from Integral before you can trade with the FIX Client API through FX Inside.

For a summary of how the FIX Client API uses these IDs, see "Direct Users ID Summary Tables" on page 55 and "Facilitator Users ID Summary Tables" on page 58.

See "Client Roles" on page 42 for a description of user roles.

Legal Entities and Trading Parties

A *legal entity* is a sub-organization within your organization. Legal entities are normally regarded as having a unique legal existence. They produce balance sheets and report to central authorities.

A legal entity in an organization other than your own is referred to as a *trading party*.

Trading relationships are established between legal entities and trading parties.

The legal entity or trading party ID is contained in the following fields of several message types:

- SenderSubID (#50)
- TargetSubID (#57)
- OnBehalfOfSubID (#116): for facilitator users, this field may be left blank and the customer organization's default trading party is assumed for some messages
- DeliverToSubID (#129)

You must receive these IDs from Integral before you can trade with the FIX Client API through FX Inside.

For a complete summary of these rules, see "Direct Users ID Summary Tables" on page 55 and "Facilitator Users ID Summary Tables" on page 58.

Summaries of ID Values

The following tables summarize the ID values described in this section from the direct and facilitator perspectives. See "Client Roles" on page 42 for a description of direct and facilitator users.

- "Direct Users ID Summary Tables" on page 55
- "Facilitator Users ID Summary Tables" on page 58

Direct Users ID Summary Tables

The following tables summarizes the ID values in messages for direct users. If you are not certain that you are a direct customer, see "Client Roles" on page 42 for a detailed description of user roles and "Trading Workflows" on page 12 for more information about workflows.

Table 1-19 *Org and User IDs for Direct Users: Session Management*

FIX Field	Message Type				
	Logon	**Logout**	**Heartbeat**	**Test Request**	**Session-Level Reject**
SenderCompID (#49)	directional	directional	directional	directional	directional
PartyID (#448)	—	—	—	—	—
TargetCompID (#56)	directional	directional	directional	directional	directional
MDEntryOriginator (#282)	—	—	—	—	—
DeliverToCompID (#128)	—	—	—	—	—
DeliverToSubID (#129)	—	—	—	—	—
OnBehalfOfCompID (#115)	—	—	—	—	—
OnBehalfOfSubID (#116)	—	—	—	—	—
SenderSubID (#50)	—	—	—	—	—
TargetSubID (#57)	—	—	—	—	—

Table 1-20 *Org and User IDs for Direct Users: ESP Workflow*

FIX Field	Message Type				
	Market Data Request	**Market Data Snapshot/Full Refresh**	**Market Data Request Reject**	**New Order – Single**	**Execution Report**
SenderCompID (#49)	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*
PartyID (#448)	—	—	—	*userID*	—
TargetCompID (#56)	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*
MDEntryOriginator (#282)	—	*providerOrg*	—	—	—

Table 1-20 *Org and User IDs for Direct Users: ESP Workflow (continued)*

FIX Field	Message Type				
	Market Data Request	Market Data Snapshot/Full Refresh	Market Data Request Reject	New Order – Single	Execution Report
DeliverToCompID (#128)	*providerOrg*, blank for all providers, or "ALL" for incremental updates	—	—	*providerOrg*, list of providers, or blank for all providers	—
DeliverToSubID (#129)	—	—	—	—	—
OnBehalfOfCompID (#115)	—	—	*providerOrg* (if applicable)	—	*providerOrg*
OnBehalfOfSubID (#116)	—	—	—	—	—
SenderSubID (#50)	*legalEntity*	—	—	*legalEntity*	*providerLE*
TargetSubID (#57)	—	*legalEntity*	*legalEntity*	—	*legalEntity*

Table 1-21 *Org and User IDs for Direct Users: RFS Workflow*

FIX Field	Message Type				
	Quote Request	Quote	Quote Request Reject	Quote Cancel	Business Message Reject
SenderCompID (#49)	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*
PartyID (#448)	—	—	—	—	—
TargetCompID (#56)	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*
MDEntryOriginator (#282)	—	—	—	—	—
DeliverToCompID (#128)	*providerOrg*	—	—	*providerOrg*	—
DeliverToSubID (#129)	—	—	—	—	—
OnBehalfOfCompID (#115)	—	*providerOrg*	*providerOrg*	—	—
OnBehalfOfSubID (#116)	—	—	—	—	—
SenderSubID (#50)	*legalEntity*	—	—	*legalEntity*	—
TargetSubID (#57)	—	*legalEntity*	*legalEntity*	—	—

Table 1-22 *Org and User IDs for Direct Users: Order Workflow*

FIX Field	Message Type						
	Order Cancel Request	Order Cancel/ Replace Request	Order Cancel Reject	Order Mass Cancel Request	Order Mass Cancel Report	Order Status Request	Order Mass Status Request
SenderCompID (#49)	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*	*clientID*	*clientID*
PartyID (#448)	*userID*	*userID*	—	*userID*	—	*userID*	*userID*
TargetCompID (#56)	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*	*serverID*	*serverID*

Table 1-22 *Org and User IDs for Direct Users: Order Workflow (continued)*

FIX Field	**Message Type**						
	Order Cancel Request	**Order Cancel/ Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**	**Order Status Request**	**Order Mass Status Request**
MDEntryOriginator (#282)	—	—	—	—	—	—	—
DeliverToCompID (#128)	*providerOrg*	*providerOrg*	—	*providerOrg*	—	*providerOrg*	*providerOrg*
DeliverToSubID (#129)	—	—	—	—	—	—	—
OnBehalfOfCompID (#115)	—	—	*providerOrg*	—	*providerOrg*	—	—
OnBehalfOfSubID (#116)	—	—	—	—	—	—	—
SenderSubID (#50)	*legalEntity*	*legalEntity*	—	*legalEntity*	—	*legalEntity*	*legalEntity*
TargetSubID (#57)	—	—	*legalEntity*	—	*legalEntity*	—	—

Table 1-23 *Org and User IDs for Direct Users: Trade Capture*

FIX Field	**Message Type**	
	Trade Capture Request	**Trade Capture Report**
SenderCompID (#49)	*clientID*	*serverID*
PartyID (#448)	—	—
TargetCompID (#56)	*serverID*	*clientID*
MDEntryOriginator (#282)	—	—
DeliverToCompID (#128)	—	*counterpartyA_Org*
DeliverToSubID (#129)	—	—
OnBehalfOfCompID (#115)	—	*counterpartyB_Org*
OnBehalfOfSubID (#116)	—	—
SenderSubID (#50)	—	CptyA receives: *counterpartyA_LE* CptyB or other receives: *tradingPartyA*
TargetSubID (#57)	—	CptyB receives: *counterpartyB_LE* CptyA or other receives: *tradingPartyB*

Key:

- —: Do not include this field in the message.
- *clientID*: Your FIX client organization ID. See "Message Sender and Target" on page 49.
- *serverID*: The FX Inside server ID. See "Message Sender and Target" on page 49.
- directional: Either *clientID* or *serverID* depending on the message direction

- *legalEntity*: Your legal entity ID. See "Legal Entities and Trading Parties" on page 54.
- *providerOrg*: The liquidity provider organization's ID
- *providerLE*: The liquidity provider organization's legal entity or trading party ID. See "Legal Entities and Trading Parties" on page 54.
- *userID*: Your organization's trading user's ID
- *counterpartyA_Org*: Counterparty A organization ID (taker).
- *counterpartyB_Org*: Counterparty B organization ID (maker).
- *counterpartyA_LE*: Counterparty A legal entity ID (taker).
- *counterpartyB_LE*: Counterparty B legal entity ID (maker).
- *tradingPartyA*: Trading party ID or settlement code that represents Counterparty A's legal entity
- *tradingPartyB*: Trading party ID or settlement code that represents Counterparty B's legal entity

Facilitator Users ID Summary Tables

The following tables summarize the ID values in messages for facilitator users. If you are not certain that you are a facilitator, see "Client Roles" on page 42 for a detailed description of user roles.

Table 1-24 *Org and User IDs for Facilitator Users: Session Management*

FIX Field	**Message Type**				
	Logon	**Logout**	**Heartbeat**	**Test Request**	**Session-Level Reject**
SenderCompID (#49)	directional	directional	directional	directional	directional
PartyID (#448)	—	—	—	—	—
TargetCompID (#56)	directional	directional	directional	directional	directional
MDEntryOriginator (#282)	—	—	—	—	—
DeliverToCompID (#128)	—	—	—	—	—
DeliverToSubID (#129)	—	—	—	—	—
OnBehalfOfCompID (#115)	—	—	—	—	—
OnBehalfOfSubID (#116)	—	—	—	—	—
SenderSubID (#50)	—	—	—	—	—
TargetSubID (#57)	—	—	—	—	—

Table 1-25 *Organization and User IDs for Facilitator Users: ESP Workflow*

FIX Field	Message Type				
	Market Data Request	**Market Data Snapshot/Full Refresh**	**Market Data Request Reject**	**New Order – Single**	**Execution Report**
SenderCompID (#49)	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*
PartyID (#448)	—	—	—	*userID*	—
TargetCompID (#56)	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*
MDEntryOriginator (#282)	—	*providerOrg*	—	—	—
DeliverToCompID (#128)	*providerOrg*, blank for all providers, or "ALL" for incremental updates	—	—	*providerOrg*, list of providers, or blank for all providers	*user@custOrg*
DeliverToSubID (#129)	—	—	—	—	*customerTP*
OnBehalfOfCompID (#115)	—	—	*providerOrg* (if applicable)	*user@custOrg* or *custOrg* assuming default user	*providerOrg*
OnBehalfOfSubID (#116)	—	—	—	*customerLE* or blank to use default LE of *custOrg*	—
SenderSubID (#50)	*facilitatorLE*	—	—	—	*providerOrg*
TargetSubID (#57)	—	*facilitatorLE*	*facilitatorLE*	—	—

Table 1-26 *Organization and User IDs for Facilitator Users: RFS Workflow*

FIX Field	Message Type				
	Quote Request	**Quote**	**Quote Request Reject**	**Quote Cancel**	**Business Message Reject**
SenderCompID (#49)	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*
PartyID (#448)	*userID*	—	—	*userID*	—
TargetCompID (#56)	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*
MDEntryOriginator (#282)	—	—	—	—	—
DeliverToCompID (#128)	*providerOrg*	*user@custOrg*	*user@custOrg*	*providerOrg*	—
DeliverToSubID (#129)	—	*customerLE*	*customerLE*	—	—
OnBehalfOfCompID (#115)	*user@custOrg* or *custOrg* assuming default user	*providerOrg*	*providerOrg*	*user@custOrg* or *custOrg* assuming default user	—
OnBehalfOfSubID (#116)	*customerLE* or blank to use default LE of *custOrg*	—	—	*customerLE* or blank to use default LE of *custOrg*	—
SenderSubID (#50)	—	—	—	—	—
TargetSubID (#57)	—	—	—	—	—

Table 1-27 *Org and User IDs for Facilitator Users: Order Workflow*

FIX Field	**Message Type**						
	Order Cancel Request	**Order Cancel/ Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**	**Order Status Request**	**Order Mass Status Request**
SenderCompID (#49)	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*	*clientID*	*clientID*
PartyID (#448)	*userID*	*userID*	—	*userID*	—	*userID*	*userID*
TargetCompID (#56)	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*	*serverID*	*serverID*
MDEntryOriginator (#282)	—	—	—	—	—	—	—
DeliverToCompID (#128)	*providerOrg*	*providerOrg*	*user@custOrg*	*providerOrg*	*user@custOrg*	*providerOrg*	*providerOrg*
DeliverToSubID (#129)	—	—	*customerLE*	—	*customerLE*	—	—
OnBehalfOfCompID (#115)	*user@custOrg*	*user@custOrg*	*providerOrg*	—	*providerOrg*	*user@custOrg* or *custOrg* assuming default user	*user@custOrg*
OnBehalfOfSubID (#116)	*customerLE*	*customerLE*	—	*customerLE*	—	*customerLE* or blank to use default LE of *custOrg*	*customerTP*
SenderSubID (#50)	—	—	—	—	—	—	—
TargetSubID (#57)	—	—	—	—	—	—	—

Table 1-28 *Org and User IDs for Facilitator Users: Trade Capture*

FIX Field	**Message Type**	
	Trade Capture Request	**Trade Capture Report**
SenderCompID (#49)	*clientID*	*serverID*
PartyID (#448)	—	—
TargetCompID (#56)	*serverID*	*clientID*
MDEntryOriginator (#282)	—	—
DeliverToCompID (#128)	—	*counterpartyA_Org*
DeliverToSubID (#129)	—	—
OnBehalfOfCompID (#115)	—	*counterpartyB_Org*
OnBehalfOfSubID (#116)	—	—
SenderSubID (#50)	—	CptyA receives: *counterpartyA_LE* CptyB or other receives: *tradingPartyA*
TargetSubID (#57)	—	CptyB receives: *counterpartyB_LE* CptyA or other receives: *tradingPartyB*

Key:

- —: Do not include the field in the message.

- *clientID*: Your FIX client organization ID. See "Message Sender and Target" on page 49.
- *serverID*: The FX Inside server ID. See "Message Sender and Target" on page 49.
- directional: Either *clientID* or *serverID* depending on the message direction.
- *user@custOrg*: Your customer's user and organization ID.
- *facilitatorLE*: Your legal entity ID. See "Legal Entities and Trading Parties" on page 54 and "Client Roles" on page 42.
- *customerTP*: Your customer's legal entity ID. See "Legal Entities and Trading Parties" on page 54 and "Client Roles" on page 42.
- *providerOrg*: The liquidity provider organization's ID.
- *providerLE*: The liquidity provider organization's legal entity or trading party ID. See "Legal Entities and Trading Parties" on page 54.
- *userID*: Your organization's trading user's ID
- *counterpartyA_Org*: Counterparty A organization ID (taker).
- *counterpartyB_Org*: Counterparty B organization ID (maker).
- *counterpartyA_LE*: Counterparty A legal entity ID (taker).
- *counterpartyB_LE*: Counterparty B legal entity ID (maker).
- *tradingPartyA*: Trading party ID or settlement code that represents Counterparty A's legal entity
- *tradingPartyB*: Trading party ID or settlement code that represents Counterparty B's legal entity

1.3.3 IP Address and Port

The provider initiates the connection to FX Inside, which specifies the IP address and port number. The provider's system sends a Logon message to the given IP and port. Communication starts with a Logon message and ends with a Logout message.

CHAPTER 2

Session Management

2.1 Session Management Messages

The following messages are used to control the FIX session and manage message conversations.

- "Logon (Bidirectional)" on page 62
- "Logout (Bidirectional)" on page 64
- "Heartbeat (Bidirectional)" on page 64
- "Test Request (Bidirectional)" on page 65
- "Session-Level Reject (Bidirectional)" on page 66

2.1.1 Logon (Bidirectional)

The Logon message is sent by the client application to start a FIX session with FX Inside and sent by FX Inside in response.

If FX Inside receives a Logon message with invalid fields, it sends a Logout message in response. See "Logout (Bidirectional)" on page 64.

Table 2-1 *Logon Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	A	String	A=Logon
49	SenderCompID	Y	—	String	ID of your organization sending the message. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

Table 2-1 *Logon Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
56	TargetCompID	Y	—	String	The message target. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
98	EncryptMethod	Y	0	int	You must work with your Integral relationship manager to establish the message encryption scheme. For connectivity that provides inherent transport-level security (for example, Radianz or VPN): 0 (zero)=no encryption is used For messages delivered over the public Internet: 1 = PKCS (proprietary) 2 = DES (ECB mode) 3 = PKCS/DES (proprietary) 4 = PGP/DES (defunct) 5 = PGP/DES-MD5 (see note on FIX web site) 6 = PEM/DES-MD5
108	HeartBtInt	Y	—	int	Heartbeat interval in seconds. The heartbeat interval is driven by the FIX client. This value is set on the client side config.properties file as SERVER.POLLING.INTERVAL. The default value is 30 seconds. If HeartBtInt is set to zero, then no heart beat message is required.
141	ResetSeqNumFlag	N	—	Boolean	Indicates that the both sides of the FIX session should reset sequence numbers. See "Sequence Number Reset" on page 41 for more information. Valid values: ■ Y=Yes, reset sequence numbers ■ N=No, continue with the current sequence number on the server until end-of-day.
553	Username	Y	—	String	The user's ID. This user is associated with the SenderCompID (#49) value, which is the user's organization.
554	Password	Y	—	String	The user's password.

Logon Example

Please refer to the following file for an example of this message:

examples\Logon.txt

2.1.2 Logout (Bidirectional)

The Logout message is sent by the client application to end a session with FX Inside and sent by FX Inside in response.

If FX Inside receives a Logon message with invalid fields, it sends a Logout message in response with a description of the error in the Text (#58) field.

Table 2-2 *Logout Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	5	String	5=Logout
49	SenderCompID	Y	—	String	The message sender. If outbound, the ID of your organization sending the message. If inbound, the FX Inside server ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	ID of the message target, either your organization ID or the FX Inside server. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
58	Text	N	—	String	The reason for the Logon rejection. Only included for incoming Logout messages (FX Inside to client) in response to a invalid Logon message. Not valid for outgoing Logout messages (client to FX Inside).

Logout Example

Please refer to the following file for an example of this message:

examples\Logout.txt

2.1.3 Heartbeat (Bidirectional)

Both the client application and FX Inside send the Heartbeat message to indicate that the connection is active.

The provider's client application generates a regular heartbeat at the interval defined by the HeartBtInt (#108) field in the Logon message or as a response to a Test Request message.

***Table 2-3** Heartbeat Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	0	String	0 (zero)=Heartbeat
49	SenderCompID	Y	—	String	The message sender. If outbound, the ID of your organization sending the message. If inbound, the FX Inside server ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	ID of the message target, either your organization ID or the FX Inside server. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
112	TestReqID	N	—	String	Required when the heartbeat is the result of a Test Request message. See "Test Request (Bidirectional)" on page 65.

Heartbeat Example

Please refer to the following file for an example of this message:

examples\Heartbeat.txt

2.1.4 Test Request (Bidirectional)

Forces a heartbeat from the receiving system. The receiving system responds to a Test Request message with a Heartbeat message containing the TestReqID. See "Heartbeat (Bidirectional)" on page 64.

***Table 2-4** Test Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	1	String	1=Test Request

Table 2-4 *Test Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y	—	Boolean	The message sender. If outbound, the ID of your organization sending the message. If inbound, the FX Inside server ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	ID of the message target, either your organization ID or the FX Inside server. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
112	TestReqID	Y	—	String	The resulting Heartbeat message contains this ID. The TestReqID should be incremental.

Test Request Example

Please refer to the following file for an example of this message:

examples\TestRequest.txt

2.1.5 Session-Level Reject (Bidirectional)

Sent when a message is received but cannot be properly processed due to a session-level rule violation. See the "SessionRejectReason" field on page 67 for a list of rejection reasons.

Rejected messages should be logged and the incoming sequence number incremented.

Table 2-5 *Session-Level Reject Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	3	String	3=Reject
45	RefSeqNum	Y	—	SeqNum	The referenced message's sequence number.
58	Text	N	—	String	Free format text string
354	EncodedTextLen	N	—	Length	Byte length of encoded (non-ASCII characters) EncodedText field.

Table 2-5 *Session-Level Reject Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
355	EncodedText	N	—	data	Encoded (non-ASCII characters) representation of the Text (#58) field in the encoded format specified via the MessageEncoding (#347) field in the standard header. If used, the ASCII (English) representation should also be specified in the Text (#58) field.
371	RefTagID	N	—	int	The tag number of the FIX field that caused the message to be rejected.
372	RefMsgType	N	—	String	The MsgType (#35) of the FIX message being referenced.
373	SessionRejectReason	N	—	int	The coded reason for the rejection. Valid values: ■ 0=Invalid tag number ■ 1=Required tag missing ■ 2=Tag not defined for this message type ■ 3=Undefined Tag ■ 4=Tag specified without a value ■ 5=Value is incorrect (out of range) for this tag ■ 6=Incorrect data format for value ■ 7=Decryption problem ■ 8=Signature problem ■ 9=CompID problem ■ 10=SendingTime accuracy problem ■ 11=Invalid MsgType ■ 12=XML Validation error ■ 13=Tag appears more than once ■ 14=Tag specified out of required order ■ 15=Repeating group fields out of order ■ 16=Incorrect NumInGroup count for repeating group ■ 17=Non "data" value includes field delimiter (SOH character)

Session-Level Reject Example

Please refer to the following file for an example of this message:

examples\SessionLevelReject.txt

CHAPTER 3

Trading Workflow

3.1 Supported Actions

The FIX Client API offers the following actions to FIX clients:

- Market data request
- Quote request
- Order submission
- Order status query
- Order execution reports for fills, rejections, and queries
- Position management
- Post-trade STP download

3.2 Supported Message Types

FX Inside order workflow supports the following FIX messages types:

Table 3-1 *Supported Message Types*

Message Type—MsgType (#35) Field Value	Message Name	Inbound to Client (I), Outbound from Client (O), or Bidirectional (B)
V	Market Data Request on page 70	O
W	Market Data Snapshot/Full Refresh on page 76	I
X	Market Data – Incremental Refresh on page 78	I

Table 3-1 *Supported Message Types (continued)*

Message Type—MsgType (#35) Field Value	**Message Name**	**Inbound to Client (I), Outbound from Client (O), or Bidirectional (B)**
Y	Market Data Request Reject on page 82	I
R	Quote Request on page 83	O
AG	Quote Request Reject on page 86	I
S	Quote on page 88	I
Z	Quote Cancel on page 92	I
D	New Order – Single on page 94	O
F	Order Cancel Request on page 103	O
G	Order Cancel/Replace Request on page 106	O
9	Order Cancel Reject on page 112	I
q	Order Mass Cancel Request on page 114	O
r	Order Mass Cancel Report on page 116	I
H	Order Status Request on page 118	O
AF	Order Mass Status Request on page 120	O
8	Execution Report on page 122	I
j	Business Message Reject on page 136	B
XAN	Request for Positions on page 137	O
XAO	Request for Positions Ack on page 140	I
XAP	Positions Report on page 141	I
AD	Trade Capture Report Request on page 143	O
AE	Trade Capture Report on page 145	I

3.3 Market Data Messages

The messages in this section are used to access the ESP workflow of FX Inside (see "Trading Workflows" on page 12).

