Specification

16 March 2016

CURRENEX

FIX Real Time Straight Through Processing Specification

Please contact Currenex sales representatives and help desk personnel for more information on this documentation.

Table of Contents

Currenex Client Support

US Toll Free: + 1 877 939 8723

London: + 0 800 358 5331

Singapore: + 65 6826 7476

Tokyo: + 813 4530 7555

All Other Countries:

Primary: + 1 212-340-1790

Secondary: + 1 212-685-5950

support@currenex.com

Currenex Sales

New York: + 212 340 5220

London: + 44 203 395 7930

Tokyo: + 81 3 4530 7555

Hong Kong: +852 2230 1566

Singapore: + 65 6826 7476

Australia: + 612 8429 1204

sales@currenex.com

V1.15| 11.2 | ALL | DIR-MARGIN | COMM-541 | TO

1 INTRODUCTION

1.1 Purpose

The purpose of this document is to present in detail the Financial Information eXchange (FIX) protocol subset used by the Currenex FIX STP service.

The Currenex FIX STP offering supports the automatic sending of trade events that occur on the Currenex platform in real time via FIX.

This document describes the Currenex FIX STP offering and provides a detailed description of the supported FIX STP message set.

1.2 Architecture

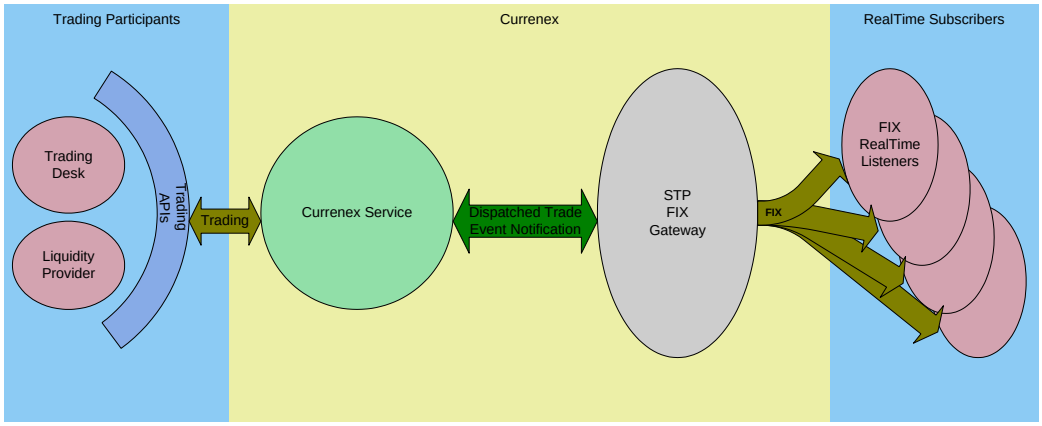

Figure 1: FIX STP Architecture.

2 CONNECTIVITY

MMs and MPs can connect to the Currenex FIX Gateway via the Public Internet, financial extranets or a private network. Please refer to the "FIX Network Connectivity" document, (which can be found on the integration-support site or from your Currenex representative), for further details relating to connectivity.

3 SUPPORTED MESSAGES

The Currenex FIX STP implementation supports FIX version 4.4 messaging.

The following convention is used in this document to indicate message direction:

In	a message from the FIX STP Client to Currenex
Out	a message from Currenex to FIX STP Client.
In/Out	a message that can be sent to or from a FIX Client or Currenex

Available fields, requirement, values and their associated meaning are documented in the Message Details section.

Clients are advised to ensure their FIX engine observes the standard FIX 4.4 protocol in which only the order of first three (3) fields of the header need to be guaranteed.

3.1 Session Messages

Session messages establish, maintain and terminate a FIX STP client to Currenex connection.

For a detailed description of FIX Session related information, including Session Message details and information on Sequence Number Resets, please refer to the "FIX Session Specification" (which can be found on the integration-support site or from your Currenex representative)

- Logon – (In/Out) message sent by a FIX STP Client to initiate a FIX session to Currenex. Logon response is sent by Currenex. The Logon message establishes the communication session, authenticates the connecting client, and initializes the message sequence number.
- Heartbeat – (In/Out) message sent by Currenex during periods of application inactivity to ensure connection validity. A Real Time client should respond to heartbeat messages upon receipt.
- Resend Request – (In/Out) message that can be sent by either Currenex or a client to request certain messages be resent. Often used when gaps are detected in the sequence numbering, when a message is lost, or during the initialization process.
- Test Request – (In/Out) used to verify session connectivity and to synchronize sequence numbers. Either Currenex or the connecting party can send a test request message. The recipient of a test request message should respond to it with a heartbeat message
- Logout - (In/Out) message signalling the normal termination of the trading session. Sessions terminated without a Logout message will be considered an abnormal condition. The Currenex FIX gateway treats a client as logged out whenever the communication session is dropped.

3.2 Application Messages

Once a proper session is established, MPs use application messages to subscribe to and receive completed trade information. See the below summary.

Foreign Exchange Instruments:

Refer to the Message Ordering

Clients are advised to ensure their FIX engine observes the standard FIX 4.4 protocol in which only the order of first three (3) fields of the header need to be guaranteed.

Message Details section beginning on page 11 for detailed individual message descriptions.

If present in a message, the `Symbol` field refers to a foreign exchange (FX) currency pair, e.g., EUR/USD.

Currenex follows the International Organization for Standardization (ISO) currency pair symbol convention of BASE/TERM or CCY1/CCY2. Rates are expressed as one (1) unit of a quoted or BASE currency in units of the quoting or TERM currency. E.g., EUR/USD rate = 1.2000 means 1.2000 units of USD per one (1) unit of EUR.

US Treasury Instruments:

Refer to the Message Details section for individual message descriptions.

Symbol (55) is set to the instrument tenor. SymbolSfx (65) is set to the instrument state. The Committee on Uniform Securities Identification Procedures (CUSIP) unique security identifier that corresponds to the Symbol (55) and SymbolSfx (65) combination is set in SecurityID (48).

