

Currenex Mid

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

Table of Contents

1 INTRODUCTION.....	2
2 PRODUCT DETAILS	3
2.1 Order Entry	3
2.1.1 Order Side and Size	3
2.1.2 Order Expiry	3
2.1.3 Minimum Time to Live	3
2.1.4 Order Prioritization	3
2.1.5 Matching Preference	3
2.1.6 Optional Trigger Rate	3
2.2 Order Matching	3
2.3 Credit Reservation	4
2.4 Straight Through Processing (STP)	4
2.5 Message Workflow	5
2.6 Order Cancel and Order Replace	5
3 MESSAGE DETAILS	6
3.1 New Order Single	6
3.2 General Execution Report	8
3.3 Execution Report Fill, t_0	9
3.4 Post-Trade Execution Report t_{20}	10
3.5 Order Cancel Request	12
3.6 Order Replace Request	12
3.7 Order Cancel Reject	13
4 SUPPORTED CCY PAIRS AND DECIMAL PRECISION	14

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	

Disclaimer

The products and services outlined herein are only offered to professional clients or eligible counterparties through State Street Bank and Trust Company (a wholly-owned subsidiary of State Street Corporation), or, within certain jurisdictions throughout Europe, through State Street Global Exchange Trading and Clearing International Limited which is authorized and regulated by the Financial Services Authority. Please note, certain foreign exchange business (spot and certain forward transactions) are not regulated by the Financial Services Authority. Clients should be aware of the risks of participating in trading foreign exchange, equities, fixed income or derivative instruments or in investments in non-liquid or emerging markets. Clients should be aware that products and services outlined herein may put their capital at risk. This communication is not intended for retail clients, nor for distribution to, and may not be relied upon by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to applicable law or regulation. This publication or any portion hereof may not be reprinted, sold or redistributed without the prior written consent of State Street Global Exchange Trading and Clearing. This communication is being distributed in Australia by State Street Bank and Trust Company ABN 70 062 819 630, AFSL 239679 and is intended only for wholesale clients, as defined in the Corporations Act 2001.

1 Introduction

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

In order to trade Currenex Mid, please contact support@currenex.com. Prior to trading Mid, 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 Mid.

2 Product Details

The Currenex Mid 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 most widely traded price streams available on the Currenex platform. Order related messages not specified within this document are not supported by Currenex Mid.

2.1 Order Entry

The FIX [NewOrderSingle \(35=D\)](#) message is used to enter an order. The MP is able to specify the order [Minimum Time to Live \(7599\)](#) and [Matching Preference \(7600\)](#).

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

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

2.1.3 Minimum Time to Live

An MP can set a minimum time to live (MTTL), [MinTimeToLive \(7599\)](#), on each order as 'S' (Short), 'M' (Medium), and 'L' (Long), equating to MTTLs of 100ms, 2s, and 8s. If not explicitly expressed per order, the MTTL shall default to 'L', eight (8) seconds. Therefore, the minimum time all Mid orders will be held in the book is 100ms.

2.1.4 Order Prioritization

Order book prioritization is based on *Size Bucket* (Small (1m), Medium (2m to 9m), Large (10m+)), *MTTL* (Short, Medium, Long), order entry *Time*.

2.1.5 Matching Preference

An MP can specify a matching preference per order, [MTTLMatchingPreference \(7600\)](#), to determine with which other orders it will be available for matching. Supported values are described in the [NewOrderSingle \(35=D\)](#) description (Tag 7600) section of this document, 1 = "Match All", 2 = "Match All except Short", 3 = "Match MTTL Equivalent or Greater". If not explicitly set per order, matching preference is defaulted to 1 = "Match All". Orders with a Short MTTL will be rejected if the MTTLMatchingPreference is set to 2 = "Match All Except Short" or 3 = "Match MTTL Equivalent or Greater".

2.1.6 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 Mid matching.

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).

An order's Minimum Time to Live (MTTL) and each order's matching preference profile determines which opposing orders are available to match with each other.

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 exception to this is if both MPs have opted out of the stability matching mechanism. This mechanism is optionally configured on or off at the account level.

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. If the initial resting order has satisfied its MTTL, a self-match will be done instantly with brokerage applied to both sides of the trade. 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 STP at t_{20} . 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_{20} 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 Mid 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 at the WAMR rate + max travel. At t_{20} , credit is confirmed and the rate is adjusted as final WAMO rate is known.

