FX INSIDE™

FIX Client API Guide 4.3

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Contents

Foreword

Chapter 1 FIX Solution Overview

Chapter 2 Session Management

Chapter 3 Trading Workflow

Appendix A Error Codes

Appendix B Changes

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 9
- "Session Management" on page 50
- "Trading Workflow" on page 56

In addition, the appendix “Changes” on page 127 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 7)

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 9
- "FIX Implementation" on page 35
- "Configuration" on page 39

1.1 Business Rules

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

1.1.1 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 10.
- 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 11.
- □ 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 13.
- □ 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 15.

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 ID” on page 41.

1.1.2 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 11
- ■ “Post-Order Workflows” on page 17
- ■ “Post-Trade Workflows” on page 20

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 11
- "Order Workflow" on page 13
- "Request for Stream (RFS) Workflow" on page 15

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 17.

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 9.

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).

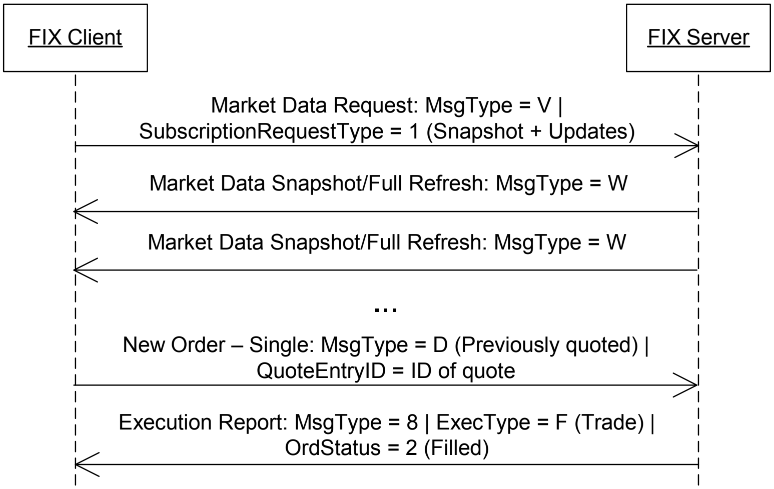
FIX Client
FIX Server
Market Data Request: MsgType = V | SubscriptionRequestType = 1 (Snapshot + Updates)
Market Data Snapshot/Full Refresh: MsgType = W
Market Data Snapshot/Full Refresh: MsgType = W
...
New Order – Single: MsgType = D (Previously quoted) | QuoteEntryID = ID of quote
Execution Report: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

Figure 1-1 *ESP Trading Workflow*

The following trading messages are applicable to the ESP workflow:

Table 1-1 *ESP Trading Messages*

Message (Direction)	**Session**	**Comments**
"Trading Session Status Request (Client to FX Inside)" on page 58	Quote/Order	Client requests the trading session status of the server
"Trading Session Status (FX Inside to Client)" on page 58	Quote/Order	Server sends current trading session status to the client asynchronously or as a response of the Trading Session Status Request
"Market Data Request (Client to FX Inside)" on page 59	Quote	Client requests ESP
"Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 62	Quote	Server sends a snapshot or full refresh of the requested currency pairs
"Market Data Request Reject (FX Inside to Client)" on page 65	Quote	Server rejects the market data request (for example, the currency pair is not supported)

Table 1-1 *ESP Trading Messages (continued)*

Message (Direction)	Session	Comments
"New Order – Single (Client to FX Inside)" on page 75	Order	Client submits an order to the server in response to a price received in a Market Data Request message
"Execution Report (FX Inside to Client)" on page 99	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 30 for details.

Order Workflow

The Order workflow involves the quote and order sessions. For more information about sessions, see "Sessions" on page 9.

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 order can then be crossed with quotes on the server or broadcast to and lifted by other market participants. The value of the ExecInst (#18) field determines whether or not your order is crossed with quotes. See "ExecInst" on page 81.

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.

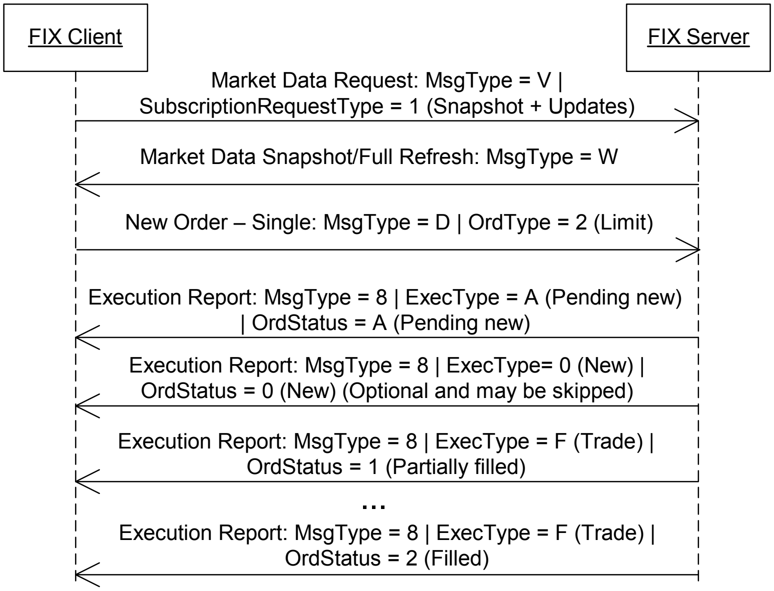
FIX Client
FIX Server
Market Data Request: MsgType = V | SubscriptionRequestType = 1 (Snapshot + Updates)
Market Data Snapshot/Full Refresh: MsgType = W
New Order – Single: MsgType = D | OrdType = 2 (Limit)
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution 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*

Table 1-2 *Order Trading Messages*

Message (Direction)	**Session**	**Comments**
"Trading Session Status Request (Client to FX Inside)" on page 58	Quote/Order	Client requests the trading session status of the server
"Trading Session Status (FX Inside to Client)" on page 58	Quote/Order	Server sends current trading session status to the client asynchronously or as a response to the Trading Session Status Request
"New Order – Single (Client to FX Inside)" on page 75	Order	Client submits an unsolicited order to the server
"Execution Report (FX Inside to Client)" on page 99	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 30 for details.
"Order Cancel Request (Client to FX Inside)" on page 83	Order	Client cancels an order that was previously submitted to the server

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

Message (Direction)	Session	Comments
"Order Cancel/Replace Request (Client to FX Inside)" on page 85	Order	Client replaces an exiting order with a new order
"Order Cancel Reject (FX Inside to Client)" on page 90	Order	Server rejects the client's request to cancel an order
"Order Mass Cancel Request (Client to FX Inside)" on page 91	Order	Client cancels all open orders on sever
"Order Mass Cancel Report (FX Inside to Client)" on page 93	Order	Server responds to client's order mass cancel request
"Order Status Request (Client to FX Inside)" on page 95	Order	Client requests the current status of a specific order
"Order Mass Status Request (Client to FX Inside)" on page 96	Order	Client requests the current statuses of all open order
"Business Message Reject (Bidirectional)" on page 112	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 9.

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).

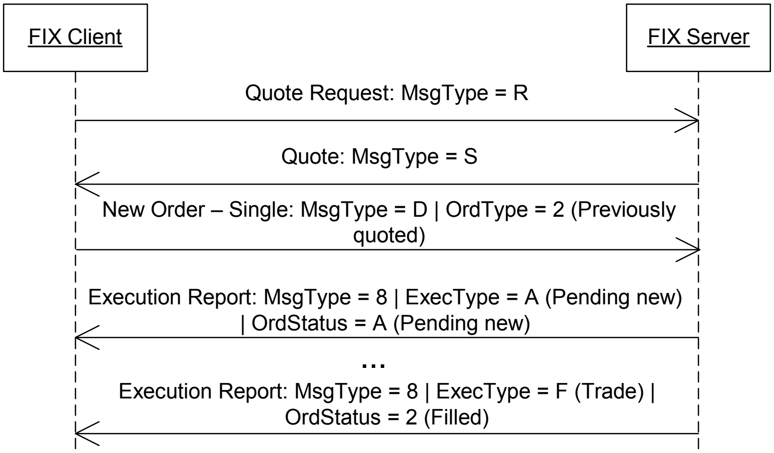
FIX Client
FIX Server
Quote Request: MsgType = R
Quote: MsgType = S
New Order – Single: MsgType = D | OrdType = 2 (Previously quoted)
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
...
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 2 (Filled)

Figure 1-3 *RFS Trading Workflow*

Table 1-3 *RFS Trading Messages*

Message (Direction)	**Session**	**Comments**
"Trading Session Status Request (Client to FX Inside)" on page 58	Quote/Order	Client requests the trading session status of the server
"Trading Session Status (FX Inside to Client)" on page 58	Quote/Order	Server sends current trading session status to the client asynchronously or as a response to the Trading Session Status Request
"Quote Request (Client to FX Inside)" on page 67	Quote	Client requests streaming quotes from the server
"Quote Request Reject (FX Inside to Client)" on page 69	Quote	Server rejects client request for quotes
"Quote (FX Inside to Client)" on page 70	Quote	Server sends a quote to the FIX client. The quote can be streaming. Subsequent quotes override the previous quote.
"Quote Cancel (FX Inside to Client)" on page 74	Quote	Server cancels the quote

***Table 1-3** RFS Trading Messages (continued)*

Message (Direction)	Session	Comments
"Business Message Reject (Bidirectional)" on page 112	Order	Client cancels a Quote Request
"New Order – Single (Client to FX Inside)" on page 75	Order	Client submits an order to the server in response to a quote
"Execution Report (FX Inside to Client)" on page 99	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 30 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 17
- "Application Rejection" on page 18
- "Business Rejection" on page 18
- "Trade Done/Verified" on page 19

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 112).

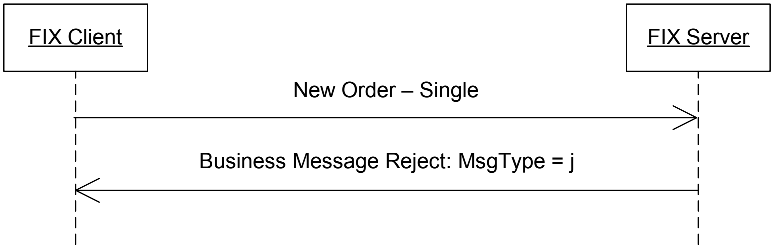

Figure 1-4 *FIX Rejection*

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.