3.3.1 Market Data Request (Client to FX Inside)

The client must submit a Market Data Request message for each currency pair from each liquidity provider to initiate trading in the ESP workflow. See "Trading Workflows" on page 12 for information about trading workflows.

You can request prices:

- From specific providers or all of your providers
- As full refresh (snapshot) or incremental
- As single prices or aggregated
- As full book, best price, or price tiers

The following table details the supported combinations of price request attributes:

Table 3-2 *Supported Price Requests*

LPs	Subscription Type	Aggregated or Single Price	Market Depth	Price Message	Market Data Request Field Values
One or more specific LPs	Snapshot	Single price per LP per update	Full book	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=one or more comma-separated LP IDs ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=0 (Full Book)
One or more specific LPs	Snapshot	Single price per LP per update	Best price	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=one or more comma-separated LP IDs ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=1 (Top of Book)

Table 3-2 *Supported Price Requests*

LPs	Subscription Type	Aggregated or Single Price	Market Depth	Price Message	Market Data Request Field Values
One or more specific LPs	Snapshot	Single price per LP per update	Price tiers	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=one or more comma-separated LP IDs ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=N>1 (Best N price tiers of data)
All LPs	Snapshot	Single price per LP per update	Full book	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=empty (a single space character) ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=0 (Full Book)
All LPs	Snapshot	Single price per LP per update	Best price	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=empty (a single space character) ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=1 (Top of Book)
All LPs	Snapshot	Single price per LP per update	Price tiers	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=empty (a single space character) ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=N>1 (Best N price tiers of data)
All LPs	Snapshot	Aggregated price per update	Full book	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=0 (Full Book)
All LPs	Snapshot	Aggregated price per update	Best price	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=0 (Full Update)) ■ MarketDepth (#264)=1 (Top of Book)
All LPs	Snapshot	Aggregated price per update	Price tiers	Market Data Snapshot/Full Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=0 (Full Update) ■ MarketDepth (#264)=N>1 (Best N price tiers of data)

Table 3-2 *Supported Price Requests*

LPs	Subscription Type	Aggregated or Single Price	Market Depth	Price Message	Market Data Request Field Values
All LPs	Incremental	Aggregated price per update	Full book	Market Data - Incremental Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=1 (Incremental Refresh) ■ MarketDepth (#264)=0 (Full Book)
All LPs	Incremental	Aggregated price per update	Best price	Market Data - Incremental Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=1 (Incremental Refresh) ■ MarketDepth (#264)=1 (Top of Book)
All LPs	Incremental	Aggregated price per update	Price tiers	Market Data - Incremental Refresh	■ DeliverToCompID (#128)=ALL ■ MDUpdateType (#265)=1 (Incremental Refresh) ■ MarketDepth (#264)=N>1 (Best N price tiers of data)

Table 3-3 *Market Data Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	V	String	V=Market Data Request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	Your legal entity's ID if you are trading directly with a liquidity provider. If you are trading on behalf of a customer, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

Table 3-3 *Market Data Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
128	DeliverToCompID	Y	■ Provider ID for specific provider ■ Empty for all providers ■ Comma-separated list of providers for VWAP and Full Book aggregation ■ "ALL" for incremental updates from all providers	String	The liquidity provider organization's ID if the message is intended for a specific provider. Include the field but leave empty to request a subscription from all providers. The value "ALL" is a requirement for requesting incremental updates. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
262	MDReqID	Y	—	String	The client-assigned unique ID for the market data request. This is stored in the external request ID field. FX Inside rejects all requests with duplicate IDs. The value of this field must not contain the ampersand character "@".
263	SubscriptionRequest Type	Y	1=Snapshot + Updates (subscribe to stream, default) 2=Disable previous Snapshot + Update Request (Unsubscribe)	char	This field indicates to the receiving party what type of response is expected. A subscribe request asks for updates as the status changes. Unsubscribe cancels any future update messages from the organization.
264	MarketDepth	Y	■ 0=Full book ■ 1=Top of book ■ *N* > 1=Best *N* price tiers of data	int	Depth of market for book snapshot.
265	MDUpdateType	Y	0=Full Refresh 1=Incremental Refresh	int	This value specifies the type of Market Data update. DeliverToCompID (#128) must be set to "ALL" to receive incremental updates. This field is required with the SubscriptionRequestType (#263) value of 1 (Snapshot + Updates).

Table 3-3 *Market Data Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
266	AggregatedBook	N	N=Multiple entries per side per price allowed Y=One book entry per side per price	Boolean	Specifies whether or not book entries should be aggregated. DeliverToCompID (#128) must be set to "ALL" to receive an aggregated full book. If this field is not specified and AggregationType (#7547)=V (VWAP), then all tiers are sent in a single market rate message. If no aggregation type is specified, then full book aggregation is done.
7546	RequestedSize	N	—	Qty	Specifies the size of the tier. If multiple tiers are required, use ommas to separate tier values. The following size shortcuts are supported: K, k, M, m, B, b.
7547	AggregationType	N	F=Full Book V=VWAP	MultipleValue String	The type of aggregation to be done if AggregatedBook (#266)=Y. If this tag is not specified and an aggregated book is requested, Full Book aggregation is done. DeliverToCompID (#128) must be set to "ALL" to receive an aggregated full book.
The following shaded rows are a repeating group of fields that represent one currency pair. The required fields (Symbol (#55) and Product (#460)) must be included as a group for each currency pair or your request will be rejected. The value of the NoRelatedSym (#146) field indicates the number of groups and thus the number of currency pairs.					
146	NoRelatedSym	Y	1 (one)	NumInGroup	The number of repeating symbols specified. This indicates the number of currency pairs that the market data request message is associated with. Because the client must submit a Market Data Request Message for each currency pair, there is a one-to-one relationship between the quote request message and currency pair. Thus, the value of this field is always 1 (one).
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.

Table 3-3 Market Data Request Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
167	SecurityType	N	FOR	String	The security type. The value is always "FOR"=Foreign Exchange Contract
End of repeating group					
The following shaded rows are repeating fields required by the FIX specification. The value of the NoMDEntryTypes (#267) field is always 2. Two instances of the MDEntryType (#269) are always required and always have the value 0 and 1 respectively.					
267	NoMDEntryTypes	Y	2	NumInGroup	Number of MDEntryType (#269) fields requested. This number is always set to "2" (bid/offer).
269	MDEntryType	Y	(see descr.) ■ 0 (zero) ■ 1 (one)	char	The FIX Client API supports only two-way market data. This field is required by the FIX specification but is ignored by the FIX Client API. There must be two instances of the MDEntryType (#269) field. One instance is set to "0" (zero) and one instance is set to "1" (one).
End of repeating group					

Market Data Request Examples

The following examples illustrate a request for subscription to EUR/USD from all providers (DeliverToCompID (#128) empty) and an unsubscribe message (SubscriptionRequestType (#263)=2).

Please refer to the following files for examples of this message:

- Request for full updates from all providers (MDUpdateType (#265)=0, DeliverToCompID (#128) empty):

  examples\MarketDataRequest_SubscribeAll.txt
- Request for aggregated updates from all providers (AggregatedBook (#266)=Y):

  examples\MarketDataRequest_SubscribeAllAggregated.txt
- Request to stop prices (MDReqID (#262) set to ID of originating request, DeliverToCompID (#128) set to specific provider ID):

examples\MarketDataRequest_Unsubscribe.txt

- Request for incremental updates (MDUpdateType (#265)=1, DeliverToCompID (#128)= "ALL"):

  examples\MarketDataRequest_IncrementalRefresh.txt

3.3.2 Market Data Snapshot/Full Refresh (FX Inside to Client)

FX Inside sends a Market Data Snapshot/Full Refresh message to the client in response to a successful Market Data Request message for each currency pair from each liquidity provider. The Market Data Snapshot/Full Refresh message may contain multiple rates. The NoMDEntries (#268) field indicates the number of rates in the message.

Each rate consists of a repeating group of fields, as indicated by shading in the table below.

Table 3-4 *Market Data Snapshot/Full Refresh Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	W	String	W=Market Data Snapshot/Full Refresh
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	Y	—	String	Your legal entity's ID. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfOfCompID	N	—	String	Not included in the message. The ID of the originating provider is captured in the MDEntryOriginator (#282) field of each quote in the message. See "MDEntryOriginator" on page 77.
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")

***Table 3-4** Market Data Snapshot/Full Refresh Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
262	MDReqID	Y	—	String	Unique identifier from the originating Market Data Request
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.
541	MaturityDate	Y	—	LocalMktDate	Date of maturity in *YYYYMMDD* format
The following shaded rows are a repeating group of fields that represent one rate. The required fields must be included as a group for each rate. The value of the NoMDEntries (#268) field indicates the number of groups and thus the number of rates.					
268	NoMDEntries	Y	—	NumInGroup	Number of entries in market data message. Each bid and offer represents one market data entry. If three bid and two offer dealing prices are included, the value of the NoMDEntries (#268) field is 5.
269	MDEntryType	Y	—	char	The side of the rate: 0=Bid 1=Offer
270	MDEntryPx	Y	—	Price	The price. For example, if MDEntryType (#269) field of a repeating group is 0 (bid), this field holds the bid price. If the value of this field is 0 (zero), your client should ignore the quote.
15	Currency	Y	—	Currency	The value of this field represents the denomination of the quantity fields (for example, JPY represents a quantity of JPY). This may be the base or term currency of a currency pair.
271	MDEntrySize	Y	—	Qty	The quantity (in the case of multiple tiers, the limit). If the value of this field is 0 (zero), your client should ignore the quote.
276	QuoteCondition	Y	—	MultipleValue String	Indicates whether the rate is tradable or only indicative: A=Open/Active B=Closed/Inactive (your client should ignore the quote)
282	MDEntryOriginator	Y	—	String	The provider organization ID. The provider associated with the bid or offer quote.
299	QuoteEntryID	Y	—	String	Uniquely identifies each rate as part of a quote set. The reference ID for the dealing price.

Table 3-4 *Market Data Snapshot/Full Refresh Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
290	MDEntryPositionNo	Y	—	int	The integer value indicates the tier of the price. If a price is part of an multi-price quote and is not part of a multi-tier quote, this field has a value of 0 (zero). See "Quote Types" on page 43 for information about business rules regarding multi-price and multi-tier quotes.
End of repeating group					

Market Data Snapshot/Full Refresh Examples

The example files illustrate the following:

- Multi-price quote (see "Multi-price Quotes" on page 43)

  examples\MarketDataSnapshotFullRefresh_MultiPrice.txt
- Multi-tier quote (see "Multi-tier Quotes" on page 43)

  examples\MarketDataSnapshotFullRefresh_MultiTier.txt

3.3.3 Market Data – Incremental Refresh (FX Inside to Client)

FX Inside sends a Market Data – Incremental Refresh message to the client in response to a successful Market Data Request message for each currency pair from all liquidity providers. The Market Data Request message must have the following values:

- DeliverToCompID (#128) must be set to "ALL"
- MDUpdateType (#265) must be set to 1 (one)

The Market Data – Incremental Refresh message may contain multiple rates. The NoMDEntries (#268) field indicates the number of rates in the message.

Each rate consists of a repeating group of fields, as indicated by shading in the table below.

Only new rate entries (MDUpdateAction (#279)=0) include currency pair and bid/offer information for the entry. Subsequent updates to and deletion of the rate refer to the rate's MDEntryID (#278) and do not include fields like Currency (#15) and MDEntryType (#269).

Table 3-5 *Market Data – Incremental Refresh Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	X	String	X=Market Data – Incremental Refresh
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	N	—	String	Your legal entity's ID. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfOfCompID	N	—	String	Not included in the message. The ID of the originating provider is captured in the MDEntryOriginator (#282) field of each quote in the message. See "MDEntryOriginator" on page 77.
262	MDReqID	Y	—	String	Unique identifier from the originating Market Data Request
460	Product	N	4	int	The asset class. The value is always 4=CURRENCY.
541	MaturityDate	N	—	LocalMktDate	Date of maturity in *YYYYMMDD* format
The following shaded rows are a repeating group of fields that represent one rate. The required fields must be included as a group for each rate. The value of the NoMDEntries (#268) field indicates the number of groups and thus the number of rates.					
268	NoMDEntries	Y	—	NumInGroup	Number of entries in market data message. Each bid and offer represents one market data entry. This value is always an even number reflecting both bid and offer prices. If three bid/offer dealing prices are included, the value of the NoMDEntries (#268) field is 6.

Table 3-5 *Market Data – Incremental Refresh Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
279	MDUpdateAction	Y	—	char	The Market Data update action type. It must be the first field in the repeating group. Valid values are: ■ 0=New (new price or replaces existing price, entry includes currency and bid/offer fields) ■ 1=Change (updates existing price, entry must include MDEntryID (#278) of existing price) ■ 2=Delete (deletes existing price, entry must include MDEntryID (#278) of existing price)
269	MDEntryType	See descr.	—	char	This field is only included in price entries with a MDUpdateAction (#279) value of 0 (New). The side of the rate: ■ 0=Bid ■ 1=Offer
278	MDEntryID	Y	—	String	Market data identifier. ■ A market data update message with a MDUpdateAction (#279) field of 0 (New) should replace any entry with the same MDEntryID (#278) value. Only new entries includes currency and bid/offer information. Subsequent updates must reference this ID. ■ A market data update message with a MDUpdateAction (#279) field of 1 (Change) must include this ID to update any entry with the same MDEntryID (#278) value. ■ A market data update message with a MDUpdateAction (#279) field of 2 (Delete) indicates any entry with the same with the same MDEntryID (#278) value should be deleted.
55	Symbol	N	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, “EUR/USD”)
270	MDEntryPx	See descr.	—	Price	Required when the MDUpdateAction (#279) field is 0 (New). The price. For example, if MDEntryType (#269) field of a repeating group is 0 (bid), this field holds the bid price.If the value of this field is 0 (zero), your client should ignore the quote.
271	MDEntrySize	See descr.	—	Qty	The size of the price. Required when MDUpdateAction (#279) field is 0 (New).
282	MDEntryOriginator	Y	—	String	The ID of the price provider

Table 3-5 Market Data – Incremental Refresh Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
285	DeleteReason	N	—	char	If the value of the MDUpdateAction (#279) field is 2 (Delete), this field can be used to specify a reason. ■ 0=Cancelation / Trade Bust ■ 1=Error
15	Currency	N	—	Currency	This field is only included in price entries with a MDUpdateAction (#279) value of 0 (New). The denomination of the amount in the MDEntrySize (#271) field (for example, JPY represents a quantity of JPY). This may be the base or term currency of a currency pair.
290	MDEntryPositionNo	N	—	int	The integer value indicates the tier of the price. If a price is part of an multi-price quote and is not part of a multi-tier quote, this field is not included or has a value of 0 (zero). See "Quote Types" on page 43 for information about business rules regarding multi-price and multi-tier quotes.
End of repeating group					

Market Data – Incremental Refresh Examples

The example files illustrate the following:

- New prices (MDUpdateAction (#279)=0 (New)):

  examples\MarketDataIncrementalRefresh_New.txt
- Delete prices: (MDUpdateAction (#279)=2 (Delete)):

  examples\MarketDataIncrementalRefresh_Delete.txt
- Multi-price quote (see "Multi-price Quotes" on page 43):

  examples\MarketDataIncrementalRefresh_New_MultiPrice.txt
- Multi-tier quote (see "Multi-tier Quotes" on page 43):

  examples\MarketDataIncrementalRefresh_New_MultiTier.txt

3.3.4 Market Data Request Reject (FX Inside to Client)

FX Inside sends a Market Data Request Reject message to the client in response to an unsuccessful Market Data Request message for each currency pair.

Table 3-6 *Market Data Request Reject Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	Y	String	Y=Market Data Request Reject
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	Y	—	String	Your legal entity's ID. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfOfCompID		—	String	■ Not included if the originating request was intended for all liquidity providers ■ The liquidity provider organization's ID if the originating request was intended for a specific provider. See the "DeliverToCompID" field under "Market Data Request (Client to FX Inside)" on page 73.
58	Text	N	—	String	A description of the rejection
262	MDReqID	Y	—	String	The unique identifier from the originating Market Data Request. Since the request is stored with the external request ID, the external request ID is stored with the quote (dealing prices) message.
281	MDReqRejReason	N	—	char	The reason for the reject. If the client attempts to subscribe to a currency pair that they are not permissioned for, the value of the MDReqRejReason (#281) field is 3. 0=Unknown symbol 1=Duplicate MDReqID 3=Insufficient Permissions

Market Data Request Reject Example

Please refer to the following file for an example of this message:

examples\MarketDataRequestReject.txt

3.4 Quote Messages

The messages in this section are used to access the RFS workflow of FX Inside (see "Trading Workflows" on page 12).

3.4.1 Quote Request (Client to FX Inside)

The client sends a Quote Request message to FX Inside to initiate the RFS workflow (see "Trading Workflows" on page 12).

Table 3-7 *Quote Request Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	R	String	R=Quote Request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	Your legal entity's ID if you are trading directly with a liquidity provider. If you are trading on behalf of a customer, this field is not included in the message.See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.

Table 3-7 *Quote Request Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
128	DeliverToCompID	Y	—	String	The ID of the liquidity provider organization to whom the request is sent. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
448	PartyID	See descr.	—	String	The ID of your organization's user who submitted the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Users" on page 53 and "Summaries of ID Values" on page 55.
131	QuoteReqID	Y	—	String	Client-assigned unique ID for the quote request
146	NoRelatedSym	Y	1	NumInGroup	Number of related instruments in the request. This value is always "1" (one).
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
167	SecurityType	Y	FOR	String	FOR=Foreign Exchange Contract
54	Side	Y	—	Char	The order side is from customer's (FIX client) perspective. For FX swap, it is the side of the far leg. 1=Buy 2=Sell Space=2-Way
38	OrderQty	Y	—	Qty	Requested amount specified in the dealt currency Currency (#15). For FX swap, this is the near leg amount.
64	FutSettDate	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	■ FX spot: Spot date ■ FX outright: Value date ■ FX swap (spot-fwd and fwd-fwd): Near leg value date The field contains either a standard tenor symbol or broken date in *YYYYMMDD* format for outright and swap. If the field is empty, it is considered a spot stream request.

***Table 3-7** Quote Request Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
40	OrdType	Y	—	Char	D=Previously quoted (for FX spot and FX outright RFS) G=FX swap
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	FX spot, outright: Not applicable FX swap: The far leg value date The field contains either standard tenor symbol or a broken date in *YYYYMMDD* format.
192	OrderQty2	N	—	Qty	Requested amount specified in the dealt currency Currency (#15). For FX swap, this is the far leg amount.
126	ExpireTime	Y	—	UTCTimestamp	The relative expiration time of the quote request in the format *YYYYMMDD-HH:MM:SS.sss*. The date portion of the value is ignored. The time portion specifies the amount of time before the quote request expires. For example, for a request that expires in ten seconds, the value would be 00000000-00:00:10.000.
60	TransactTime	Y	—	UTCTimestamp	The time the Quote Request is sent by the client. This field is automatically stamped by the FIX engine in the format *YYYYMMDD-HH:MM:SS.sss*.
15	Currency	N	—	Currency	Dealt currency

Quote Request Examples

The examples in the following files illustrate requests for spot, outright, and swap prices:

examples\QuoteRequest_Spot.txt
examples\QuoteRequest_Outright.txt
examples\QuoteRequest_Swap.txt

3.4.2 Quote Request Reject (FX Inside to Client)

FX Inside sends a Quote Request Reject message to the client to reject a previously sent Quote Request.

Table 3-8 *Quote Request Reject Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	AG	String	AG=Quote Request Reject
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	See descr.	—	String	■ The originating legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer
115	OnBehalfofCompID	Y	—	String	The liquidity provider organization's ID. See "Summaries of ID Values" on page 55.
128	DeliverToCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
129	DeliverToSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.