2.4 Straight Through Processing (STP)

Only STP XML with a download version of 3.1 supports Mid. This includes FIX STP users requesting completed trade details delivered in XML.

2.5 Message Workflow

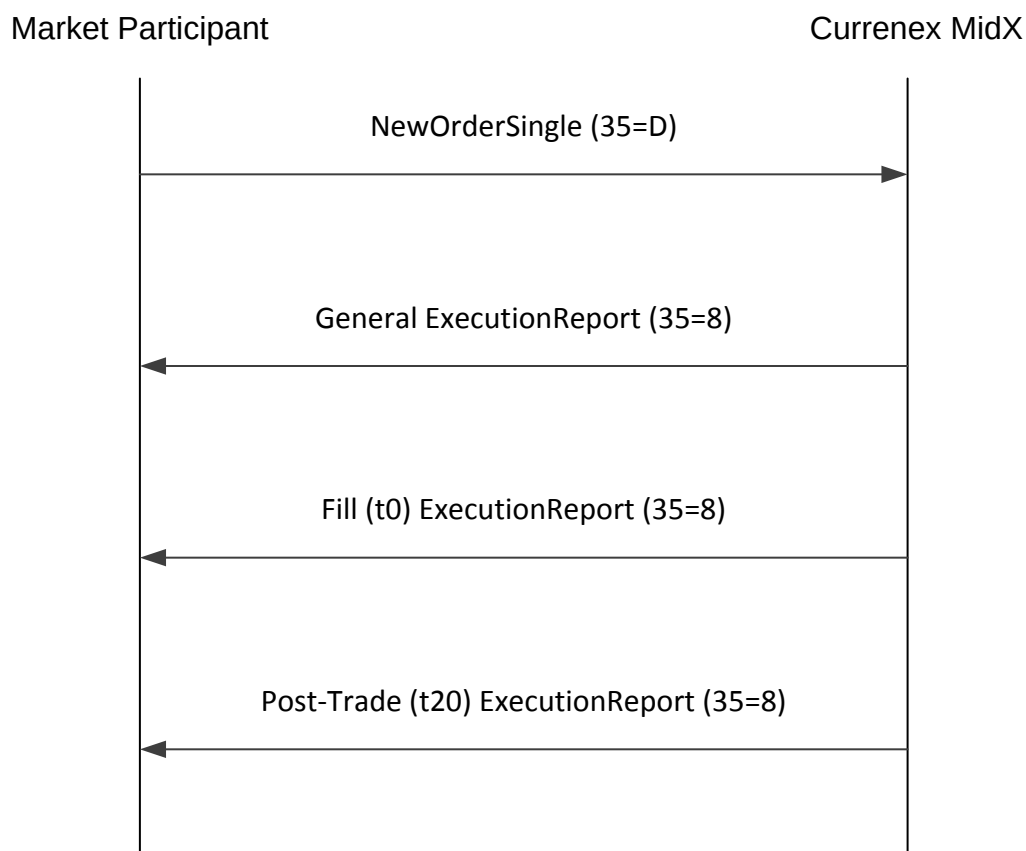


Figure 1: Message Workflow

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 Mid without cancelling 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 re-evaluated 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 Mid.

3 Message Details

3.1 New Order Single

Tag	Field Name	Required	Comments
Standard Header		Y	MsgType tag 35=D
11	ClOrdId	Y	Client assigned order id
15	Currency	Y	Dealt Currency, can only be base
21	HandlInst	Y	1 – Automated execution Only accepted value
54	Side	Y	Order Side 1 – Buy 2 – Sell
55	Symbol	Y	Currency Pair, eg. EUR/USD
460	Product	Y	4 – Currency Only accepted value
60	TransactTime	Y	Transaction Timestamp
38	OrderQty	Y	Specified Order Amount Minimum order amount is 1 million. OrderQty must be specified in increments of 1 million.
40	OrdType	Y	Order type, value 'M' = MidMatch
1	Account	N	Optional fund subsidiary id
59	TimeInForce	N	Expiration type. Only supported value: 1 – Good Til Cancel Defaults to 1 if not specified.
7598	MidMatchTriggerRate	N	Trigger rate is mandatory for all FinalRatePreference (7603) values except 2.
7599	MinTimeToLive	N	Minimum time to live before the order can be cancelled or replaced. N - None, 0 milliseconds S – short, 100 milliseconds M – medium, 2 seconds L – long, 8 seconds Defaults if no value provided depends on Tag(7603):