Messages:

- Business Message Reject – (Out) application message sent in response to any application level message that cannot be replied to with a normal matching response message.

  Also sent when a request message is received during non-Currenex trading hours. For a schedule of non-trading hours, please contact your Currenex service representative.
- Trade Capture Report Request – (In) message used in making a subscription request for trade capture reports. Only subscription requests are currently supported. Individual report request are not supported.
- Trade Capture Report Request Ack – (Out) message used to acknowledge receipt of a subscription request. If the request was successful, Currenex will start publishing reports. This message can also be used to reject a report request.
- Trade Capture Report – (Out) message used to send completed trade details. Requires confirmation of receipt.
- Trade Capture Report Ack – (In) message used to confirm the receipt of a Trade Capture Report.

4 MESSAGE WORKFLOW

4.1 General Workflow

Any message received by the Currenex FIX STP engine that is outside the scope of this document will be rejected with a Business Message Reject message.

The following codes are used to indicate trading level errors and can appear in the `BusinessRejectReason` field:

0. Other
1. Unknown ID
2. Unknown security
3. Unsupported message type
4. Application not available
5. Conditionally required field missing

4.2 Subscription

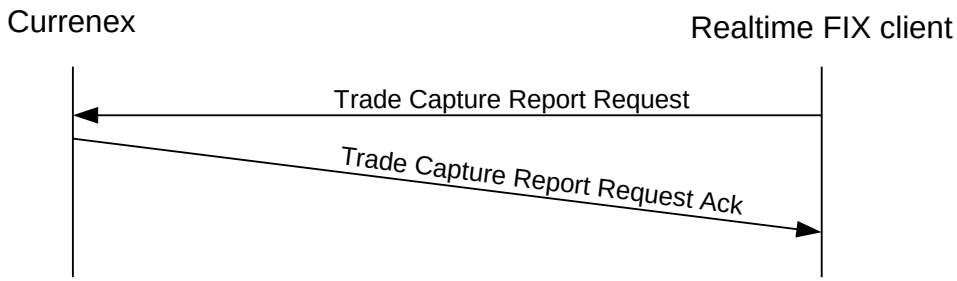

Figure 3: Capture Report Subscription Request and Acknowledgement

4.2.1 Trade Capture Report Request

A FIX STP client subscribes on the Currenex FIX Gateway by sending a Trade Capture Report Request message. The results returned depend on the values specified for fields TradeRequestType (569) and SubscriptionRequestType (263):

TradeRequestType

- 0 – All trades

SubscriptionRequestType

- 1 – Snapshot + Updates: Currenex sends all unconfirmed reports and continues to send new reports based on new trade events.
- 9 – Updates: Currenex only sends new reports, from the time of subscription. This is a Currenex specific usage.

4.2.2 Trade Capture Request Acknowledgment

Currenex responds to a client's Trade Capture Request with a Trade Capture Report Request Ack message. The status of the request is indicated in the fields `TradeRequestResult` (749) and `TradeRequestStatus` (750).

`TradeRequestResult:`

- 0 - Successful
- 8 - TradeRequestType not supported
- 9 - Unauthorized for Trade Capture Report Request
- 99 - Other

`TradeRequestStatus:`

- 0 - Accepted
- 2 – Rejected

A Trade Capture Report Request acknowledgement containing `TradeRequestResult (749)` = 0 and `TradeRequestStatus` (750) = 0 means a successful request has been made.

4.3 Trade Capture Models

Currenex supports the following trade capture subscription models:

- Receive all outstanding unconfirmed trade events and all new subsequent events

  `TradeRequestType` - 0 (All trades)

  `SubscriptionRequestType` - 1 (Snapshot + Updates)

- Receive only new events messages.

  `TradeRequestType` - 0 (All trades)

  `SubscriptionRequestType` - 9 (Updates)

4.4 Trade Capture Reports

4.4.1 Overview

Before any Trade Capture Report messages will be sent, a client must establish a connection and make a Trade Capture Report request. The client acknowledges receipt of a report through a Trade Capture Report Acknowledgment (Ack) message.

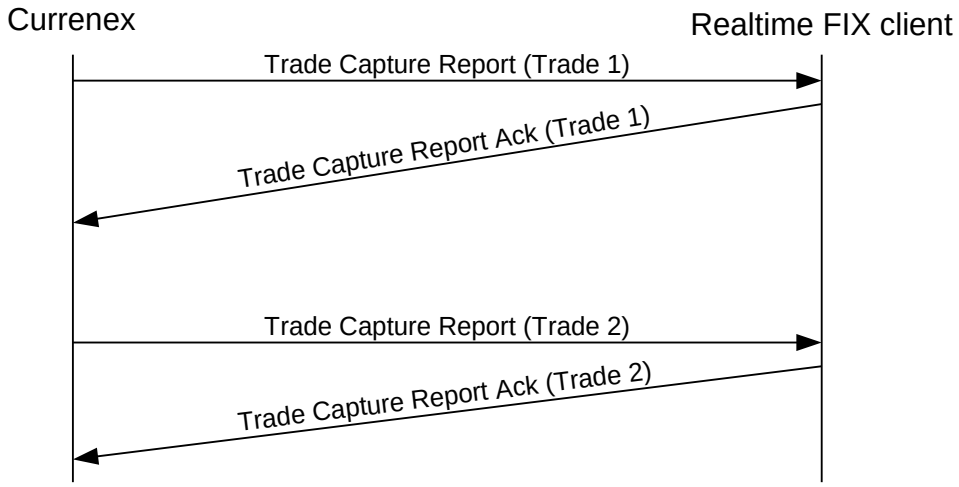

Figure4. Capture Reports Processing under Normal Condition.

For optimum performance, Trade Capture reports should be acknowledged immediately.

4.4.2 Trade Report Process Order

Currenex only sends trade report messages to a client that has successfully established a FIX Real Time connection and made a Trade Report Request. If no connection is established, no messages are sent.

