Solid FX FIX Specification LP Interface

Version	Date	Remarks
1.0.0	01 June 2012	Initial version
1.1.0	03 December 2012	QuoteCancel: Symbol in NoQuoteEntries
1.2.0	26 February 2013	Support partial fills
1.3.0	2 January 2014	Changed supported symbol list
1.4.0	7 February 2014	Quote: TierID is changed to mandatory
1.4.1	21 February 2014	Additional text for conditionally required fields in ExecutionReport.
1.5	5 October 2015	DontKnowTrade message support. FutSettDate added to NewOrderSingle. FutSettDate mandatory on ExecutionReport. Textual changes.
1.6	16 March 2016	Tier not mandatory anymore for QuoteCancelType = 1
1.7	17 November 2016	Emphasize the use of BusinessMessageReject messages
1.8	6 March 2017	Added SecurityDefinitionRequest and SecurityDefinition message definitions.
1.8.1	20 June 2018	Emphasize a new quote replaces a previous quote
1.9	17 October 2018	New document design Added optional clearing account in NewOrderSingle and ExecutionReport
1.10	27 June 2022	Added NDF

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Contents

Introduction

This document provides a detailed overview of the FIX 4.2 Liquidity Provider (LP) Interface implementation exposed by the Solid FX (SFX) trading platform. This functionality is intended for clients who wish to send quotes to the platform and execute trades on the platform.

It is assumed that the reader of this document is familiar with the FIX protocol. Detailed information on FIX can be found at http://www.fixprotocol.org.

The Solid FX platform offers two FIX connections for LPs:

1. FIX connection for Quotes
2. FIX connection for Trades

The Solid FX platform opens Sunday at 17:05 ET and closes at Friday 17:00 ET. The FIX connections will be unavailable from 17:00 ET – 17:05 ET from Monday to Thursday. Please note that Daylight Savings Time applies when in observance.

The message sequence number for the Quote connection will be set to 1 at logon. The message sequence number for Trade connection will be set to 1 at the start of the trading session, i.e. Sunday 17:05 ET. The connecting client can force a reset of the message sequence number (by setting ResetSeqNumFlag=Y), although this is not recommended because of a possible loss of trade related messages.

Sessions to both FIX connections have a configured maximum message throughput limit. When this limit is reached, an incoming message will be answered by a BusinessMessageReject message indicating that the throughput limit is violated.

FIX Connection for Quotes

Using the Quote FIX connection LPs can

- submit quotes to the Solid FX platform;
- cancel previous quotes.

SFX will attach a received quote for a symbol to a tier (a name identified by tag 6700 in case an LP wishes to stream multiple layers of quotes). A new quote will replace both sides of the previous quote for the same symbol and tier. If one side is omitted in this new quote, the omitted side will be removed from the book. Quotes can only be completely deleted by sending a QuoteCancel message.

Quotes are unsolicited; SFX does not send quote requests to the LP connected via the Quote FIX connection.

Quotes for unsupported symbols will be rejected with a Business Message Reject. A list of currently supported symbols can be retrieved by sending a SecurityDefinitionRequest.

FIX Connection for Trades

The Trade FIX connection is used to

- send orders to LPs;
- receive execution reports from LPs.
- An order sent to an LP is always a 'Limit' order (OrdType = '2') with order timing 'Immediate Or Cancel' (IOC) or 'Fill Or Kill' (FOK).

Solid FX can use multiple PBs for clearing trades. The PB that will be used will be specified in the NewOrderSingle message by tag ClearingAccount (440). Solid FX decides for each order which PB will be used. The used values will be specified during the onboarding process by Solid FX. If there is only one PB applicable, the ClearingAccount tag will be omitted in the NewOrderSingle message.

An order:

- can be filled for the full quantity of the order;
- partially filled for less than the full quantity of the order, taking the MinQty into account if specified;
- canceled for the remaining part of the quantity of the order;
- rejected for the full quantity of the order.