Tag	Field Name	Required	Comments
			1 = N, 2 = L, 3 = S Value N (None) is mandatory for FinalRatePreference (7603) value 1. Value N (None) cannot be used with any other FinalRatePreference (7603) value.
7600	MttlMatchingPreference	N	Matching Preference with opposing orders. 1 – Match All 2 – All Except Short 3 — MTTL Equivalent Defaults to 1 (All) if no value provided. Value 1 (All) is mandatory for FinalRatePreference (7603) value 1
7603	FinalRatePreference	N	Rate at which the order will be matched 1 – t_0 2 – t_n 3 – t_0 or t_n Defaults to 1(t_0) if not specified.
7604	OCOWithFXTrades	N	Option to permit order to fill against FXTrades liquidity pool. Y – Use FXTrades liquidity. This option is only valid with FinalRatePreference (7603) = 1. N – No FXTrades Defaults to N if not specified.
Standard Trailer		Y	

3.2 General Execution Report

Tag	Field	Required	Comments
Standard Header		Y	MsgType Tag 35=8
37	OrderId	Y	Currenex Order Id
11	ClOrdId	Y	Client assigned order id for the current action
41	OrigClOrdId	Y	Original Client assigned order id
17	ExecId	Y	Generated Execution Id
20	ExecTransType	Y	FIX 4.2 Supported Value 0 – New
150	ExecType	Y	The Execution Report's Type 0 – New 4 – Canceled 5 – Replace 8 – Rejected
39	OrdStatus	Y	Current Status of the Order 0 – New 4 – Canceled 5 – Replaced 8 – Rejected
103	OrdRejReason	N	Reject Reason
1	Account	N	Optional Fund Subsidiary Id
54	Side	Y	Order Side 1 - Buy 2 - Sell
55	Symbol	Y	Currency Pair, eg. EUR/USD
60	TransactTime	Y	Transaction Timestamp
38	OrderQty	Y	Specified Order Amount
40	OrdType	Y	Order Type M – MidMatch
15	Currency	Y	Dealt Currency, can only be in base
7598	MidMatchTriggerRate	N	Optional, From Order
7599	MinTimeToLive	Y	From Order
7600	MtMlMatchingPreference	Y	From Order
58	Text	N	Optional Comments
14	CumQty	Y	Cumulative Quantity on Fills. Always 0.

Tag	Field	Required	Comments
Standard Trailer		Y	

3.3 Execution Report Fill, to

Tag		Field	Required	Description
Standard Header			Y	MsgType tag 35=8
37		OrderId	Y	Currenex order id
11		ClOrdId	Y	Client assigned order id for the current action
41		OrigClOrdId	Y	Original client assigned id on the order
Component <ContraGrp>				
→	382	NoContraBrokers	Y	Number of ContraBrokers to follow
→	375	ContraBroker	Y	Central Clearing Counterparty
End Component <ContraGrp>				
17		ExecId	Y	Executed trade id
20		ExecTransType	Y	FIX 4.2 Only 3 = Status
150		ExecType	Y	FIX 4.2 and FIX 4.4 M – t ₀ trade. Final message for tag(7603) value 1 N – Final t _n trade for tag(7603) value 2 O – FXTrade
39		OrdStatus	Y	Current Status of the Order 1 – Partially Filled 2 – Filled
1		Account	N	Optional Fund Subsidiary id
64		SettlDate	Y	Spot Value Date
54		Side	Y	Order Side 1 – Buy 2 - Sell
55		Symbol	Y	Currency Pair, eg. EUR/USD
60		TransactTime	Y	Transaction timestamp
38		OrderQty	Y	Specified Order Amount
40		OrdType	Y	M – MidMatch
15		Currency	Y	Dealt Currency, can only be in base
32		LastShares	Y	Fill Amount

