

FIX Bridge for Meta Trader 4

User Guide

Document History

Version	Date	Description of change
1.0	2011-0411	Initial version
1.1	2013-0204	Adaptation
1.2	2013-0916	Market data messages added
1.3	2013-0918	Some new settings added
1.4	2013-0926	Added missed tags and Market Data Incremental Refresh(X) FIX message
1.5	2013-0927	Added description of the new configuration parameters
1.6	2013-1011	Updated description of the configuration parameters
1.7	2014-0122	Added description of the new parameters. Added description of the CME destination (CME iLink and MarketData)
1.8	2014-0222	Changes in scheme

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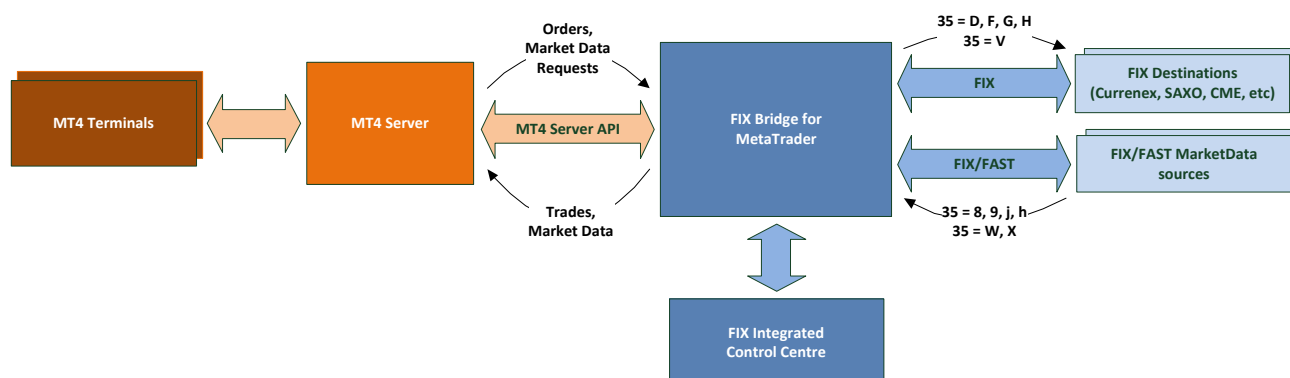
1. Overview

FIX Bridge for MetaTrader 4 (MT4) platform (www.metaquotes.net) allows attaching MetaTrader system to FIX compliant destinations, such as brokers, exchanges, ECN. It supports all asset classes and order types which are available in MetaTrader 4. FIX Bridge also allows customization of order types specific for a FIX destination.

FIX Bridge is actually a plug-in for Meta Trader Server that allows transmitting financial data to FIX sessions (to ECN FIX Servers) and vice-versa.

FIX Bridge plug-in ships Market or Pending orders and actions with these orders (Modify, Cancel, Delete, Stop Loss, Take Profit) to other FIX-systems platforms and vice-versa. FIX Bridge also receives and analyzes Execution Reports from other FIX-system platforms through FIX-protocol.

Scheme of work:



2. Installation

2.1. Requirements

Hardware Requirements

- 2.0 GHz CPU (or faster)
- 2 GB RAM (or more)
- 250 GB of available disk space (required for logs)

Note: As size of files with FIX logs grows, the situation when there is not enough free space on the hard drive can occur. FIX logs should be archived by FIX Bridge user.

Software Requirements

- Microsoft Windows Server 2003 R2 or later
- MetaQuotes MetaTrader 4 Platform (MetaTrader 4 Server, MetaTrader 4 Administrator, etc.)
- Microsoft .Net Framework 2.0 SP1
- Microsoft Visual C++ 2008 Redistributable Package

2.2. Installation package

FIX Bridge installation package contains the following files:

File	Description
additional.xml	The FIX Engine parser extra-configuration file. Is used to declare custom (user-defined) FIX fields and messages.
mtfix.cfg	FIX Bridge main configuration file.
mtfix_vs2008_r_xxx.dll	Main FIX Bridge plugin file.
mtfix.engine	FIX Engine configuration file (see the FIX Antenna documentation for details).
mtfix.license	FIX Engine license file.
fixdic44.xml	FIX dictionary file.
V12-vc9-MD-x32.dll	FIX Engine library