Table 3-8 Quote Request Reject Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
58	Text	N	—	String	Free format text explaining the reason for rejection. If the Text (#58) field includes the text "INTERNAL_SERVER_ERROR", this indicates a serious error. Stop trading immediately and contact Business Support to resolve the issue.
131	QuoteReqID	Y	—	String	The OrdReqID (#131) of the Quote Request message that has been rejected
658	QuoteRequestReject Reason	Y	—	String	The reason for the rejection: ■ 1=Unknown symbol ■ 2=Exchange or security closed ■ 3=Quote request exceeds limit ■ 4=Not authorized to request quote ■ 99=Other
The following shaded rows are a repeating group of fields that represent a symbol. The value of the NoRelatedSym (#453) field is always 1 (one).					
146	NoRelatedSym	Y	1 (one)	NumInGroup	Number of related instruments in the request. This value is always "1" (one).
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
60	TransactTime	Y	—	UTCTimestamp	The time the Quote Request reject message is generated in the format *YYYYMMDD-HH:MM:SS.sss*.
End of repeating group					

Quote Request Reject Example

Please refer to the following file for an example of this message:

examples\QuoteRequestReject.txt

3.4.3 Quote (FX Inside to Client)

FX Inside sends a Quote message in response to a successful Quote Request.

***Table 3-9** Quote Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	S	String	S=Quote
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	See descr.	—	String	■ The originating legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer
128	DeliverToCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
129	DeliverToSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfofCompID	Y	—	String	The liquidity provider organization's ID. See "Summaries of ID Values" on page 55.
15	Currency	N	—	Currency	Dealt currency

Table 3-9 *Quote Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
40	OrdType	Y	—	Char	D=Previously quoted (for FX spot and FX outright RFS. G=FX swap
54	Side	Y	1=Buy 2=Sell Empty=2-Way	Char	The order side is from customer's (FIX client) perspective. For FX swap, it is the side of the far leg.
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
60	TransactTime	Y	—	UTCTimestamp	The time the message is generated. This field is automatically stamped by the FIX engine in the format *YYYYMMDD-HH:MM:SS.sss*.
62	ValidUntilTime	N	—	UTCTimestamp	Expiry time of the quote in the format *YYYYMMDD-HH:MM:SS.sss*. Only the time portion is used as a time duration. For example, 00:01:30.000 means the quote is good for 1 minute and 30 seconds.
64	FutSettDate	N	—	LocalMktDate	The field is specified in the format *YYYYMMDD*. ■ FX spot: Spot date ■ FX outright: Outright value date ■ FX spot-forward swap: Spot date ■ FX forward-forward swap: Near value date
117	QuoteID	Y	—	String	Unique quote ID assigned by FX Inside
131	QuoteReqID	Y	—	String	Client assigned unique ID from the originating quote request

Table 3-9 Quote Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
132	BidPx	N	—	Price	All-in bid price. Included only if Side (#54) in the originating Quote Request is sell or 2-way. ■ FX spot: Spot price ■ FX outright : Outright price ■ FX spot-forward swap: Spot price ■ FX forward-forward swap: Near leg all-in price If the value of this field is 0 (zero), your client should ignore the quote.
133	OfferPx	N	—	Price	All-in offer price. Included only if Side (#54) in the originating Quote Request is buy or 2-way. If the value of this field is 0 (zero), your client should ignore the quote.
134	BidSize	N	—	Qty	Bid size of the near leg quote. Included only if Side (#54) in the originating Quote Request is sell or 2-way. If the value of this field is 0 (zero), your client should ignore the quote.
135	OfferSize	N	—	Qty	Offer size of the near leg quote. Included only if Side (#54) in the originating Quote Request is buy or 2-way. If the value of this field is 0 (zero), your client should ignore the quote.
167	SecurityType	Y	FOR	String	FOR=Foreign Exchange Contract
188	BidSpotRate	N	—	Price	Bid spot rate. Included only if Side (#54) in the originating Quote Request is sell or 2-way. If the value of this field is 0 (zero), your client should ignore the quote.
189	BidForwardPoints	N	—	PriceOffset	Bid forward points. The value is used for outrights and fwd/fwd swaps. Included only if Side (#54) in the originating Quote Request is sell or 2-way.
190	OfferSpotRate	N	—	Price	Offer spot rate. Included only if Side (#54) in the originating Quote Request is buy or 2-way. If the value of this field is 0 (zero), your client should ignore the quote.

Table 3-9 Quote Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
191	OfferForwardPoints	N	—	PriceOffset	Offer forward points. The value is used for outrights and fwd/fwd swaps. Included only if Side (#54) in the originating Quote Request is buy or 2-way.
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	FX spot, outright: Not applicable FX swap: The far leg value date The field contains either standard tenor symbol or a broken date in *YYYYMMDD* format.
537	QuoteType	N	0 (zero)=Indicative (the quote is not tradable) 1=Tradable	int	Whether or not the quote is tradable
642	BidForwardPoints2	N	—	PriceOffset	Bid Forward Points for the far leg. The value is used for Swap and Fwd/Fwd Swap only. Included only if Side (#54) in the originating Quote Request is sell or 2-way.
643	OfferForwardPoints2	N	—	PriceOffset	Offer Forward Points for the far leg. The value is used for Swap and Fwd/Fwd Swap only. Included only if Side (#54) in the originating Quote Request is buy or 2-way.
7551	BidSize2	N	—	Qty	Bid size of the far leg quote. Included only if Side (#54) in the originating Quote Request is sell or 2-way.
7552	OfferSize2	N	—	Qty	Offer size of the far leg quote. Included only if Side (#54) in the originating Quote Request is buy or 2-way.

Quote Examples

The examples in the following files illustrate quotes for spot, outright, and swap:

examples\Quote_Spot.txt
examples\Quote_Outright.txt
examples\Quote_Swap.txt

3.4.4 Quote Cancel (Bidirectional)

FX Inside sends a Quote Cancel message to the client to stop an RFS quote stream and cancel all quotes.

The client sends a Quote Cancel message to FX Inside as part of the RFS workflow to cancel a Quote Request message and stop an RFS stream. See "Request for Stream (RFS) Workflow" on page 17.

Table 3-10 *Quote Cancel Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	Z	String	Z=Order Cancel
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	Your legal entity's ID if you are trading directly with a liquidity provider. If you are trading on behalf of a customer, this field is not included in the message.See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
115	OnBehalfofCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.

Table 3-10 Quote Cancel Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
129	DeliverToSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
448	PartyID	See descr.	—	String	The ID of your organization's user who submitted the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Users" on page 53 and "Summaries of ID Values" on page 55.
60	TransactTime	Y	—	UTCTimestamp	The time the message was generated. This field is automatically stamped by the FIX engine in the format *YYYYMMDD-HH:MM:SS.sss*.
117	QuoteID	Y	Empty	String	This field must be included as empty. The entire RFS quote stream is canceled by the provider.
131	QuoteReqID	Y	—	String	The QuoteReqID (#131) of the originating quote request.
298	QuoteCancelType	Y	—	int	4=Quote Withdraw, used when the quote stream is canceled by the provider 5=Quote/Request Expired, used when the request or quote expiry is reached

Quote Cancel Example

Please refer to the following file for an example of this message:

examples\QuoteCancel.txt

3.5 Trading Messages

The messages in this section are used to access the trading workflow of FX Inside for all trading workflows (see "Trading Workflows" on page 12).

3.5.1 New Order – Single (Client to FX Inside)

The client sends a New Order – Single message to submit an order in FX Inside.

The order can be an execution request on a streaming price (OrdType (#40)=D) or a limit order (OrdType (#40)=2) that is crossed with quotes on the server and broadcast to other market participants. See "Trading Workflows" on page 12 for more information about trading workflows.

Table 3-11 *New Order – Single Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	D	String	D=Submit one new order
43	PossDupFlag	N	Y=Possible duplicate N=Original transmission	Boolean	Must not be set. See "Multiple Execution Attempts" on page 35.
122	OrigSendingTime	Y (if #43 is set)	See descr.	UTCTimestamp	Original time of message transmission in the format *YYYYMMDD-HH:MM:SS.sss*. Required if the order message is a resend (PossDupFlag (#43) field is set to "Y").
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Message Sender and Target" on page 49 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
115	OnBehalfOfCompID	See descr.	—	String	Your customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	See descr.	—	String	The liquidity provider organization's ID or a comma-separated list of provider IDs to match the order against. This field is required only for previously quoted orders (OrdType (#40)=D). For limit, market, and stop orders, this field is optional. If this field is included, then only the providers specified are considered for matching with the order. If this field is empty or not included, FX Inside attempts to match the order against prices from all subscribed providers. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	A session-scoped unique identifier assigned by the client. If the client sends multiple New Order – Single messages for the same order, the same ClOrdID (#11) must be sent with each attempt. See "Multiple Execution Attempts" on page 35.
15	Currency	Y	—	Currency	The dealt currency. This may be the base or term currency of a currency pair.

***Table 3-11** New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
18	ExecInst	Y	B=OK to cross B not specified=No cross P=Best price P not specified=Price at depth 9=Bid trigger 0=Offer trigger M=Mid trigger R=At rate ST=Strategy W=VWAP	MultipleValueString	How your order is executed. As applicable to the order type, you can specify more than one value by separating each value with a space. For details about how this field applies to the various order types, see "Order Execution" on page 29.
21	HandlInst	N	1	char	1=Automated execution order, private, no manual intervention. Required by the FIX protocol but not applicable to the FIX Client API.
38	OrderQty	Y	—	Qty	FX spot, outright: The amount of the dealt currency (as specified by the Currency (#15) field) to be either bought or sold (as determined by the Side (#54) field). FX swap: The near leg currency amount of the dealt currency (as specified by the Currency (#15) field) to be either bought or sold (as determined by the Side (#54) field).
40	OrdType	Y	■ D=Previously quoted (ESP or RFS) ■ 2=Limit (orders) ■ 1=Market or Market Range ■ 3=Stop ■ 4=Stop Limit	char	Other order types are not currently supported. See "Supported Order Types" on page 28. If the order type is D, then the DeliverToCompID (#128) field must have a value. If the order type is 1 or 3, then the value of the PegOffsetValue (#211) field determines whether the order is a market order or a market range order. See "PegOffsetValue" on page 99.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
44	Price	Y	—	Price	FX spot: The execution price or limit price. The precision of this float value must be agreed upon by both the sending and the receiving parties. FX swap: The near-leg execution price or limit price. The precision of this float value must be agreed upon by both the sending and the receiving parties. Stop limit orders: The limit price
54	Side	Y	1=Buy (Bid) 2=Sell (Offer)	char	The side of the order from the customer's perspective. For FX swap orders, this is the side of the far leg. If you are dealing directly with the liquidity provider, the customer is defined by the SenderCompID (#49) and SenderSubID (#50) fields. If you are dealing with the liquidity provider as a facilitator on behalf of the customer, the customer is defined by the OnBehalfOfCompID (#115) and OnBehalfOfSubID (#116) fields.
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
59	TimeInForce	Y	■ 0 (zero)=Day ■ 1=GTC ■ 3=IOC ■ 4=FOK ■ 6=GTD	char	See "Order Expiry" on page 32 for a description of order expiry types.
60	TransactTime	Y	—	UTCTimestamp	Time this order request was initiated/released by the trader, trading system, or intermediary in the format *YYYYMMDD-HH:MM:SS.sss*.
64	FutSettDate	N	—	LocalMktDate	Specific date of trade settlement (settlement date) in the format *YYYYMMDD*.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
99	StopPx	N	—	Price	The stop price that triggers a stop or stop limit order. You can use the ExecInst (#18) field to specify whether the stop triggers when the market price equals or is greater than the stop price, or only when greater than the stop price. See "ExecInst" on page 96 and "Order Execution" on page 29 for details.
110	MinQty	Y	■ 0 (zero) ■ Less than OrderQty (#38) ■ Equal to OrderQty (#38)	Qty	This field is ignored if TimeInForce (#59) is 4 (FOK). Specifies how the order can be filled: ■ Partial fill: If the value is 0 (zero), the order amount can be filled multiple times until the entire amount is filled. ■ Partial fill with market minimum: If the value is less than the value of the OrderQty (#38) field, the order amount can be filled multiple times with each fill no less than the market minimum defined by this field's value. If the residual order amount is less than the market minimum, the order is considered as fully filled and done. The residual amount is implicitly canceled. ■ No partial fill: If the value is equal to the value of the OrderQty (#38) field, the order amount must be filled in its entirety with one fill.
117	QuoteID	Y	—	String	The reference ID of the bid or offer dealing price. This is conditionally required, as the OrdType (#40) field is D (previously quoted).
126	ExpireTime	N	—	UTCTimestamp	The relative expiration time of the order in the format *YYYYMMDD-HH:MM:SS.sss*. Required when the TimeInForce (#59) value is 6 (GTD). The date portion of the value is ignored. The time portion specifies the amount of time before the order expires. For example, for an order that expires in ten seconds, the value could be 00000000-00:00:10.000.
167	SecurityType	Y	FOR	String	FOR=Foreign Exchange Contract

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format *YYYYMMDD-HH:MM:SS* or *YYYYMMDD-HH:MM:SS.sss*. For TWAP orders, the value of this field indicates, he absolute time in GMT at which the strategy should start execution. If this field is not specified and ExecEffPeriod (#7564) is not specifed, the strategy starts execution immediately. If this field is specified and the time value is in the past, the strategy starts execution immediately.
192	OrderQty2	N	—	Qty	FX spot, outright: Not applicable. FX swap: The far leg currency amount of the dealt currency (as specified by the Currency (#15) field) to be either bought or sold (as determined by the Side (#54) field).
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	FX spot, outright: Not applicable FX swap: The far leg value date The field contains either standard tenor symbol or a broken date in *YYYYMMDD* format.
210	MaxShow	Y	■ 0 (zero): hidden ■ Equal to OrderQty (#38): displayed ■ Less than OrderQty (#38): iceberg	Qty	See "Order Visibility" on page 34 for a description of order visibility.
211	PegOffsetValue	See descr.	—	float	This field is required for: ■ Market range orders to specify the allowable slippage. The value is divided by the currency pair's pips factor. For example, avalue of 0.5 and a pips factor of 1 (one) indicates a slippage of 0.5 pips. ■ Stop orders if the resulting order when triggered is a market range order. This field is left empty or not included for market orders.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.
583	ClOrdLinkID	N	—	String	The ID of the order to which this order is tied. This field is only populated in a New Order – Single message when submitting the second component order of an OCO order pair. The value should be the ClOrdID (#11) of the first component order. See "One-Cancels-the-Other (OCO) Orders" on page 36.
640	Price2	N	—	Price	FX spot: Not applicable. FX swap: The far-leg execution price or limit price. The precision of this float value must be agreed upon by both the sending and the receiving parties. The precision of this value must be agreed upon by both the sending and receiving parties.
1385	ContingencyType	N	1=One Cancels the Other (OCO)	int	Defines the type of contingency. The FIX Client API supports OCO orders. See "One-Cancels-the-Other (OCO) Orders" on page 36.
7556	ExecEndTime	See descr.	—	UTCTimestamp	Absolute time in GMT at which the strategy should stop executing. If this tag is not specified and ExecEndPeriod (#7565) is not specifed, the order expires based on the value of the TimeInForce (#59) field.
The following shaded rows are a group of key/value pairs specified in the StrategyParameters (#7560) field that represent a strategy order's parameters. Each parameter key/value pair is delimited by a space. The tilde character (~) separates the parameter key from the parameter value. For example, the value "SI~01:00:00 SMI~00:30:00 SIR~Y AE~1" indicates "Slice interval = 1 hour, Minimum slice interval = 30 minutes, Slice interval randomized between 30 minutes (SMI) and 1 hour (SI), At expiration fill the remainder at market".					
7560	StrategyParameters	See descr.	—	MultipleValueString	The strategy parameters represented as key/value pairs with the tilde character (~) separating the parameter key from the parameter value and each key/value pair delimited by a space. This field is required when ExecInst (#18)=ST.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
PT	PegTime	N	—	float	Flash time in seconds. For example, ten and a half seconds is represented as "10.5". This tag overrides the flash order time property. If not specified, then the flash order property value, if any, is used.
SI	SlicIntrvl	Y	—	UTCTimeOnly	Relative time between two slices specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. This field is required when **ExecInst** (#18)=ST.
SMI	SlicMinIntrvl	Y	—	UTCTimeOnly	Minimum slice interval specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. Applicable if the **SlicIntrvlRndmzr** (SIR) parameter is true. This field is required when **ExecInst** (#18)=ST.
SIR	SlicIntrvlRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N). If enabled, the order managed system randomly selects a slice interval between **SlicIntrvl** (SI) and slice interval and **SlicMinIntrvl** (SMI).
SS	SlcSize	N	—	Qty	Size of each slice. If the slice size is not specified, the size is chosen based on the **TOBPercent** (TOBP) parameter.
SSR	SlcSizeRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N) flag. If enabled, the order management system randomizes the slice size between **SlcRegularSize** (SRS) and **SlcSize** (SS) or, if **TOBPercent** (TOBP) is specified, between the calculated top-of-book amount and **SlcSize** (SS).
TOBP	TOBPercent	N	—	float	Determines how the slice size varies, calculated as a percentage of the top-of-book (TOB) size. For example, a value of 0.5 indicates 50% of TOB size. If **SlcSizeRndmzr** (SSR) is true, then the slice size varies between **SlcRegularSize** and the size calculated with the value of this parameter. If this parameter is not specified, the slice size is fixed.
SRS	SlcRegularSize	N	—	Qty	If this parameter is specified, the slice size is rounded to a multiple of this value. If not specified, the behavior defaults to the system configuration.

Table 3-11 *New Order – Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
AE	ActnOrdrExpr	N	1=Fill @ Market 2=Cancel Order	char	Action to be taken at the expiration of the order. If this tag is not specified, the order is cancelled at expiration.
End of group					
7561	StrategyName	N	—	String	This field is used with strategy orders (ExecInst (#18)=ST). A free-format string provided to record the strategy employed by the order. The value of this field is not validated and has no effect on strategy functionality.
7564	ExecEffPeriod		—	UTCTimeOnly	Relative time at which the strategy should start execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and EffectiveTime (#168) is not specifed, the strategy starts executing immediately.
7565	ExecEndPeriod			UTCTimeOnly	Relative time at which the strategy should stop execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and ExecEndTime (#7556) is not specifed, the order expires based on the value of the TimeInForce (#59) field.
The following shaded rows are a repeating group of fields that represent a user. The required fields must be included as a group for each user. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of users.					
453	NoPartyIDs	N	1	NumInGroup	The number of groups of PartyID (#448), PartyIDSource (#447) and PartyRole (#452) fields that represent the end-user ID who submitted the order.
448	PartyID	N	—	String	The ID of the user who submitted the order. See "Users" on page 53 and "Summaries of ID Values" on page 55.
447	PartyIDSource	See descr.	D=Proprietary/ Custom code	char	Identifies class or source of the PartyID (#448) value. Required if PartyID is specified.
452	PartyRole	N	3=Client ID	int	Identifies the type or role of the PartyID (#448) specified.
End of repeating group					

New Order – Single Examples

The examples in the following files illustrate various order types:

- Limit: examples\NewOrderSingle_Limit.txt
- Limit with GTD time in force (TimeInForce (#59)=6 and ExpireTime (#126) is set): examples\NewOrderSingle_GTD.txt
- Iceberg (MaxShow (#210) is set): examples\NewOrderSingle_Iceberg.txt
- Market (OrdType (#40)=1 and PegOffsetValue (#211) is not included in the message): examples\NewOrderSingle_Market.txt
- Market Range (OrdType (#40)=1 and PegOffsetValue (#211) is set): examples\NewOrderSingle_MarketRange.txt
- Outright (FutSettDate (#64)=1W): examples\NewOrderSingle_Outright.txt
- Swap (OrderQty2 (#192) and FutSettDate2 (#193) set for the far leg): examples\NewOrderSingle_Swap.txt
- Stop limit (OrdType (#40)=4 and ExecInst (#18)=B9 (OK to cross, bid trigger)): examples\NewOrderSingle_StopLimit.txt

The examples in these files illustrate persistent (day) orders and OCO orders:

- Day order (TimeInForce (#59)=0): examples\NewOrderSingle_DayOrder.txt
- First order of the OCO pair (ClOrdID (#11)="Limit6789"): examples\NewOrderSingle_OCO_FirstOrder.txt
- Second order of the OCO pair (ContingencyType (#1385)=1 and ClOrdLinkID (#583)="Limit6789"): examples\NewOrderSingle_OCO_SecondOrder.txt

3.5.2 Order Cancel Request (Client to FX Inside)

The client sends this message to FX Inside to request that a specific order be canceled.