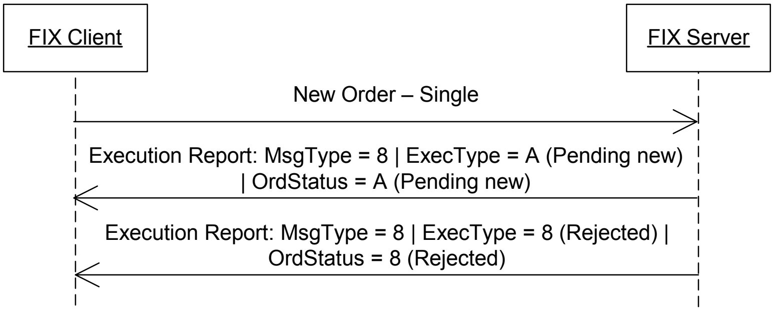
FIX Client
FIX Server
New Order – Single
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 8 (Rejected) | OrdStatus = 8 (Rejected)

Figure 1-5 *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 111 for more information. The Execution Report with ExecType (#150) value 0 (New) is optional and may be skipped. See “Order Status” on page 30 for details.

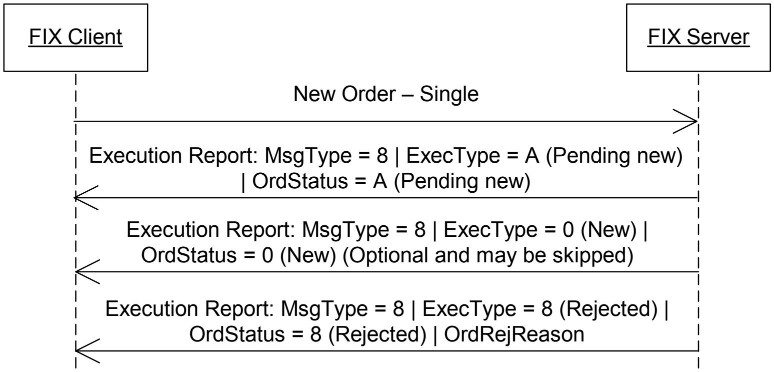
FIX Client
FIX Server
New Order – Single
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = 0 (New) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = 8 (Rejected) | OrdStatus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

Figure 1-6 *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 30 for details.

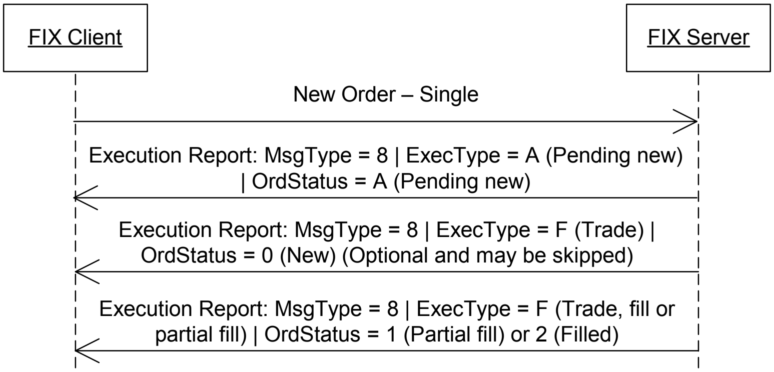
FIX Client
FIX Server
New Order – Single
Execution Report: MsgType = 8 | ExecType = A (Pending new) | OrdStatus = A (Pending new)
Execution Report: MsgType = 8 | ExecType = F (Trade) | OrdStatus = 0 (New) (Optional and may be skipped)
Execution Report: MsgType = 8 | ExecType = F (Trade, fill or partial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

Figure 1-7 *Trade Done/Verified*

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.

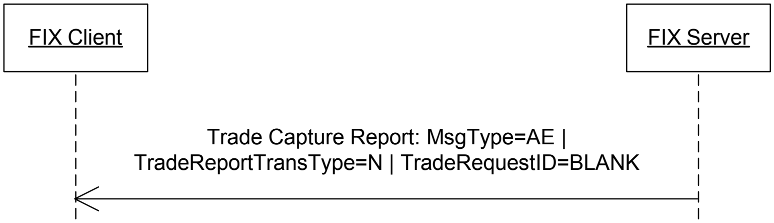
FIX Client
FIX Server
Trade Capture Report: MsgType=AE |
TradeReportTransType=N | TradeRequestID=BLANK

Figure 1-8 *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.

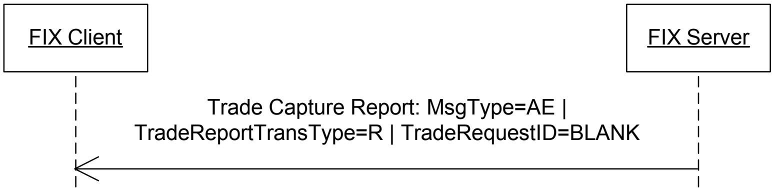
FIX Client
FIX Server
Trade Capture Report: MsgType=AE |
TradeReportTransType=R | TradeRequestID=BLANK

Figure 1-9 *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.

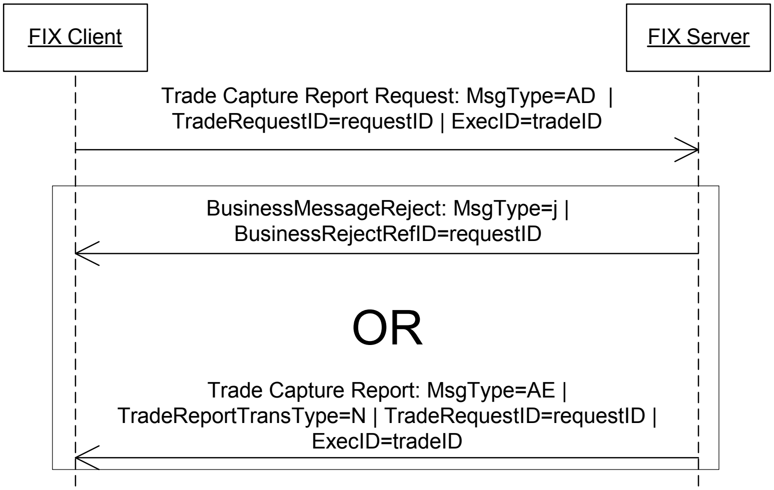
FIX Client
FIX Server
Trade Capture Report Request: MsgType=AD | TradeRequestID=requestID | ExecID=tradeID
BusinessMessageReject: MsgType=j | BusinessRejectRefID=requestID
OR
Trade Capture Report: MsgType=AE | TradeReportTransType=N | TradeRequestID=requestID | ExecID=tradeID

Figure 1-10 *Trade Status Query (Trade ID) Workflow*

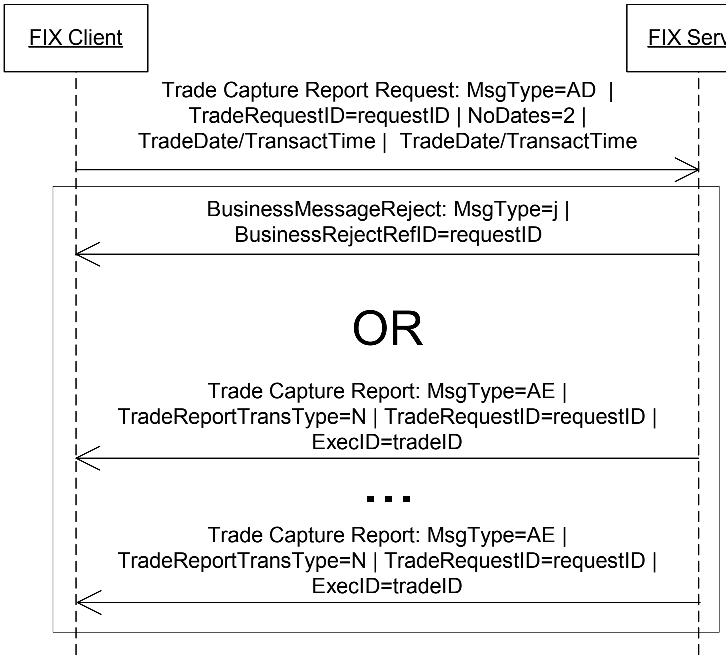
FIX Client
FIX Server
Trade Capture Report Request: MsgType=AD | TradeRequestID=requestID | NoDates=2 | TradeDate/TransactTime | TradeDate/TransactTime
BusinessMessageReject: MsgType=j | BusinessRejectRefID=requestID
OR
Trade Capture Report: MsgType=AE | TradeReportTransType=N | TradeRequestID=requestID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

Figure 1-11 *Trade Status Query (Date Range) 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 113	Order	Client requests trade status with a specific trade ID or a date/time range

Table 1-4 *Post-Trade Messages (continued)*

Message (Direction)	Session	Comments
"Trade Capture Report (FX Inside to Client)" on page 114	Order	Server sends trade status. This can be triggered by: ■ STP Download ■ STP Resend ■ Trade Capture Report Request
"Business Message Reject (Bidirectional)" on page 112	Quote	Server rejects an invalid Trade Capture Report Request

1.1.3 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)

1.1.4 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

Table 1-5 Supported Tenors (continued)

Tenor	Definition
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

1.1.5 Orders

The FIX Client API supports a variety of order workflows.

- "Supported Order Types" on page 26
- "Order Expiry" on page 27
- "Partial Fills" on page 27
- "Minimum Order Size" on page 28
- "Order Visibility" on page 29
- "Order Status" on page 30

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 62).	■ ESP ("Executable Streaming Prices (ESP) Workflow" on page 11) ■ RFS ("Request for Stream (RFS) Workflow" on page 15)
Limit	2	Orders are crossed by matching quotes on the server or broadcast to and lifted by other market participants.	Order ("Order Workflow" on page 13)
Market	1	Orders are executed immediately at the best available price in the system.	Order ("Order Workflow" on page 13)
Market Range	1	Orders are executed immediately at the best available price in the system as long as the slippage is within a specified range in the PegDifference (#211) field of the order. See "PegDifference" on page 81.	Order ("Order Workflow" on page 13)

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 99 for details.