2.3 Installation process

1. Stop MT4 Server and close MT4 applications

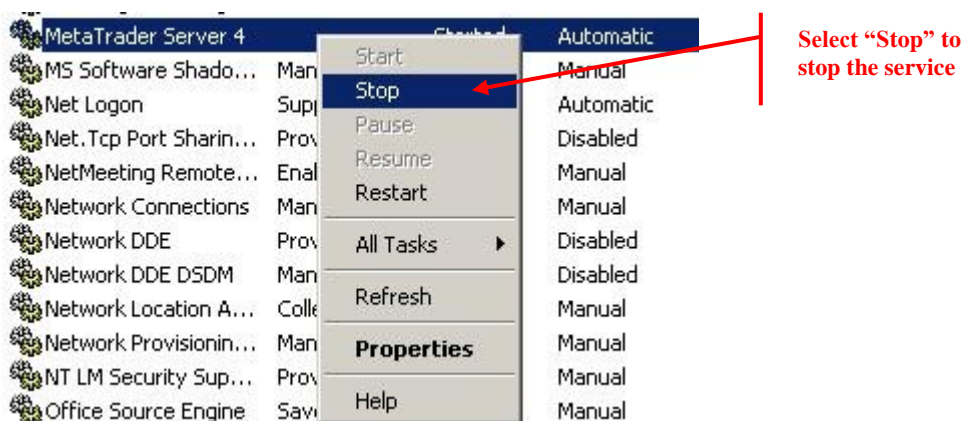
Prior to FIX Bridge installation:

- All MT4 Applications must be closed.
- **MT4 Server** must be stopped.

To Stop MT4 Server:

Open Windows Services: **Control Panel** → **Administrative Tools** → **Services**.

Select **MetaTrader Server 4** in the grid. If the value in “Status” field = Started, right-click on the service and select “**Stop**” from the pop-up menu. The Server will be stopped.



2. Copy FIX Bridge files

- 1) Find the MT4 Server installation directory **<MT4Root>** (typically is *C:\MetaTraderServer4*).
- 2) Copy “**V12-vc9-MD-x32.dll**” from the installation package to the **<MT4Root>** directory.
- 3) Copy all other files from the installation package to the **<MT4Root>\plugins** directory.
- 4) Create “logs” subfolder in the **<MT4Root>\plugins** directory.
- 5) Create “backup” subfolder in the **<MT4Root>\plugins\logs** directory.
- 6) Open the file **<MT4Root>\plugins\mtfix.engine**. Make sure that the **EngineRoot** property is set to the **<MT4Root>\plugins** value.

Note: To ensure the correct processing of configuration file use slash (/) or doubled backslash (\\) instead of backslash (\) in file system paths in configuration files.

Note: To ensure the correct start of FIX Bridge the **<MT4Root>\plugins\logs\backup** directory **MUST** be created.

Note: You should use the datafeed for quotes receiving.

3. Configure FIX Bridge

Edit the *mtfix.cfg* file in the *<MT4Root>\plugins* directory with any appropriate text editor. See Page 9 for detailed information about configuration parameters.

4. Start MetaTrader 4 Server

After FIX Bridge has been installed and configured start the MT4 Server.

Open Windows Services: Control Panel → Administrative Tools → Services.

Select **MetaTrader Server 4** in the grid. Right-click it to open the pop-up menu and select **“Start”**.



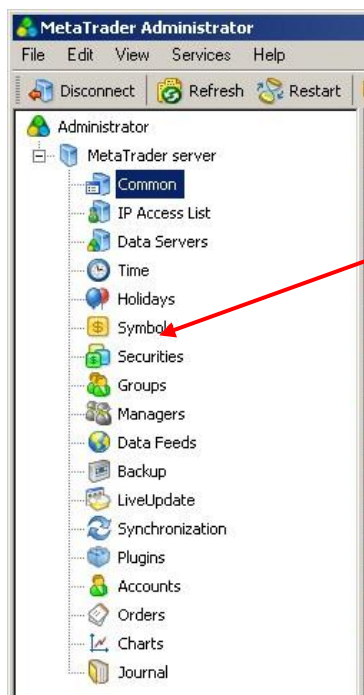
The Server will be started.