Table 3-12 *Order Cancel Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	F	String	F=Order Cancel Request

Table 3-12 Order Cancel Request Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 49 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
115	OnBehalfofCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	A unique ID for this cancel request assigned by the FIX client
41	OrigClOrdID	Y	—	String	The ClOrdID (#11) value of the order to be canceled
54	Side	Y	1=Buy (Bid) 2=Sell (Offer)	char	The side of the order from the FIX client's perspective

Table 3-12 *Order Cancel Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
60	TransactTime	Y	—	UTCTimestamp	Time this cancel request was initiated/released by the FIX client in the format *YYYYMMDD-HH:MM:SS.sss*.
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.
The following shaded rows are a repeating group of fields that represent a user. The required fields must be included as a group for each user. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of users.					
453	NoPartyIDs	N	1	NumInGroup	The number of groups of PartyID (#448), PartyIDSource (#447) and PartyRole (#452) fields that represent the end-user ID who submitted the cancel request
448	PartyID	N	—	String	The ID of the user who submitted the cancel request. See "Users" on page 53 and "Summaries of ID Values" on page 55.
447	PartyIDSource	See descr.	D=Proprietary/ Custom code	char	Identifies class or source of the PartyID (#448) value. Required if PartyID is specified.
452	PartyRole	N	3=Client ID	int	Identifies the type or role of the PartyID (#448) specified.
End of repeating group					

Order Cancel Request Example

Please refer to the following file for an example of this message:

examples\OrderCancelRequest.txt

3.5.3 Order Cancel/Replace Request (Client to FX Inside)

The client sends this message to FX Inside to request that a specific order be canceled and then replaced with the order contain in the cancel/replace message.

Groups of associated, repeating fields are indicated by shading in the table below.

Table 3-13 *Order Cancel/Replace Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	G	String	G=Order Cancel/Replace Request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 49 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
115	OnBehalfofCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.

Table 3-13 Order Cancel/Replace Request Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
11	ClOrdID	Y		String	The order ID assigned by the FIX client for the replacement order
15	Currency	Y	—	Currency	The value of the Currency field represents the denomination of the quantity fields (for example, **JPY** represents a quantity of JPY). This may be the base or term currency of a currency pair.
18	ExecInst	Y	B=OK to cross B not specified=No cross P=Best price P not specified=Price at depth 9=Bid trigger 0=Offer trigger M=Mid trigger R=At rate ST=Strategy W=VWAP	MultipleValueString	How your order is executed. As applicable to the order type, you can specify more than one value by separating each value with a space. For details about how this field applies to the various order types, see "Order Execution" on page 29.
38	OrderQty	Y	—	Qty	The amount of the base currency to be either bought or sold (as determined by **Side** (#54) field)
40	OrdType	Y	■ D=Previously quoted (ESP or RFS) ■ 2=Limit (orders) ■ 1=Market or Market Range ■ 3=Stop ■ 4=Stop Limit	char	Other order types are not currently supported. See "Supported Order Types" on page 28. If the order type is 1, then the value of the **PegOffsetValue** (#211) field determines whether the order is a market order or a market range order. See "PegOffsetValue" on page 99.
41	OrigClOrdID	Y		String	The **ClOrdID** (#11) value of the order to be canceled and replaced
54	Side	Y	1=Buy (Bid) 2=Sell (Offer)	char	The side of the order from the FIX client's perspective

Table 3-13 *Order Cancel/Replace Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
59	TimeInForce	Y	■ 0 (zero)=Day ■ 1=GTC ■ 3=IOC ■ 4=FOK ■ 6=GTD	char	See "Order Expiry" on page 32 for a description of order expiry types.
58	Text	N		String	Free format text string
60	TransactTime	Y	—	UTCTimestamp	Time this order request was initiated/released by the trader, trading system, or intermediary in the format *YYYYMMDD-HH:MM:SS.sss*.
110	MinQty	Y	■ 0 (zero) ■ Less than OrderQty (#38) ■ Equal to OrderQty (#38)	Qty	This field is ignored if TimeInForce (#59) is 4 (FOK). Specifies how the order can be filled: ■ Partial fill: If the value is 0 (zero), the order amount can be filled multiple times until the entire amount is filled. ■ Partial fill with market minimum: If the value is less than the value of the OrderQty (#38) field, the order amount can be filled multiple times with each fill no less than the market minimum defined by this field's value. If the residual order amount is less than the market minimum, the order is considered as fully filled and done. The residual amount is implicitly canceled. ■ No partial fill: If the value is equal to the value of the OrderQty (#38) field, the order amount must be filled in its entirety with one fill.
117	QuoteID	Y	—	String	The reference ID of the bid or offer dealing price. This is conditionally required, as the OrdType (#40) field is D (previously quoted).

Table 3-13 *Order Cancel/Replace Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
126	ExpireTime	N	—	UTCTimestamp	The relative expiration time of the new order in the format *YYYYMMDD-HH:MM:SS.sss*. Required when the TimeInForce (#59) value is 6 (GTD). The date portion of the value is ignored. The time portion specifies the amount of time before the order expires. For example, for an order that expires in ten seconds, the value could be 00000000-00:00:10.000.
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format *YYYYMMDD-HH:MM:SS* or *YYYYMMDD-HH:MM:SS.sss*. For TWAP orders, the value of this field indicates, he absolute time in GMT at which the strategy should start execution. If this field is not specified and ExecEffPeriod (#7564) is not specifed, the strategy starts execution immediately. If this field is specified and the time value is in the past, the strategy starts execution immediately.
210	MaxShow	Y	■ Empty ■ Equal to OrderQty (#38) ■ Less than OrderQty (#38)	Qty	The amount of the order visible to other market participants based on the value of the field: ■ Hidden: If the field is empty, the order is a hidden order that is not visible to other customers. ■ Display: If the value is equal to the value of the OrderQty (#38) field, the order is a display order that is completely visible by other customers. The full order amount is disclosed. ■ Iceberg: If the value of is less than the value of the OrderQty (#38) field, the order is an iceberg order that is visible to other customers. Only a fraction of the actual order amount is displayed (the value of this field).
7556	ExecEndTime	See descr.	—	UTCTimestamp	Absolute time in GMT at which the strategy should stop executing. If this tag is not specified and ExecEndPeriod (#7565) is not specifed, the order expires based on the value of the TimeInForce (#59) field.

Table 3-13 *Order Cancel/Replace Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
The following shaded rows are a group of key/value pairs specified in the StrategyParameters (#7560) field that represent a strategy order's parameters. Each parameter key/value pair is delimited by a space. The tilde character (~) separates the parameter key from the parameter value. For example, the value "SI~01:00:00 SMI~00:30:00 SIR~Y AE~1" indicates "Slice interval = 1 hour, Minimum slice interval = 30 minutes, Slice interval randomized between 30 minutes (SMI) and 1 hour (SI), At expiration fill the remainder at market".					
7560	StrategyParameters	See descr.	—	MultipleValueString	The strategy parameters represented as key/value pairs with the tilde character (~) separating the parameter key from the parameter value and each key/value pair delimited by a space. This field is required when ExecInst (#18)=ST.
PT	PegTime	N	—	float	Flash time in seconds. For example, ten and a half seconds is represented as "10.5". This tag overrides the flash order time property. If not specified, then the flash order property value, if any, is used.
SI	SlicIntrvl	Y	—	UTCTimeOnly	Relative time between two slices specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. This field is required when ExecInst (#18)=ST.
SMI	SlicMinIntrvl	Y	—	UTCTimeOnly	Minimum slice interval specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. Applicable if the SlicIntrvlRndmzr (SIR) parameter is true. This field is required when ExecInst (#18)=ST.
SIR	SlicIntrvlRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N). If enabled, the order managed system randomly selects a slice interval between SlicIntrvl (SI) and slice interval and SlicMinIntrvl (SMI).
SS	SlcSize	N	—	Qty	Size of each slice. If the slice size is not specified, the size is chosen based on the TOBPercent (TOBP) parameter.
SSR	SlcSizeRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N) flag. If enabled, the order management system randomizes the slice size between SlcRegularSize (SRS) and SlcSize (SS) or, if TOBPercent (TOBP) is specified, between the calculated top-of-book amount and SlcSize (SS).

Table 3-13 Order Cancel/Replace Request Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
TOBP	TOBPercent	N	—	float	Determines how the slice size varies, calculated as a percentage of the top-of-book (TOB) size. For example, a value of 0.5 indicates 50% of TOB size. If SlcSizeRndmzr (SSR) is true, then the slice size varies between SlcRegularSize and the size calculated with the value of this parameter. If this parameter is not specified, the slice size is fixed.
SRS	SlcRegularSize	N	—	Qty	If this parameter is specified, the slice size is rounded to a multiple of this value. If not specified, the behavior defaults to the system configuration.
AE	ActnOrdrExpr	N	1=Fill @ Market 2=Cancel Order	char	Action to be taken at the expiration of the order. If this tag is not specified, the order is cancelled at expiration.
End of group					
7561	StrategyName	N	—	String	This field is used with strategy orders (ExecInst (#18)=ST). A free-format string provided to record the strategy employed by the order. The value of this field is not validated and has no effect on strategy functionality.
7564	ExecEffPeriod		—	UTCTimeOnly	Relative time at which the strategy should start execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and EffectiveTime (#168) is not specifed, the strategy starts executing immediately.
7565	ExecEndPeriod			UTCTimeOnly	Relative time at which the strategy should stop execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and ExecEndTime (#7556) is not specifed, the order expires based on the value of the TimeInForce (#59) field.
The following shaded rows are a repeating group of fields that represent a user. The required fields must be included as a group for each user. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of users.					

Table 3-13 *Order Cancel/Replace Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
453	NoPartyIDs	N	1	NumInGroup	The number of groups of PartyID (#448), PartyIDSource (#447) and PartyRole (#452) fields that represent the end-user ID who submits the order.
448	PartyID	N	—	String	The ID of the user who submits the order. See "Users" on page 53 and "Summaries of ID Values" on page 55.
447	PartyIDSource	See descr.	D=Proprietary/ Custom code	char	Identifies class or source of the PartyID (#448) value. Required if PartyID is specified.
452	PartyRole	N	3=Client ID	int	Identifies the type or role of the PartyID (#448) specified.
End of repeating group					

Order Cancel/Replace Request Example

Please refer to the following file for an example of this message:

examples\OrderCancelReplaceRequest.txt

3.5.4 Order Cancel Reject (FX Inside to Client)

FX Inside sends an Order Cancel Reject message to the client in response to an unsuccessful Order Cancel Request or Order Cancel/Replace Request message.

Table 3-14 *Order Cancel Reject Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	9	String	9=Order Cancel Reject
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

***Table 3-14** Order Cancel Reject Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
57	TargetSubID	See descr.	—	String	■ The originating legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer
115	OnBehalfOfCompID	Y	—	String	The liquidity provider organization's ID. See "Summaries of ID Values" on page 55.
128	DeliverToCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
129	DeliverToSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	A session-scoped unique ID assigned by the FIX client for this cancel request being rejected
37	OrderID	Y	—	String	The order ID assigned by the FIX server that could not be canceled or replaced. If the order ID cannot be determined or if the order is not active, the string "NONE" is specified.
39	OrdStatus	Y	—		Order Status value after the cancel reject is applied. Possible Values: ■ A=Pending New ■ 0=New ■ 1=Partially filled ■ 2=Filled ■ 8=Rejected ■ C=Expired ■ 4=Canceled ■ 5=Replaced
41	OrigClOrdID	Y	—	String	The ClOrdID (#11) of the order that the FIX client wants to cancel
58	Text	N	—	String	Free format text string

Table 3-14 *Order Cancel Reject Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
102	CxlRejReason	N	—	int	Reasons for cancel rejection: ■ 0=Too late to cancel ■ 1=Unknown order or other reason ■ 3=Order already in Pending Cancel or Pending Replace status ■ 6=Duplicate ClOrdID (#11) received
434	CxlRejResponseTo	Y	1	int	The type of request that has been rejected: ■ 1=Order Cancel Request ■ 2=Order Cancel/Replace Request

Order Cancel Reject Example

Please refer to the following file for an example of this message:

examples\OrderCancelReject.txt

3.5.5 Order Mass Cancel Request (Client to FX Inside)

The client sends this message to FX Inside to request that all active orders be canceled.

Groups of associated, repeating fields are indicated by shading in the table below.

Table 3-15 *Order Mass Cancel Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	q	String	q=Order Mass Cancel Request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 49 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.

Table 3-15 *Order Mass Cancel Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	A unique ID for the mass cancel request assigned by the FIX client
37	OrderID	Y	—	String	Unique ID generated by the FIX server
60	TransactTime	Y	—	UTCTimestamp	Time this cancel request was initiated/released by the FIX client in the format *YYYYMMDD-HH:MM:SS.sss*.
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.
530	MassCancelRequestType	Y	7	char	Supported values are as follows: 7=Cancel all orders
The following shaded rows are a repeating group of fields that represent a user. The required fields must be included as a group for each user. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of users.					
453	NoPartyIDs	N	1	NumInGroup	The number of groups of PartyID (#448), PartyIDSource (#447) and PartyRole (#452) fields that represent the end-user ID who submitted the mass cancel request
448	PartyID	N	—	String	The ID of the user who submitted the mass cancel request. See "Users" on page 53 and "Summaries of ID Values" on page 55.
447	PartyIDSource	See descr.	D=Proprietary/Custom code	char	Identifies class or source of the PartyID (#448) value. Required if PartyID is specified.

Table 3-15 *Order Mass Cancel Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
452	PartyRole	N	3=Client ID	int	Identifies the type or role of the PartyID (#448) specified.
End of repeating group					

Order Mass Cancel Request Example

Please refer to the following file for an example of this message:

examples\OrderMassCancelRequest.txt

3.5.6 Order Mass Cancel Report (FX Inside to Client)

FX Inside sends this message to the client in response to an Order Mass Cancel Request message.

Table 3-16 *Order Mass Cancel Report Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	r	String	r=Order Mass Cancel Report
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	See descr.	—	String	■ The originating legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer
115	OnBehalfOfCompID	Y	—	String	The liquidity provider organization's ID. See "Summaries of ID Values" on page 55.

Table 3-16 *Order Mass Cancel Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
116	OnBehalfOfSubID	Y	—	String	Only cancel orders for the specified ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer
128	DeliverToCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
129	DeliverToSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	A unique ID for this mass cancel request assigned by the FIX client
37	OrderID	Y	—	String	The order ID assigned by the FIX server that could not be canceled or replaced. If all orders were cancelled successfully, the value is "NONE".
58	Text	N	—	String	Free format text string
60	TransactTime	Y	—	UTCTimestamp	Time this cancel request was initiated/released by the FIX client in the format *YYYYMMDD-HH:MM:SS.sss*.
530	MassCancelRequestType	Y	—	char	Supported values are as follows: 7=Cancel all orders
531	MassCancelResponse	Y	—	char	Specifies action taken by the FIX server in response to an Order Mass Cancel Request. Possible values: ■ 0=Cancel Request Rejected ■ 7=Cancel all orders
532	MassCancelRejectReason	N	—	char	Reason that Order Mass Cancel Request was rejected. Possible values: ■ 0=Mass Cancel Not Supported ■ 99=Other
533	TotalAffectedOrders	N	—	Int	Total number of orders affected by the request

Table 3-16 *Order Mass Cancel Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
534	NoAffectedOrders	N	—	int	Total number of OrigClOrdID (#41) fields of orders affected by the mass cancel request
The following shaded rows are a repeating group of fields that represent the orders affected by the cancel request. The value of the NoAffectedOrders (#534) field indicates the number of groups and thus the number of users.					
534	NoAffectedOrders	N	—	int	Total number of OrigClOrdID (#41) fields of orders affected by the mass cancel request. This number indicates the number of OrigClOrdID (#41) fields included in the message.
41	OrigClOrdID	See descr.	—	String	An order ID affected by the mass cancel request. Required if the value of the NoAffectedOrders (#534) field is greater than zero.
End of repeating group					

Order Mass Cancel Report Example

Please refer to the following file for an example of this message:

examples\OrderMassCancelReport.txt

3.5.7 Order Status Request (Client to FX Inside)

The client sends this message to FX Inside to request an execution report be sent to the client with the order's current status.

Table 3-17 *Order Status Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	H	String	H=Order status request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

Table 3-17 *Order Status Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
115	OnBehalfofCompID	See descr.	—	String	The ID of the customer trader who submitted the message if you are trading with liquidity providers on behalf of the customer. Otherwise, this field is not included. See "Users" on page 53 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's legal entity if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
448	PartyID	Y	—	String	The ID of your organization's user who submitted the message. See "Users" on page 53 and "Summaries of ID Values" on page 55.
11	ClOrdID	Y	—	String	The unique ID assigned by the client to the order, the ClOrdID (#11) of the originating New Order – Single message
37	OrderID	N	—	String	The order's ID as assigned by the FIX server. If this field is included, the ClOrdID (#11) field is ignored.
54	Side	N	1=Buy (Bid) 2=Sell (Offer)	char	The side of the order from the FIX client's perspective
55	Symbol	N	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")

Table 3-17 *Order Status Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
460	Product	N	4	int	The asset class. The value is always 4=CURRENCY.

Order Status Request Examples

The examples in the following files illustrate status requests for open and canceled orders:

examples\OrderStatusRequest_Canceled.txt
examples\OrderStatusRequest_Open.txt

3.5.8 Order Mass Status Request (Client to FX Inside)

This message is sent by the client to request one Execution Report message for each order on the server.

Groups of associated, repeating fields are indicated by shading in the table below.

Table 3-18 *Order Mass Status Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	AF	String	H=Order status request
49	SenderCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer. The message is rejected if this field is set.
56	TargetCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.

Table 3-18 *Order Mass Status Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
115	OnBehalfOfCompID	See descr.	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
116	OnBehalfOfSubID	See descr.	—	String	The ID of your customer's trading party if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.
584	MassStatusReqID	Y	—	String	The unique ID of the request assigned by the client
585	MassStatusReqType	Y	—	int	The following values are supported: 7=Status for all orders. The query can be further narrowed down by including a customer entity ID in OnBehalfOfCompID (#115). 8=Status for orders for a user. The following fields must be included to specify the user whose order statuses are requested: ■ NoPartyIDs (#453) ■ PartyID (#448,) ■ PartyIDSource (#447) ■ PartyRole (#452)
The following shaded rows are a repeating group of fields that represent a user. The required fields must be included as a group for each user. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of users.					
453	NoPartyIDs	N	1	NumInGroup	The number of groups of PartyID (#448), PartyIDSource (#447) and PartyRole (#452) fields that represent the end-user ID who submitted the request
448	PartyID	N	—	String	The ID of the user who submitted the request. See "Users" on page 53 and "Summaries of ID Values" on page 55.

Table 3-18 *Order Mass Status Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
447	PartyIDSource	See descr.	D=Proprietary/Custom code	char	Identifies class or source of the PartyID (#448) value. Required if PartyID is specified.
452	PartyRole	N	3=Client ID	int	Identifies the type or role of the PartyID (#448) specified.
End of repeating group					

Order Mass Status Request Example

Please refer to the following files for examples of this message:

- Mass status request for all orders (MassStatusReqType (#585)=7):

  OrderMassStatusRequest_All.txt
- Mass status request for orders from a specific user (MassStatusReqType (#585)=8, NoPartyIDs (#453), PartyID (#448), PartyIDSource (#447), and PartyRole (#452) set):

  OrderMassStatusRequest_User.txt

3.5.9 Execution Report (FX Inside to Client)

This message is sent by FX Inside in the following events:

- Order filled (full or partial)
- Order rejected
- Order status request received from the client
- Order mass status request received from the client

The combination of the OrdStatus (#39) and ExecType (#150) fields indicate the current state of the order.

If a liquidity provider rejects an order request, you can retry execution with that provider when you receive the next rate update from the provider.

Table 3-19 *Execution Report Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	8	String	8=Execution Report
49	SenderCompID	Y	—	String	The FX Inside server's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
50	SenderSubID	See descr.	—	String	The liquidity provider organization's legal entity for provider-originated messages, such as trade verification and trade rejection. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
56	TargetCompID	Y	—	String	Your organization's ID. See "Message Sender and Target" on page 49 and "Summaries of ID Values" on page 55.
57	TargetSubID	See descr.	—	String	■ The originating legal entity or trading party ID if you are dealing directly with the liquidity provider. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer
115	OnBehalfOfCompID	Y	—	String	The liquidity provider organization's ID
128	DeliverToCompID	See descr.	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included. See "Business Sender and Target" on page 51 and "Summaries of ID Values" on page 55.

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
129	DeliverToSubID	See descr.	—	String	The ID of your customer's trading party if you are dealing with the liquidity provider as a facilitator on behalf of the customer. Otherwise, this field is not included in the message. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
6	AvgPx	Y	—	Price	The average execution price of fills on the order. Compare with the LastPx (#31) field. The precision of this float value must be agreed upon by both the sending and the receiving parties.
11	ClOrdID	Y	—	String	A unique order ID assigned by the client. It is the same value as sent by the client in the New Order - Single message.
14	CumQty	Y	—	Qty	FX spot, outright: Total filled amount. If the ExecType (#150) field is "2", the value of this field is the same as the OrderQty (#38) field. If the ExecType (#150) field is "8", the value of this field is "0" (zero). FX swap: Near-leg total filled amount. If the ExecType (#150) field is "2", the value of this field is the same as the OrderQty (#38) field. If the ExecType (#150) field is "8", the value of this field is "0" (zero).
15	Currency	Y	—	Currency	The dealt currency. This may be the base or term currency of a currency pair.
17	ExecID	Y	—	String	Unique ID for each order execution report. If the value of the ExecType (#150) field is "F" (Trade), the value of this tag is the unique FX Inside deal ID. If the value of the ExecType field is "I" (Order Status), the value of this tag is "0" (zero).