The number of Trade Reports that can be outstanding is limited by a system default. See next section. If this limit is reached, a one (1) to one (1) relationship becomes effective in which one (1) Trade Report will be sent for each report acknowledged until the outstanding number of unacknowledged reports is less than the system limit.

Upon receiving the Trade Report Request, Currenex processes Trade Report messages in the order the trades were done as follows:

- Trade Reports from prior to the Request
- Any reports for trades done prior to the request are sent first.
- New Trade Reports
- Once all Trade Reports from prior to the request, if any, are acknowledged, Currenex will send reports for new trades completed since the Trade Report Request was made.
- Reports for events related to clearing
- For trade events on non-deliverableforward (NDF) instruments subject to clearing, Currenex will send two multiple reports for each event.
    - The first event will be sent corresponding to the execution with ExecType (150) set to “0,” for trades without allocations, or “W,” for trades with pre-trade allocations specified.
    - The second event will be sent corresponding to the acknowledgement for receipt of the submission by the clearing house. These events will have the following acceptable tag ExecType (150) value:
        - J = trade in Clearing hold

- The last event will be sent corresponding to the clearing status of the trade event. These events will have the following acceptable ExecType (150) values:
  - K = Fully Cleared
  - 4 = Rejected from Clearing

- When a trade capture report with ExecType (150) = W is followed by subsequent reports with ExecType (150) = J, K, or 4, the following tag values originally sent in the Component <TrdAllocGrp> in the message with ExecType (150) = W, will be sent in different tags for the subsequent messages:

Field	Placement when tag ExecType (150) = W	Placement when ExecType (150) = J, K, or 4
AllocAccount	AllocAccount (79)	Account (1)
IndividualAllocID	IndividualAllocID (467)	ExecID (17)
NoNested2PartyIds	NoNst2PtyIDs (756)	NoRootPartyIDs (1116)
Nested2PartyID	Nested2PartyID (757)	FCM Party ID sent RootPartyID (1117) when RootPartyRole (1119) = 4 FCM LEI sent in RootPartySubId (1121) when RootPartySubIDType (1122) = N
AllocQty	AllocQty (80)	LastQty (32)
SecondaryIndividualAllocId	SecondaryIndividualAllocId (989)	TradeID (1003)
AllocSide	AllocSide (8008)	Side (54)
CalculatedAllocQty	CalculatedAllocQty (8009)	CalculatedCcyLastQty (1056)
AllocQty2	AllocQty2 (7592)	OrderQty2 (192)
FarCalculatedAllocQty	FarCalculatedAllocQty (8010)	CalculatedCcylastQty2 (7595)

4.4.3 Trade Capture Reports Buffer Size

Trade Capture reports are sent in the order in which trades are executed. A new trade event can be sent before a previously sent trade event is acknowledged.

There is a system limit of one hundred (100) unacknowledged trade reports. If this limit is exceeded, additional Trade Capture reports will only be sent out in a one to one relationship to acknowledgments received.

For example, if a user has a total of one hundred (100) unacknowledged reports outstanding and a new trade is then completed, a Trade Capture report will not be sent for the new trade. However, if the user subsequently acknowledges at least one (1) outstanding report, then the Trade Capture report for the new trade will be sent out. This one (1) to one (1) relationship will continue until the number of unacknowledged Trade Capture reports falls below the system limit.

4.4.4 Duplicate Trade Reports

A trade marked acknowledged cannot be requested again. However, the Currenex Support Desk can be asked to resend an already acknowledged trade.

The requesting client must be able to handle the possibility of receiving duplicate trade capture reports. If multiple reports are received for a trade, all but the first report should be ignored.

5 MESSAGE ORDERING

Clients are advised to ensure their FIX engine observes the standard FIX 4.4 protocol in which only the order of first three (3) fields of the header need to be guaranteed.

6 MESSAGE DETAILS

Currenex FIX Real Time supports FIX version 4.4 required fields and a portion of the non-required fields. Some Currenex customized fields are also used.

This section provides field details of all the supported FIX messages. For each message, all Currenex supported required and non-required fields are listed.

Field names in ***bold italics*** represent repeating groups of fields. Please refer to FIX specification 4.4 for details on repeating groups.

The values under the "Required" column indicate one of the following:

'Y' field is mandatory and must be sent or received as a part of the message.

'N' Non-required field that should be omitted unless directed otherwise by Currenex.

6.1 Passwords for Logon Messages

The Currenex service requires users connecting via the FIX protocol to present a password as part of the logon message. Please refer to the "FIX Password Specification" (which can be found on the integration-support site or from your Currenex representative), for further details relating to passwords including password resets

6.2 Session Messages

For a detailed description of FIX Session related information, including Session Message details and information on Sequence Number Resets, please refer to the "FIX Session Specification" (which can be found on the integration-support site or from your Currenex representative)

6.3 Forex Instrument Specific Application Messages

6.3.1 Trading Session Status (Forex)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType tag 35 = h
336	TradingSessionID	Y	Identifier for this trading session.
340	TradSesStatus	Y	State of the trading session: 1 = Password reset is required
58	Text	N	Descriptive text message.
Standard Trailer		Y	

6.3.2 Business Message Reject (Forex)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = j
372	RefMsgType	Y	The MsgType of the FIX message being rejected.
380	BusinessRejectReason	Y	Reject reason code:
			0 = Other
			1 = Unknown ID
			2 = Unknown Security
			3 = Unsupported Message Type
			4 = Application not available
			5 = Conditional Required Field Missing
Standard Trailer		Y	

6.3.3 TradeCaptureReportRequest (Forex)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AD
568	TradeRequestID	Y	Id assigned by the client to the request.
569	TradeRequestType	Y	Trade Capture Report type:
			0 = All trades.
263	SubscriptionRequestType	Y	Subscription Request Type:
			1 = Snapshot + Updates.
			2 = Disable previous Snapshot and Update Request; i.e., unsubscribe.
			9 = Updates only
55	Symbol	Y	Supported value: “NA” Individual instrument subscription is not currently supported.
component block <TrdCapDtGrp>			
1408	DefaultCstmApplVerID	Y	2.1 = extended STP event type set support . XML = completed trade details delivered in XML
Standard Trailer		Y	