Order Expiry

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

***Table 1-7** Order Expiry*

Expiry Type	Description	TimeInForce (#59)	Applicable Order Types
Good Till Cancel (GTC)	The order remains active until either it is completely filled or is canceled by the customer.	1 = GTC	■ Market ■ Limit ■ Previously Quoted
Immediate or Cancel (IOC)	The order is matched with the available order book in the system after the submission. Any unfilled amount is immediately cancelled.	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.	4 = FOK	■ Market ■ Limit ■ Previously Quoted
Good Till Date/Time (GTD)	The order remains active until one of following condition 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 limit orders only. See "Order Workflow" on page 13.	6 = GTD	■ Market ■ Limit ■ Previously Quoted

Partial Fills

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 10 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 79.

Minimum Order Size

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 10 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 cancelled 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 79.

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.
- Display: The order is completely visible to other customers. The full order amount is disclosed.
- Iceberg: The order is visible to other customers, but only a fraction of the actual order amount is displayed.

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 and do not set ExecInst (#18) to “B”, then your order your order is not crossed with incoming market prices and cannot be filled.

For more details, see:

- “OrderQty” field on page 78
- “MaxShow” field on page 80
- “ExecInst” field on page 81

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 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.

Order Status

NOTE Partial fills apply only to the Order trading workflow. See "Trading Workflows" on page 10 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 99 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.

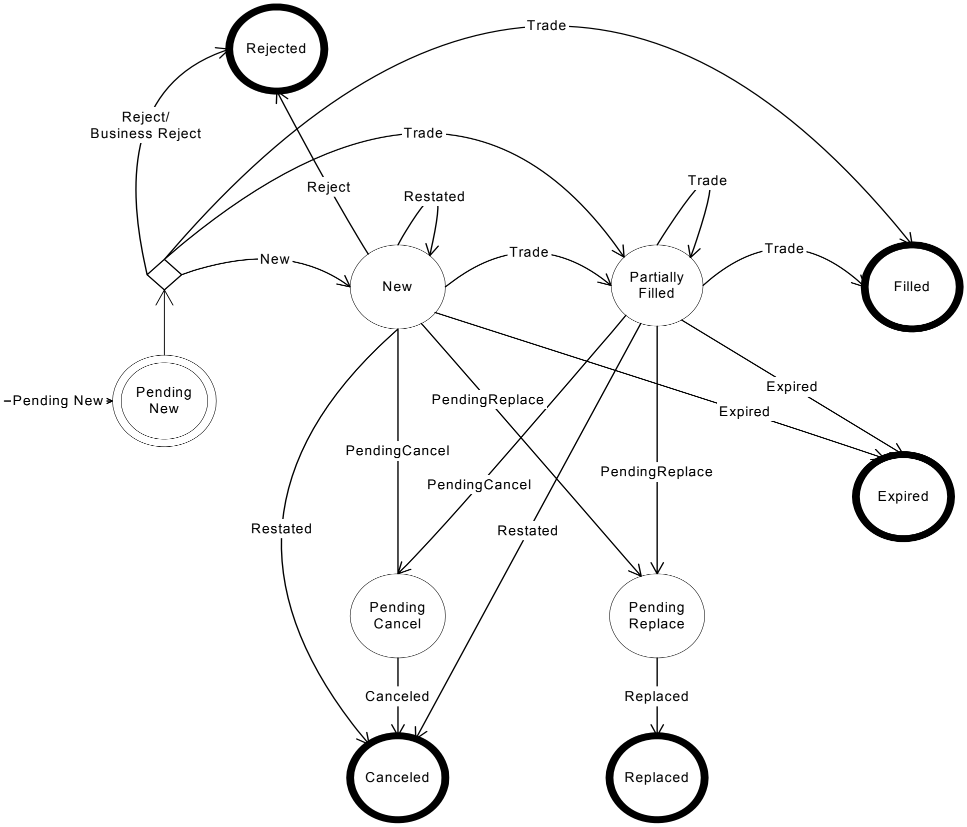

Figure 1-12 *Order State Transitions*

Table 1-8 *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.
1=Partial fill	The order has been partially filled on the server with a residual amount available.
2=Fill	The order has been completely filled.

Table 1-8 *Order Status (continued)*

Order Status, value of OrdStatus (#39) field	**Description**
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=Cancelled	An order has been canceled either by the customer or unsolicited by the server. Any residual amount of the order has been cancelled.
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 cancelled and marked as replaced.
C=Expired	The order has expired. Any residual amount of the order is canceled.

1.1.6 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.

1.1.7 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 Sequence Number Reset

Your FIX engine must be configured to reset the sequence number MsgSeqNum (#34) only at the end of day and not on disconnect.

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:

- Server-side
  - □ ResetOnDisconnect=N
  - □ ResetOnLogout=N
  - □ StartTime=21:30:00
  - □ EndTime=21:00:00
- Client-side
  - □ ResetOnDisconnect=N
  - □ ResetOnLogout=N
  - □ StartTime=21:31:00
  - □ EndTime=20:59:00

1.1.9 Event Sequencing

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

1.1.10 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 40 for details descriptions of the fields and “Summaries of ID Values” on page 44 for a summary of values for both client roles and all message types.

1.1.11 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

Each quote entry 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. See “Market Data Snapshot/Full Refresh (FX Inside to Client)” on page 62 for information about quote entry representation.

Multi-tier Quotes

Each quote entry in a message is considered a tier in a multi-tier quote. There is one bid and one offer rate at each tier. The size for the bid and offer rates may differ.

The quote entries 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 quote entries 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. The presence of the MDEntryPositionNo (#290) field in the repeating group indicates that a quote entry is one tier of a multi-tier quote.The value of the field indicates the quote entry'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 62 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 Supported Message Types

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

Table 1-9 *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 50	B
5	Logout on page 51	B
0 (zero)	Heartbeat on page 52	B
1	Test Request on page 53	B
3	Session-Level Reject on page 54	B
Trading Workflow		
V	Market Data Request on page 59	O
W	Market Data Snapshot/Full Refresh on page 62	I
Y	Market Data Request Reject on page 65	I
D	New Order - Single on page 75	O
F	Order Cancel Request on page 83	O
G	Order Cancel/Replace Request on page 85	O
9	Order Cancel Reject on page 90	I
q	Order Mass Cancel Request on page 91	O
r	Order Mass Cancel Report on page 93	I

Table 1-9 Supported Message Types (continued)

Message Type— MsgType (#35) Field Value	Message Name	Inbound to Client (I), Outbound from Client (O), or Bidirectional (B)
H	Order Status Request on page 95	O
8	Order Execution Report on page 99	I

1.2.2 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 indicate whether or not a field is required. The Req'd column includes "(FIX)" if a field is required by the FIX protocol.

In some cases, 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.

1.2.3 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.

1.2.4 Message Length

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

1.2.5 Encryption

The FIX Client API does not support FIX message encryption. Instead, the network transport mechanism (VPN, Radianz, or SSL) ensures message security.

1.2.6 Standard Header and Footer

FIX engines set a message's header and footer fields automatically according to the message type and the application context as defined by the application's configuration (see "Configuration" on page 39). For these reasons, the standard header and footer as defined by the FIX protocol are not discussed in detail in this document beyond the expected values of the MsgType (#35), SenderCompID (#49), and TargetCompID (#56), OnBehalfOfCompID (#115), and DeliverToCompID (#128) fields.

Table 1-10 *Standard Message Header Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
8	BeginString	Y (FIX)	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 (FIX)	—	Length	Indicates the message length in bytes. Always the second field in the message.
35	MsgType	Y (FIX)	—	String	Defines the message type. Always the third field in the message. See "Supported Message Types" on page 36 for the complete list of supported message types.
34	MsgSeqNum	Y (FIX)	—	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 (FIX)	—	String	The message sender's ID. See "Message Sender and Target" on page 40.

Table 1-10 Standard Message Header Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
50	SenderSubID	N	—	String	The legal entity of the message sender. See "Legal Entities" on page 43.
56	TargetCompID	Y (FIX)	—	String	The message target's ID. See "Message Sender and Target" on page 40.
115	OnBehalfOfCompID	N	—	String	The ID of the message's business content originator. See "Business Sender and Target" on page 42.
116	OnBehalfOfSubID	N	—	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 43.
128	DeliverToCompID	N	—	String	The ID of the message's business content target. See "Business Sender and Target" on page 42.
52	SendingTime	Y	—	UTCTime stamp	The time of message transmission (GMT).
122	OrigSendingTime	N	—	UTCTime stamp	Original time of message transmission when transmitting orders as the result of a resend request.

Table 1-11 Standard Message Footer Field

Tag	Field Name	Req'd	Value	FIX Format	Comments
10	Checksum	Y (FIX)	—	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.

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

- "Message Sender and Target" on page 40
- "Business Sender and Target" on page 42
- "Users" on page 43
- "Legal Entities" on page 43

For a quick summary of how the FIX Client API uses these IDs, see the "Summaries of ID Values" on page 44.

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 ID" on page 41
- "FX Inside Server ID" on page 41

Your Organization ID

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

sessionType.orgShortName.otherData
quote.yourBank4.yourbank.com

Table 1-12 Organization ID Format

Token	Example	Description
sessionType	**quote**.yourBank4.yourbank.com	For a description of the following session types, see "Sessions" on page 9: ■ quote ■ order
orgShortName	quote.**yourBank4**.yourbank.com	Your organization's short name ID
otherData	quote.yourBank4.**yourbank.com**	Additional data agreed upon by you and Integral

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 44 and "Facilitator Users ID Summary Tables" on page 47.

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 1-13 *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 summary of how you should set the IDs of messages, see "Direct Users ID Summary Tables" on page 44 and "Facilitator Users ID Summary Tables" on page 47.

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).

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 for you. The business sender is your customer. The FIX Client API uses the OnBehalfOfCompID (#115) and DeliverToCompID (#128) fields to identify your customer organizations.

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 the OnBehalfOfCompID (#115) field with your customer's ID.

The Market Data Request request message is a special case. To send a request for subscription to all providers, set DeliverToCompID (#128) as blank on the Market Data Request message.