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
18	ExecInst	Y	B=OK to cross B not specified=No cross P=Best price P not specified=Price at depth 9=Bid trigger 0=Offer trigger M=Mid trigger R=At rate ST=Strategy W=VWAP	MultipleValueString	How your order is executed. As applicable to the order type, you can specify more than one value by separating each value with a space. For details about how this field applies to the various order types, see "Order Execution" on page 29.
31	LastPx	N	—	Price	FX spot, outright: Price at which the current or last fill was made. FX swap: Near-leg price at which the current or last fill was made. Compare with the AvgPx (#31) field.
32	LastQty	N	—	Qty	Amount for this or the last fill.
37	OrderID	Y	—	String	The unique order ID assigned by the FIX server.
38	OrderQty	Y	—	Qty	FX spot, outright: The "Total Intended Order Quantity" (including the amount already filled for this chain of orders) expressed in the dealt currency. FX swap: Near-leg "Total Intended Order Quantity" (including the amount already filled for this chain of orders) expressed in the dealt currency.

Table 3-19 Execution Report Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
39	OrdStatus	Y	—	char	Describes the current state of the order. Valid values: ■ A=Pending New ■ 0=New (outstanding) ■ D=Accepted for bidding ■ 1=Partial Fill (after order matching) ■ 2=Filled (after order matching) ■ 8=Rejected (after order matching) ■ C=Expired ■ 4=Canceled ■ 5=Replaced ■ 6=PendingCancel ■ E=PendingReplace
40	OrdType	N	■ D=Previously quoted (ESP or RFS) ■ 2=Limit (orders) ■ 1=Market or Market Range ■ 3=Stop ■ 4=Stop Limit	char	Other order types are not currently supported. See "Supported Order Types" on page 28. If the order type is 1, then the value of the PegOffsetValue (#211) field determines whether the order is a market order or a market range order. See "PegOffsetValue" on page 99.
41	OrigClOrdID	N	—	String	The unique ID of the replaced order assigned by the client. Required if the submitted order's ExecTyp (#150) field value is PendingReplace or Replace.
44	Price	Y	—	Qty	This should be the same value as the one received from the associated New Order - Single message. Do not use this value to determine the price of fills. Instead, use LastPx (#31) for an individual fill or AvgPx (#6) for the average price of all fills on the order. FX spot, outright: The execution price for limit and previously quoted orders. The precision of this float value must be agreed upon by both the sending and the receiving parties. FX swap: Near-leg execution price.

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
54	Side	Y	1=Buy (Bid) 2=Sell (Offer)	char	The side of the order from the customer's perspective. For FX swap orders, this is the side of the far leg. This should be the same value as was sent on the New Order – Single message. If you are dealing directly with the liquidity provider, the customer is defined by the TargetCompID (#56) and TargetSubID (#57) fields. If you are dealing with the liquidity provider as a facilitator on behalf of the customer, the customer is defined by the DeliverToCompID (#128) and DeliverToSubID (#129) fields.
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD") This should be the same value as the one received from the associated New Order - Single message.
58	Text	N	—	String	Free format text explaining the reason for rejection if the Order Execution Report message is sent because of order rejection (the ExecType (#150) field="8"). If the Text (#58) field includes the text "INTERNAL_SERVER_ERROR", this indicates a serious error. Stop trading immediately and contact Business Support to resolve the issue.
59	TimeInForce	Y	■ 0 (zero)=Day ■ 1=GTC ■ 3=IOC ■ 4=FOK ■ 6=GTD	char	See "Order Expiry" on page 32 for a description of order expiry types.

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
60	TransactTime	Y	—	UTCTimestamp	If the ExecType (#150) field is "2", the value of this field is the time the trade was created. If the ExecType (#150) field is "8", the value of this field is the time the trade was rejected. The format is *YYYYMMDD-HH:MM:SS.sss*
64	FutSettDate	N	—	LocalMktDate	The field is specified in the format *YYYYMMDD*. ■ FX spot: Spot date ■ FX outright: Outright value date ■ FX spot-forward swap: Spot date ■ FX forward-forward swap: Near value date
75	TradeDate	N	—	LocalMktDate	The trade date in the format *YYYYMMDD*
103	OrdRejReason	N	—	int	See "Order Rejection Reasons" on page 134 for a description of valid values.
110	MinQty	N	—	Qty	Minimum amount of the order that was requested to be executed. See "Minimum Order Size" on page 34. This field is ignored if TimeInForce (#59) is 4 (FOK).
119	SettlCurrAmt	Y	—	Amt	FX spot, outright: Settled amount in terms of settlement currency specified by the SettlCurrency (#120) field. FX swap: Near-leg settled amount in terms of settlement currency specified by the SettlCurrency (#120) field.
120	SettlCurrency	Y	—	Currency	Settled currency

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
126	ExpireTime	N	—	UTCTimestamp	The relative expiration time of the order in the format *YYYYMMDD-HH:MM:SS.sss*. Required when the TimeInForce (#59) value is 6 (GTD). The date portion of the value is ignored. The time portion specifies the amount of time before the order expires. For example, for an order that expires in ten seconds, the value could be 00000000-00:00:10.000.
150	ExecType	Y	—	char	Describes the type of execution report. Valid values: ■ 0=New ■ 4=Canceled ■ 5=Replace ■ 6=PendingCancel ■ 8=Rejected ■ A=Pending new ■ C=Expired ■ D=Restated ■ E=PendingReplace ■ F=Trade (partial Fill or Fill) ■ I=Order Status
151	LeavesQty	Y	—	Qty	FX spot, outright: Open amount. Responses for a complete fill or rejection are "0" (zero). Any value other than zero indicates a partial fill. FX swap: Near-leg open amount
167	SecurityType	Y	FOR	String	FOR=Foreign Exchange Contract
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format *YYYYMMDD-HH:MM:SS* or *YYYYMMDD-HH:MM:SS.sss*. For TWAP orders, the value of this field indicates, he absolute time in GMT at which the strategy should start execution. If this field is not specified and ExecEffPeriod (#7564) is not specifed, the strategy starts execution immediately. If this field is specified and the time value is in the past, the strategy starts execution immediately.

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
192	OrderQty2	N	—	Qty	FX spot, outright: Not applicable. FX swap: Far-leg "Total Intended Order Quantity" (including the amount already filled for this chain of orders) expressed in the dealt currency.
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	FX spot, outright: Not applicable FX swap: The far leg value date The field contains either standard tenor symbol or a broken date in the format *YYYYMMDD*.
194	LastSpotRate	N	—	Price	FX spot: Not applicable. FX outright: Spot rate FX swap: Near-leg spot rate
195	LastForwardPoints	N	—	PriceOffset	FX spot: Not applicable. FX outright: Forward points FX swap: Near-leg forward points
210	MaxShow	N	■ 0 (zero) ■ Equal to OrderQty (#38) ■ Less than OrderQty (#38)	Qty	The amount of the order visible to other market participants based on the value of the field: ■ Hidden: If the value is 0 (zero), the order is a hidden order that is not visible to other customers. ■ Display: If the value is equal to the value of the OrderQty (#38) field, the order is a display order that is completely visible by other customers. The full order amount is disclosed. ■ Iceberg: If the value of is less than the value of the OrderQty (#38) field, the order is an iceberg order that is visible to other customers. Only a fraction of the actual order amount is displayed (the value of this field).
460	Product	Y	4	int	The asset class. The value is always 4=CURRENCY.

Table 3-19 Execution Report Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
583	ClOrdLinkID	N	—	String	The ID of the order to which this order is tied. The value is the ClOrdID (#11) of the other component order. See "One-Cancels-the-Other (OCO) Orders" on page 36.
584	MassStatusReqID	N	—	String	Uniquely identifies a specific Order Mass Status Request message. Required if the Execution Report is a response to an Order Mass Status Request. The ExecType (#150) is "I=Order Status" for this Execution Report.
636	WorkingIndicator	N	■ Y ■ N	Boolean	For stop and stop limit orders a value of "Y" indicates that the stop has been triggered and the resulting market, market range, or limit order is working. If "N" or empty, or if the field is not included in the message, the stop has not been triggered. See "Order Workflow" on page 14 and "Supported Order Types" on page 28.
640	Price2	N	—	Qty	This should be the same value as the one received from the associated New Order - Single message. FX spot, outright: Not applicable. FX swap: Far-leg execution price.
641	LastForwardPoints2	N	—	PriceOffset	FX spot: Not applicable. FX outright: Not applicable. FX swap: Far-leg forward points
790	OrdStatusReqID	N	—	String	Uniquely identifies a specific Order Status Request message. Required if the Execution Report is a response to an Order Status Request. The ExecType (#150) is "I=Order Status" for this Execution Report.
1385	ContingencyType	N	1=One Cancels the Other (OCO)	int	Defines the type of contingency. The FIX Client API supports OCO orders. See "One-Cancels-the-Other (OCO) Orders" on page 36.

***Table 3-19** Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
7541	LastPx2	N	—	Price	FX spot, outright: Not applicable. FX swap: Far-leg price at which the current or last fill was made.
7543	LeavesQty2	N	—	Qty	FX spot, outright: Not applicable. FX swap: Far-leg open amount
7544	CumQty2	N	—	Qty	FX spot, outright: Not applicable. FX swap: Far-leg total filled amount. If the ExecType (#150) field is "2", the value of this field is the same as the OrderQty (#38) field. If the ExecType (#150) field is "8", the value of this field is "0" (zero).
7545	SettlCurrAmt2	N	—	Amt	FX spot, outright: Settled amount in terms of settlement currency specified by the SettlCurrency (#120) field. FX swap: Far-leg settled amount in terms of settlement currency specified by the SettlCurrency (#120) field.
7556	ExecEndTime	See descr.	—	UTCTimestamp	Absolute time in GMT at which the strategy should stop executing. If this tag is not specified and ExecEndPeriod (#7565) is not specifed, the order expires based on the value of the TimeInForce (#59) field.
The following shaded rows are a group of key/value pairs specified in the StrategyParameters (#7560) field that represent a strategy order's parameters. Each parameter key/value pair is delimited by a space. The tilde character (~) separates the parameter key from the parameter value. For example, the value "SI~01:00:00 SMI~00:30:00 SIR~Y AE~1" indicates "Slice interval = 1 hour, Minimum slice interval = 30 minutes, Slice interval randomized between 30 minutes (SMI) and 1 hour (SI), At expiration fill the remainder at market".					
7560	StrategyParameters	See descr.	—	MultipleValueString	The strategy parameters represented as key/value pairs with the tilde character (~) separating the parameter key from the parameter value and each key/value pair delimited by a space. This field is required when ExecInst (#18)=ST.

Table 3-19 *Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
PT	PegTime	N	—	float	Flash time in seconds. For example, ten and a half seconds is represented as "10.5". This tag overrides the flash order time property. If not specified, then the flash order property value, if any, is used.
SI	SlicIntrvl	Y	—	UTCTimeOnly	Relative time between two slices specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. This field is required when ExecInst (#18)=ST.
SMI	SlicMinIntrvl	Y	—	UTCTimeOnly	Minimum slice interval specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. Applicable if the SlicIntrvlRndmzr (SIR) parameter is true. This field is required when ExecInst (#18)=ST.
SIR	SlicIntrvlRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N). If enabled, the order managed system randomly selects a slice interval between SlicIntrvl (SI) and slice interval and SlicMinIntrvl (SMI).
SS	SlcSize	N	—	Qty	Size of each slice. If the slice size is not specified, the size is chosen based on the TOBPercent (TOBP) parameter.
SSR	SlcSizeRndmzr	N	■ Y ■ N	Boolean	Randomization enabled (Y)/disabled (N) flag. If enabled, the order management system randomizes the slice size between SlcRegularSize (SRS) and SlcSize (SS) or, if TOBPercent (TOBP) is specified, between the calculated top-of-book amount and SlcSize (SS).
TOBP	TOBPercent	N	—	float	Determines how the slice size varies, calculated as a percentage of the top-of-book (TOB) size. For example, a value of 0.5 indicates 50% of TOB size. If SlcSizeRndmzr (SSR) is true, then the slice size varies between SlcRegularSize and the size calculated with the value of this parameter. If this parameter is not specified, the slice size is fixed.

***Table 3-19** Execution Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
SRS	SlcRegularSize	N	—	Qty	If this parameter is specified, the slice size is rounded to a multiple of this value. If not specified, the behavior defaults to the system configuration.
AE	ActnOrdrExpr	N	1=Fill @ Market 2=Cancel Order	char	Action to be taken at the expiration of the order. If this tag is not specified, the order is cancelled at expiration.
End of group					
7561	StrategyName	N	—	String	This field is used with strategy orders (ExecInst (#18)=ST). A free-format string provided to record the strategy employed by the order. The value of this field is not validated and has no effect on strategy functionality.
7564	ExecEffPeriod		—	UTCTimeOnly	Relative time at which the strategy should start execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and EffectiveTime (#168) is not specifed, the strategy starts executing immediately.
7565	ExecEndPeriod			UTCTimeOnly	Relative time at which the strategy should stop execution specified in the format *HH:MM:SS* or *HH:MM:SS.sss*. If this tag is not specified and ExecEndTime (#7556) is not specifed, the order expires based on the value of the TimeInForce (#59) field.

Order Rejection Reasons

If an order request is rejected, the reason for the rejection, if any, is set in the OrdRejReason (#103) and Text (#58) fields of the Order Execution Report message.

IMPORTANT If the Text (#58) field includes the text "INTERNAL_SERVER_ERROR", this indicates a serious error. Stop trading immediately and contact Business Support to resolve the issue.

The OrdRejReason (#103) field can have the following values:

- 0=Broker/Exchange option
- 1=Unknown symbol
- 2=Exchange closed
- 3=Order exceeds limit
- 4=Too late to Enter
- 5=Unknown Order
- 6=Duplicate Order
- 7=Duplicate of a verbally communicated order
- 8=Stale Order
- 9=Trade Along required
- 10=Invalid Investor ID
- 11=Unsupported order characteristic
- 12=Surveillence Option
- 13=Incorrect quantity (used when rejecting an order due to pre-allocation information errors)
- 14=Incorrect allocated quantity (used when rejecting an order due to pre-allocation information errors)
- 15=Unknown account(s) (used when rejecting an order due to pre-allocation information errors)
- 99=Other

If the New Order - Single message is rejected because of a severed trading relationship, the OrdRejReason (#103) field is “0”.

If the New Order - Single message is outright rejected, the OrdRejReason (#103) field is “0”

If the New Order - Single message is rejected because of a credit limit breach or the New Order - Single amount exceeds the client’s trading limit, the value of the OrdRejReason (#103) field is “3”.

If the New Order - Single message is rejected because of the transact time check, the OrdRejReason (#103) field is “4”.

If the New Order - Single message is rejected because of the order cannot be found in the system, the OrdRejReason (#103) field is “5”.

If the New Order - Single message is rejected because of a duplicate ClOrdID (#11) value, the OrdRejReason (#103) field is “6”.

Execution Report Examples

The examples in the following files illustrate execution reports for order submission response, trade verification, and trade rejection:

examples\ExecutionReport_OrderSubmissionResponse.txt
examples\ExecutionReport_TradeRejection.txt
examples\ExecutionReport_TradeVerification.txt

3.5.10 Business Message Reject (Bidirectional)

The Business Message Reject message is sent by both the server and the client:

- FX Inside sends a Business Message Reject message as part of the order workflow to reject an order status request if the order does not exist (RefMsgType (#372)=H). See “Order Workflow” on page 14.
- FX Inside sends a Business Message Reject message as part of the post-trade workflow to reject a trade status request. See “Trade Status Query” on page 23.

***Table 3-20** Business Message Reject Message Fields*

Tag	Field Name	Req’d	Value	FIX Format	Description
35	MsgType	Y	j	String	j=Business Message Reject
49	SenderCompID	Y	—	String	The FX Inside server’s ID. See “Message Sender and Target” on page 49 and “Summaries of ID Values” on page 55.
56	TargetCompID	Y	—	String	Your organization’s ID. See “Message Sender and Target” on page 49 and “Summaries of ID Values” on page 55.

Table 3-20 *Business Message Reject Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
58	Text	N	—	String	Free-format text string
372	RefMsgType	Y	—	String	The MsgType (#35) of the rejected message: H=Order Status Request (from server to reject an order status request if the order does not exist) Z=Quote Cancel (from client to cancel a Quote Request)
379	BusinessRejectRefID	N	—	String	The ID of the rejected message
380	BusinessRejectReason	Y (from server) N (from client)	See descr.	int	Applies only to the order status reject from the server. Code to identify reason for a Business Message Reject message. Currently, two values are supported: 0=Other 1=Unknown ID

Business Message Reject Example

Please refer to the following file for an example of this message:

examples\BusinessMessageReject.txt

3.6 Position Management Messages

The messages in this section are used for querying position status.

3.6.1 Request for Positions (Client to FX Inside)

The Request for Positions message is sent by the client to request position status and to subscribe to .

Table 3-21 *Request for Positions Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y		String	XAN=Request for Positions Message

***Table 3-21** Request for Positions Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
60	TransactTime	Y	—	UTCTimestamp	The time that the position request was initiated in GMT in the format *YYYYMMDD-HH:MM:SS.sss*.
263	SubscriptionRequestType	Y	0=Snapshot 1=Snapshot + Updates (Subscribe) 2=Disable previous Snapshot + Update Request (Unsubscribe)	char	Indicates type of response requested. Snapshot requests a single message response. A subscribe request asks for position updates as trades are executed. Unsubscribe cancels any future update messages.
710	PosReqID	Y			Unique identifier for the Request for Positions as assigned by the trader
55	Symbol	Y	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
724	PosReqType	Y	0=Open positions 1=Settled positions 2=Both open and settled positions	int	Type of position requested
The following shaded rows are a group of fields that represent parties on positions. The value of the NoPartyIDs (#453) field is always 1 (one). The required fields must be included as a group for each party.					
453	NoPartyIDs	Y	1 (one)	NumInGroup	The number of groups
448	PartyID	Y	ALL	String	The ID of the legal entity for which positions are requested. The value of this field is always "ALL". If PartyRole (#452) is not specified and no NoPartySubIDs (#802) groups are specified, then all positions for all counterparties are requested.
447	PartyIDSource	Y	D=Proprietary /Custom code	char	The class or source of the PartyID (#448) value.

Table 3-21 *Request for Positions Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
452	PartyRole	See descr.	3=Client ID	Int	To requests all positions for all counterparties, this field is not required. For requests for positions with specific counterparties, this field must be specified.
The following shaded rows are a repeating group of fields that represent parties on positions. The value of the NoPartySubIDs (#802) field indicates the number of groups and thus the number of parties requested. These fields are required for requests for positions with specific counterparties.					
802	NoPartySubIDs	N	—	NumInGroup	The number of parties specified
523	PartySubID	N	—	String	The ID of the legal entity for which positions are requested.
803	PartySubIDType	N	1=Organization 4001=Counterparty	String	The type of the party specified by the PartySubID (#523): 1 (one)=Organization. Required for sales dealer organizations. Specifies the customer organization. 4001=Counterparty
End of repeating group					
7603	DateType	See descr.	0=Value date 1=Trade date	int	Describes the dates specified in StartDate (#916) and EndDate (#917) fields.
916	StartDate	N	—	LocalMktDate	Do not include this field if requesting settled positions. The start date of the date range for open position requests in format *YYYYMMDD*.
917	EndDate	N	—	LocalMktDate	Do not include this field if requesting settled positions. The end date of the date range for open position requests in format *YYYYMMDD*.

Request for Positions Example

Please refer to the following files for an examples of this message:

- Request for all open positions with a specific party in a currency pair:

  examples\RequestForPostions_OpenPositions_CptyCcyPair.txt

- Request for open positions with a specific party in a currency pair in a value date range:

examples\RequestForPostions_OpenPositions_CptyCcyPairValueDate.txt

- Request for all open positions that a specific customer has with a specific liquidity provider:

  examples\RequestForPostions_OpenPositions_SalesDealer_CustLP.txt

- Request for all open positions that a specific customer has with all liquidity providers:

  examples\RequestForPostions_OpenPositions_SalesDealer_CustAllLPs.txt

- Request for all settled positions with a specific party in a currency pair:

  examples\RequestForPostions_SettledPositions_CptyCcyPair.txt

3.6.2 Request for Positions Ack (FX Inside to Client)

The Request for Positions Ack is sent by the server to the client to acknowledge a successful request for positions or reject an unsuccessful request.