6.3.4 TradeCaptureReportRequestAck (Forex)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AQ
568	TradeRequestID	Y	Id assigned by the client to the request.
569	TradeRequestType	Y	0 = All trades
263	SubscriptionRequestType	Y	1 = Snapshot + Updates
			2 = Disable previous Snapshot + Update Request
			9 = Updates.
749	TradeRequestResult	Y	0 = Successful
			8 = Unsupported TradeRequestType
			9 = Unauthorized for Trade Capture Report Request
			99 = Other
750	TradeRequestStatus	Y	0 = Accepted
			2 = Rejected
55	Symbol	Y	Supported value: “NA” Individual instrument subscription is not currently supported.
Standard Trailer		Y	

6.3.5 Trade Capture Report (Forex)

The following Trade Capture Report is returned for Trade Capture Report Requests made with DefaultCstmApplVerID (1408) = XML.

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = n
212	XMLDataLen	Y	The size of the XML message in tag 213.
213	XMLData	Y	Trade detail in XML format.
Standard Trailer		Y	

The following Trade Capture Report is returned for Trade Capture Report Requests made with DefaultCstmApplVerID (1408) = 2.1.

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AE
571	TradeReportID	Y	Unique identifier assigned by Currenex to the trade capture report.
1003	TradeID	Y	Currenex assigned trade id; e.g., A200623400QJB00 Currenex assigned allocation tradeid when ExecType (150) is set to 4 – Rejected from clearing J – Trade in a clearing hold K – Fully Cleared
568	TradeRequestID	Y	Id assigned by the client to the request when report is in response to a Trade Capture Report Request.

Tag	Field Name	Required	Comments
828	TrdType	N	Trade processing system. Supported values: 101 - RFQ 102 - ESP 103 - Order (non ESP) 104 – MidX Set when ExecType (150) equals one of the following: 0 - New Trade W - Allocated (optional, only set if event is due to pre-trade allocation) Z – Rolled
855	SecondaryTrdType (Block Trade indicator)	N	0= Regular Trade 1 = Block Trade
829	TrdSubType	N	0= Staged Order
880	TrMatchID	N	The parent trade id on trades where a hub and or prime broker is in place. Not sent for bank direct or OXO trades.
17	ExecID	N	Unique RFQ buy side identifier Set when ExecType (150) equals one of the following: 0 - New Trade 4 – Rejected from clearing J – Trade in a clearing hold K – Fully Cleared W - Allocated (optional, only set if event is due to pre-trade allocation) Z - Rolled
527	SecondaryExecID	N	Unique identifier assigned to the trade by the sell side.

Tag	Field Name	Required	Comments
570	PreviouslyReported	Y	Indicates if a trade capture report has been previously sent: Y – previously sent N – not previously sent
150	ExecType (a.k.a. Event Type)	Y	0 - New Trade: generated upon a trade execution 4 – Rejected from clearing H – Cancel trade: generated when an existing trade is canceled. J – Trade in a clearing hold K – Fully Cleared G – Amend Trade: generated when an existing trade is amended. V- Money Manager (MM) allocated trade. W – Allocated Trade: generated when one (1) trade is allocated among one or many accounts. Each trade allocation has a reference back to the parent original trade. X – Spot Forward Breakout: Similar to an allocation except that the tenors can vary. Y – Cancel Rebook: generated when one (1) or many trades are canceled and replaced by one (1) trade Z – Rolled Trade: generated when a trade is rolled forward. New trade has a reference back to the original.
Component <RootParties>		Y	

Tag	Field Name			Required	Comments
1116	NoRootPartyIDs			Y	Number of RootPartyIDs to follow.
→	1117	RootPartyID		Y	Identifies each party to the trade
→	1118	RootPartyIDSource		N	Identifies whether Root Party ID is the reporting party for continuation data for SDR purposes. Omitted if not the reporting party M - Reporting Party
→	1119	RootPartyRole		Y	Role of the party identified in the RootPartyID: 1 – Executing firm 4 - Clearing Firm (FCM) 13 – Originating Customer 14 – Prime Broker 29 – Hub/Intermediary
→	Component <RootSubParties>				
→	1120	NoRootSubParties		N	Present for RootPartyRole (1119) equal to 1 or 13: 1- Foreign Exchange Contract 2- Non deliverable forward contract
→	→	1121	RootPartySubID	N	Additional identifier related to RootPartyID (1117). When RootPartySubIDType (1122) is set to 2, value will equal User ID. When RootPartySubIDType (1122) is set to N, value will equal LEI LEI of the FCM when 1119=4
→	→	1122	RootPartySubIDType	N	Type of RootPartySubID (1121): 2 = Individual Person. N = Legal Entity Identifier

Tag	Field Name		Required	Comments
→	End Component <RootSubParties>			
End Component <RootParties>				
Component <Instrument>				
55	Symbol		Y	Currency pair of the Forex trade or the currency of a Loan/Deposit (LD)
65	SymbolSfx		Y	Trade type: SP – spot OR – forward SW – swap LD – loan/deposit
460	Product		Y	4 – FX instruments 8 – LD
167	SecurityType		N	Set to FXNDF for NDF trades
Component <InstrumentParties>				
→	1018	NoInstrumentParties	N	Always 1
→	1019	InstrumentPartyID	N	Used to identify the clearing house. E.g., LCH, CME
→	1050	InstrumentPartyIDSource	N	D = proprietary/custom code
→	1051	InstrumentPartyRole	N	21 = Clearing Organization (DCO)
End Component <InstrumentParties>				
End Component <Instrument>				
32	LastQty		Y	Trade amount or swap trade near leg amount in Currency (15) Principal amount if an LD
31	LastPx		Y	All in spot, fwd or near leg fwd price,where the spot rate used is the LastSpotRate (194) Interest ratefor a LD
1056	CalculatedCcyLastQty		Y	Trade amount or near leg trade amount in counter

