

Currenex MidT

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1 Introduction

This document describes the Currenex MidT order type. It assumes that the reader is familiar with the Currenex FIX Order Specification as well as FIX protocol. The Currenex MidT supports FIX version 4.2 and FIX version 4.4.

In order to trade Currenex MidT, please contact support@currenex.com. Prior to trading MidT, please ensure you have discussed the rules of engagement with your Account Manager and are fully aware of the expected client behavior when trading Currenex MidT.

2 Product Details

The Currenex MidT Order Type allows two market participants (MPs) to anonymously match orders at the Currenex Weighted Average Mid-Rate (WAMR). The WAMR is derived from outstanding order rates and from quotes on the LiquidityEdge platform. Order related messages not specified within this document are not supported by Currenex MidT.

2.1 Order Entry

The FIX [NewOrderSingle \(35=D\)](#) message is used to enter an order.

2.1.1 Order Side and Size

Order side, specified in [Side \(54\)](#) must be set per order to '1' for Buy or '2' for Sell.

Order size, specified in [OrderQty \(38\)](#), must be in increments of one (1) million with a minimum order size of one (1) million base currency.

2.1.2 Order Expiry

MidT only supports a [TimeInForce \(59\)](#) set as '1,' Good Till Cancel. If not specified, this value will be set by default.

2.1.3 Minimum Time to Live

A minimum time to live (MTTL) is assigned to all orders submitted. The MTTL is defined per instrument, and cannot be specified by the submitting user.

2.1.4 Order Prioritization

Order book prioritization is based on submitted order entry time.

2.1.5 Optional Trigger Rate

An optional trigger rate, [MidMatchTriggerRate \(7598\)](#), can be set per order to indicate the rate (t_0) at which (or better) the client wishes to have his order exposed for MidT matching. The specified trigger rate must be in increments of $1/8^{\text{th}}$ of $1/32^{\text{nd}}$ in terms of price (0.00390625).

2.2 Order Matching

WAMR is polled randomly every 0-100 ms and that polled rate becomes the t_0 rate for all available matches at that time. Order matching occurs at time t_0 .

If a trigger rate is specified on the order, then the order is available for matching only when the prevailing WAMR rate at t_0 is at or better than the trigger rate.

Partial fills are permitted in amount increments of one million (1m).

A market stability mechanism prevents matching if between t_{-5} and t_0 the calculated WAMR High-Low range exceeds a Currenex predetermined value. The market stability mechanism is assigned on a per instrument basis.

Order entry will be rejected if an MP has a resting order on the other side of the market that has not satisfied its MTTL. Clients may have several active orders concurrently on either (but not both) side of market.

Once a match occurs at t_0 and the trades are booked, the Weighted Average Mark-Out (WAMO) will be calculated to determine the final all-in rate to be sent out via Execution Report and STP at t_n . WAMO is calculated based on the median of the WAMRs observed in the lead up to t_{10} , t_{15} and t_{20} .

To prevent counterparties from having unbounded market risk between t_0 and t_{20} , each currency pair has a Currenex defined 'WAMO Maximum Travel' value which determines the maximum distance that the all-in t_n WAMO rate may deviate from t_0 WAMR rate. Therefore, the combination of a 'trigger rate' per order and 'WAMO Max Travel' will allow clients to better risk manage their desired worst all-in rate on MidX orders.

If for whatever reason WAMO cannot be calculated, the t_0 WAMR rate will stand and Text (58) will reflect this.

2.3 Credit Reservation

At t_0 , credit is reserved.

2.4 Straight Through Processing (STP)

There are two alternatives for receiving STP events for MidT:

1. STP XML with a download version of 3.1 supports MidT. This includes FIX STP users requesting completed trade details delivered in XML.
2. FIX STP with FIX version 4.4