Tag	Field	Required	Description
31	LastPx	Y	Fill Rate to WAMR Rate
194	LastSpotRate	Y	Same as LastPxn
151	LeavesQty	Y	Amount Remaining to be filled on the Order
14	CumQty	Y	Cumulative Filled Amount on the Order
6	AvgPx	Y	Average Price of all Partial Fills
75	TradeDate	Y	Trade Date
58	Text	N	Optional Comments
7598	MidMatchTriggerRate	N	Optional, if set will be equal to the MidMatchTriggerRate sent on NewORderSingle (35=D) message.
7599	MinTimeToLive	Y	Minimum time to live before the order can be cancelled. S – short, 100 milliseconds M – medium, 2 seconds L – long, 8 seconds
7600	MttlMatchingPreference	Y	Matching Preference with opposing orders. 1 – Match All 2 – All Except Short 3 – MTTL Equivalent
Standard Trailer		Y	

3.4 Post-Trade Execution Report t20

Tag	Field		Required	Description
Standard Header			Y	MsgType 35 = 8
37	OrderId		Y	Currenex Order Id
11	ClOrdId		Y	Client Assigned Order d for the Current Action
41	OrigClOrdId		Y	Original Client Assigned Id on the Order
Component <ContraGrp>				
→	382	NoContraBrokers	Y	Number of ContraBrokers to follow
→	375	ContraBroker	Y	Central Clearing Counterparty
End Component <ContraGrp>				
17	ExecId		Y	Rebooked Trade Id
20	ExecTransType		Y	FIX 4.2 Only:

Tag	Field	Required	Description
			3 = Status
150	ExecType	Y	FIX 4.2 and FIX 4.4: N = Final t20 Trade
39	OrdStatus	Y	Always 2 – Filled
1	Account	N	Optional Fund Subsidiary Id
64	SettlDate	Y	Spot Value Date
54	Side	Y	Order Side 1 – Buy 2 – Sell
55	Symbol	Y	Currency Pair, eg. EUR/USD
60	TransactTime	Y	Transaction Timestamp
38	OrderQty	Y	Specified Order Amount
40	OrdType	Y	Order Type M – MidMatch
15	Currency	Y	Dealt Currency, can only be base
32	LastShares	Y	Fill Amount
31	LastPx	Y	All in Rate WAMO rate + optional brokerage (permission based)
194	LastSpotRate	Y	Spot Rate WAMO Rate Only
195	LastForwardPoints	N	Points (brokerage) Optional Brokerage Points (permission based)
151	LeavesQty	Y	Amount to be filled on the order. Always 0
14	CumQty	Y	Cumulative filled amount on the order. Always 0
75	TradeDate	Y	Trade Date
58	Text	N	Optional Comments
7598	MidMatchTriggerRate	N	Optional, From Order
7599	MinTimeToLive	Y	From Order
7600	MttlMatchingPreference	Y	From Order
7601	InitialMatchRate	Y	Custom Field WAMR Rate at t_0
7602	InitialMatchTime	Y	Custom Field

Tag	Field	Required	Description
			Match Time at t_0
19	ExecRefId	Y	Custom Field Trade Id from t_0
Standard Trailer		Y	

3.5 Order Cancel Request

Tag	Field	Required	Description
Standard Header		Y	MsgType 35 = F
11	ClOrdId	Y	Client Assigned Id for the Cancel Request
41	OrigClOrdId	Y	Client Assigned Id for the Original Order
37	OrderId	Y	Currenex Order Id
1	Account	N	Optional Fund Subsidiary Id
15	Currency	Y	Dealt Currency, can only be in base
54	Side	Y	Order Side 1 – Buy 2 - Sell
55	Symbol	Y	Currency Pair, eg. EUR/USD
60	TransactTime	Y	Transaction Timestamp
40	OrdType	Y	Order Type M - MidMatch
Standard Trailer		Y	

3.6 Order Replace Request

Tag	Field	Required	Description
Standard Header		Y	MsgType Tag 35 = G
11	ClOrdId	Y	Client Assigned Id for the Replace Request
41	OrigClOrdID	Y	Client Assigned Id for the Original Order
37	OrderId	Y	Currenex Order Id
1	Account	N	Optional Fund Subsidiary Id
21	HandlInst	Y	1 – Automated execution Only accepted value
15	Currency	Y	Dealt Currency, can only be in base
54	Side	Y	Order Side 1 – Buy 2 - Sell
55	Symbol	Y	Currency Pair, eg. EUR/USD
60	Transact Time	Y	Transaction Timestamp
40	OrdType	Y	Order Type