Table 3-22 *Request for Positions Ack Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y		String	XAO=Request for Positions Ack Message
58	Text	N	—	String	If the request is rejected, this field can contain the rejection reason.
710	PosReqID	N	—	String	The unique ID of the associated Request for Positions message
721	PosMaintRptID	Y	—	String	The PosMaintRptID (#721) value from first position report for a successful request or "0" for rejection.
727	TotNumPosReports	N	—	int	The total number of position reports in the initial reply to a successful request. For an unsolicited report sent as part of a subscription the value of this field is "1". For rejected requests, the value is "0".
728	PosReqResult	Y	0=Valid Request 2=No Positions Found 66=Other	int	The result of the positions request

Table 3-22 *Request for Positions Ack Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
729	PosReqStatus	Y	0=Completed 2=Rejected	int	The status of the positions request
The following shaded rows are a group of fields that represent values from the associated Request for Positions message.					
453	NoPartyIDs	Y	1 (one)	NumInGroup	The number of groups
448	PartyID	Y	ALL	String	The ID of the legal entity for which positions are requested. The value of this field is always "ALL". If PartyRole (#452) is not specified and no NoPartySubIDs (#802) groups are specified, then all positions for all counterparties are requested.
447	PartyIDSource	Y	D=Proprietary /Custom code	char	The class or source of the PartyID (#448) value.
452	PartyRole	See descr.	3=Client ID	Int	To requests all positions for all counterparties, this field is not required. For requests for positions with specific counterparties, this field must be specified.
The following shaded rows are a repeating group of fields that represent values from the associated Request for Positions message.					
802	NoPartySubIDs	N	—	NumInGroup	The number of parties specified
523	PartySubID	N	—	String	The ID of the legal entity for which positions are requested.
803	PartySubIDType	N	1=Organizatio n 4001=Counter party	String	The type of the party specified by the PartySubID (#523): 1 (one)=Organization. Required for sales dealer organizations. Specifies the customer organization. 4001=Counterparty
End of repeating group					

3.6.3 Positions Report (FX Inside to Client)

The Positions Report message is sent from the server to the client in response to a successful Request for Positions message. One message is sent per currency pair. This message can be send solicited as a snapshot or unsolicited as part of a subscription when a trade is executed. Positions Report messages are sent on an order session.

Table 3-23 *Positions Report Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y		String	XAP=Positions Report Message
15	Currency	Y	—	Currency	The currency of the position (the base currency of the currency pair)
54	Side		1=Buy 2=Sell	char	Whether the position is long or short from the perspective of the either your organization or your customer's organization when PartySubIDType (#803)=1 (Organization). 1 (Buy) indicates a net long position in the base currency. 0 (Sell) indicates a net short position in the base currency.
60	TransactTime	Y	—	UTCTimestamp	The time that the position report was issued in GMT in the format *YYYYMMDD-HH:MM:SS.sss*.
325	UnsolicitedIndicator		■ Y ■ N	Boolean	Indicates whether or not message is being sent as a result of a subscription request or not. N=Message is being sent as a result of a prior request Y=Message is being sent unsolicited
710	PosReqID	N	—	String	The unique ID of the associated Request for Positions message
721	PosMaintRptID	Y	—	String	The unique ID of this Positions Report message
727	TotNumPosReports	N	—	int	The total number of position reports in the initial reply to a successful request. For an unsolicited report sent as part of a subscription the value of this field is "1".
912	LastRptRequested		■ Y ■ N	Boolean	Indicates whether this message is the last report message in response to the position request. This field is omitted for unsolicited reports that are sent as part of a subscription. Y=Message is the last report N=Message is not the last report
7607	NetAmountBase	Y	—	Qty	The net position in base currency

Table 3-23 Positions Report Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Description
7608	NetAmountTerm	Y	—	Qty	The net position in term currency
7609	BuyAmountBase	Y	—	Qty	The total amount bought in base currency
7610	SellAmountTerm	Y	—	Qty	The total amount sold in term currency
7611	SellAmountBase	Y	—	Qty	The total amount sold in base currency
7612	BuyAmountTerm	Y	—	Qty	The total amount bought in term currency
7613	AvgBuyRate	Y	—	Price	Weighted average base buy rate
7614	AvgSellRate	Y	—	Price	Weighted average base sell rate
7615	AvgMarketBuyRate	Y	—	Price	Weighted average base buy rate without any spreads
7616	AvgMarketSellRate	Y	—	Price	Weighted average base sell rate with any spreads
7617	MarketPosRate	Y	—	Price	
7618	NetPNL	Y	—	Qty	The PnL if the position is closed at the current market rate

3.7 Post-Trade Messages

The messages in this section are used for STP download of done trades and for querying trade status.

3.7.1 Trade Capture Report Request (Client to FX Inside)

The client sends this message to the server to query a trade's status by specific trade ID or by a date/time range. Normally, the client should not have to send a Trade Capture Report Request because the server sends a Trade Capture Report asynchronously when a trade is done. This message should be sent only for reconciliation purposes if you think a trade download is missing or is incorrect.

The request can be sent for a specific trade or for all trades in a date range:

- Request for Specific Trade

  To request a specific trade, the value of the ExecID (#17) field is set to the trade's ID. The date-range related fields are ignored: NoDates (#580), TradeDate (#75) and TransactTime (#60).

- Request by Date Range

  To request trades within a date range, the ExecID (#17) field must either not be included in the message or its value must be null. The NoDates (#580) must be set to "2", indicating a date range with a start date and end date. Each date is a group composed of one TradeDate (#75) field and one TransactTime (#60) field. The first TradeDate (#75) and TransactTime (#60) group is the start date. The second group is the end date. Both date groups must be included in the message.

Table 3-24 *Trade Capture Report Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Description
35	MsgType	Y	AD	String	AD=Trade Capture Report Request
17	ExecID	See descr.	—	String	A specific trading application trade (Transaction) ID. If ExecID (#17) is specified on the message, NoDates (#580), TradeDate (#75) and TransactTime (#60) are ignored. If you want to query for trades within a date/time range, leave this field empty.
568	TradeRequestID	N	—	String	The ID of the Trade Capture Report Request message.
569	TradeRequestType	Y	—	int	Valid values: ■ 0=All trades ■ 1=Matched trades matching criteria provided on request ■ 2=Unmatched trades that match criteria ■ 3=Unreported trades that match criteria ■ 4=Advisories that match criteria
The following shaded rows are a repeating group of fields that represent the begin and end of a date range.					

Table 3-24 *Trade Capture Report Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Description
580	NoDates	See descr.	2	Int	Value must be 2 for a date/time range. Groups of TradeDate (#75) and TransactTime (#60) repeat twice. The first group is the start trade date/time range and second group is the end trade date/time range.
75	TradeDate	See descr.	—	LocalMktDate	Trade date in format *YYYYMMDD*. Part of a trade date range with TransactTime (#60).
60	TransactTime	See descr.	—	UTCTimestamp	The timestamp of the trade in GMT in the format *YYYYMMDD-HH:MM:SS.sss*. Part of trade date range with TradeDate (#75).
End of repeating group					

Trade Capture Request Example

Please refer to the following file for an example of this message:

examples\TradeCaptureRequest.txt

3.7.2 Trade Capture Report (FX Inside to Client)

The server sends this message synchronously or asynchronously depending on the workflow involved:

- STP download (asynchronous, triggered by a trade being done, TradeReportTransType (#487)=N, ExecID (#17) is empty)
- STP resend (asynchronous, triggered by an administrator, TradeReportTransType (#487)=R, ExecTyp (#150)=5, PreviouslyReported (#570)=Y, ExecID (#17) is empty)
- Trade rebook (asynchronous, triggered by an administrator, TradeReportTransType (#487)=R, ExecTyp (#150)=5, PreviouslyReported (#570)=Y, ExecID (#17) is empty)
- Trade status (sent in response to a trade status query from the client)

The Trade Capture Report message in the FIX Client API always includes only a single side of the transaction. Therefore, the NoSides (#552) field is omitted from the message.

Groups of associated, repeating fields are indicated by shading in the table below.

Table 3-25 *Trade Capture Report Message Fields*

Tag	Field Name	Req'd	Value	Fix Format	Description
35	MsgType	Y	AE	String	MsgType=AE
50	SenderSubID	Y	—	String	Counterparty A legal entity ID of the trade. By convention, this is the taker of the trade. If Counterparty A receives the message, this is Counterparty A's legal entity ID. If Counterparty B or another counterparty receives the message, this is the message receiver's trading party ID or settlement code for Counterparty A's legal entity. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
57	TargetSubID	Y	—	String	Counterparty B legal entity ID of the trade. By convention, this is the maker or liquidity provider of the trade. If Counterparty B receives the message, this is Counterparty B's legal entity ID. If Counterparty A or another counterparty receives the message, this is the message receiver's trading party ID or settlement code for Counterparty B's legal entity. See "Legal Entities and Trading Parties" on page 54 and "Summaries of ID Values" on page 55.
115	OnBehalfOfCompID	Y	—	String	Counterparty B organization ID of the trade. By convention, this is the maker of the trade.
128	DeliverToCompID	Y	—	String	Counterparty A organization ID of the trade. By convention, this is the taker of the trade.

Table 3-25 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Description
12	Commission	N	—	Amt	The previous day's end-of-date (EOD) rate expressed as a mid rate. If USD is one of the currency pairs, the rate should be 1.0 since the USD amount will be used for billing. If USD is not one of the currency pairs, then the rate used should be the one which is used to determine the USD amount e.g. for a EUR/JPY trade, if the dealt currency is EUR, then the EOD rate should be the EUR/USD rate. If the dealt currency is JPY, then the rate should be the JPY/USD rate. If JPY/USD rate is not available, then the rate should be obtained from the USD/JPY rate i.e. JPY/USD rate = 1 divided by the USD/JPY rate.
13	CommType	N	1 (one)=per share	char	
15	Currency	Y	—	Currency	Dealt currency
17	ExecID	Y	—	String	The trading application's trade ID
31	LastPx	N	—	Price	All in price of the trade. For Spot, the same as LastSpotRate (#194). For outrights and swaps, the sum of LastSpotRate (#194) and LastForwardPoints (#195).
32	LastQty	N	—	Qty	The dealt amount in terms of Currency (#15)
38	OrderQty	N	—	Qty	Dealt amount specified in the Currency (#15). Same as LastQty (#32).
44	Price	Y	—	Price	All in price of the trade, same as LastPx (#31)
55	Symbol	N	—	String	Currency pair symbol
58	Text	N	—	String	Settlement instructions, if any, that were included with the request to trade. Currently used for RFS workflow only.

Table 3-25 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Description
60	TransactTime	N	—	UTCTimestamp	The timestamp when the Execution Report occurred in the format *YYYYMMDD-HH:MM:SS.sss*.
64	FutSettDate	N	—	LocalMktDate	Specific date of trade in the format *YYYYMMDD*. ■ FX spot, outright: Value date ■ FX swap: Near leg value date
75	TradeDate	Y	—	LocalMktDate	Trade in the format *YYYYMMDD*.
119	SettlCurrAmt	Y	—	Amt	Settled amount in terms of SettlCurrency (#120)
120	SettlCurrency	Y	—	Currency	Settled currency
150	ExecType	N	5=Replace	char	The state of the included trade
167	SecurityType	Y	FOR	String	FOR=Foreign Exchange Contract
192	OrderQty2	N	—	Qty	FX spot, outright: Not applicable FX swap: Far leg dealt amount denominated in Currency (#15)
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 27. ■ Broken date	LocalMktDate	FX spot, outright: Not applicable FX swap: The far leg value date The field contains either standard tenor symbol or a broken date in *YYYYMMDD* format.
194	LastSpotRate	N	—	Spot Rate	■ FX spot: Not applicable. ■ FX outright: Spot rate ■ FX swap: Near-leg spot rate
195	LastForwardPoints	N	—	Forward Points	FX spot: Not applicable FX outright: Forward points FX swap: Near-leg forward points
479	CommCurrency	N	—	Currency	The dealt currency

Table 3-25 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Description
487	TradeReportTransType	Y	—	char	The message transaction type: N=New, for a new STP deal download R=Replace, for an STP resend, rebook, or a response to a Trade Capture Report Request from the client
568	TradeRequestID	N	—	String	Request ID if the message is sent as a response to a Trade Capture Report Request from the client
570	PreviouslyReported	See descr.	Y=Resend, rebook, or trade status N=Not previously sent	String	Indicates if the trade capture report was previously reported to the counterparty. Required by FIX Client API if the trade is a resend, rebook, or trade status response. Not required by FIX Client API if the trade has not previously been sent.
571	TradeReportID	Y	—	String	Unique ID for the Trade Capture Report message
640	Price2	N	—	Price	Same as LastPx2 (#7541)
641	LastForwardPoints2	N	—	Points	FX spot, outright: Not applicable FX swap: Far leg forward points
7541	LastPx2	N	—	Price	FX spot, outright: Not applicable FX swap: Far-leg all-in price. The sum of LastSpotRate (#194) and LastForwardPoints2 (#641).
7545	SettlCurrAmt2	N	—	Amt	FX spot, outright: Not applicable FX swap: Far leg settled amount in SettlCurrency (#120)
7601	CoverExecID	N	Single trade cover: *tradeID* Multiple trade cover: *tradeID-tradeID-tradeID*	String	The ID of the FX Inside trade that covers this trade. If more than one trade covered this trade, the IDs are included as a single string with the IDs separated by hyphens (ASCII character 45), for example: FXI41606-FXI41607-FXI41610
7602	CoveredExecID	N	—	String	The ID of the FX Inside trade that this trade covers.

Table 3-25 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Description
7603	Channel	N	—	String	The channel (application, UI component, or API) that originated the trade.
The following shaded rows are a repeating group of fields that represent the sides on the trade. The value of the NoSides (#552) field indicates the number of sides. The required fields must be included as a group for each side.					
552	NoSides	Y	1= One side 2=Both sides	NumInGroup	The number of sides represented in the message
54	Side	Y	—	char	The buy/sell side from perspective of the customer specified by the SenderSubID (#50) and DeliverToCompID (#128) fields in terms of the dealt Currency (#15). For swaps, this is the side of the far leg. 1=Buy 2=Sell
37	OrderID	Y	—	String	Unique ID generated by the FIX server
End of repeating group					
The following shaded rows are a repeating group of fields that represent a party on the trade. The value of the NoPartyIDs (#453) field indicates the number of groups and thus the number of parties. The required fields must be included as a group for each party.					
453	NoPartyIDs	Y	3	NumInGroup	The number of repeating groupings of PartyID (#448), PartyIDSource (#447), and PartyRole (#452) to represent the parties on the trade (taker user, originating user, originating organization).
448	PartyID	Y	—	String	The ID of the party specified by the PartyRole (#452) of this group of fields.
447	PartyIDSource	Y	D=Proprietary/ Custom code	char	The class or source of the PartyID (#448) value.

Table 3-25 Trade Capture Report Message Fields (continued)

Tag	Field Name	Req'd	Value	Fix Format	Description
452	PartyRole	Y	3=Client ID 11=Order Origination Trader (associated with Order Origination Firm, trader who initiates/submits the order) 13=Order Origination Firm	Int	The type or role of the associated PartyID (#448). 3=Taker user 11=Originating user 13=Originating organization
End of repeating group					

Trade Capture Report Example

Please refer to the following file for an example of this message:

examples\TradeCaptureReport.txt

APPENDIX A

Error Codes

A.1 Error Codes

This appendix lists and describes the various error codes by message type. The error codes are contained by the Text (#58) field.

Table A-1 Error Codes by Message Type

Message Type	Error Code	Description
Logon MsgType (#35)=A “Logon (Bidirectional)” on page 62	UserAuthenticationFailure	Password is incorrect.
	UserNamespaceMismatch	User name sent in login does not exist for login organization.
	UserNameSetUp	User name is wrong or user does not exist.
	UserNameMissing	User name not set/sent with login message.
	UserPasswordMissing	Password is not set/sent with login message.
	UserOrganizationSetUp	User organization sent as part of SenderCompID (#49) (quote.*FI-Name* or trade.*FI-Name*) does not exist.
	SenderCompIDFormatIncorrect	SenderCompID (#49) format is not correct. It should be quote.*FI-Name* or trade.*FI-Name*.
MarketDataRequest MsgType (#35)=V “Market Data Request (Client to FX Inside)” on page 70	RequestValidationError. DuplicateMDRequestID	The MDReqID (#262) has already been used to subscribe a currency pair or the subscription already exist for this currency pair.
	RequestValidationError. DuplicateSubscriptionRequest	Rate subscription already exists for given currency pair and liquidity provider combination.

Table A-1 *Error Codes by Message Type (continued)*

Message Type	Error Code	**Description**
MarketDataRequest MsgType (#35)=V "Market Data Request (Client to FX Inside)" on page 70 (continued)	RequestValidationError. MoreThanOneGroup	Field NoRelatedSym (#146) should be equal to 1.
	RequestValidationError. IncorrectMDEntryType	MDEntryType (#269) value is not correct. It should be "0" or "1".
	RequestValidationError. NoTradingRelationship	The organization does not have a trading relationship with the liquidity provider.
	RequestValidationError. DeliverToCompIDNotSet	DeliverToCompID (#128) is missing.
	RequestValidationError. DeliverToCompIDSetUp	Liquidity provider organization does not exist. DeliverToCompID (#128) contains ID of the liquidity provider.
	RequestValidationError. SenderSubIDSetUp	Trading party for given name does not exist in liquidity provider.
	RequestValidationError. SenderSubIDNotSet	SenderSubID (#50) is missing.
	RequestValidationError. SubscriptionRequestTypeNotSupported	SubscriptionRequestType (#263) is not supported. Valid values are "1" for subscription and "2" for unsubscription.
	RequestValidationError. MDUpdateTypeNotSupported	MDUpdateType (#265) is not supported. Valid value is "0".
	RequestValidationError. InvalidCurrencyPair	Currency pair or currency pair format is invalid.
	RequestValidationError. CurrencyPairNotSet	Symbol is missing .
	RequestValidationError. CurrencyPairNotSupported	Symbol is not supported.
	RequestValidationError. ProductNotSet	Product is missing.
	RequestValidationError. ProductNotSupported	Product is not supported. Its value should be 4 (Currency).

Table A-1 Error Codes by Message Type (continued)

Message Type	Error Code	**Description**
MarketDataRequest MsgType (#35)=V "Market Data Request (Client to FX Inside)" on page 70 (continued)	INTERNAL_SERVER_ERROR	Request is Null
	RequestValidationError.channel	Request Channel is Null
	RequestValidationError.requestClassfication	Request classification is null
	RequestValidationError.toOrganization	Request does not include toOrg
	RequestValidationError.unEqualNamespace	User's name space doesn't match with that of request organization's namespace.
	RequestValidationError.permission : No permission to subscribe to own organization prices	User does not have intrafloor price n trading perm
	RequestValidationError.permission : No permission to trade with own organization prices	User does not have intrafloor trading perm
	TradeValidationError.currencyNull	Base currency or term currency is null.
	TradeValidationError.currencyEqual	Base currency is same as term currency.
	TradeValidationError.rateBasisNull	FXRateBasis=null
	INSUFFICIENT_DATA	Provider related configurations are incomplete.
	InverseCurrencyPair.NotSupported	if rate is inverted
	CurrencyPair Not Supported	Ccy pair is not supported
	INTERNAL_SERVER_ERROR	SendMessage failure to provider

Table A-1 Error Codes by Message Type (continued)

Message Type	Error Code	Description
New Order – Single MsgType (#35)=D "New Order – Single (Client to FX Inside)" on page 94	RequestValidationError. QuoteExpired	Quote not found. It has expired. Price is no longer valid.
	RequestValidationError. BuySellMismatch	Buy/Sell side of the accepted price is incorrect.
	RequestValidationError. PriceMismatch	Accepted price is not same as previously quoted price.
	RequestValidationError. InvalidPrice	Accepted price is invalid. Zero is invalid price.
	RequestValidationError. TooLateToEnter	Acceptance has not taken in allowed time period. This error results most frequently from unsynchronized servers. See "Server Synchronization" on page 40.
	RequestValidationError. OnBehalfOfCompIDNotSet	OnBehalfOfCompID (#115) is missing.
	RequestValidationError. OnBehalfOfCompIDSetUp	Customer organization for given name does not exist.
	RequestValidationError. OnBehalfOfCompIDFormatIncorrect	OnBehalfOfCompID (#115) format is not correct. It should be *userName@CustomerOrg*.
	RequestValidationError. OnBehalfOfCompIDUserSetUp	User for given name does not exist.
	RequestValidationError. DeliverToCompIDSetUp	Liquidity provider organization does not exist. DeliverToCompID (#128) contains ID of the liquidity provider.
	RequestValidationError. DeliverToCompIDNotSet	DeliverToCompID (#128) is missing.
	RequestValidationError. SenderSubIDSetUp	Trading Party for given name doesn't exist in liquidity provider. Valid only in case of direct trading.
	RequestValidationError. SenderSubIDNotSet	SenderSubID (#50) is missing.