Tag	Field Name	Required	Comments
			currency tag 120. Interest Amount for a LD
15	Currency	Y	Dealt currency of the trade.
120	SettlCurrency	N	Counter currency. Not used for LD
194	LastSpotRate	N	Spot rate. Not used for LD
631	Midpoint	N	Mid-rate, present on non-spot trades Can appear more than once.
195	LastForwardPoints	N	Forward points or near leg forward points. Not used for LD If enabled, will display brokerage points for MidX.
1071	LastSwapPoints	N	Far leg points. Not used for LD
7596	MidPx2	N	Mid-rate for far leg of Swap Can appear more than once.
75	TradeDate	Y	Trade Date in YYYYMMDD format.
Component <TrdInstrmtLegGrp>		N	Optional group, used for offsetting new trades if the requester is a Hub or PB. Used for the parent trade(s) if ExecType(150) = “G”,”Y” or ”Z”
555	NoLegs	N	1 – if its an offsetting new trade leg >= 1, if its an amend, rolled, or cancel rebook
→	Component <InstrumentLeg>		

Tag	Field Name			Required	Comments
→	600	LegSymbol		N	Supported value: "NA"
→	624	LegSide		N	Side of hub to maker leg, if present: 1 =Buy 2= Sell
→	556	LegCurrency		N	Currency of hub to maker LegQty (687) , if present.
→	566	LegPrice		N	Trade spot rate of hub to maker's leg, if present.
→	631	Midpoint		N	Mid-rate, present if the requestor is a hub.
→	7596	MidPx2		N	Mid-rate for far leg of swap, present if the requestor is a hub.
→	End Component <InstrumentLeg>				
→	687	LegQty		N	Trade amount in LegCurrency (556)
→	990	LegReportID		N	On hub and Prime Broker (PB) requests: Currenex offsetting trade identifier. If applicable, Currenex identifier for Amended, Rebooked, or Rolled trade or trades.
	Component <NestedParties>			N	N
→	539	NoNestedPartyIDs		N	NestedPartyID and NestedPartyRole form a unique combination for each repeating group: 2 – only valid value
→	→	524	NestedPartyID	N	Identifies each party to the trade.
→	→	525	NestedPartyIDSource	N	Identifies whether Nested Party ID is the reporting party for continuation data for SDR purposes. Omitted if not the reporting party M- Reporting Party

Tag	Field Name				Required	Comments
→	→	538	NestedPartyRole		N	Role on the trade of the party identified in the NestedPartyID (524): 1 – Executing firm 13 – Originating Customer 14 – Prime Broker 29 – Hub/Intermediary
→	→	component <NstdPtysSubGrp>			Y	
→	→	804	NoNestedPartySubIDs		N	Present for NestedPartyRole (538) equal to 1 or 29: 1-Foreign Exchange Contract 2- Non deliverable forward contract
→	→	→	545	NestedPartySubID	N	Currenex assigned user id for the entity identified in NestedPartyID (524)
→	→	→	805	NestedPartySubIDType	N	Type of NestedPartySubID (545): 2 = Individual Person N = Legal Entity Identifier
→	→	End component <NstdPtysSubGrp>				
→	End Component <NestedParties>					
→	1073	LegLastForwardPoints			N	Trade forward points, or swap trade near leg forward points. Can be a negative value. Not used for LD
→	1074	LegCalculatedCcyLastQty			N	Counter currency amount in SettlCurrency (120). Not used for LD
→	1418	LegLastQty			N	Swap trades far leg amount in Currency (15). Not used for LD
→	7996	LegLastSwapPoints			N	Far leg points. Not used for LD

Tag	Field Name		Required	Comments
→	7997	LegCalculatedCcyLastQty2	N	Swap trade far leg calculated amount in SettlCurrency (120). Not used for LD
→	Component <RegulatoryTradeIDGrp>		N	Optionally provided USI/UTI information. Sent only to hubs for the offset trade.
→	1907	NoRegulatoryTradeIDs	N	Number of USI/UTI codes included in group. 1- Forwards 2- Swaps
→	→ 1903	RegulatoryTradeID	N	USI/UTI ID
→	→ 1905	RegulatoryTradeIDSource	N	USI/UTI Prefix
→	→ 1904	RegulatoryTradeIDEvent	N	0 – Initial block trade 2 – Clearing
→	→ 1906	RegulatoryTradeIDType	N	Side of the USI/UTI code for swaps 1- Near Leg 3- Far Leg
→	End Component <RegulatoryTradeIDGrp>			
End Component <TrdInstrmtLegGrp>			N	
60	TransactTime		Y	Time the trade occurred to milliseconds in YYYYMMDD-hh:mm:ss.mmm format For cleared NDF trades where ExecType (150) is set to J, K or 4, TransactTime (60) is the clearinging timestamp provided by the clearing house.
64	SettlDate		Y	Trade or trade near leg value date in YYYYMMDD format.
Component <TrdCapRptSideGrp>			Y	
552	NoSides		Y	1 – only value supported

Tag	Field Name			Required	Comments
→	54	Side		Y	Trade or trade near leg side: 1 buy 2 sell F – lend G - borrow
→	11	ClOrdID		N	Last submitted Client Order ID, if result of ESP order execution.
→	526	SecondaryClOrdID		N	Value from the taker staged order id
→	1	Account		Y	The account under which the trade was booked.
→	Component <SideRegulatoryTradeIDGrp>			N	Optionally provided USI/UTI information for the primary trade.
→	1971	NoSideRegulatoryTradeIDs		N	Number of USI/UTI codes included in group. 1-Forwards 2-Swaps and Outrights when tag 150 = K for Maker and taker download connections 3 Forwards when tag 150 = K for Download Agent connections
→	→	1972	SideRegulatoryTradeID	N	USI/UTI ID
→	→	1973	SideRegulatoryTradeIDSource	N	USI/UTI Prefix
→	→	1974	SideRegulatoryTradeIDEvent	N	0 – Initial block trade 2 – Clearing
→	→	1975	SideRegulatoryTradeIDType	N	Side of the USI/UTI code for swaps 1- Near Leg 2- Counterparty Near Leg 3- Far Leg
→	End Component <SideRegulatoryTradeIDGrp>				