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 44 and "Facilitator Users ID Summary Tables" on page 47.

See "Client Roles" on page 33 for a description of user roles.

Users

For both direct customers and facilitators, the organization's trading user ID is sent in PartyID (#448) field of all user-initiated messages. See "Client Roles" on page 33 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, the your customer's user ID and organization is captured in the following fields in the form "*userId@orgId*":

- OnBehalfOfSubID (#116) in the New Order – Single and Order Status Request messages
- DeliverToCompID (#128) in the Execution Report message

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 44 and "Facilitator Users ID Summary Tables" on page 47.

See "Client Roles" on page 33 for a description of user roles.

Legal Entities

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

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

- SenderSubID (#50)
- TargetSubID (#57)
- OnBehalfOfSubID (#116)
- DeliverToSubID (#129)

You must receive these legal entity 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 44 and "Facilitator Users ID Summary Tables" on page 47.

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 33 for a description of direct and facilitator users.

- "Direct Users ID Summary Tables" on page 44
- "Facilitator Users ID Summary Tables" on page 47

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 33 for a detailed description of user roles.

Table 1-14 *Org and User IDs for Direct Users*

FIX Field	**Message Type**								
	Logon	**Heartbeat**	**Test Request**	**Market Data Request**	**Market Data Snapshot/ Full Refresh**	**Market Data Request Reject**	**New Order – Single**	**Execution Report**	**Order Status Request**
SenderCompID (#49)	*clientID*	directional	directional	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*

Table 1-14 *Org and User IDs for Direct Users (continued)*

FIX Field	Message Type								
	Logon	**Heartbeat**	**Test Request**	**Market Data Request**	**Market Data Snapshot/ Full Refresh**	**Market Data Request Reject**	**New Order – Single**	**Execution Report**	**Order Status Request**
TargetCompID (#56)	*serverID*	directional	directional	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*
DeliverToCompID (#128)	—	—	—	*providerOrg*	—	—	*providerOrg*	—	*providerOrg*
OnBehalfOfCompID (#115)	—	—	—	—	—	—	—	*providerOrg*	—
SenderSubID (#50)	—	—	—	*legalEntity*	—	—	*legalEntity*	—	*legalEntity*
OnBehalfOfSubID (#116)	—	—	—	—	—	—	—	—	—
TargetSubID (#57)	—	—	—	—	*legalEntity*	*legalEntity*	—	*legalEntity*	—
DeliverToSubID (#129)	—	—	—	—	—	—	—	—	—
PartyID (#448)	—	—	—	—	—	—	*userID*	—	*userID*
MDEntryOriginator (#282)	—	—	—	—	*providerOrg*	—	—	—	—

Table 1-15 *Org and User IDs for Direct Users: Order-Specific Messages*

FIX Field	Message Type				
	Order Cancel Request	**Order Cancel/Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**
SenderCompID (#49)	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*
TargetCompID (#56)	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*
DeliverToCompID (#128)	*providerOrg*	*providerOrg*	—	*providerOrg*	—
OnBehalfOfCompID (#115)	—	—	*providerOrg*	—	*providerOrg*
SenderSubID (#50)	*legalEntity*	*legalEntity*	—	*legalEntity*	—
OnBehalfOfSubID (#116)	—	—	—	—	—
TargetSubID (#57)	—	—	*legalEntity*	—	*legalEntity*
DeliverToSubID (#129)	—	—	—	—	—

Table 1-15 *Org and User IDs for Direct Users: Order-Specific Messages (continued)*

FIX Field	**Message Type**				
	Order Cancel Request	**Order Cancel/Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**
PartyID (#448)	*userID*	*userID*	—	*userID*	—
MDEntryOriginator (#282)	—	—	—	—	—

Key:

- *clientID*: Your FIX client organization ID. See "Message Sender and Target" on page 40.
- *serverID*: Your FIX client organization ID. See "Message Sender and Target" on page 40.
- directional: Either *clientID* or *serverID* depending on the message direction
- *legalEntity*: Your legal entity ID. See "Legal Entities" on page 43.
- *providerOrg*: The liquidity provider organization's ID
- *userID*: You organization's trading user's ID

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 33 for a detailed description of user roles.

Table 1-16 *Organization and User IDs for Facilitator Users*

FIX Field	Message Type								
	Logon	**Heartbeat**	**Test Request**	**Market Data Request**	**Market Data Snapshot/ Full Refresh**	**Market Data Request Reject**	**New Order – Single**	**Execution Report**	**Order Status Request**
SenderCompID (#49)	*clientID*	directional	directional	*clientID*	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*
TargetCompID (#56)	*serverID*	directional	directional	*serverID*	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*
DeliverToCompID (#128)	—	—	—	*providerOrg*	—	—	*providerOrg*	*user@userOrgproviderOrg*	
OnBehalfOfCompID (#115)	—	—	—	—	—	—	*user@userOrgproviderOrg*		*user@userOrg*
SenderSubID (#50)	—	—	—	*facilitatorLE*	—	—	—	—	—
OnBehalfOfSubID (#116)	—	—	—	—	—	—	*customerLE*	—	*customerLE*
TargetSubID (#57)	—	—	—	—	*facilitatorLE*	*facilitatorLE*	—	—	—
DeliverToSubID (#129)	—	—	—	—	—	—	—	*customerLE*	—
PartyID (#448)	—	—	—	—	—	—	*user*	—	*user*
MDEntryOriginator (#282)	—	—	—	—	*providerOrg*	—	—	—	—

Table 1-17 *Org and User IDs for Facilitator Users: Order-Specific Messages*

FIX Field	Message Type				
	Order Cancel Request	**Order Cancel/Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**
SenderCompID (#49)	*clientID*	*clientID*	*serverID*	*clientID*	*serverID*
TargetCompID (#56)	*serverID*	*serverID*	*clientID*	*serverID*	*clientID*
DeliverToCompID (#128)	*providerOrg*	*providerOrg*	*user@userOrgproviderOrg*		*user@userOrg*

Table 1-17 *Org and User IDs for Facilitator Users: Order-Specific Messages (continued)*

FIX Field	**Message Type**				
	Order Cancel Request	**Order Cancel/Replace Request**	**Order Cancel Reject**	**Order Mass Cancel Request**	**Order Mass Cancel Report**
OnBehalfOfCompID (#115)	*user@userOrg*	*user@userOrg*	*providerOrg*	—	*providerOrg*
SenderSubID (#50)	—	—	—	—	—
OnBehalfOfSubID (#116)	*customerLE*	*customerLE*	—	*customerLE*	—
TargetSubID (#57)	—	—	—	—	—
DeliverToSubID (#129)	—	—	*customerLE*	—	*customerLE*
PartyID (#448)	*userID*	*userID*	—	*userID*	—
MDEntryOriginator (#282)	—	—	—	—	—

Key:

- *clientID*: Your FIX client organization ID. See “Message Sender and Target” on page 40.
- *serverID*: Your FIX client organization ID. See “Message Sender and Target” on page 40.
- directional: Either *clientID* or *serverID* depending on the message direction.
- *user@userOrg*: Your customer’s user and organization ID.
- *facilitatorLE*: Your legal entity ID. See “Legal Entities” on page 43 and “Client Roles” on page 33.
- *customerLE*: Your customer’s legal entity ID. See “Legal Entities” on page 43 and “Client Roles” on page 33.
- *providerOrg*: The liquidity provider organization’s ID.
- *userID*: You organization’s trading user’s ID

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 50
- "Logout (Bidirectional)" on page 51
- "Heartbeat (Bidirectional)" on page 52
- "Test Request (Bidirectional)" on page 53
- "Session-Level Reject (Bidirectional)" on page 54

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 51.

Table 2-1 *Logon Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	A	String	A=Logon
49	SenderCompID	Y (FIX)	—	String	ID of your organization sending the message. See "Message Sender and Target" on page 40 for more details.

Table 2-1 Logon Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
56	TargetCompID	Y (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
98	EncryptMethod	Y (FIX)	0	int	0 (zero) = no encryption is used Radianz or VPN is used for transport-level security.
108	HeartBtInt	Y (FIX)	—	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 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. Valid values: ■ Y = Yes, reset sequence numbers ■ N = No
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.

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 (FIX)	5	String	5=Logout
49	SenderCompID	Y (FIX)	—	String	ID of your organization sending the message. See "Message Sender and Target" on page 40 for more details.
56	TargetCompID	Y (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
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).

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 (FIX)	0	String	0 (zero)=Heartbeat

Table 2-3 Heartbeat Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y (FIX)	—	String	ID of the organization sending the message, either your organization or FX Inside. See "Message Sender and Target" on page 40 for more details.
56	TargetCompID	Y (FIX)	—	String	ID of the organization receiving the message, either your organization or FX Inside. See "Message Sender and Target" on page 40 for more details.
112	TestReqID	N	—	String	Required when the heartbeat is the result of a Test Request message. See "Test Request (Bidirectional)" on page 53.

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 52.

Table 2-4 Test Request Message Fields

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	1	String	1=Test Request
49	SenderCompID	Y (FIX)	—	Boolean	ID of the organization sending the test request, either your organization or FX Inside. See "Message Sender and Target" on page 40 for more details.
56	TargetCompID	Y (FIX)	—	String	ID of the organization receiving the test request, either your organization or FX Inside. See "Message Sender and Target" on page 40 for more details.
112	TestReqID	Y (FIX)	—	String	The resulting Heartbeat message contains this ID. The TestReqID should be incremental.

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 55 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 (FIX)	3	String	3=Reject
45	RefSeqNum	Y (FIX)	—	SeqNum	The referenced message's sequence number.
372	RefMsgType	N	—	String	The MsgType (#35) of the FIX message being referenced.
371	RefTagID	N	—	int	The tag number of the FIX field that caused the message to be rejected.
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.
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
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)
58	Text	N	—	String	Free format text string

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
- 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)
g	Trading Session Status Request on page 58	O
h	Trading Session Status on page 58	I
V	Market Data Request on page 59	O

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)
W	Market Data Snapshot/Full Refresh on page 62	I
Y	Market Data Request Reject on page 65	I
R	Quote Request on page 67	O
AG	Quote Request Reject on page 69	I
S	Quote on page 70	I
Z	Quote Cancel on page 74	I
D	New Order – Single on page 75	O
F	Order Cancel Request on page 83	O
G	Order Cancel/Replace Request on page 85	O
9	Order Cancel Reject on page 90	I
q	Order Mass Cancel Request on page 91	O
r	Order Mass Cancel Report on page 93	I
H	Order Status Request on page 95	O
AF	Order Mass Status Request on page 96	O
8	Order Execution Report on page 99	I
j	Business Message Reject on page 112	B
AD	Trade Capture Report Request on page 113	O
AE	Trade Capture Report on page 114	I

3.3 Trading Session Status

The messages in this session are used to query the server and for server to inform the client of its trading status.