***Table A-1** Error Codes by Message Type (continued)*

Message Type	Error Code	**Description**
New Order – Single MsgType (#35)=D "New Order – Single (Client to FX Inside)" on page 94 (continued)	RequestValidationError. OnBehalfOfSubIDNotSet	OnBehalfOfSubID (#116) is missing.
	RequestValidationError. OnBehalfOfSubIDSetUp	Customer organization trading party for given name doesn't exist in liquidity provider.
	RequestValidationError. LegalEntityNotSet	Both OnBehalfOfSubID (#116) and SenderSubID (#50) are missing. One of them is required for trading.
	RequestValidationError. LegalEntitySetIncorrectly	Both OnBehalfOfSubID (#116) and SenderSubID (#50) are present. Only one of them should be set.
	RequestValidationError. OrderPreviouslySend	Order already exist for given ClOrdID (#11) and PossDupFlag (#43)/PossResend (#97) set on message with value equals to "Y".
	RequestValidationError. DuplicateOrder	Order already exists for given ClOrdID (#11) and PossDupFlag (#43)/PossResend (#97) is not set on message or set with value equals to "N".
	RequestValidationError. InvalidDealtCcy	Dealt currency is neither base currency not term currency.
	RequestValidationError. HandledInstNotSupported	Field HandlInst (#21) has incorrect value. Valid value is "1".
	RequestValidationError. OrderTypeNotSupported	OrdType (#40) is not supported. Valid values are "D".
	RequestValidationError. SideNotSupported	Side (#54) has incorrect value. Valid values are "1" and "2".
	INTERNAL_SERVER_ERROR	Quote service is null
	INTERNAL_SERVER_ERROR	acceptedQuoteReferrence object is null or request object is null
	RequestValidationError.channel	Request Channel is Null
	RequestValidationError. requestClassfication	Request classification is null

Table A-1 Error Codes by Message Type (continued)

Message Type	Error Code	Description
New Order – Single MsgType (#35)=D “New Order – Single (Client to FX Inside)” on page 94 (continued)	RequestValidationError.toOrganization	Request does not include toOrg
	RequestValidationError.InvalidQuoteID	The QuoteID (#117) of the message is invalid
	RequestValidationError.ExecInstNotSupported	The value of ExecInst (#18) must be either empty or “B” (OK to cross).
	RequestValidationError. unEqualNamespace	User's name space doesn’t match with that of request organization's namespace.
	RequestValidationError.permission : No permission to subscribe to own organization prices	User does not have intrafloor price n trading permission
	RequestValidationError.permission : No permission to trade with own organization prices	User does not have intrafloor trading perm
	TradeValidationError.currencyNull	Base currency or term currency is null.
	TradeValidationError.currencyEqual	Base currency is same as term currency.
	TradeValidationError.rateBasisNull	Rate Basis is not set.
	TradeValidationError.businessDate	Value date is not a business date
	TradeValidationError.valueDate	Value Date is earlier than Trade Date
	TradeValidationError. settlementDateRule	maxTenorRule is null
	TradeValidationError.MaxTenor	ValueDate is more then the max tenor
	RequestValidationError. tradingDisabled	Org external system id 'READONLY_ORG'='Y' or Trading is disabled
	RequestValidationError.amount	ccy1amt==0 && ccy2amt==0
	INSUFFICIENT_DATA	Provider related configurations are incomplete.
	INTERNAL_SERVER_ERROR	preAccept/acceptance Failure
	PROVIDER_NOT_AVAILABLE	Provider is inactive.

Table A-1 *Error Codes by Message Type (continued)*

Message Type	Error Code	**Description**
Order Status Request MsgType (#35)=H "Order Status Request (Client to FX Inside)" on page 118	UnknownOrder	No order found for given ClOrdID (#11).
	ErrorRetrievingData	No order found for given ClOrdID (#11). System error.
	UnknownDealState	Deal state is unknown. Verification is still pending.
	DataMismatch.LegalEntity	Trading party name provided under SenderSubID (#50)/OnBehalfOfSubID (#116) does not match with requested trade's trading party.
	RequestValidationError.LegalEntityNotSet	Trading party name not set in SenderSubID (#50)/OnBehalfOfSubID (#116)
	DataMismatch.OnBehalfOfCompID	Customer organization name provided under OnBehalfOfCompID (#115) does not match requested trade's organization.
	DataMismatch.DeliverToCompID	Provider organization ID provided under DeliverToCompID (#128) does not match requested trade's provider organization.
	DataMismatch.CurrencyPair	Symbol does not match with requested trade's currency pair.
	DataMismatch.BuySell	Side does not match with requested trade's currency pair.
All Message Types	INTERNAL_SERVER_ERROR	System Error, a serious error. Stop trading immediately and contact Business Support to resolve the issue.

APPENDIX B

Changes

B.1 Changes

This appendix provides information about the changes to the latest versions of this document. The information is in chronological order from newest to oldest.

Table B-1 *Document Changes*

Date	Software Version	Enhancements
August 2011 (4.1v2)	4.3	■ Corrected definition of DeliverToCompID (#128) field on New Order – Single with regards to requirement and order types. See "New Order – Single (Client to FX Inside)" on page 94.
August 2011 (4.1v1)	4.3	■ The DeliverToCompID (#128) field on Market Data Request now accepts a comma-separated list of providers for VWAP and Full Book aggregation. See "Market Data Request (Client to FX Inside)" on page 70. ■ The RequestedSize (#7546) and AggregationType (#7547) fields have been added to "Market Data Request (Client to FX Inside)" on page 70. ■ The New Order – Single, Order Cancel/Replace Request and Execution Report messages have been enhanced to support TWAP orders: ❑ ExecInst (#18)=ST (see "Order Execution" on page 29) ❑ EffectiveTime (#168) now specifies the absolute time in GMT at which the strategy should start execution when ExecInst (#18)=ST. ❑ The following fields have been added: ExecEndTime (#7556), StrategyParameters (#7560), StrategyName (#7561), ExecEffPeriod (#7564), ExecEndPeriod (#7565) ■ Added ExecInst (#18) to "Order Cancel/Replace Request (Client to FX Inside)" on page 106 and "Execution Report (FX Inside to Client)" on page 122.

Table B-1 *Document Changes (continued)*

Date	**Software Version**	**Enhancements**
August 2011 (4.1v1)	4.3	■ Messages for position management have been added: ❑ "Positions Management" on page 25 ❑ "Request for Positions (Client to FX Inside)" on page 137 ❑ "Request for Positions Ack (FX Inside to Client)" on page 140 ❑ "Positions Report (FX Inside to Client)" on page 141
June 2011 (3.14v1)	4.3	■ Added Market Data – Incremental refresh to "Executable Streaming Prices (ESP) Workflow" on page 13. ■ Updated descriptions of IOC and FOK expiry types with additional information about canceling unfilled amount. See "Order Expiry" on page 32. Also expanded description of canceled order status in Table 1-9, "Order Status" on page 39. ■ Added a matrix of supported price requests to "Market Data Request (Client to FX Inside)"on page 70. ■ Clarified the requirement for DeliverToCompID (#128)=ALL to receive incremental updates in "Market Data Request (Client to FX Inside)"on page 70.
June 2011 (3.12v2)	4.3	■ Corrected description of AvgPx (#6) and Price (#44) in "Execution Report (FX Inside to Client)" on page 122. ■ Corrected applicable order types for ExpireTime (#126) field GTD orders. See "Good Till Date/Time (GTD)" on page 33.
June 2011 (3.12v1)	4.3	■ Updated description of DeliverToCompID (#128) on New Order - Single messages to include price matching and subscribed providers. See "Broadcast Messages" on page 52 and "DeliverToCompID" on page 95.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
June 2011 (3.11v2)	4.3	■ Added examples: ❑ NewOrderSingle_Outright.txt ❑ NewOrderSingle_Swap.txt ❑ NewOrderSingle_MarketRange.txt ❑ NewOrderSingle_Iceberg.txt ❑ NewOrderSingle_GTD.txt ❑ NewOrderSingle_Outright.txt ❑ MarketDataRequest_SubscribeAllAggregated.txt ❑ OrderMassStatusRequest_All.txt ❑ OrderMassStatusRequest_User.txt ■ Expanded description of examples in "Market Data Request Examples" on page 75, "New Order – Single Examples" on page 103, and "Order Status Request Examples" on page 120. ■ Changed value for two-way prices from "Empty" to "Space" for **Side** (#54) on "Quote Request (Client to FX Inside)" on page 83. ■ Added **FutSettDate2** (#193) to "New Order – Single (Client to FX Inside)" on page 94

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
May 2011 (3.11v1)	4.3	■ Changed required status of fields in “Market Data – Incremental Refresh (FX Inside to Client)” on page 78: ❑ Symbol (#55) from “Y” to “N” ❑ TargetSubID (#57) from “Y” to “N” ■ Added examples: ❑ MarketDataIncrementalRefresh_Delete.txt ❑ MarketDataIncrementalRefresh_New_MultiPrice.txt ❑ MarketDataIncrementalRefresh_New_MultiTier.txt ❑ MarketDataRequest_IncrementalRefresh.txt ■ Fields have been reordered to reflect the actual message order: ❑ “Session-Level Reject (Bidirectional)” on page 66 ❑ “Market Data Request (Client to FX Inside)” on page 70 ❑ “Market Data Snapshot/Full Refresh (FX Inside to Client)” on page 76 ❑ “Market Data – Incremental Refresh (FX Inside to Client)” on page 78 ❑ “Market Data Request Reject (FX Inside to Client)” on page 82 ❑ “Quote Request (Client to FX Inside)” on page 83 ❑ “Quote Request Reject (FX Inside to Client)” on page 86 ❑ “Quote (FX Inside to Client)” on page 88 ❑ “Quote Cancel (Bidirectional)” on page 92 ❑ “New Order – Single (Client to FX Inside)” on page 94 ❑ “Order Cancel Request (Client to FX Inside)” on page 103 ❑ “Order Cancel/Replace Request (Client to FX Inside)” on page 106 ❑ “Order Cancel Reject (FX Inside to Client)” on page 112 ❑ “Order Mass Cancel Request (Client to FX Inside)” on page 114 ❑ “Order Mass Cancel Report (FX Inside to Client)” on page 116 ❑ “Order Status Request (Client to FX Inside)” on page 118 ❑ “Order Mass Status Request (Client to FX Inside)” on page 120 ❑ “Execution Report (FX Inside to Client)” on page 122 ❑ “Trade Capture Report Request (Client to FX Inside)” on page 143 ❑ “Trade Capture Report (FX Inside to Client)” on page 145 ■ Further clarification of message encryption. See “Encryption” on page 46 and the “EncryptMethod” field on the Logon message on page 63 ■ Clarified requirement of SenderSubID (#50) field on “Market Data Request (Client to FX Inside)” on page 70.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
May 2011 continued (3.11v1)	4.3	■ Added AggregatedBook (#266) field to "Market Data Request (Client to FX Inside)" on page 70. ■ Changed requirement of Product (#460) and MaturityDate (#541) fields on "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ■ Moved the Symbol (#55) field into the repeating group of fields in "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ■ Added MDEntryOriginator (#282) to "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ■ Added Text (#58), NoRelatedSym (#146), and Symbol (#55) to "Quote Request Reject (FX Inside to Client)" on page 86. ■ Added DeliverToSubID (#129) to "Quote Cancel (Bidirectional)" on page 92. ■ Added Product (#460) to "Order Mass Cancel Request (Client to FX Inside)" on page 114. ■ Added OrderID (#37) to "Order Mass Cancel Report (FX Inside to Client)" on page 116. ■ Clarified requirement and repeating-group status for NoAffectedOrders (#534)and OrigClOrdID (#41) on "Order Mass Cancel Report (FX Inside to Client)" on page 116. ■ Added Side (#54), Symbol (#55), and Product (#460) to "Order Mass Cancel Report (FX Inside to Client)" on page 116. ■ Added BusinessRejectRefID (#380) to "Business Message Reject (Bidirectional)" on page 136. ■ Added NoSides (#552) and OrderID (#37) to "Trade Capture Report (FX Inside to Client)" on page 145.
April 2011 (3.10v2)	4.3	■ Corrected tag number of SecurityType (#167) in "Market Data Request (Client to FX Inside)" on page 70.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
April 2011 (3.10v1)	4.3	■ Added clarifications regarding duplicate order ID checks per FIX session. See "Multiple Execution Attempts" on page 35. ■ Corrected description of message encryption in "Encryption" on page 46. ■ Updated description of NoMDEntries (#268) field to remove requirement for the value to be an even number. See "NoMDEntries" on page 77. ■ FIX format corrected and description of clarified for PegOffsetValue (#211) on "New Order – Single (Client to FX Inside)" on page 94. ■ On the Trade Capture Report message, corrected descriptions of fields and their relations for parties on a trade. See NoPartyIDs (#453), PartyID (#448), PartyIDSource (#447), and PartyRole (#452) on "Trade Capture Report (FX Inside to Client)" on page 145. ■ Added fields to Trade Capture Report for the end-of-day (EOD) rate: ❏ "Commission" on page 147 ❏ "CommType" on page 147 ❏ "CommCurrency" on page 148

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
February 2011 (3.9v2)	4.3	■ Timestamp format updated to indicate support for milliseconds: ❑ TransactTime (#60): ❑ “Quote Request (Client to FX Inside)” on page 83 ❑ “Quote Request Reject (FX Inside to Client)” on page 86 ❑ “Quote (FX Inside to Client)” on page 88 ❑ “Quote Cancel (Bidirectional)” on page 92 ❑ “New Order – Single (Client to FX Inside)” on page 94 ❑ “Order Cancel Request (Client to FX Inside)” on page 103 ❑ “Order Cancel/Replace Request (Client to FX Inside)” on page 106 ❑ “Order Mass Cancel Request (Client to FX Inside)” on page 114 ❑ “Order Mass Cancel Report (FX Inside to Client)” on page 116 ❑ OrigSendingTime (#122) “New Order – Single (Client to FX Inside)” on page 94 ❑ ExpireTime (#126) ❑ “New Order – Single (Client to FX Inside)” on page 94 ❑ “Order Cancel/Replace Request (Client to FX Inside)” on page 106 ❑ “Execution Report (FX Inside to Client)” on page 122 ❑ EffectiveTime (#168) ❑ “New Order – Single (Client to FX Inside)” on page 94 ❑ “Order Cancel/Replace Request (Client to FX Inside)” on page 106 ❑ “Execution Report (FX Inside to Client)” on page 122 ■ Description of SenderSubID (#50), TargetSubID (#57), DeliverToSubID (#129), and OnBehalfOfSubID (#116) updated to clarify how the field values depend on the identity of the message receiver: ❑ “Legal Entities and Trading Parties” on page 54 ❑ “Summaries of ID Values” on page 55 ❑ “Order Mass Status Request (Client to FX Inside)” on page 120 ❑ “Execution Report (FX Inside to Client)” on page 122 ❑ “Trade Capture Report (FX Inside to Client)” on page 145

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
January 2011 (3.8v3)	4.3	■ Market range order type added to order execution for displayed orders (ExecInst (#18)=B). See "Order Execution" on page 29. ■ New values for the following fields for requesting incremental updates with Market Data Request: ❑ DeliverToCompID (#128): Must be "ALL" to request incremental updates. See Table 1-20 on page 55, "Market Data Request Message Fields" on page 72, and "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ❑ MDUpdateType (#265): Must be 1 (one). See "Market Data Request Message Fields" on page 72 and "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ■ Message and field descriptions changed to clarify price entry fields for incremental updates of various states (New, Change, Delete): ❑ "Market Data – Incremental Refresh (FX Inside to Client)" on page 78 ❑ "MDUpdateAction" on page 80 ❑ "MDEntryType" on page 80 ❑ "MDEntryID" on page 80 ❑ "Currency" on page 81 ■ Repeating group of fields for currency pair defined, fields reordered, and SecurityType (#167) field added in "Market Data Request (Client to FX Inside)" on page 70. ■ Definition of ExpireTime (#126) changed to clarify that the value is the relative expiry time. See: ❑ "Quote Request (Client to FX Inside)" on page 83 ❑ "New Order – Single (Client to FX Inside)" on page 94 ❑ "Order Cancel/Replace Request (Client to FX Inside)" on page 106 ❑ "Execution Report (FX Inside to Client)" on page 122. ■ Required status of TradeDate (#75) field changed to not required in "Execution Report (FX Inside to Client)" on page 122. ■

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
November 2010 (3.6.2v1)	4.3	■ Clarified customer perspective of Side (#54) on "New Order – Single (Client to FX Inside)" on page 94 and "Trade Capture Report (FX Inside to Client)" on page 145. ■ Added value to BusinessRejectReason (#380) on "Business Message Reject (Bidirectional)" on page 136. ■ Example files updated with ID scheme as described in "Organization and User Identification" on page 49.
November 2010 (3.6.1v1)	4.3	■ The WorkingIndicator (#636) field is empty or not included on the Execution Report message for stop orders that are not triggered. See "WorkingIndicator" on page 131. ■ Support for Market Data – Incremental Refresh message added. See "Market Data – Incremental Refresh (FX Inside to Client)" on page 78. ■ Corrected the format of the organization ID. See "Your Organization Client ID" on page 50.
October 2010	4.3	■ Corrections and clarification to values for user identification fields in: ❑ "Business Sender and Target"on page 51 ❑ "Users"on page 53 ■ Clarification of default legal entities for OnBehalfOfSubID (#116) in "Legal Entities and Trading Parties"on page 54 ■ Added blank value for all providers to DeliverToCompID (#128) on Market Data Request message. See "Market Data Request (Client to FX Inside)" on page 70. ■ Added "Broadcast Messages"on page 52 to clarify the use of DeliverToCompID (#128) on New Order - Single and Market Data Request messages.
September 2010	4.3	■ Additional values for the following fields: ❑ DeliverToCompID (#128): Can be a list of providers or blank for all providers. See Table 1-19 on page 55 and Table 1-25 on page 59. ❑ OnBehalfOfCompID (#115): Can specify the user and organization or just the organization to assume the default user. See Table 1-25 on page 59, Table 1-26 on page 59, and Table 1-27 on page 60. ❑ OnBehalfOFSubID (#116): Can specify the customer legal entity or blank to assume the default legal entity of the organization specified in OnBehalfOfCompID (#115). See Table 1-25 on page 59, Table 1-26 on page 59, and Table 1-27 on page 60.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
July 2010	4.3	■ Added information about inactive or untradeable rates to discard and updated field descriptions. See "Rates To Discard" on page 11. ■ Clarified behavior for OCO and stop/stop limit orders with expiry types of FOK and IOC. See "Order Expiry" on page 32. ■ Clarified that it is acceptable to reset the sequence number on log-in. See "Sequence Number Reset" on page 41 and description of ResetSeqNumFlag (#141) in "Logon (Bidirectional)" on page 62. ■ Added VWAP execution to ExecInst (#18) in New Order – Single message. See "ExecInst" on page 96 and "Order Execution" on page 29. ■ Directionality of Quote Cancel message corrected to "Bidirectional". See "Quote Cancel (Bidirectional)" on page 92. ■ Corrected message for canceling a quote request: the client sends a Quote Cancel message and not a Business Message Reject message to cancel a Quote Request. Updated descriptions of messages "Quote Cancel (Bidirectional)" on page 92, "Business Message Reject (Bidirectional)" on page 136. Also corrected "Request for Stream (RFS) Workflow" on page 17. ■ The DeliverToCompID (#128) on the New Order – Single message can be set to specify one, multiple, or all providers. See "New Order – Single (Client to FX Inside)" on page 94. ■ Time values for parameters related to message number reset have been changed to emphasize that the end of the business day and message number reset time is 17:00:00 EST. Client-side start time has been revised. See "Sequence Number Reset" on page 41. ■ Clarification of expiry time values for ExpireTime (#126) in "New Order – Single (Client to FX Inside)" on page 94. ■ The behavior of stop orders submitted without a stop trigger has been defined. See "Order Execution" on page 29. ■ The system now cancels stop and stop limit orders submitted with an invalid TimeInForce (#59) value (3=IOC or 4=FOK). See "Order Expiry" on page 32. ■

