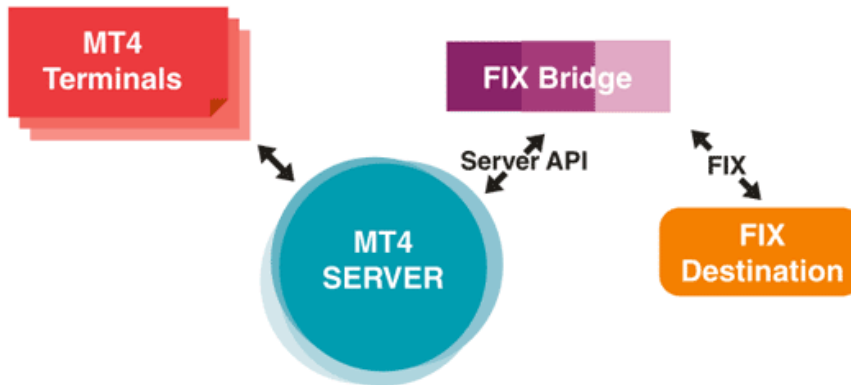# FIX Bridge for MT4 platform

Version 1.0

1. General purpose and description

- FIX Bridge for MetaTrader (MT4) platform (www.metaquotes.net) works as a bridge between MT4 platform and external FIX FX system
- Works as automated dealer for specified groups of users
- Supports all MT4 order types except instant execution
- Supports Stop Loss, Take Profit, Trailing Stop, Valid Until features
- Handles all price / time events on MT4 side
- Acts as an omnibus account: maps multiple accounts on MT4 side to one account in external system
- Provides real-time buying power control including pending orders
- Supports hedging as well as netting
- Supports automatic position closing at margin calls
- Supports taking commissions on both ways – open and close position

2. Mapping MT4 events to FIX messages

	MT4	FIX
1	New Order - Market	(D) New Order Single - **Market**
2	Close position	(D) New Order Single - **Market**, opposite side
3	New Order – Limit	(D) New Order Single - **Limit**
4	Modify Order – Limit	(G) Order Cancel/Replace Request
5	Delete Order – Limit	(F) Order Cancel Request
6	New Order – Stop	-
7	Modify Order – Stop	-
8	Delete Order – Stop	-
9	Market hit price for Stop	(D) New Order Single - **Market**
*10	Set S/L=0, T/P != 0 for position	(D) New Order Single - **Limit**, opposite side
11	Set S/L != 0 or T/P = 0 for position after case 10	(F) Order Cancel Request (Cancel Limit from case 10)

	MT4	FIX
12	Market hit S/L (except case 10)	(D) New Order Single - **Market**, opposite side
13	Market hit T/P (except case 10)	(D) New Order Single - **Market**, opposite side
14	Expiry time for Limit reached	(F) Order Cancel Request
15	Expiry time for Stop reached	-

3. Outgoing FIX messages

(D) New Order Single

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: D
1	Account	Y	The account (ext) which the order is placed in
11	ClOrdId	Y	A unique identifier for an order within the trading day
21	HandInst	Y	Instructions on how to handle this order; the only valid value is 1 (automated execution)
38	OrderQty	Y	The total number of shares to be traded
40	OrdType	Y	The type of order which is placed; valid values are: 1=Market, 2=Limit
44	Price	N	Required for limit orders
52	SendingTime	Y	The time this order was sent
55	Symbol	Y	Currency Pair
54	Side	Y	The action to take on the order. Valid entries are: 1=Buy, 2=Sell
59	TimeInForce	Y	Orders are assumed to be Day orders unless specified otherwise. Valid values are: 0=Day , 1=GTC
60	TransactTime	Y	Time of order initiation (expressed in UTC)
100	ExecDestination	Y	ECN when alternate destinations are permitted

(F) Order Cancel Request

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: F
11	ClOrdId	Y	A unique identifier for an order within the trading day
41	OrigClOrdID	Y	The ClOrdId of the order which is attempted to be cancelled
54	Side	Y	This must match the side on the original order
55	Symbol	Y	This must match the symbol on the original order

TAG	FixFieldName	Reqd	Details
60	TransactTime	Y	This is the time the cancel is sent

(G) Order Cancel/Replace Request

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: G
11	ClOrdId	Y	A unique identifier for an order within the trading day
41	OrigClOrdID	Y	The ClOrdId of the order which is attempted to be cancelled
54	Side	Y	This must match the side on the original order
55	Symbol	Y	This must match the symbol on the original order
38	Order Qty	Y	The new volume for the order
44	Price	N	The new price for the limit order
40	OrdType	Y	The type of order which is placed; valid values are: 1=Market, 2=Limit
21	HandlInst	Y	Instructions on how to handle this order; the only valid value is 1 (automated execution)
60	TransactTime	Y	This is the time the cancel is sent

4.   Incoming FIX messages

(j) Business Message Reject

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: j
380	BusinessRejectReason	Y	Code which identifies reason for rejection: 3=Unsupported Message Type
45	RefSeqNum	Y	MsgSeqNum of rejected message
379	BusinessRejectRefID	N	Supplies the ClOrdId of the message this is rejecting, if the ClOrdId was provided in the original message

(9) Order Cancel Reject

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: 9
37	OrderID	Y	Order id of order to cancel, if unknown then "NONE"
11	ClOrdID	Y	The client assigned ID to which this reject refers
41	OrigClOrdID	Y	The client assigned ID to original order to which could not be cancelled or replaced
102	CxlRejRejectReason	Y	Code which identifies reason for rejection

TAG	FixFieldName	Reqd	Details
58	Text	N	Description of reason for rejection
434	CxlRejResponseTo	Y	1 = Order Cancel request, 2 = Order Cancel/Replace Request
39	OrdStatus	Y	Status of Cancel or Replace request to which this reject applies
65	SymbolSfx	N	Symbol suffix

(8) Execution Report

TAG	FixFieldName	Reqd	Details
35	MsgType	Y	Type: 8
1	Account	Y	Account specified for this order
6	AvgPx	Y	Average price of executed shares to this point
11	ClOrdID	Y	The client assigned ID to which this Execution report refers
14	CumQty	Y	Total number or shares filled to this point
17	ExecID	Y	Unique Integer value - starts at 0 for the day incremented per each execution report
31	LastPX	N	Price for the shares executed
32	LastShares	N	Number of shares completed in this PartialFill/Fill
37	OrderID	Y	Unique OrderID given to the execution
38	OrderQty	N	Quantity entered on order
39	OrdStatus	Y	Status of the order
40	OrdType	N	Type of the order
44	Price	N	Price entered on order
55	Symbol	Y	Currency Pair
54	Side	Y	Side of trade, as defined above.
59	TIF	N	TimeInForce of the order
60	TransactTime	N	Time of the Execution, expressed in UTC
126	ExpireTime	N	Provided on a GTC order
150	ExecType	Y	What this execution report suggests. Possible values are: 0=New, 1=Partial Fill, 2=Fill, and 4=Cancelled
151	LeavesQty	Y	Amount of shares still live in the Order