Tag	Field	Required	Description
			M – MidMatch
460	Product	Y	4 – Currency Only accepted value
38	OrderQty	N	New Order Amount, if modified
7598	MidMatchTriggerRate	N	New Trigger Rate, if modified
Standard Trailer		Y	

3.7 Order Cancel Reject

Tag	Field	Required	Description
Standard Header		Y	MsgType Tag 35 = 9
11	ClOrdId	Y	Client Assigned Id for the Cancel or Replace Request
41	OrigClOrdID	Y	Client Assigned Id for the Original Order
37	OrderId	Y	Currenex Order Id
38	OrdStatus	Y	8 – Rejected
1	Account	N	Optional Fund Subsidiary Id
60	TransactTime	Y	Transaction Timestamp
434	CxlRejResponseTo	Y	1 – Response to Cancel Request 2 – Response to Replace Request
102	CxlRejReason	N	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 message for reject
Standard Trailer		Y	

4 Supported CCY Pairs and Decimal Precision

Mid supported currency pairs are shown in the below table. Mid precision is to six (6) decimal places for all pairs except those including JPY, which are to four (4) place precision.

Row	Currency Pair	Currency Pair Code	Rate Example	Mid Precision	WAMR/ WAMO Rate Precision	WAMR vs. Trigger Rate Buffer	WAMO Maximum Travel in Pips	Market Stability Window in Pips per Rolling Five (5) Second Interval
1.	Australian Dollar/ United States Dollar	AUD/USD	0.73060	0.000001	0.730600	0.000015	10 pips	3 pips
2.	Euro/ Canadian Dollar	EUR/CAD	1.46030	0.000001	1.460300	0.000050	30 pips	10 pips
3.	Euro/ Swiss Franc	EUR/CHF	1.08970	0.000001	1.089700	0.000050	30 pips	10 pips
4.	Euro/ British Pound	EUR/GBP	0.72230	0.000001	0.722300	0.000015	10 pips	3 pips
5.	Euro/ Japanese Yen	EUR/JPY	134.130	0.0001	134.1300	0.0050	30 pips	10 pips
6.	Euro/ Norwegian Krone	EUR/NOK	9.27120	0.000001	9.271200	0.000250	15 pips	5 pips
7.	Euro/ Swedish Krona	EUR/SEK	9.26440	0.000001	9.264400	0.000250	15 pips	5 pips
8.	Euro/ United States Dollar	EUR/USD	1.09040	0.000001	1.090400	0.000025	15 pips	5 pips
9.	British Pound/ Japanese Yen	GBP/JPY	185.685	0.0001	185.6850	0.0075	45 pips	15 pips
10.	British Pound/ United States Dollar	GBP/USD	1.50840	0.000001	1.508400	0.000025	20 pips	5 pips
11.	New Zealand Dollar/ United States Dollar	NZD/USD	0.66270	0.000001	0.662700	0.000015	10 pips	3 pips

Row	Currency Pair	Currency Pair Code	Rate Example	Mid Precision	WAMR/ WAMO Rate Precision	WAMR vs. Trigger Rate Buffer	WAMO Maximum Travel in Pips	Market Stability Window in Pips per Rolling Five (5) Second Interval
12.	United States Dollar/ Canadian Dollar	USD/CAD	1.33930	0.000001	1.339300	0.000025	20 pips	5 pips
13.	United States Dollar/ Swiss Franc	USD/CHF	1.00000	0.000001	1.000000	0.000020	15 pips	5 pips
14.	United States Dollar/ Chinese Yuan Renminbi	USD/CNH	6.43420	0.000001	6.434200	0.000150	100 pips	30 pips
15.	United States Dollar/ Japanese Yen	USD/JPY	123.060	0.0001	123.0600	0.0025	20 pips	5 pips
16.	United States Dollar/ Mexican Peso	USD/MXN	16.71780	0.000001	16.717800	0.000400	25 pips	10 pips
17.	United States Dollar/ Swedish Krona	USD/SEK	8.49530	0.000001	8.495300	0.000250	15 pips	5 pips
18.	United States Dollar/ Singapore Dollar	USD/SGD	1.39800	0.000001	1.398000	0.000025	20 pips	5 pips
19.	United States Dollar/ Turkish Lira	USD/TRY	2.89280	0.000001	2.892800	0.000075	50 pips	15 pips
20.	United States Dollar/ South African Rand	USD/ZAR	14.37480	0.000001	14.374800	0.000250	200 pips	5 pips