Warning: If an ExecutionReport is not valid according to this FIX specification, a BusinessMessageReject message will be sent by SFX. This includes settlement date discrepancies: if the settlement date on the order and the related ExecutionReport(s) are not equal, a settlement date discrepancy occurs. **In the situation that a BusinessMessageReject has been sent, the complete order related to this ExecutionReport is canceled and any (previously) sent fills for this order must be canceled as well.**

Timeouts

Solid FX must have received a response upon an order within a configured number of milliseconds. When an ExecutionReport is received after the configured threshold, Solid FX will reject the ExecutionReport with a DontKnowTrade message. **The complete order is canceled and any (previously) sent fills for this order must be canceled as well.**

Standard Specification

Header

Every message needs to start with the following standard header:

Tag	Field name	Required	Comments
8	BeginString	Y	Message start – "FIX.4.2".
9	BodyLength	Y	Message length in bytes.
35	MsgType	Y	Message type.
49	SenderCompID	Y	Trading ID provided by Solid FX .
56	TargetCompID	Y	Trading ID of the Solid FX platform.
34	MsgSeqNum	Y	Message sequence number.
43	PossDupFlag	N	Indicates if this message has possibly been retransmitted.
52	SendingTime	Y	The UTC timestamp of the message.

Trailer

Every message needs to end with the following standard trailer:

Tag	Field name	Required	Comments
10	CheckSum	Y	Contains the checksum of the contents of the message (excluding the CheckSum itself) in 3 characters. The checksum is calculated by taking the sum of all bytes of the message; the checksum is then found by using the last 8 bits.

Session Level Message Specification

The following session level messages are supported:

In/Out	Message	MsgType (35)	Description
In/Out	Heartbeat	0	Monitors the status of the connection.
In/Out	Test Request	1	Forces a heartbeat from the opposing side.
In	Resend Request	2	Initiates retransmission of messages.
Out	Reject	3	Rejects an incoming message.

In/Out	Message	MsgType (35)	Description
Out	Sequence Reset	4	Resets the message sequence number.
In/Out	Logon	A	Logs a user on and acknowledges a logon.
In/Out	Logout	5	Logs a user out and acknowledges a logout.

Heartbeat

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 0]
112	TestReqID	N	Required if this is a response to a Test Request message.
	Standard trailer	Y	

Test request

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 1]
112	TestReqID	Y	This ID will be reported back in the resulting Heartbeat.
	Standard trailer	Y	

Resend request

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 2]
7	BeginSeqNo	Y	First sequence number to be resent.
16	EndSeqNo	Y	Last sequence number to be resent. Should be set to 0 when all messages following BeginSeqNo need to be resent.
	Standard trailer	Y	

Sequence Reset

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 4]
7	GapFillFlag	N	Indicates if this message is a gap fill.
16	NewSeqNo	Y	New sequence number.
	Standard trailer	Y	

Reject

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 3]

Tag	Field name	Required	Comments
45	RefSeqNum	Y	MsgSeqNum of the rejected message.
371	RefTagID	N	The tag number of the field being referenced.
372	RefMsgType	N	The MsgType of the message being referenced.
373	SessionRejectReason	N	Reason why the message has been rejected.
58	Text	N	Explaining text.
	Standard trailer	Y	

Logon

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = A]
98	EncryptMethod	Y	Encryption – "0".
108	HeartBtInt	Y	Heartbeat interval in seconds.
554	Password	Y	Assigned password.
141	ResetSeqNumFlag	N	Indicates if both incoming and outgoing sequence numbers should be reset to 1.
	Standard trailer	Y	

Logout

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 5]
58	Text	N	Logout message.
	Standard trailer	Y	

Application level specification

The following application level messages are supported:

In/Out	Message	MsgType (35)	Description
In	Security Definition Request	c	Request security definition.
Out	Security Definition	d	Submits security definition to LP.
In	Quote	S	Receives a quote from LP.
In	Quote Cancel	Z	Cancels a previously received quote.
Out	New Order Single	D	Submits order to LP.
In	Execution Report	8	Order confirmation (reject, fill).