Tag	Field Name		Required	Comments
→	825	Day Count Convention (ExchangeRule)	N	Present for LD trade only. ACT/360 ACT/365 30/360
→	Component <TrdAllocGrp>			
→	78	NoAllocs	N	Number of allocations
→ →	79	AllocAccount	N	Account for this alloction
→ →	467	IndividualAllocId	N	Taker's id for the allocation
→ →	Component <NestedParties2>			
→ →	756	NoNested2PartyIds	N	Number of Nested2Parties in repeating group
→ →	757	Nested2PartyID	N	Legal Entity Identifier (LEI) of the FCM when Nested2PartyIDSource (758) = N and Nested2PartyRole(759)=4
→ →	758	Nested2PartyIDSource	N	N – Party LEI
→ →	759	Nested2PartyRole	N	4 = Clearing Firm (FCM)
End Component <NestedParties2>				
→ →	80	AllocQty	N	Amount of this allocation in dealt ccy
→ →	989	SecondaryIndividualAllocId	N	Currenex id for allocation
→ →	8008	AllocSide	N	1 - buy 2 sell F – lend G - borrow
→ →	8012	SfbkSettleDate	N	Spot Forward Break Out (SFBK) leg value date
→ →	8013	SfbkPoints	N	SFBK points for this leg
→ →	8009	CalculatedAllocQty	N	AllocQty (80) contra amount.

Tag	Field Name				Required	Comments
→	→	7592	AllocQty2		N	Far amount for swap allocation
→	→	8010	FarCalculatedAllocQty		N	Far leg AllocQty2 (7592) contra amount
→	→	Component <AllocRegulatoryTradeIDGrp>			N	Optionally provided USI/UTI information for allocated trades.
→	→	1908	NoAllocRegulatoryTradeIDs		N	Number of USI/UTI Codes included in group. 1-Forward 2-Swap
→	→	→	1909	AllocRegulatoryTradeID	N	USI/UTI ID
→	→	→	1910	AllocRegulatoryTradeIDSource	N	USI/UTI Prefix
→	→	→	1911	AllocRegulatoryTradeIDEvent	N	1 – Allocation
→	→	→	1912	AllocRegulatoryTradeIDType	N	Side of the USI/UTI code for swaps 1-Near Leg 3- Far Leg
→	→	End Component <AllocRegulatoryTradeIDGrp>				
→	End Component <TrdAllocGrp>					
→	1057	AggressorIndicator			N	Present on trades with RootPartyRole = 13 (Originating Customer): Y – Aggressor N - Aggressed
End Component <TrdCapRptSideGrp>						
192	OrderQty2				N	Swap far leg amount in Currency (15)
193	SettlDate2				N	Swap far leg settlement date in YYYYMMDD format. Maturity date for LD.

Tag	Field Name	Required	Comments
			Required for LD
7595	CalculatedCcyLastQty2	N	Swap far leg amount in SettlCurrency (120).
6203	FixingDate	N	Fixing date for NDF, or near leg fixing date for NDF swaps
9121	FixingDate2	N	Far leg fixing date for NDF swaps
Standard Trailer		Y	

6.3.6 TradeCaptureReportAck (Forex)

If the TradeCaptureReportRequest was made with DefaultCstmApplVerID (1408) = XML, the following must be sent to acknowledge receipt of the Trade Capture Report.

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = n
212	XMLDataLen	Y	The size of the XML message in tag 213. Note: Tag 212 MUST precede tag 213 for the trade acknowledgement to be processed correctly.
213	XMLData	Y	=<?xml version="1.0" encoding="UTF-8"?> <RealTimeReply><trade><id>CURRENEX_ASSIGNED_ID</id><status>received </status></trade></RealTimeReply> Replace “CURRENEX_ASSIGNED_ID” above with the actual Currenex id returned under the partyReference href="Currenex_X in the XML received from Currenex. E.g., if the trade XML sent by Currenex has as the Currenex assigned trade id <partyReference href="Currenex_X'/> <tradeId>A200907602JH800</tradeId> then receipt is acknowledged by sending tag 213 as

			=<?xml version="1.0" encoding="UTF-8"?> <RealTimeReply><trade><id>A200907602JH800</id><status>received </status></trade></RealTimeReply>
Standard Trailer		Y	

If The TradeCaptureReportRequest was made with DefaultCstmApplVerID (1408) = 2.1, the following must be sent to acknowledge receipt of the Trade Capture Report.

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AR
571	TradeReportID	Y	The TradeReportID (571) from Trade Capture Report being acknowledged.
55	Symbol	Y	Supported value: “NA”.
Standard Trailer		Y	

6.4 US Treasury Securities Instrument Specific Application Messages

6.4.1 Trading Session Status (US Treasury Securities)

Tag	Field Name	Required	Comments
	Standard Header	Y	MsgType tag 35 = h
336	TradingSessionID	Y	Identifier for this trading session.
340	TradSesStatus	Y	State of the trading session: 1= Password reset is required 5 = Pre-Close
58	Text	N	Descriptive text message.
	Standard Trailer	Y	

6.4.2 Business Message Reject (US Treasury Securities)

Tag	Field Name	Required	Comments
	Standard Header	Y	MsgType tag 35 = j
45	RefSeqNum	N	MsgSeqNum of rejected message.
372	RefMsgType	Y	The MsgType of the FIX message being rejected.
380	BusinessRejectReason	Y	Code to identify reason for this reject message. 0 = Other 1 = Unknown ID 2 = Unknown Security 3 = Unsupported Message Type 4 = Application not available 5 = Conditional Required Field Missing
	Standard Trailer	Y	

6.4.3 TradeCaptureReportRequest (US Treasury Securities)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AD
568	TradeRequestID	Y	ID assigned by the client to the request.
569	TradeRequestType	Y	Trade Capture Report type: 0 = All trades.