3.3.1 Trading Session Status Request (Client to FX Inside)

The client initiates the trading session for every workflow (ESP, RFS, orders) by sending a Trading Session Status Request to the server.

Table 3-2 *Trading Session Status Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	g	String	g=Trading Session Status Request
335	TradSesReqID	Y	—	String	Unique client ID used to as a reference to this request
263	SubscriptionRequestType	Y	0 (zero)	char	0=Snapshot

3.3.2 Trading Session Status (FX Inside to Client)

The server response asynchronously or as a response to the client's query with a Trading Session Status message.

Table 3-3 *Trading Session Status Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	h	String	h=Trading Session Status
335	TradSesReqID	N	—	String	A reference to the TradSesReqID (#335) sent by the client
336	TradingSessionID	Y	—	String	ID of the trading session

Table 3-3 Trading Session Status Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
325	UnsolicitedIndicator	N	—	Boolean	■ Y=Message is being sent unsolicited ■ N=Message is being sent as a response to a prior Trading Session Status Request
340	TradSesStatus	Y	—	char	The server's current trading session status: 0=Unknown 1=Halted: trading is temporarily suspended 2=Open 3=Closed

3.4 Market Data Messages

The messages in this section are used to access the ESP workflow of FX Inside (see "Trading Workflows" on page 10).

3.4.1 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 10 for information about trading workflows.

Table 3-4 Market Data Request Message Fields

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	V	String	A=Market Data Request

***Table 3-4** Market Data Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y (FIX)	—	String	Your organization's ID. See "Message Sender and Target" on page 40 for more details.
50	SenderSubID	Y	—	String	Your legal entity's ID
56	TargetCompID	Y (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
116	OnBehalfOfSubID	N	—	String	Not included in the message (not applicable)
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID if the message is intended for a specific provider. Leave blank to request a subscription from all providers.
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 3-4 *Market Data Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
146	NoRelatedSym	Y (FIX)	1	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).
262	MDReqID	Y (FIX)	—	String	The unique identifier for the Market Data request. This is stored in the external request ID field. FX Inside rejects all requests with duplicate IDs.
263	SubscriptionRequestType	Y (FIX)	1 = Snapshot + Updates (subscribe to stream, default) 2 = Disable previous Snapshot + Update Request (Unsubscribe)	char	SubscriptionRequestType 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 (FIX)	■ 0 = Full book ■ 1 = Top of book ■ *N* > 1 = Best *N* price tiers of data	int	Depth of market for book snapshot.

Table 3-4 *Market Data Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
265	MDUpdateType	Y	0 = Full Refresh	int	This value specifies the type of Market Data update. This field is required with the SubscriptionRequestType (#263) value of 1 (Snapshot + Updates).
267	NoMDEntryTypes	Y (FIX)	—	NumInGroup	Number of MDEntryType (#269) fields requested.
269	MDEntryType	Y (FIX)	N/A (see comments)	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 will be multiple instances of the MDEntryType (#269) field.

3.4.2 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 an asterisk (*) on the tag number and shading in the table below.

Table 3-5 *Market Data Snapshot/Full Refresh Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	W	String	W=Market Data Snapshot/Full Refresh

Table 3-5 Market Data Snapshot/Full Refresh Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y (FIX)	—	String	The message sender's ID. See "Message Sender and Target" on page 40.
56	TargetCompID	Y (FIX)	—	String	Your organization's ID
57	TargetSubID	Y	—	String	Your legal entity's ID
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 64.
262	MDReqID	Y (FIX)	—	String	Unique identifier for the Market Data Request
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.
268	NoMDEntries	Y (FIX)	—	NumInGroup	Number of entries in market data message. Each bid and offer represents one market data entry. If three bid and three offer dealing prices are included, the value of the NoMDEntries (#268) field is 6.

Table 3-5 *Market Data Snapshot/Full Refresh Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
269*	MDEntryType	Y (FIX)	—	char	The side of the rate. Part of the repeating group of fields for each rate in the update. 0 = Bid 1 = Offer
270*	MDEntryPx	Y (FIX)	—	Price	The price. For example, if MDEntryType (#269) field of a repeating group is 0 (bid), this field holds the bid price. Part of the repeating group of fields for each rate in the update.
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. Part of the repeating group of fields for each rate in the update.
271*	MDEntrySize	Y (FIX)	—	Qty	The quantity (in the case of multiple tiers, the limit). Part of the repeating group of fields for each rate in the update.
276*	QuoteCondition	Y	—	MultipleValue String	Indicates whether the rate is tradable or only indicative. Part of the repeating group of fields for each rate in the update. A=Open/Active B=Closed/Inactive
282*	MDEntryOriginator	Y	—	String	The provider organization ID. The provider associated with the bid or offer quote. Part of the repeating group of fields for each rate in the update.

Table 3-5 *Market Data Snapshot/Full Refresh Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
299*	QuoteEntryID	Y	—	String	Uniquely identifies each rate as part of a quote set. The reference ID for the dealing price. Part of the repeating group of fields for each rate in the update.
290*	MDEntryPositionNo	Y	—	int	Part of the repeating group of fields for each multi-tier price in the update. 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. See "Quote Types" on page 34 for information about business rules regarding multi-price and multi-tier quotes.

3.4.3 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	Comments
35	MsgType	Y	Y	String	Y=Market Data Request Reject
49	SenderCompID	Y (FIX)	—	String	The message sender's ID. See "Message Sender and Target" on page 40.
56	TargetCompID	Y (FIX)	—	String	Your organization's ID
57	TargetSubID	Y	—	String	Your legal entity's ID

Table 3-6 *Market Data Request Reject Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
115	OnBehalfOfCompID	N	—	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
262	MDReqID	Y (FIX)	—	String	The unique identifier for the 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
58	Text	N	—	String	A description of the rejection

3.5 Quote Messages

The messages in this section are used to access the RFS workflow of FX Inside (see “Trading Workflows” on page 10).

3.5.1 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 10).

Table 3-7 *Quote Request Fields*

Tag	Field Name	Req’d	Value	FIX Format	Comments
35	MsgType	Y	R	String	R=Quote Request
40	OrdType	Y	—	Char	D = Previously quoted (for FX spot and FX outright RFS. G = FX swap
167	SecurityType	Y	FOR	String	FOR = Foreign Exchange Contract
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".
115	OnBehalfofCompID	Y	—	String	The customer ID as assigned by the liquidity provider
55	Symbol	Y	—	String	Currency pair symbol
15	Currency	N	—	Currency	Dealt currency
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 Blank = 2-Way

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
38	OrderQty	Y	—	Qty	Requested amount specified in the dealt currency Currency (#15). For FX swap, this is the near leg amount.
192	OrderQty2	N	—	Qty	Requested amount specified in the dealt currency Currency (#15). For FX swap, this is the far leg amount.
64	FutSettDate	N	■ Tenor: See "Supported Tenors" on page 24. ■ Broken date: *YYYYMMDD*	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 blank, it is considered a spot stream request.
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 24. ■ Broken date: *YYYYMMDD*	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.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
126	ExpireTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	Quote Request expiry time. Only the time portion is used as an expiry time interval. For example, "00:01:00" means a RFS valid for 1 minute.
60	TransactTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	The time the Quote Request is sent by the client. This field is automatically stamped by the FIX engine.

3.5.2 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	Comments
35	MsgType	Y	AG	String	AG=Quote Request Reject
131	OrdReqID	Y	—	String	The OrdReqID (#131) of the Quote Request message that has been rejected

Table 3-8 *Quote Request Reject Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
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
60	TransactTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	The time the Quote Request reject message is generated

3.5.3 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	Comments
35	MsgType	Y	R	String	S=Quote
40	OrdType	Y	—	Char	D = Previously quoted (for FX spot and FX outright RFS. G = FX swap
167	SecurityType	Y	FOR	String	FOR = Foreign Exchange Contract
117	QuoteID	Y	—	String	Unique quote ID assigned by FX Inside

Table 3-9 *Quote Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
537	QuoteType	N	0 (zero)=Indicative (the quote is not tradable) 1=Tradable	int	
131	QuoteReqID	Y	—	String	Client assigned unique ID from the originating quote request
55	Symbol	Y	—	String	Currency pair symbol
15	Currency	N	—	Currency	Dealt currency
54	Side	Y	1 = Buy 2 = Sell Blank = 2-Way	Char	The order side is from customer's (FIX client) perspective. For FX swap, it is the side of the far leg.
188	BidSpotRate	N	—	Price	Bid spot rate. 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.
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.
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.

Table 3-9 *Quote Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
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
133	OfferPx	N	—	Price	All-in offer price. Included only if Side (#54) in the originating Quote Request is buy or 2-way.
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.
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.
64	FutSettDate	N	*YYYYMMDD*	LocalMktDate	■ FX spot: Spot date ■ FX outright: Outright value date ■ FX spot-forward swap: Spot date ■ FX forward-forward swap: Near value date

Table 3-9 Quote Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 24. ■ Broken date: *YYYYMMDD*	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.

Table 3-9 *Quote Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
62	ValidUntilTime	N	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	Expiry time of the quote. 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.
60	TransactTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	The time the message is generated. This field is automatically stamped by the FIX engine.

3.5.4 Quote Cancel (FX Inside to Client)

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

Table 3-10 *Quote Cancel Message Fields*

Tag	Field Name	Req'd	Value	Fix Format	Comments
35	MsgType	Y	Z	String	Z=Order Cancel
131	QuoteReqID	N	—	String	The QuoteReqID (#131) of the originating quote request.
117	QuoteID	Y	(blank)	String	This field must be included as empty. The entire RFS quote stream is canceled by the provider.
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.
60	TransactTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	The time the message was generated. This field is automatically stamped by the FIX engine.