2.5 Message Workflow

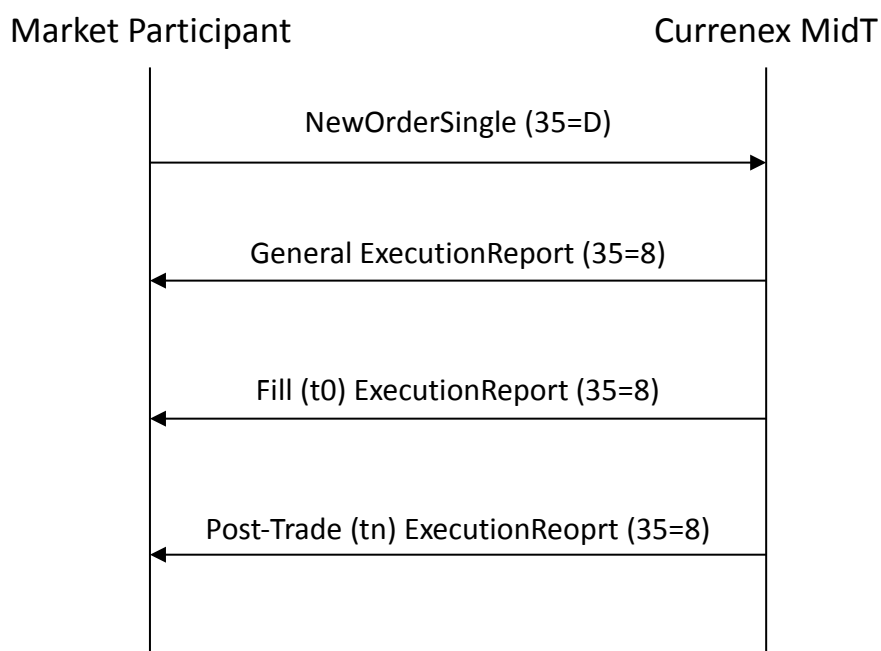


Figure 1: Message Workflow

2.6 Order Cancel and Order Replace

Market Participants can cancel outstanding active orders not yet in process of matching by sending an [OrderCancelRequest \(35=F\)](#) message.

The below values can be replaced on a Currenex MidT without canceling the order, using an [OrderRepalceRequest \(35=G\)](#) message. Orders that have been partially matched cannot be replaced.

OrderQty (38) - Specified Amount

MidMatchTriggerRate (7599) – Optional Trigger Rate. If specified, this will be reevaluated against the current WAMR.

Cancels and Replaces will be held in all cases until the MTTL has expired.

Consult the general FIX Order Specification for order cancel and replace behavior not unique to MidT.

3 Message Details

3.1 New Order Single

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType tag 35=D
11	ClOrdId	Y		String	Client assigned order id
1	Account	N	The account (SubFund id) name as agreed to by Exchange and the client or else defaulted by the system. A FIX connection can have one or more trading accounts.	String	
21	HandInst	Y		Char	1 – Automated execution Only accepted value
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLDn)
460	Product	Y	Standard codes as specified		6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
End Component <Instrument>					
54	Side	Y	Order side	Char	1 = Buy 2 = Sell

Tag	Field Name	Required	Instrument Requirements		
			Description	Type	Restrictions
60	TransactTime	Y	Time at which the order request was initiated or released by the trader or trading system	Timestamp	YYYYMMDD-HH:MM:SS.sss
38	OrderQty	Y	The order nominal amount	Number	One million expressed as 1000000
40	OrdType	Y	The type of order	char	Order type, value 'M' = MidMatch
59	TimeInForce	N	Specifies how long an order remains in effect		Expiration type. Only supported value: 1 – Good Till Cancel Defaults to 1 if not specified.
15	Currency	Y	The dealt currency of the order and the currency of the amount specified in the OrderQty (38) field	Currency (String)	USD
7598	MidMatchTriggerRate	N			Optional Trigger Rate
Standard Trailer		Y			

3.2 General Execution Report

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType Tag 35=8

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
37	OrderId	Y	Unique order identifier assigned by the Exchange	String	If 150 = 8 (Rejected), is set to "UNKNOWN" Note: this is not the same as the completed trade id, which appears in tag 17, ExecID.
11	ClOrdId	Y	Client assigned unique order identifier	String	
41	OrigClOrdId	Y	Original client assigned order id submitted on the order	String	
17	ExecId	Y	Completed trade identifying number	String	Generated Execution Id
20	ExecTransType	Y	Execution transaction type	Char	Fix 4.2 supported values: 0 – New
150	ExecType	Y	The execution report's type. Contains one more value than tag 39, OrderStatus	Char	Supported values: 0 – New 4 – Canceled 5 – Replace 8 – Rejected
39	OrdStatus	Y	The current state of chain or orders.	Char	Supported values: 0 – New 4 – Canceled 5 – Replaced 8 – Rejected