In/Out	Message	MsgType (35)	Description
Out	Business Message Reject	J	Rejects incoming business message.

Security Definition Request

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = c]
320	SecurityReqID	Y	Unique ID for this message.
321	SecurityRequestType	Y	Type of request. The actual value is ignored, value "3" (Request List Securities) is always assumed.
	Standard trailer	Y	

Security Definition

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = d]
320	SecurityReqID	Y	ID of the Security Definition Request message.
322	SecurityResponseID	Y	Unique ID for this message.
393	TotalNumSecurities	Y	The number of securities in the message. Always 1.
55	Symbol	Y	Identifier for the requested symbol – See *Supported Symbols*.
64	FutSettDate	Y	String containing the maturity date in format "yyyymmdd".
6666	TickSize	Y	*Custom field, STRING*. Tick size for price changes – e.g. "0.0001".
63	SettlType	N	Tenor code only provided for NDF
167	SecurityType	N	Security Type FXNDF only provided for NDF
541	MaturityDate	N	Fixing Date only provided for NDF
	Standard trailer	Y	

Quote

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = S]
117	QuoteID	Y	Unique identifier for the quote.
55	Symbol	Y	Identifier for the symbol.
63	SettlType	N	Required when NDF.

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Tag	Field name	Required	Comments
167	SecurityType	N	FXSPOT (default) or FXNDF
132	BidPx	N	Bid price, required for Bids.
133	OfferPx	N	Offer price, required for Offers.
647	MinBidSize	N	Minimum quantity for the bid.
134	BidSize	N	Quantity of the bid, required for Bids.
648	MinOfferSize	N	Minimum quantity for the offer.
135	OfferSize	N	Quantity of the offer, required for Offers.
6700	TierID	Y	*Custom field*. Unique identifier for the tier.
	Standard trailer	Y	

Quote Cancel

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = Z]
117	QuoteID	Y	Unique identifier for the quote.
298	QuoteCancelType	Y	"1" – Cancel for Symbol and TierID. "4" – Cancel All Quotes for All Symbols and All Tiers.
6700	TierID	N	*Custom field*. Unique identifier for the tier.
295	NoQuoteEntries	N	Number of quotes. Required for QuoteCancelType = "1".
→55	Symbol	N	Identifier for the symbol of the quote. Required for QuoteCancelType = "1".
	Standard trailer	Y	

New Order Single

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = D]
11	ClOrdID	Y	Unique ID sent by SFX to identify the order.
1	Account	Y	Owner id of order from SFX perspective.
21	HandlInst	Y	"1" – Automated Execution Order Private.
110	MinQty	N	Minimum quantity of an order to be executed.
55	Symbol	Y	Identifier for the symbol.
54	Side	Y	Side of the order from SFX perspective.
38	OrderQty	Y	Order amount in CCY1 terms.

Tag	Field name	Required	Comments
40	OrdType	Y	Type of order.
44	Price	Y	Price of the order.
117	QuoteID	Y	Unique identifier for the quote, provided by the LP.
59	TimeInForce	Y	Specifies the duration of the order.
60	TransactTime	Y	Time of order creation in UTC format.
64	FutSettDate	Y	Date of trade settlement in YYYMMDD format.
440	ClearingAccount	N	Clearing account, possible values will be provided by Solid FX
6700	TierID	N	*Custom field*. Unique identifier for the tier.
63	SettlType	N	Tenor code only provided for NDF
167	SecurityType	N	Security Type FXNDF only provided for NDF
541	MaturityDate	N	Fixing Date only provided for NDF
	Standard trailer	Y	