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
May 2010	4.3	■ Corrections to value of MDEntryPositionNo (#290). See “Multi-price Quotes” on page 43, “Multi-tier Quotes” on page 43, and “MDEntryPositionNo” on page 78. ■ Orders can now persist beyond the current FIX session for order execution to continue after the FIX user has logged out. See “Order Persistence” on page 37. Also see the following file for an example of persistent (day) orders: ❑ examples\NewOrderSingle_DayOrder.txt ■ Added support for OCO orders: ❑ Added description of OCO orders in the FIX Client API. See “One-Cancels-the-Other (OCO) Orders” on page 36. ❑ Added ContingencyType (#1385) and ClOrdLinkID (#583) to “New Order – Single (Client to FX Inside)” on page 94. ❑ Updated descriptions of IOC and FOK expiry types for TimeInForce (#59) in “Order Expiry” on page 32. ❑ Updated description of cancelled status for OrdStatus (#39) in Table 1-9, “Order Status” on page 39. ❑ Added examples in the following files: ❑ examples\NewOrderSingle_OCO_FirstOrder.txt ❑ examples\NewOrderSingle_OCO_SecondOrder.txt ■ Examples have been moved out of the document and into separate text files. ■ Corrected description of ExpireTime (#126) in “New Order – Single (Client to FX Inside)” on page 94.
March 2010	4.3	■ Added new time-in-force for day orders with TimeInForce (#59)=0 (zero) and corrected list of applicable order types per time-in-force. See “Order Expiry” on page 32.
February 2010	4.3	■ FIX examples added to every message type. ■ Added SenderSubID (#50) to “Execution Report (FX Inside to Client)” on page 122 to account for provider-originated messages, such as trade verification and trade rejection. See also Table 1-20 on page 55 and Table 1-25 on page 59. ■ Added DeliverToCompID (#128) and OnBehalfOfCompID (#115) to capture counterparty organizations on “Trade Capture Report (FX Inside to Client)” on page 145. See also Table 1-23 on page 57 and Table 1-28 on page 60. ■ Corrected required value of QuoteReqID (#131) on “Quote Cancel (Bidirectional)” on page 92.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
January 2010	4.3	■ The FIX Client API now supports stop and stop limit orders. See: ❑ "Order Workflow" on page 14 ❑ "Supported Order Types" on page 28 ❑ "Order Execution" on page 29 ❑ "Order Expiry" on page 32 ❑ "Order Status" on page 38 ❑ "StopPx" on page 98 (New Order – Single) ❑ "ExecInst" on page 96 (New Order – Single) ❑ "Price" on page 97 (New Order – Single) ❑ "WorkingIndicator" on page 131 (Execution Report) ■ Added examples to the following message types: ❑ "Market Data Request Examples" on page 75. ❑ "Market Data Snapshot/Full Refresh Examples" on page 78 ❑ "Market Data Request Reject Example" on page 82 ■ "Order Execution" on page 29 added to consolidate and better explain the values of the ExecInst (#18) field and related functionality. ■ The required status of ExecType (#150) and PreviouslyReported (#570) has been corrected in "Trade Capture Report (FX Inside to Client)" on page 145. ■ Clarified number of sides (always one) and omission of NoSides (#552) from the "Trade Capture Report (FX Inside to Client)" on page 145. ■ Added requirement that the MDReqID (#262) field value should not contain the ampersand character "@". See "Market Data Request (Client to FX Inside)" on page 73.
October 2009	4.3	■ Clarified description of Price (#44), AvgPx (#6), and LastPx (#31) in "Execution Report (FX Inside to Client)" on page 122 with regards to determining the price of a fill. ■ Added Text (#58) field to Trade Capture Report for RFS workflow settlement instructions.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
September 2009	4.3	■ Added "Partial Fill with Unfilled Amount Canceled" on page 21 to make explicit the case where a partial fill with a time-in-force of Immediate or Cancel (IOC) results in a canceled order. ■ Further clarifications to values and descriptions for NoMDEntryTypes (#267) and MDEntryType (#269) in "Market Data Request (Client to FX Inside)" on page 70. ■ Added MaturityDate (#541) and clarified description of NoMDEntries (#268) in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76. ■ Removed OnBehalfofCompID (#115) from "Quote Request (Client to FX Inside)" on page 83. Documentation error. ■ The description of "Trade Capture Report Request (Client to FX Inside)" on page 143 has been expanded to clarify request by trade ID and request by date range. ■ Added TradeRequestType (#569) to "Trade Capture Report Request (Client to FX Inside)" on page 143.
June 2009	4.3	■ Added Channel (#7603) to "Trade Capture Report (FX Inside to Client)" on page 145. ■ Added RequestValidationError.InvalidQuoteID to "Error Codes" on page 152. ■ Reorganized and expanded tables in "Summaries of ID Values" on page 55, including the following messages for the RFS workflow: ❑ Quote Request ❑ Quote ❑ Quote Request Reject ❑ Quote Cancel ❑ Business Message Reject ■ Added fields to header "Standard Header and Trailer" on page 46: ❑ TargetSubID (#57) ❑ DeliverToSubID (#129) ■ Added rebook information to "Trade Capture Report (FX Inside to Client)" on page 145: ❑ PreviouslyReported (#570) ❑ ExecType (#150)

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
March 2009	4.3	■ Added Product (#460) as required to "Order Cancel Request (Client to FX Inside)" on page 103. ■ Removed references to unsupported messages Trading Session Status Request and Trading Session Status. ■ Divided the Req'd column into two new columns to distinguish between message fields that are required by the FIX protocol (Req'd FIX) and those field required by Integral (Req'd Integral). This should clarify cases in which a field is required by FIX, but can be set to any value consistent with its data type because the field is ignored by Integral.
November 2008	4.3	■ Workflow descriptions updated to indicate that Execution Report messages are optional and may be skipped when ExecType (#150) is 0 (New). See "Order Workflow" on page 14, "Request for Stream (RFS) Workflow" on page 17, "Business Rejection" on page 20, and "Trade Done/Verified" on page 20. ■ Order status diagram and state descriptions updated to show possible transitions from Pending New to Partially Filled and Filled. See "Order Status" on page 38. ■ Clarified business day end and start in "Business Day End and Start" on page 40. ■ Corrected values for ExecInst (#18) in New Order – Single message. See "ExecInst" on page 96. ■ Expanded description of CoverExecID (#7601) to include multiple cover trades. See "Trade Capture Report (FX Inside to Client)" on page 149. ■ Added RequestValidationError.ExecInstNotSupported error to "Error Codes" on page 157.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
October 2008	4.3	■ Added the following fields to "Trade Capture Report (FX Inside to Client)" on page 145: ❏ NoPartyIDs (#453) ❏ PartyID (#448) ❏ PartyIDSource (#447) ❏ PartyRole (#452) ❏ CoverExecID (#7601) (including multiple cover trades) ❏ CoveredExecID (#7602) ■ Corrected info for FutSettDate (#64) in "New Order – Single (Client to FX Inside)" on page 94 and "Quote Request (Client to FX Inside)" on page 83. The field is not required. ■ Added PegDifference (#211) to "New Order – Single (Client to FX Inside)" on page 94. ■ Added the following order types (see "Supported Order Types" on page 28): ❏ Market ❏ Market Range ■ Added 3=IOC to TimeInForce (#59) in "New Order – Single (Client to FX Inside)" on page 94, "Order Cancel/Replace Request (Client to FX Inside)" on page 106, "Execution Report (FX Inside to Client)" on page 122. ■ Reorganized "Supported Trading Workflows" section to include post-order workflows. See "Post-Order Workflows" on page 19**.** ■ Added section "Server Synchronization" on page 40. ■ Expanded description of "Trade Capture Report Request (Client to FX Inside)" on page 143. ■ Updated description of ClOrdID (#11) to make clear that the field's value is a session-scoped identifier. ■ Added section "Order Expiry" on page 32 to expand the definition of time-in-force types.
May 2008 2nd edition	3.0	■ Correct values of CxlRejReason (#102) in "Order Cancel Reject (FX Inside to Client)" on page 112.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
May 2008	3.0	■ The end and start of the business day has been changed. See "Business Day End and Start" on page 40. ■ Added information about ClOrdID (#11) and multiple execution attempts. See "Multiple Execution Attempts" on page 35. ■ Added tables of applicable messages to "Executable Streaming Prices (ESP) Workflow" on page 13, "Order Workflow" on page 14, and "Request for Stream (RFS) Workflow" on page 17. ■ Added STP via FIX: ❏ Added "Post-Trade Workflows" on page 22 ❏ Updated "Business Message Reject (Bidirectional)" on page 136 ❏ Added "Post-Trade Messages" on page 143 ■ Added ResetSeqNumFlag (#141) to "Logon (Bidirectional)" on page 62. ■ Reworked "Order Status Request (Client to FX Inside)" on page 118. ■ Added "Order Mass Status Request (Client to FX Inside)" on page 120. ■ Added RFS workflow: ❏ "Trading Workflows" on page 12 and "Request for Stream (RFS) Workflow" on page 17 ❏ "Supported Deal Types" on page 26 ❏ "Supported Tenors" on page 27 ❏ "Quote Messages" on page 83 ❏ "Quote Request (Client to FX Inside)" on page 83 ❏ "Quote Request Reject (FX Inside to Client)" on page 86 ❏ "Quote (FX Inside to Client)" on page 88 ❏ "Quote Cancel (Bidirectional)" on page 92 ❏ "Business Message Reject (Bidirectional)" on page 136 ■ Updated "New Order – Single (Client to FX Inside)" on page 94: Added OrderQty2 (#192), Price2 (#640), SecurityType (#167), FutSettDate (#64). ■ Updated "Execution Report (FX Inside to Client)" on page 122: Added MassStatusReqID (#584), OrdType (#40), OrderQty2 (#192), LastSpotRate (#194), LastForwardPoints (#195), LastForwardPoints2 (#641), Price2 (#640), LeavesQty2 (#7543), CumQty2 (#7544), SecurityType (#167), FutSettDate (#64), FutSettDate2 (#193), LastPx2 (#7541), SettlCurrAmt2 (#7545).

Table B-1 *Document Changes (continued)*

Date	**Software Version**	**Enhancements**
April 2008	2.0	■ Clarified message rejection if SenderSubID (#50) is set on messages by sent by facilitator organizations: ❑ "Market Data Request (Client to FX Inside)" on page 70 ❑ "New Order – Single (Client to FX Inside)" on page 94 ❑ "Order Cancel Request (Client to FX Inside)" on page 103 ❑ "Order Cancel/Replace Request (Client to FX Inside)" on page 106 ❑ "Order Mass Cancel Request (Client to FX Inside)" on page 114 ❑ "Order Status Request (Client to FX Inside)" on page 118 ■ Corrected section "Order Visibility" on page 34. ■ Added clarifications to the following sections regarding hidden orders that cannot be filled: ❑ "Order Visibility" on page 34 ❑ "OrderQty" field on page 96 ❑ "MaxShow" field on page 99 ❑ "ExecInst" field on page 96
March 2008	2.0	■ To send a request for subscription to all providers, set DeliverToCompID (#128) as empty on the Market Data Request message. See "Business Sender and Target" on page 51 and "Market Data Request (Client to FX Inside)" on page 70. ■ The TimeInForce (#59) value FOK is now supported for limit orders as well as previously quoted orders. See "Executable Streaming Prices (ESP) Workflow" on page 13 and "Order Workflow" on page 14. ■ The MinQty (#110) field is ignored if the TimeInForce (#59) value is FOK. See "MinQty" on page 98. No partial fill is allowed. ■ The following field have been made mandatory on the "Execution Report (FX Inside to Client)" on page 122: ❑ TradeDate (#75) ❑ SettlCurrAmt (#119) ❑ SettleCurrency (#120)

Table B-1 *Document Changes (continued)*

Date	**Software Version**	**Enhancements**
January 2008	2.0	■ Removed all references to trade session (obsolete). ■ Removed all references to ExpireDate (#432) and ■ Corrected description/data type of ExpireTime (#126) for all messages and related description of TimeInForce (#59) on “New Order – Single (Client to FX Inside)” on page 94. ■ References to “independent quotes” changed to “multi-price quotes”. ■ Updated the following fields: ❑ OrderQty (#38): Corrected description ❑ LeavesQty (#151): Added partial fill ❑ TimeInForce (#59): Added FOK for previously quote orders ❑ MaxShow (#210): Added 0 (zero) in place of empty and is not required ❑ ExecInst (#18): Updated for cross/no cross ❑ PartyIDSource (#447), PartyID (#448), PartyRole (#452), NoPartyIds (#453) are optional on all message types ■ Reorganized Chapter 1, “FIX Solution Overview” on page 10 to emphasize section “Business Rules” on page 10. ■ Added description of session types in “Sessions” on page 11. ■ Added description of trading workflows in “Trading Workflows” on page 12. ■ Expanded description of partial fills to include multiple fills with a single provider “Partial Fills” on page 33. ■ Added trading workflow qualification to the sections “Partial Fills” on page 33, “Minimum Order Size” on page 34, “Order Visibility” on page 34, and “Order Status” on page 38. ■ Clarified workflow for limit orders in “Supported Order Types” on page 28 and “Market Data Request (Client to FX Inside)” on page 70. ■ Added explanation of execution retry for rejecting order requests in “Execution Report (FX Inside to Client)” on page 122.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
November 2007	1.0	■ Added order session to message sender and target ID. See “Your Organization Client ID” on page 50. ■ Added PartyID (#448) for identification of users in user-initiated messages. See “Users” on page 53, “Direct Users ID Summary Tables” on page 55, and “Facilitator Users ID Summary Tables” on page 55. ■ Added the following order-specific message types to the ID summary tables (“Direct Users ID Summary Tables” on page 55 and “Facilitator Users ID Summary Tables” on page 55): ❑ Order Cancel Request ❑ Order Cancel/Replace Request ❑ Order Cancel Reject ❑ Order Mass Cancel Request ❑ Order Mass Cancel Report ■ Added section “Orders” on page 28 to account for limit orders. ❑ Updated section “Supported Order Types” on page 28 with limit order type. ❑ Added section “Partial Fills” on page 33. ❑ Added section “Minimum Order Size” on page 34. ❑ Added section “Order Visibility” on page 34. ■ Added section “Order Status” on page 38. ■ Corrected values for MDEntryType (#269) in “Market Data Request (Client to FX Inside)” on page 70, “Market Data Snapshot/Full Refresh (FX Inside to Client)” on page 76, and “RequestValidationError. IncorrectMDEntryType” on page 153. ■ Made the following changes to “New Order – Single (Client to FX Inside)” on page 94: ❑ Added 2=Limit to OrdType (#40) ❑ Added TimeInForce (#59) field ❑ Added EffectiveTime (#168) field ❑ Added MaxShow (#210) field ❑ Added ExecInst (#18) field ❑ Added MinQty (#110) field ❑ Added PartyID (#448) field ❑ Added ExpireDate (#432) field ❑ Added ExpireTime (#126) field

***Table B-1** Document Changes (continued)*

Date	Software Version	Enhancements
November 2007 (continued)	1.0	■ Made the following changes to "Execution Report (FX Inside to Client)" on page 122: ❑ Added OrigClOrdID (#41) field ❑ Added OrdStatusReqID (#790) field ❑ Added new values to ExecType (#150) field ❑ Added new values to OrdStatus (#39) field ❑ Added new values to OrdRejReason (#103) field ❑ Added new values to ExecType (#150) field ❑ Added SettlCurrAmt (#119) field ❑ Added SettlCurrency (#120) field ❑ Added MinQty (#110) field ❑ Added SettlDate (#64) field ❑ Added TimeInForce (#59) field ❑ Added EffectiveTime (#168) field ❑ Added ExpireDate (#432) field ❑ Added ExpireTime (#126) field ❑ Added MaxShow (#210) field ❑ Added LastPx (#31) field ❑ Added LastQty (#32) field ❑ Added TradeDate (#75) field ■ Added the following messages: ❑ "Order Cancel Request (Client to FX Inside)" on page 103 ❑ "Order Cancel/Replace Request (Client to FX Inside)" on page 106 ❑ "Order Cancel Reject (FX Inside to Client)" on page 112 ❑ "Order Mass Cancel Request (Client to FX Inside)" on page 114 ❑ "Order Mass Cancel Report (FX Inside to Client)" on page 116
June 2007	1.0	■ Added RequestValidationError.LegalEntityNotSet error message to "Order Status Request" on page 158.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
May 2007	1.0	■ Added Reject (session level) message. See "Session-Level Reject (Bidirectional)" on page 66 ■ Added unsubscribe value to SubscriptionRequestType (#263) field in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76 ■ Corrected description of Currency (#15) field to include base and term currency in "New Order – Single (Client to FX Inside)" on page 94. ■ Added error codes to appendix "Error Codes" on page 152.
April 2007	1.0	■ Added PossDupFlag (#43) and OrigSendingTime (#122) to "Standard Header and Trailer" on page 46. ■ Updated description of following fields in "Standard Header and Trailer" on page 46 and in "Message Sender and Target" on page 49: ❑ SenderCompID (#49) ❑ TargetCompID (#56) ■ Updated explanations in "Message Sender and Target" on page 49 and "Business Sender and Target" on page 51. ■ Added new organization ID format description in "Your Organization Client ID" on page 50. ■ Updated description of following fields in "Standard Header and Trailer" on page 46 and in "Business Sender and Target" on page 51. ❑ OnBehalfOfCompID (#115) ❑ DeliverToCompID (#128) ■ Added new server ID format description in "FX Inside Server ID" on page 50. ■ Updated description of SenderSubID (#50) in "Standard Header and Trailer" on page 46 and in "Legal Entities and Trading Parties" on page 54. ■ Updated description of OnBehalfOfSubID (#116) in "Standard Header and Trailer" on page 46 and in "Users" on page 53. ■ Added new format to description of OnBehalfOfSubID (#116) field in "Users" on page 53. ■ Removed obsolete reference to Account (#1) in "Legal Entities and Trading Parties" on page 54 and replaced with explanation of legal entity IDs ■ Added summary tables for organization and user IDs for direct customer and facilitator roles. See "Summaries of ID Values" on page 55. ■ Updated start and end of day times in "Business Day End and Start" on page 40. ■ Added configuration parameters to "Sequence Number Reset" on page 41

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
April 2007 (continued)	1.0	■ Added description of behavior for invalid Logon messages to "Logon (Bidirectional)" on page 62. ■ Added description of behavior for invalid Logon messages and Text (#58) field to "Logout (Bidirectional)" on page 64. ■ Removed following field descriptions from "Market Data Request (Client to FX Inside)" on page 70 (not applicable): ❑ TargetSubID (#57) ❑ OnBehalfOfCompID (#115) ❑ OnBehalfOfSubID (#116) ❑ DeliverToSubID (#129) ■ Clarified support for two-way market data only and corrected description of MDEntryType (#269) field in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76. ■ Clarified uniqueness constraint of MDReqID (#262) field in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76. ■ Removed following field descriptions from "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 76 (not applicable): ❑ SenderSubID (#50) ❑ OnBehalfOfSubID (#116) ❑ DeliverToCompID (#128) ❑ DeliverToSubID (#129) ■ Removed following field descriptions from "Market Data Request Reject (FX Inside to Client)" on page 82 (not applicable): ❑ SenderSubID (#50) ❑ OnBehalfOfSubID (#116) ❑ DeliverToCompID (#128) ❑ DeliverToSubID (#129) ■ Added PossDupFlag (#43) and OrigSendingTime (#122) to "New Order – Single (Client to FX Inside)" on page 94. ■ Removed following field descriptions from "New Order – Single (Client to FX Inside)" on page 94: ❑ Account (#1): Obsolete. This information is captured by legal entity IDs. See "Legal Entities and Trading Parties" on page 54. ❑ TargetSubID (#57): Not applicable ❑ DeliverToSubID (#129): Not applicable

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
April 2007 (continued)	1.0	■ Removed following field descriptions from “Order Status Request (Client to FX Inside)” on page 118 (not applicable): ❑ TargetSubID (#57) ❑ DeliverToSubID (#129) ■ Removed following field descriptions from “Execution Report (FX Inside to Client)” on page 122 (not applicable): ❑ Account (#1): Obsolete. This information is captured by legal entity IDs. See “Legal Entities and Trading Parties” on page 54. ❑ SenderSubID (#50): Not applicable ■ Added appendix “Error Codes” on page 152.
March 2007	1.0	■ Corrected directionality of Logon and Logout messages. See “Supported Message Types” on page 44, “Logon (Bidirectional)” on page 62, and “Logout (Bidirectional)” on page 64. ■ Made the following changes to “Market Data Request (Client to FX Inside)” on page 70: ❑ Corrected MsgType (#35) description ❑ Changed TargetCompID (#56) to required ❑ Changed DeliverToCompID (#128) to required and corrected description ❑ Corrected values and description of SubscriptionRequestType (#263) ❑ Corrected values and description of MarketDepth (#264) ❑ Corrected values and description of MDUpdateType (#265) ■ Made the following changes to “Market Data Snapshot/Full Refresh (FX Inside to Client)” on page 76: ❑ Changed TargetSubID (#57) to required ❑ Changed DeliverToSubID (#129) to required ❑ Added MDReqID (#262) ■ Changed TargetSubID (#57) to required in “Market Data Request Reject (FX Inside to Client)” on page 82. ■ Made the following changes to “New Order – Single (Client to FX Inside)” on page 94: ❑ Changed OnBehalfOfCompID (#115) to required and corrected description ❑ Changed OnBehalfOfSubID (#116) to required and corrected description

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
March 2007 (continued)	1.0	■ Made the following changes to "Order Status Request (Client to FX Inside)" on page 118: ❑ Changed OnBehalfOfCompID (#115) to required and corrected description ❑ Changed OnBehalfOfSubID (#116) to required and corrected description ■ Made the following changes to "Execution Report (FX Inside to Client)" on page 122: ❑ Changed OnBehalfOfSubID (#116) to required and corrected description ❑ Changed DeliverToCompID (#128) to required and corrected description ❑ Changed DeliverToSubID (#129) to required and corrected description ❑ Corrected description of ExecType (#150) ❑ Corrected description of OrdStatus (#39) ❑ Added 5=Unknown Order to description of OrdRejReason (#103)
August 2006	1.0	First version