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
103	OrdRejReason	N	Optional with ExecType = 8, Rejected	Int	
1	Account	N	The account (SubFund id) name as agreed to by Exchange and the client or else defaulted by the system. A FIX connection can have one or more trading accounts.	String	
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLDn)
48	SecurityID	N	Identifies class of SecurityID	String	CUSIP
22	SecurityIDSource	N	Identifies class of Security ID	String	1 = CUSIP
460	Product	Y	Standard codes as specified	Int	6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
541	MaturityDate	N	The maturity date	Date	
225	IssueDate	N	The date the offering is issued	Date	Any business day
223	CouponRate	N	Coupon Rate	Percent	
End Component <Instrument>					

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
54	Side	Y	Order side	Char	1 = Buy 2 = Sell
38	OrderQty	Y	The order nominal amount	Number	999999999.99
40	OrdType	N	Type of order	char	Order Type M – MidMatch
15	Currency	Y			Dealt Currency, can only be in base
7598	MidMatchTriggerRate	N			Optional, From Order
151	LeavesQty	N	Order amount open for further execution.	Qty	
14	CumQty	Y	Cumulative Quantity on Fills.		Always 0.
Standard Trailer		Y			

3.3 Execution Report Fill, T₀

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType tag 35=8
37	OrderId	Y	Unique order identifier assigned by the Exchange	String	Currenex order id

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
11	ClOrdId	Y	Client assigned unique order identifier	String	
41	OrigClOrdId	Y	Original client assigned order id submitted on the order		
Component <ContraGrp>					
→	382	NoContraBrokers	Y		1 for non-anonymous hubs, omitted otherwise.
→	375	ContraBroker	Y		On non-anonymous hubs, shows the end maker on trade.
End Component <ContraGrp>					
76	ExecBroker	N	The executing counterparty on the trade.	String	FIX 4.2
17	ExecId	Y	Completed trade identifying number	String	Executed trade id
20	ExecTransType	Y	Execution transaction type	Char	FIX 4.2 Only 3 = Status
150	ExecType	Y	The execution report's type. Contains one more value than tag 39, OrderStatus	Char	FIX 4.2 and FIX 4.4 M = Initial t0 Trade
39	OrdStatus	Y	The current state of chain of orders, e.g. when there are partial fills. Has the same	Char	Current Status of the Order 1 – Partially Filled 2 – Filled

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
			scope as OrderQty, CumQty, LeavesQty, and AvgPx		
1	Account	N	The account (SubFund id) name as agreed to by Exchange and the client or else defaulted by the system. A FIX connection can have one or more trading accounts.	String	
64	SettlDate	Y	Settlement Date	Date	Not sent if ExecType = 4, Canceled, or 8, Rejected.
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLDn)
48	SecurityID	N	Identifies class of SecurityID	String	CUSIP
22	SecurityIDSource	N	Identifies class of Security ID	String	1 = CUSIP
460	Product	Y	Standard codes as specified	Int	6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
541	MaturityDate	N	The maturity date	Date	

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
225	IssueDate	N	The date the offering is issued	Date	Any business day
223	CouponRate	N	Coupon Rate	Percent	
End Component <Instrument>					
54	Side	Y	Order side	Char	1 = Buy 2 = Sell
38	OrderQty	Y	The order nominal amount.	Number	999999999.99
40	OrdType	Y	The type of order	Char	M – MidMatch
15	Currency	Y	The dealt currency of the order and the currency of the amount specified in the OrderQty (38) field.	Currency (String)	USD
32	LastShares	Y	Quantity bought / sold for this fill	Qty	Fill Amount
31	LastPx	Y	Price at which the current or last fill was made.	Price	Fill Rate to WAMR Rate
151	LeavesQty	Y	Order amount open for further execution.	Qty	
14	CumQty	Y	Total amount of an order currently executed in a chain of partial fills	Qty	

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
6	AvgPx	Y	The average price at which the order was filled or partially filled.	Price	
75	TradeDate	Y	Trade date.	Date	
60	TransactTime	N	Time at which the order request was initiated or released by the trader or trading system	Timestamp	YYYYMMDD-HH:MM:SS.sss
Component <YieldData>					
236	Yield	N	Yield	Percentage	
End Component <YieldData>					
58	Text	N			Optional Comments
7585	MatchingType	N	When match is done defines if order was aggressed or aggressor in the book	Int	1 – aggressor 2 - aggressed
7598	MidMatchTriggerRate	N			Optional, if set will be equal to the MidMatchTriggerRate sent on NewOrderSingle (35=D) message.
Standard Trailer		Y			