3.6 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 10).

3.6.1 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 10 for more information about trading workflows.

Groups of associated, repeating fields are indicated by an asterisk (*) on the tag number and shading in the table below.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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 29.
122	OrigSendingTime	Y (see comments)	—	UTCTimestamp	Original time of message transmission. Required if the order message is a resend (PossDupFlag (#43) field is set to "Y").
49	SenderCompID	Y (FIX)	—	String	Your organization's ID

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 40 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 (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
115	OnBehalfOfCompID	Y	—	String	Your customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
116	OnBehalfOfSubID	Y	—	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
128	DeliverToCompID	Y	—	String	The liquidity provider organization's ID
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

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
447*	PartyIDSource	N	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.
11	ClOrdID	Y (FIX)	—	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 29.
167	SecurityType	Y	FOR	String	FOR = Foreign Exchange Contract
64	FutSettDate	N	*YYYYMMDD*	LocalMktDate	Specific date of trade settlement (settlement date)
55	Symbol	Y (FIX)	—	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.
54	Side	Y (FIX)	1=Buy (Bid) 2=Sell (Offer)	char	FX spot, outright: The side of the order from the client's perspective. FX swap: Indicates the side of the far leg.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
60	TransactTime	Y (FIX)	—	UTCTimestamp	Time this order request was initiated/released by the trader, trading system, or intermediary in the format: *YYYYMMDD-HH:MM:SS*
38	OrderQty	Y (FIX)	—	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).
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).

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
40	OrdType	Y (FIX)	■ D=Previously quoted (ESP or RFS) ■ 2=Limit (orders) ■ 1=Market or Market Range	char	Other order types are not currently supported. See "Supported Order Types" on page 26. If the order type is 1, then the value of the **PegDifference** (#211) field determines whether the order is a market order or a market range order. See "PegDifference" on page 81.
210	MaxShow	Y	■ 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).

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
211	PegDifference	N	N/A	PriceOffset	This field is required for: ■ Market range orders to specify the allowable slippage. A value of 5 indicates a slippage of 5 pips.
59	TimeInForce	Y	■ 1 = GTC ■ 3 = IOC ■ 4 = FOK ■ 6 = GTD	char	See "Order Expiry" on page 27 for a description of order expiry types.
18	ExecInst	Y	(blank) = No cross B = OK to cross	MultipleValueSt ring	How fills are executed against an order. If the ExecInst (#18) field is left blank, your order is not crossed with incoming market prices and is only filled by other market participants hitting the order. If the order is hidden, your order cannot be filled. See the "MaxShow" field on page 80 for more information about order visibility. If the field value is B, your order is filled both by crossing with incoming market prices and by market participants.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
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.
15	Currency	Y	—	Currency	The dealt currency. This may be the base or term currency of a currency pair.
21	HandlInst	Y (FIX)	1	char	1=Automated execution order, private, no manual intervention. Required by the FIX protocol but not applicable to the FIX Client API.
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 3-11 *New Order - Single Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format: *YYYYMMDD-HH:MM:SS*
126	ExpireTime	N	—	UTCTimestamp	The duration in hours, minutes, and seconds for which the order is good. Required when the TimeInForce (#59) value is 6 (GTD).

3.6.2 Order Cancel Request (Client to FX Inside)

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

Table 3-12 *Order Cancel Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	F	String	F=Order Cancel Request
49	SenderCompID	Y (FIX)	—	String	Your organization's ID
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 40 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 (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
115	OnBehalfOfComp ID	Y	—	String	Your customer organization’s ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
116	OnBehalfOfSubID	Y	—	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
41	OrigClOrdID	Y (FIX)	—	String	The **ClOrdID** (#11) value of the order to be cancelled
453	NoPartyIDs	N	1	NumInGrou p	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
447*	PartyIDSource	N	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.
11	ClOrdID	Y (FIX)	—	String	A unique ID for this cancel request assigned by the FIX client
55	Symbol	Y (FIX)	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, “EUR/USD”)
54	Side	Y (FIX)	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	Comments
60	TransactTime	Y (FIX)	—	UTCTimestamp	Time this cancel request was initiated/released by the FIX client.

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

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

Groups of associated, repeating fields are indicated by an asterisk (*) on the tag number and shading in the table below.

Table 3-13 Order Cancel/Replace Request Message Fields

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	F	String	G=Order Cancel/Replace Request
49	SenderCompID	Y (FIX)	—	String	Your organization's ID
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 40 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 (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
115	OnBehalfOfCompID	Y	—	String	Your customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
116	OnBehalfOfSubID	Y	—	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
41	OrigClOrdID	Y (FIX)		String	The **ClOrdID** (#11) value of the order to be cancelled and replaced
11	ClOrdID	Y (FIX)		String	The order ID assigned by the FIX client for the replacement order
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
447*	PartyIDSource	N	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.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
55	Symbol	Y (FIX)	—	String	The symbol for the base and variable currencies of the currency pair in the following format: *baseCCY/variableCCY* (for example, "EUR/USD")
54	Side	Y (FIX)	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	Comments
60	TransactTime	Y (FIX)	—	UTCTimestamp	Time this order request was initiated/released by the trader, trading system, or intermediary in the format: *YYYYMMDD-HH:MM:SS*
38	OrderQty	Y (FIX)	—	Qty	The amount of the base currency to be either bought or sold (as determined by **Side** (#54) field)
40	OrdType	Y (FIX)	■ 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 26. If the order type is 1, then the value of the **PegDifference** (#211) field determines whether the order is a market order or a market range order. See "PegDifference" on page 81.
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.
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	Comments
59	TimeInForce	Y	■ 1 = GTC ■ 3 = IOC ■ 4 = FOK ■ 6 = GTD	char	See "Order Expiry" on page 27 for a description of order expiry types.
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format: *YYYYMMDD-HH:MM:SS*
126	ExpireTime	N	—	UTCTimestamp	The duration in hours, minutes, and seconds for which the order is good. Required when the TimeInForce (#59) value is 6 (GTD).
58	Text	N		String	Free format text string
210	MaxShow	Y	■ Blank ■ 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 blank, 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).

3.6.4 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	Comments
35	MsgType	Y (FIX)	9	String	9 = Order Cancel Reject
49	SenderCompID	Y (FIX)	—	String	The message sender's ID. See "Message Sender and Target" on page 40 for more details.
56	TargetCompID	Y (FIX)	—	String	Your organization's ID
57	TargetSubID	N	—	String	■ The originating trader user's ID if you are dealing directly with the liquidity provider ■ 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
116	OnBehalfOfSubID	Y	—	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
128	DeliverToCompID	Y	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
129	DeliverToSubID	Y	—	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
37	OrderID	Y (FIX)	—	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.
11	ClOrdID	Y (FIX)	—	String	A session-scoped unique ID assigned by the FIX client for this cancel request being rejected

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
41	OrigClOrdID	Y (FIX)	—	String	The ClOrdID (#11) of the order that the FIX client wants to cancel
39	OrdStatus	Y (FIX)	—		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
434	CxlRejResponseTo	Y (FIX)	1	int	The type of request that has been rejected: ■ 1 = Order Cancel Request ■ 2 = Order Cancel/Replace Request
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
58	Text	N	—	String	Free format text string

3.6.5 Order Mass Cancel Request (Client to FX Inside)

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

Table 3-15 Order Mass Cancel Request Message Fields

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	q	String	q=Order Mass Cancel Request

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y (FIX)	—	String	Your organization's ID
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 40 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 (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
115	OnBehalfOfCompID	Y	—	String	Only cancel orders for the specified customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
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
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

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
447*	PartyIDSource	N	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.
11	ClOrdID	Y (FIX)	—	String	A unique ID for the mass cancel request assigned by the FIX client
37	OrderID	Y (FIX)	—	String	Unique ID generated by the FIX server
530	MassCancelRequestType	Y (FIX)	7	char	Supported values are as follows: 7 = Cancel all orders
60	TransactTime	Y (FIX)	—	UTCTimestamp	Time this cancel request was initiated/released by the FIX client.

3.6.6 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 Cancel Report Message Fields

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y (FIX)	r	String	r = Order Mass Cancel Report
49	SenderCompID	Y (FIX)	—	String	Your organization's ID

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider. See "Message Sender and Target" on page 40 for more details. ■ Not included in the message if you are dealing with the liquidity provider as a facilitator on behalf of the customer.
56	TargetCompID	Y (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
115	OnBehalfOfCompID	Y	—	String	Only cancel orders for the specified customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
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
11	ClOrdID	Y (FIX)	—	String	A unique ID for this mass cancel request assigned by the FIX client
530	MassCancelRequestType	Y (FIX)	—	char	Supported values are as follows: 7 = Cancel all orders
531	MassCancelResponse	Y (FIX)	—	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 Cancel Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
534	NoAffectedOrders	N	—	int	Total number of OrigClOrdID (#41) fields of orders affected by the mass cancel request
41	OrigClOrdID	N	—	String	An order ID affected by the mass cancel request. Required if the value of the NoAffectedOrders (#534) field is greater than zero.
60	TransactTime	Y (FIX)	—	UTCTimestamp	Time this cancel request was initiated/ released by the FIX client.
58	Text	N	—	String	Free format text string

3.6.7 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	Comments
35	MsgType	Y	H	String	H=Order status request
49	SenderCompID	Y (FIX)	—	String	Your organization’s ID. See “Message Sender and Target” on page 40 for more details.
50	SenderSubID	N	—	String	■ Your legal entity’s ID if you are dealing directly with the liquidity provider ■ 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 3-17 *Order Status Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
56	TargetCompID	Y (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
115	OnBehalfOfCompID	Y	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
116	OnBehalfOfSubID	Y	—	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
11	ClOrdID	N	—	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.

3.6.8 Order Mass Status Request (Client to FX Inside)

This message is sent by the client to request the status of all orders on the server.