Execution Report

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = 8]
37	OrderID	Y	Unique ID assigned to the order by the LP.
11	ClOrdID	Y	Unique ID sent by SFX to identify the order.
17	ExecID	Y	Unique ID assigned to this Execution Report by the LP.
39	OrdStatus	Y	Current status of the order.
55	Symbol	Y	Identifier for the symbol.
54	Side	Y	Original side of the order from SFX perspective.
38	OrderQty	Y	Order amount in CCY1 terms.
44	Price	Y	Price of the order.
32	LastShares	N	Quantity of last fill. Required for OrdStatus = "1" and "2".
31	LastPx	N	Price of last fill. Required for OrdStatus = "1" and "2".
14	CumQty	Y	Total quantity executed for this order expressed in CCY1 terms.
6	AvgPx	Y	Average price of all fills.

Tag	Field name	Required	Comments
64	FutSettDate	N	Date of trade settlement in YYYMMDD format. Required for OrdStatus = "1" and "2" and will be checked for correctness.
58	Text	N	Clarifying text.
440	ClearingAccount	N	Clearing account, value should be echoed from the NewOrderSingle if present
63	SettlType	N	Tenor code should be echoed for NDF
167	SecurityType	N	Security Type FXNDF should be echoed for NDF
541	MaturityDate	N	Fixing Date should be echoed for NDF
	Standard trailer	Y	

Don't Know Trade

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = Q]
37	OrderID	Y	Unique ID assigned to the order by the LP.
17	ExecID	Y	Unique ID assigned to this Execution Report by the LP.
127	DKReason	Y	Reason for execution rejection.
55	Symbol	Y	Identifier for the symbol.
54	Side	Y	Original side of the order from SFX perspective.
32	LastShares	N	Quantity of last fill.
31	LastPx	N	Price of last fill.
58	Text	Y	Contains "Trade NOT accepted."
63	SettlType	N	Tenor code only provided for NDF
167	SecurityType	N	Security Type FXNDF only provided for NDF
541	MaturityDate	N	Fixing Date only provided for NDF
	Standard trailer	Y	

Business Message Reject

Tag	Field name	Required	Comments
	Standard header	Y	[tag 35, MsgType = j]
45	RefSeqNum	N	MsgNum of the rejected message.
372	RefMsgType	Y	MsgType of the rejected message.
380	BusinessRejectReason	Y	Reason for rejection.

Tag	Field name	Required	Comments
58	Text	N	Explaining text.
	Standard trailer	Y	

Field specifications

The following table specifies fields used in the messages. If a field is not specified, the default FIX 4.2 field specification is used.

Tag	Field name	MsgType (35)	Supported Values
298	QuoteCancelType	Z	"1" – Cancel for Symbol and TierID. "4" – Cancel All Quotes for All Symbols and All Tiers.
21	HandlInst	D	"1" – Automated Execution Order Private.
40	OrdType	D	"2" – Limit.
54	Side	D	Side from SFX perspective: "1" – Buy order. "2" – Sell order.
59	TimeInForce	D	"3" – Immediate Or Cancel (IOC). "4" – Fill Or Kill (FOK).
39	OrdStatus	8	"1" – Partially Filled. "2" – Filled. "4" – Canceled. "8" – Rejected.
54	Side	8	"1" – Buy order. "2" – Sell order.
64	FutSettDate	D, 8	YYYMMDD – Contains the settlement date used by Solid FX. Must be echoed in the ExecutionReport in case of OrdStatus = "1" or "2".
63	SettlType	D, D, 8, Q	Allowed values: 1W, 1M, 2M, 3M, 6M, EOM (End of Month), EONM (End of Next Month). Please use security definition request for available values. The LP's Settllement and Fixing dates can be checked against those in the SecurityDefinition's. Solid will also send the required settlement and fixing date on new orders.
127	DKReason	Q	"D" – No Matching Order
380	BusinessRejectReason	j	"0" – Other.