3.4 Post-Trade Execution Report, T_n

Tag		Field	Required	Instrument Requirements		
				Description	Type	Restrictions
Standard Header			Y			MsgType 35 = 8
37		OrderId	Y	Unique order identifier assigned by the Exchange	String	Currenex order id
11		ClOrdId	Y	Client assigned unique order identifier	String	
41		OrigClOrdId	Y	Original client assigned order id submitted on the order		
Component <ContraGrp>						
→	382	NoContraBrokers	Y			1 for non-anonymous hubs, omitted otherwise.
→	375	ContraBroker	Y			On non-anonymous hubs, shows the end maker on trade.
End Component <ContraGrp>						
76		ExecBroker	N	The executing counterparty on the trade.	String	FIX 4.2
17		ExecId	Y	Completed trade identifying number	String	Executed trade id
20		ExecTransType	Y	Execution transaction type	Char	FIX 4.2 Only 3 = Status

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
150	ExecType	Y	The execution report's type. Contains one more value than tag 39, OrderStatus	Char	FIX 4.2 and FIX 4.4 N = Final tn trade
39	OrdStatus	Y	The current state of chain of orders, e.g. when there are partial fills. Has the same scope as OrderQty, CumQty, LeavesQty, and AvgPx	Char	Current Status of the Order 1 – Partially Filled 2 – Filled
1	Account	N	The account (SubFund id) name as agreed to by Exchange and the client or else defaulted by the system. A FIX connection can have one or more trading accounts.	String	
64	SettlDate	Y	Settlement Date	Date	Not sent if ExecType = 4, Canceled, or 8, Rejected.
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLDn)
48	SecurityID	N	Identifies class of SecurityID	String	CUSIP

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
22	SecurityIDSource	N	Identifies class of Security ID	String	1 = CUSIP
460	Product	Y	Standard codes as specified	Int	6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
541	MaturityDate	N	The maturity date	Date	
225	IssueDate	N	The date the offering is issued	Date	Any business day
223	CouponRate	N	Coupon Rate	Percent	
55	Symbol	Y	Instrument Symbol	String	Tenor
End Component <Instrument>					
54	Side	Y	Order side	Char	1 = Buy 2 = Sell
38	OrderQty	Y	The order nominal amount.	Number	999999999.99
40	OrdType	Y	The type of order	Char	M – MidMatch
15	Currency	Y	The dealt currency of the order and the currency of the amount specified in the OrderQty (38) field.	Currency (String)	USD
32	LastShares	Y	Quantity bought / sold for this fill	Qty	Fill Amount

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
31	LastPx	Y	Price at which the current or last fill was made.	Price	WAMO rate
151	LeavesQty	Y	Order amount open for further execution.	Qty	Amount to be filled on the order. Always 0
14	CumQty	Y	Total amount of an order currently executed in a chain of partial fills	Qty	Always set to 0
75	TradeDate	Y	Trade date.	Date	
60	TransactTime	N	Time at which the order request was initiated or released by the trader or trading system	Timestamp	YYYYMMDD-HH:MM:SS.sss
Component <YieldData>					
236	Yield	N	Yield	Percentage	
End Component <YieldData>					
58	Text	N			Optional Comments
7585	MatchingType	N	When match is done defines if order was aggressed or aggressor in the book	Int	1 – aggressor 2 - aggressed
7598	MidMatchTriggerRate	N	Optional, From Order		
7601	InitialMatchRate	Y	Custom Field WAMR Rate at t_0		

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
7602	InitialMatchTime	Y	Custom Field Match Time at t ₀		
19	ExecRefId	Y	Custom Field Trade Id from t ₀		
Standard Trailer		Y			

3.5 Order Replace

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType Tag 35 = G
37	OrderId	N	The Exchange assigned ID of the order to be replaced	String	
41	OrigClOrdID	Y	The unique client ID assigned to the order to be replaced	String	
11	ClOrdId	Y	Unique client id for the replacement order. Note that this identifier will be used in ClOrdID field of the Cancel Reject message if the replacement request is rejected	Char	