Groups of associated, repeating fields are indicated by an asterisk (*) on the tag number and shading in the table below.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	AF	String	H=Order status request

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
49	SenderCompID	Y (FIX)	—	String	Your organization's ID. See "Message Sender and Target" on page 40 for more details.
50	SenderSubID	N	—	String	■ Your legal entity's ID if you are dealing directly with the liquidity provider ■ 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 (FIX)	—	String	The message target. See "Message Sender and Target" on page 40 for more details.
115	OnBehalfOfCompID	Y	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
116	OnBehalfOfSubID	Y	—	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
584	MassStatusReqID	Y	—	String	The unique ID of the request assigned by the client

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
584	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)
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
447*	PartyIDSource	N	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.

3.6.9 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	Comments
35	MsgType	Y (FIX)	8	String	8=Execution Report
49	SenderCompID	Y (FIX)	—	String	The message sender's ID. See "Message Sender and Target" on page 40 for more details.
56	TargetCompID	Y (FIX)	—	String	Your organization's ID
57	TargetSubID	N	—	String	■ The originating trader user's ID if you are dealing directly with the liquidity provider ■ 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

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
116	OnBehalfOfSubID	Y	—	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
128	DeliverToCompID	Y	—	String	The customer organization's ID if you are dealing with the liquidity provider as a facilitator on behalf of the customer
129	DeliverToSubID	Y	—	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
37	OrderID	Y (FIX)	—	String	The unique order ID assigned by the FIX server.
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.
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.
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.

Table 3-19 Execution Report Message Fields (continued)

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
17	ExecID	Y (FIX)	—	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).
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 26. If the order type is 1, then the value of the **PegDifference** (#211) field determines whether the order is a market order or a market range order. See "PegDifference" on page 81.
167	SecurityType	Y	FOR	String	FOR = Foreign Exchange Contract

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
150	ExecType	Y (FIX)	—	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
39	OrdStatus	Y (FIX)	—	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
103	OrdRejReason	N	—	int	See "Order Rejection Reasons" on page 111 for a description of valid values.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
64	FutSettDate	N	*YYYYMMDD*	LocalMktDate	■ FX spot: Spot date ■ FX outright: Outright value date ■ FX spot-forward swap: Spot date ■ FX forward-forward swap: Near value date
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 24. ■ Broken date: *YYYYMMDD*	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.
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.
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	Comments
54	Side	Y (FIX)	—	char	The order side is from customer's (FIX client) perspective. For FX swap, it is the side of the far leg. 1=Buy (Bid) 2=Sell (Offer) This should be the same value as the one received from the associated New Order - Single message.
15	Currency	Y	—	Currency	The dealt currency. This may be the base or term currency of a currency pair.
38	OrderQty	Y (FIX)	—	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.
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.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
44	Price	Y	—	Qty	This should be the same value as the one received from the associated New Order - Single message. 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.
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.
151	LeavesQty	Y (FIX)	—	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
7543	LeavesQty2	N	—	Qty	FX spot, outright: Not applicable. FX swap: Far-leg open amount

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
14	CumQty	Y (FIX)	—	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).
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).
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

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
641	LastForwardPoints2	N	—	PriceOffset	FX spot: Not applicable. FX outright: Not applicable. FX swap: Far-leg forward points
6	AvgPx	Y (FIX)	—	Price	The execution price (same as the **Price** (#44) field). The precision of this float value must be agreed upon by both the sending and the receiving parties. This should be the same value as the one received from the associated New Order - Single message.
60	TransactTime	Y (FIX)	—	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*
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").

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
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.
120	SettlCurrency	Y	—	Currency	Settled currency
110	MinQty	N	—	Qty	Minimum amount of the order that was requested to be executed. See "Minimum Order Size" on page 28. This field is ignored if TimeInForce (#59) is 4 (FOK).
64	FutSettDate	N	—	LocalMktDate	Specific date of trade settlement in *YYYYMMDD* format. This is the value date of the trade.
59	TimeInForce	Y	■ 1 = GTC ■ 3 = IOC ■ 4 = FOK ■ 6 = GTD	char	See "Order Expiry" on page 27 for a description of order expiry types.

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
168	EffectiveTime	N	—	UTCTimestamp	The order submission time in GMT in the format: *YYYYMMDD-HH:MM:SS*
126	ExpireTime	N	—	UTCTimestamp	The duration in hours, minutes, and seconds for which the order is good. Required when the TimeInForce (#59) value is 6 (GTD).
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).

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
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.
7541	LastPx2	N	—	Price	FX spot, outright: Not applicable. FX swap: Far-leg price at which the current or last fill was made.
32	LastQty	N	—	Qty	Amount for this or the last fill.
75	TradeDate	Y	—	LocalMktDate	The trade date (YYYYMMDD)

Order Rejection Reasons

The OrdRejReason (#103) field of the Order Execution Report message 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".

3.6.10 Business Message Reject (Bidirectional)

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

- The client sends the Business Message Reject message as part of the RFS workflow to cancel a Quote Request (RefMsgType (#372)=Z). See "Request for Stream (RFS) Workflow" on page 13.
- 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 13.
- 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 21.

Table 3-20 *Business Message Reject Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	j	String	j=Business Message Reject
372	RefMsgType	Y	—	String	The MsgType (#35) of the message referred to: 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)

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

Tag	Field Name	Req'd	Value	FIX Format	Comments
380	BusinessRejectReason	Y (from server) N (from client)	1 (one)	int	Applies only to the order status reject from the server. Code to identify reason for a Business Message Reject message. Currently, only 1=Unknown ID is supported.
58	Text	N	—	String	Free-format text string

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.

Table 3-21 *Trade Capture Report Request Message Fields*

Tag	Field Name	Req'd	Value	FIX Format	Comments
35	MsgType	Y	AD	String	AD=Trade Capture Report Request
568	TradeRequestID	N	—	String	The ID of the Trade Capture Report Request message.

Table 3-21 *Trade Capture Report Request Message Fields (continued)*

Tag	Field Name	Req'd	Value	FIX Format	Comments
17	ExecID	N	—	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 blank.
580	NoDates	N	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	N	*YYYYMMDD*	LocalMkd Date	Trade date in format
60	TransactTime	Y	*hh:mm:ss.sss*	UTCTimes tamp	The timestamp of the trade in GMT

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, ExecID (#17) is empty)
- Trade status (sent in response to a trade status query from the client)

Groups of associated, repeating fields are indicated by an asterisk (*) on the tag number and shading in the table below.

Table 3-22 *Trade Capture Report Message Fields*

Tag	Field Name	Req'd	Value	Fix Format	Comments
35	MsgType	Y	AE	String	MsgType = AE
50	SenderSubID	Y	—	String	Counterparty A of the trade. By convention, this is the taker of the trade.
57	TargetSubID		—	String	Counterparty B of the trade. By convention, this is the maker or liquidity provider of the trade.
571	TradeReportID	Y	—	String	Unique ID for the Trade Capture Report message
487	TradeReportTransType	Y	—	char	N = New, for a new STP deal download R = Replace, for an STP resend or a response to a Trade Capture Report Request from the client
453	NoPartyIDs	Y	1	NumInGroup	The number of repeating groupings of PartyID (#448), PartyIDSource (#447), and PartyRole (#452) to represent an end user ID who submits the order.
448*	PartyID		—	String	The ID of the taker user who initiated the trade. This is the user of the counterparty specified in SenderSubID (#50) field.

Table 3-22 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Comments
447*	PartyIDSource		D = Proprietary/ Custom code	char	The class or source of the PartyID (#448) value. Required if PartyID is specified.
452*	PartyRole		3 = Client ID	Int	The type or role of the associated PartyID (#448)
17	ExecID	Y	—	String	The trading application's trade ID
568	TradeRequestID	N	—	String	Request ID if the message is sent as a response to a Trade Capture Report Request from the client
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.
119	SettlCurrAmt	Y	—	Amt	Settled amount in terms of SettlCurrency (#120)
120	SettlCurrency	Y	—	Currency	Settled currency
64	FutSettDate	N	*YYYYMMDD*	LocalMktDate	Specific date of trade settlement: ■ FX spot, outright: Value date ■ FX swap: Near leg value date
55	Symbol	N	—	String	Currency pair symbol

Table 3-22 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Comments
54	Side	Y	—	char	The buy/sell side from customer's perspective in terms of the Currency (#15). For swaps, this is the side of the far leg. 1 = Buy 2 = Sell
38	OrderQty	N	—	Qty	Dealt amount specified in the Currency (#15). Same as LastQty (#32).
44	Price	Y	—	Price	Same as LastPx (#31)
15	Currency	Y	—	Currency	Dealt currency
167	SecurityType	Y	FOR	String	FOR = Foreign Exchange Contract
60	TransactTime	Y	*YYYYMMDD-hh:mm:ss.sss*	UTCTimestamp	The timestamp when the Execution Report occurred.
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)
194	LastSpotRate	N	—	Spot Rate	■ FX spot: Not applicable. ■ FX outright: Spot rate ■ FX swap: Near-leg spot rate

Table 3-22 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Comments
195	LastForwardPoints	N	—	Forward Points	FX spot: Not applicable FX outright: Forward points FX swap: Near-leg forward points
193	FutSettDate2	N	■ Tenor: See "Supported Tenors" on page 24. ■ Broken date: *YYYYMMDD*	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	FX spot, outright: Not applicable FX swap: Far leg dealt amount denominated in Currency (#15)
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)

Table 3-22 *Trade Capture Report Message Fields (continued)*

Tag	Field Name	Req'd	Value	Fix Format	Comments
75	TradeDate	Y	*YYYYMMDD*	LocalMktDate	Trade date

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 50	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 59	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 59 (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 59 (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 75	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 unsynchonized servers. See "Server Synchronization" on page 32.
	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 75 (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 exist 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 75 (continued)	RequestValidationError.toOrganization	Request does not include toOrg
	RequestValidationError.ExecInstNotSupported	The value of ExecInst (#18) must be either blank 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 95	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.

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
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 13, "Request for Stream (RFS) Workflow" on page 15, "Business Rejection" on page 18, and "Trade Done/Verified" on page 19. ■ Order status diagram and state descriptions updated to show possible transitions from Pending New to Partially Filled and Filled. See "Order Status" on page 30. ■ Clarified business day end and start in "Business Day End and Start" on page 32. ■ Corrected values for ExecInst (#18) in New Order – Single message. See "ExecInst" on page 81. ■ Expanded description of CoverExecID (#7601) to include multiple cover trades. See "Trade Capture Report (FX Inside to Client)" on page 116. ■ Added RequestValidationError.ExecInstNotSupported error to "Error Codes" on page 125.