Tag	Field Name	Required	Comments
263	SubscriptionRequestType	Y	Subscription Request Type:
			1 = Snapshot + Updates.
			9 = Updates only
			2 = Disable previous Snapshot and Update Request; i.e., unsubscribe.
55	Symbol	Y	Supported value: "NA" Individual instrument subscription is not currently supported.
Component block <TrdCapDtGrp>			
1408	DefaultCstmApplVerID	Y	2.0 = extended STP event type support set. If not present, defaults to legacy spot Trade Capture message.
Standard Trailer		Y	

6.4.4 TradeCaptureReportRequestAck (US Treasury Securities)

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType = AQ
568	TradeRequestID	Y	ID assigned by the client to the request.
569	TradeRequestType	Y	0 = All trades
263	SubscriptionRequestType	Y	1 = Snapshot + Updates
			2 = Disable previous Snapshot + Update Request
			9 = Updates.
749	TradeRequestResult	Y	0 = Successful
			8 = Unsupported TradeRequestType
			9 = Unauthorized for Trade Capture Report Request
			99 = Other
750	TradeRequestStatus	Y	0 = Accepted
			2 = Rejected
55	Symbol	Y	Supported value: "NA" Individual instrument subscription is not currently supported.
Standard Trailer		Y	

6.4.5 Trade Capture Report (US Treasury Securities)

Note that spread trades never are reported using the TCR.

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header			MsgType = AE		
571	TradeReportID	Y	Unique identifier assigned by Exchange to the trade capture report.	String	
1003	TradeID	Y	Exchange assigned trade ID	String	
568	TradeRequestID	Y	ID assigned by the client to the request when report is in response to a Trade Capture Report Request.	String	
828	TrdType	N	Type of execution	int	Supported values: 101 = RFQ 102 – CLOB
150	ExecType (a.k.a. Event Type)	Y	Generated upon a trade execution.	char	UST Supported Values: 0 – New Trade H – Cancel Trade: Generated when an existing trade is cancelled G – Amend Trade: Generated when an existing trade is amended. W – Allocated Trade:

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
					Generated when one (1) trade is allocated among one or many accounts. Each trade allocation has a reference back to the parent original trade Y – Cancel Rebook: Generated when one (1) or many trades are canceled and replaced by one (1) trade.
820	TradeLinkID	N	For offsetting trades this is an ID of the other trade	String	
880	TrMatchID	N	The parent trade id on trades where a hub and or prime broker is in place. Not sent for bank direct trades.	String	
17	ExecID	N	Unique RFQ buy side identifier	String	Set when TrdType (828) = 101 (RFQ) and ExecType (150) equals one of the following: 0 – New Trade
527	SecondaryExecID	N	Unique identifier assigned to the trade by the sell side.	String	

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
570	PreviouslyReported	Y	Indicates if a trade capture report has been previIndicates if a trade capture report has been previously sent:	boolean	Y – previously sent N – not previously sent:
423	PriceType	Y		int	1 = Price (percent of par) 4 = Discount 9 = Yield
Component <RootParties>					
1116	NoRootPartyIDs	Y	2 – only supported value	int	
→	1117 RootPartyID	Y	Identifies each party to the trade	String	
→	1119 RootPartyRole	Y	Role of the party identified in the NestedPartyID	String	1 – Executing firm 13 – Originating Customer 14 – Prime Broker 29 – Hub/Intermediary
→	Component <RootSubParties>				
→	1120 NoRootSubParties	N		int	Set to 1. Present for RootPartPresent for RootPartyRoles equal to 1 or 13:
→	→ 1121 RootPartySubID	N		String	
→	→ 1122 RootPartySubIDType	N		int	2 = Individual Person

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
→	End Component <RootSubParties>				
End Component <RootParties>					
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI,OTR,OLDn)
48	SecurityID	Y	Unique security ID assigned to instrument	String	CUSIP
22	SecurityIDSource	Y	Identifies class of Security ID	String	1 = CUSIP
460	Product	Y	Standard codes as specified	int	6 (Government)
167	Security Type	Y	Supported values as shown	String	TBILL, TNOTE, TBOND
541	MaturityDate	N	Date of Maturity	Date	Any acceptable business day
225	IssueDate (First Fixing Date)	N	Date instrument was issued	Date	Any acceptable business day
223	CouponRate	N	Coupon Rate assigned to US Treasury Instrument	int	
End Component <Instrument>					
Component <YieldData>					
236	Yield	N	Yield	Percentage	

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
End Component <YieldData>					
32	LastQty	Y	Amount	Qty	
31	LastPx	Y	Price	Price	
75	TradeDate	Y	Trade Date	Date	
Component <TrdInstrmtLegGrp>		N	Optional group, used for offsetting new trade if the requester is a Hub or PB.		
555	NoLegs	N	1 – if its an offsetting new trade leg	int	
Component <InstrumentLeg>			Required component		
→	600 Leg Symbol	Y	NA	String	NA
End Component <InstrumentLeg>					
→	687 LegQty	N	Amount	Qty	
→	566 LegPrice	N	Price	Price	
→	990 LegReportID	N	On Hub and Prime Broker (PB) requests: UST offsetting trade identifier.	String	If applicable, ID for amended, rebooked trade. .
Component <NestedParties>		N			
→	539 NoNestedPartyIDs	N	NestedPartyID and NestedPartyRole form a unique combination for each repeating group:	int	2