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
21	HandlInst	Y			1 – Automated execution Only accepted value
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLDn)
460	Product	Y	Standard codes as specified	Int	6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
End Component <Instrument>					
54	Side	Y	Order side	Char	1 = Buy 2 = Sell
60	TransactTime	Y	Time at which the order request was initiated or released by the trader or trading system.	Timestamp	YYYYMMDD-HH:MM:SS.sss
38	OrderQty	N	The order nominal amount	Number	One million expressed as 1000000
40	OrdType	Y	The type of order	Char	Order Type M - MidMatch
7598	MidMatchTriggerRate	N			New Trigger Rate, if modified
58	Text	N	Descriptive Text message	String	
Standard Trailer		Y			

3.6 Order Cancel Request

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType 35 = F
41	OrigClOrdId	Y	The unique client ID assigned to the order to be replaced	String	
37	OrderId	Y	The Exchange assigned ID of the order to be replaced	String	
11	ClOrdId	Y	Unique Client id for the replacement order. Note that this identifier will be used in ClOrdID		
Component <Instrument>					
55	Symbol	Y	Instrument Symbol	String	Tenor
65	SymbolSfx	Y	Instrument Symbol Suffix	String	State (WI, OTR, OLD)
460	Product	Y	Standard codes as specified	Int	6 (Government)
167	SecurityType	N		String	Only supported value = GOVT
End Component <Instrument>					
54	Side	Y	Order side	Char	1 = Buy 2= Sell
60	TransactTime	Y	Time at which the order request was initiated or released by the trader or trading system	Timestamp	YYYYMMDD-HH:SS.sss
58	Text	N	Descriptive Text message	String	
40	OrdType	Y	The type of order	Char	Order Type

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
					M - MidMatch
7559	Open Order	N	Y = requests cancel all open orders. Must be set to "Y" when tags 11 and 37 = "OPEN_ORDER"	Char	
Standard Trailer		Y			

3.7 Order Cancel Reject

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
Standard Header		Y			MsgType Tag 35 = 9
37	OrderId	Y	The Exchange assigned ID of the order to be replaced	String	
11	ClOrdId	Y	Unique client id for the replacement order. Note that this identifier will be used in ClOrdID field of the Cancel Reject message if the replacement request is rejected.	Char	
41	OrigClOrdID	Y	The unique client ID assigned to the order to be replaced	String	
39	OrdStatus	Y	OrdStatus after cancel reject is applied. The current state of chain of		

Tag	Field	Required	Instrument Requirements		
			Description	Type	Restrictions
			orders. Takes all the same values as tag 150, ExecType, except for "X"		
60	TransactTime	Y	Time at which the order request was initiated or released by the trader or trading system.	Timestamp	YYYYMMDD-HH:MM:SS.sss
434	CxlRejResponseTo	Y	Specifies to what the reject is in response.	String	1 – Response to Cancel Request 2 – Response to Replace Request
102	CxlRejReason	N	Reason the order cancellation request was rejected.	String	Reason for Reject: 0 – Order has already been filled 1 – Order cannot be found 2 – Check Text (58) for details 3 – Status cannot be determined as order is currently in process.
58	Text	N	Descriptive text		
Standard Trailer		Y			

4 Supported Instruments and Decimal Precision

MidT supported instruments are shown in the below table. MidT precision is to six (9) decimal places ($1/16^{\text{th}}$ of $1/32^{\text{nd}}$) for the WAMR and WAMO for all instruments. MidT precision is to eight (8) decimal places ($1/8^{\text{th}}$ of $1/32^{\text{nd}}$) for the submitted Trigger rate.

Row	Instrument Symbol	Instrument Symbol Suffix	Standard Increment and Trigger Rate Example ($1/8^{\text{th}}$ of $1/32^{\text{nd}}$)	MidT WAMR / WAMO Precision ($1/16^{\text{th}}$ of $1/32^{\text{nd}}$)	WAMR vs. Trigger Rate Buffer	WAMO Maximum Travel in Price	Market Stability Window in Price per Rolling Five (5) Second Interval
1.	2Y	OTR	100.00390625	0.001953125			
2.	3Y	OTR					
3.	5Y	OTR					
4.	7Y	OTR					
5.	10Y	OTR					
6.	30Y	OTR					