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 114: □ 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 75 and "Quote Request (Client to FX Inside)" on page 67. The field is not required. ■ Added PegDifference (#211) to "New Order – Single (Client to FX Inside)" on page 75. ■ Added the following order types (see "Supported Order Types" on page 26): □ Market □ Market Range ■ Added 3=IOC to TimeInForce (#59) in "New Order – Single (Client to FX Inside)" on page 75, "Order Cancel/Replace Request (Client to FX Inside)" on page 85, "Execution Report (FX Inside to Client)" on page 99. ■ Reorganized "Supported Trading Workflows" section to include post-order workflows. See "Post-Order Workflows" on page 17**.** ■ Added section "Server Synchronization" on page 32. ■ Expanded description of "Trade Capture Report Request (Client to FX Inside)" on page 113. ■ Updated description of ClOrdID (#11) to make clear that the field's value is a session-scoped identifier. ■ Added section "Order Expiry" on page 27 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 90.

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 32. ■ Added information about ClOrdID (#11) and multiple execution attempts. See "Multiple Execution Attempts" on page 29. ■ Added tables of applicable messages to "Executable Streaming Prices (ESP) Workflow" on page 11, "Order Workflow" on page 13, and "Request for Stream (RFS) Workflow" on page 15. ■ Added STP via FIX: □ Added "Post-Trade Workflows" on page 20 □ Updated "Business Message Reject (Bidirectional)" on page 112 □ Added "Post-Trade Messages" on page 113 ■ Added ResetSeqNumFlag (#141) to "Logon (Bidirectional)" on page 50. ■ Added trading session messages in "Trading Session Status" on page 58. ■ Reworked "Order Status Request (Client to FX Inside)" on page 95. ■ Added "Order Mass Status Request (Client to FX Inside)" on page 96. ■ Added RFS workflow: □ "Trading Workflows" on page 10 and "Request for Stream (RFS) Workflow" on page 15 □ "Supported Deal Types" on page 24 □ "Supported Tenors" on page 24 □ "Quote Messages" on page 66 □ "Quote Request (Client to FX Inside)" on page 67 □ "Quote Request Reject (FX Inside to Client)" on page 69 □ "Quote (FX Inside to Client)" on page 70 □ "Quote Cancel (FX Inside to Client)" on page 74 □ "Business Message Reject (Bidirectional)" on page 112 ■ Updated "New Order – Single (Client to FX Inside)" on page 75: Added OrderQty2 (#192), Price2 (#640), SecurityType (#167), FutSettDate (#64). ■ Updated "Execution Report (FX Inside to Client)" on page 99: 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 59 □ "New Order – Single (Client to FX Inside)" on page 75 □ "Order Cancel Request (Client to FX Inside)" on page 83 □ "Order Cancel/Replace Request (Client to FX Inside)" on page 85 □ "Order Mass Cancel Request (Client to FX Inside)" on page 91 □ "Order Status Request (Client to FX Inside)" on page 95 ■ Corrected section "Order Visibility" on page 29. ■ Added clarifications to the following sections regarding hidden orders that cannot be filled: □ "Order Visibility" on page 29 □ "OrderQty" field on page 78 □ "MaxShow" field on page 80 □ "ExecInst" field on page 81
March 2008	2.0	■ To send a request for subscription to all providers, set DeliverToCompID (#128) as blank on the Market Data Request message. See "Business Sender and Target" on page 42 and "Market Data Request (Client to FX Inside)" on page 59. ■ 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 11 and "Order Workflow" on page 13. ■ The MinQty (#110) field is ignored if the TimeInForce (#59) value is FOK. See "MinQty" on page 79. No partial fill is allowed. ■ The following field have been made mandatory on the "Execution Report (FX Inside to Client)" on page 99: □ 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 75. ■ 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 blank 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 9 to emphasize section “Business Rules” on page 9. ■ Added description of session types in “Sessions” on page 9. ■ Added description of trading workflows in “Trading Workflows” on page 10. ■ Expanded description of partial fills to include multiple fills with a single provider “Partial Fills” on page 27. ■ Added trading workflow qualification to the sections “Partial Fills” on page 27, “Minimum Order Size” on page 28, “Order Visibility” on page 29, and “Order Status” on page 30. ■ Clarified workflow for limit orders in “Supported Order Types” on page 26 and “Market Data Request (Client to FX Inside)” on page 59. ■ Added explanation of execution retry for rejecting order requests in “Execution Report (FX Inside to Client)” on page 99.

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 ID" on page 41. ■ Added PartyID (#448) for identification of users in user-initiated messages. See "Users" on page 43, "Direct Users ID Summary Tables" on page 44, and "Facilitator Users ID Summary Tables" on page 44. ■ Added the following order-specific message types to the ID summary tables ("Direct Users ID Summary Tables" on page 44 and "Facilitator Users ID Summary Tables" on page 44): □ Order Cancel Request □ Order Cancel/Replace Request □ Order Cancel Reject □ Order Mass Cancel Request □ Order Mass Cancel Report ■ Added section "Orders" on page 25 to account for limit orders. □ Updated section "Supported Order Types" on page 26 with limit order type. □ Added section "Partial Fills" on page 27. □ Added section "Minimum Order Size" on page 28. □ Added section "Order Visibility" on page 29. ■ Added section "Order Status" on page 30. ■ Corrected values for MDEntryType (#269) in "Market Data Request (Client to FX Inside)" on page 59, "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 62, and "RequestValidationError. IncorrectMDEntryType" on page 121.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
November 2007 (continued)	1.0	■ Made the following changes to “New Order – Single (Client to FX Inside)” on page 75: □ 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 ■ Made the following changes to “Execution Report (FX Inside to Client)” on page 99: □ 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

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
November 2007 (continued)	1.0	■ Added the following messages: □ "Order Cancel Request (Client to FX Inside)" on page 83 □ "Order Cancel/Replace Request (Client to FX Inside)" on page 85 □ "Order Cancel Reject (FX Inside to Client)" on page 90 □ "Order Mass Cancel Request (Client to FX Inside)" on page 91 □ "Order Mass Cancel Report (FX Inside to Client)" on page 93
June 2007	1.0	■ Added RequestValidationError.LegalEntityNotSet error message to "Order Status Request" on page 126.
May 2007	1.0	■ Added Reject (session level) message. See "Session-Level Reject (Bidirectional)" on page 54 ■ Added unsubscribe value to SubscriptionRequestType (#263) field in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 62 ■ Corrected description of Currency (#15) field to include base and term currency in "New Order – Single (Client to FX Inside)" on page 75. ■ Added error codes to appendix "Error Codes" on page 120.
April 2007	1.0	■ Added PossDupFlag (#43) and OrigSendingTime (#122) to "Standard Header and Footer" on page 38. ■ Updated description of following fields in "Standard Header and Footer" on page 38 and in "Message Sender and Target" on page 40: □ SenderCompID (#49) □ TargetCompID (#56) ■ Updated explanations in "Message Sender and Target" on page 40 and "Business Sender and Target" on page 42. ■ Added new organization ID format description in "Your Organization ID" on page 41.

Table B-1 Document Changes (continued)

Date	Software Version	Enhancements
April 2007 (continued)	1.0	■ Updated description of following fields in "Standard Header and Footer" on page 38 and in "Business Sender and Target" on page 42. □ OnBehalfOfCompID (#115) □ DeliverToCompID (#128) ■ Added new server ID format description in "FX Inside Server ID" on page 41. ■ Updated description of SenderSubID (#50) in "Standard Header and Footer" on page 38 and in "Legal Entities" on page 43. ■ Updated description of OnBehalfOfSubID (#116) in "Standard Header and Footer" on page 38 and in "Users" on page 43. ■ Added new format to description of OnBehalfOfSubID (#116) field in "Users" on page 43. ■ Removed obsolete reference to Account (#1) in "Legal Entities" on page 43 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 44. ■ Updated start and end of day times in "Business Day End and Start" on page 32. ■ Added configuration parameters to "Sequence Number Reset" on page 32 ■ Added description of behavior for invalid Logon messages to "Logon (Bidirectional)" on page 50. ■ Added description of behavior for invalid Logon messages and Text (#58) field to "Logout (Bidirectional)" on page 51. ■ Removed following field descriptions from "Market Data Request (Client to FX Inside)" on page 59 (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 62. ■ Clarified uniqueness constraint of MDReqID (#262) field in "Market Data Snapshot/Full Refresh (FX Inside to Client)" on page 62.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
April 2007 (continued)	1.0	■ Removed following field descriptions from “Market Data Snapshot/Full Refresh (FX Inside to Client)” on page 62 (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 65 (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 75. ■ Removed following field descriptions from “New Order – Single (Client to FX Inside)” on page 75: □ Account (#1): Obsolete. This information is captured by legal entity IDs. See “Legal Entities” on page 43. □ TargetSubID (#57): Not applicable □ DeliverToSubID (#129): Not applicable ■ Removed following field descriptions from “Order Status Request (Client to FX Inside)” on page 95 (not applicable): □ TargetSubID (#57) □ DeliverToSubID (#129) ■ Removed following field descriptions from “Execution Report (FX Inside to Client)” on page 99 (not applicable): □ Account (#1): Obsolete. This information is captured by legal entity IDs. See “Legal Entities” on page 43. □ SenderSubID (#50): Not applicable ■ Added appendix “Error Codes” on page 120.

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
March 2007	1.0	■ Corrected directionality of Logon and Logout messages. See “Supported Message Types” on page 36, “Logon (Bidirectional)” on page 50, and “Logout (Bidirectional)” on page 51. ■ Made the following changes to “Market Data Request (Client to FX Inside)” on page 59: □ 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 62: □ 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 65. ■ Made the following changes to “New Order – Single (Client to FX Inside)” on page 75: □ Changed OnBehalfOfCompID (#115) to required and corrected description □ Changed OnBehalfOfSubID (#116) to required and corrected description ■ Made the following changes to “Order Status Request (Client to FX Inside)” on page 95: □ 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 99: □ 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)

Table B-1 *Document Changes (continued)*

Date	Software Version	Enhancements
August 2006	1.0	First version