Tag	Field Name				Required	Instrument Requirements		
						Description	Type	Restrictions
						2 – only valid value		
→	→	524	NestedPartyID		N	Identifies each party to the trade.	String	
→	→	538	NestedPartyRole		N	Role in the trade of the party identified in 524	int	Role on the trade of the party identified in the NestedPartyID (524): 1 – Executing firm 13 – Originating Customer 14 – Prime Broker 29 – Hub/Intermediary
→	→	component <NstdPtysSubGrp>			N			
→	→	804	NoNestedPartySubIDs		N	Present for NestedPartyRole (538)	int	Always “1”
→	→	→	545	NestedPartySubID	N		String	SubType=2 Exchange assigned user ID for the firm identified in RootPartyID (524).
→	→	→	805	NestedPartySubID Type	N	Type of NestedPartySubID (545):	String	2 - Individual Person
→	→	End component <NstdPtysSubGrp>						
→	End Component <NestedParties>							

Tag	Field Name		Required	Instrument Requirements		
				Description	Type	Restrictions
→	1075	LegGrossTradeAmount	N	Principle Amount	String	
→	1418	LegLastQty	N	Accrued interest amount	float	
End Component <TrdInstrmtLegGrp>						
60	TransactTime		Y	Time the trade occurred.	TimeStamp	
64	SettlDate		Y	Settlement Date	Date	
Component <TrdCapRptSideGrp>						
552	NoSides		Y	Only one side used	int	1 – only value supported
→	54	Side	Y	Trade side	char	1 - buy 2 - sell
→	11	ClOrdID	N	Last submitted Client Order ID	String	
→	1	Account	Y	The account under which the trade was booked.	String	
→	381	GrossTradeAmt	Y	Principal amount	float	
→	159	AccruedInterestAmt	N	Accrued interest	float	
→	Component <TrdAllocGrp>					
→	78	NoAllocs	N	Number of Allocations	int	
→	→	79 AllocAccount	N	Account for this allocation	String	
→	→	467 IndividualAllocId	N	Taker's ID for the allocation	String	

Tag	Field Name			Required	Instrument Requirements		
					Description	Type	Restrictions
→	→	80	AllocQty	N	Amount of this alloc in dealt ccy	float	
→	→	742	AllocAccruedInterestAmt	N	Accrued interest amount of this allocation	float	
→	→	989	SecondaryIndividualAllocId	N	ID for this allocation	String	
→	→	8008	AllocSide	N	Direction	int	1 – Buy 2 – Sell
→	End Component <TrdAllocGrp>						
→	1057	AggressorIndicator		N	Optionaly supported only on trades with RootPartyRole = 13 (Originating Customer)	boolean	Suported Values: Y – aggressor N - aggressed
End Component <TrdCapRptSideGrp>							
Standard Trailer							

6.4.6 TradeCaptureReportAck (US Treasury Securities)

Tag	Field Name	Required	Comments
Standard Header			MsgType = AR
571	TradeReportID	Y	The TradeReportID (571) from Trade Capture Report being acknowledged
55	Symbol	Y	Supported value: “NA”
Standard Trailer		Y	

7 APPENDIX

7.1 UTC Time Format

All time and date formats must be in Coordinated Universal Time (UTC), commonly known as Greenwich Mean Time (GMT). The formats of various dates as defined by the World Wide Web Consortium (W3C) are

- Year:

  YYYY (2003)
- Year and month:

  YYYYMM (200307)
- Complete date:

  YYYYMMDD (20030716)
- Complete date plus hours and minutes:

  YYYYMMDD-hh:mm (20030716-19:20)
- Complete date plus hours, minutes and seconds:

  YYYYMMDD-hh:mm:ss (20030716-19:20:30)
- Complete date plus hours, minutes, seconds and milliseconds

  YYYYMMDD-hh:mm:ss.mmm (20030716-19:20:30.183)

Where

YYYY	= four-digit year
MM	= two-digit month (01=January, etc.)
DD	= two-digit day of month (01 through 31)
hh	= two digits of hour (00 through 23) (am/pm NOT allowed)
mm	= two digits of minute (00 through 59)
ss	= two digits of second (00 through 59)
mmm	= three digit millisecond (000 – 999)

7.2 Revision History

Revision Number	Revision Date	Page Number	Update
1	14 December 2012	18, 23	Section 5.3.5, Trade Capture Report: NDF support added, and Unique Swap Identifier (USI) added, ComplianceID (376).
2	01 February 2013	14, 20	Sections 5.3.3, TradeCaptureReportRequest and 5.3.5 TradeCaptureReport: Support added for version 2.1 of Trade Capture Report.
3	26 March 2013	21-23	Section 5.3.5: Removed ComplianceID (376). Added RegulatoryTradeIDGrp.
4	24 May 2013	16, 23	Section 5.3.5: Support added for staged order allocations; added TrdSubType (829), SecondaryClOrdID (526).
5	24 July 2013	*	Added additional SEF related tag (LEI/ClCl, Block Trade Indicator, Reporting Party Flag)
6	21 August 2013	24	Section 5.3.5: Day Count Convention (ExchangeRule) (825) changed from required to non-required.
7	17 September 2013	21	Section 5.3.5: Added NestedPartyIDSource (525) as the reporting party flag for the offsetting trade
8	09 January 2014	23-25	Section 5.3.5: Unique Trade Identifier (UTI) added to existing USI fields.
9	27 June 2014	13	Section 5.3.3: Removed references to legacy trade capture report types.
10	5 November 2014	9-26	Support for cleared NDFs added throughout.
11	12 March 2015	*	Support for US Treasury Instruments added throughout.
12	28 April 2015	12	Added Section 5: Message Ordering.
13	4 May 2015	39	Section 6.4.5: Updated the Restrictions for NestedPartyRole (538) and NoNestedPartySubIDs (804) on a US Treasury TradeCaptureReport (35=AE) message.
14	15 May 2015	33	Section 6.4.5: Removed references to post trade aggregation.
15	16 March 2016	17, 21	Section 6.3.5: Support added for MidX in TrdType (828) and LastForwardPoints (195).