5. Change MT4 Server settings

Launch MetaTrader4 Administrator

Connect to Metatrader Server. MT4 Server properties are available for editing.

Change “Symbols” property



Select “Symbols”
property

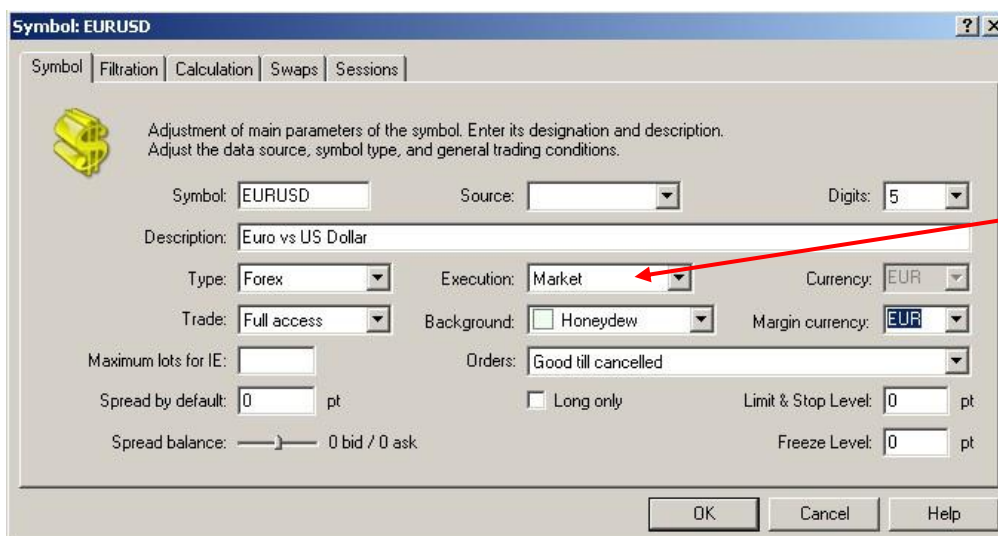
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The list of currencies appears.

Symbol	Type	Execution	Filter	Spread	Stops	Long	Short	Digits	Trade
EURUSD	Forex	Market	No	No	0	0.1500	-0.5100	5	Full
GBPUSD	Forex	Market	No	No	0	0.8000	-1.5200	5	Full
USDCHF	Forex	Market	No	No	0	0.0400	-0.3700	5	Full
USDJPY	Forex	Market	No	No	0	0.6100	-1.2900	5	Full
USDCAD	Forex	Market	No	No	0	-0.3600	0.0600	5	Full
AUDUSD	Forex	Market	No	No	0	0.6700	-0.9700	5	Full
NZDUSD	Forex	Market	No	No	0	0.8700	-1.0900	5	Full
EURAUD	Forex	Market	No	No	0	-1.3600	0.8200	5	Full
EURCHF	Forex	Market	No	No	0	0.4700	-0.9100	5	Full
EURGBP	Forex	Market	No	No	0	-0.4900	0.2500	5	Full
EURJPY	Forex	Market	No	No	0	1.2000	-1.9800	5	Full
EURCAD	Forex	Market	No	No	0	-0.3000	-0.2700	5	Full
GBPCHF	Forex	Market	No	No	0	1.4000	-2.0300	5	Full
GBPJPY	Forex	Market	No	No	0	2.1000	-3.2100	5	Full
AUDCHF	Forex	Market	No	No	0	0.9900	-1.3100	5	Full
AUDJPY	Forex	Market	No	No	0	1.3900	-1.8300	5	Full
AUNZD	Forex	Market	No	No	0	-0.7000	0.3400	5	Full
AUDCAD	Forex	Market	No	No	0	0.5100	-0.7800	5	Full
CADCHF	Forex	Market	No	No	0	0.3000	-0.5900	5	Full
CADJPY	Forex	Market	No	No	0	0.8000	-1.2800	5	Full
NZDJPY	Forex	Market	No	No	0	1.6500	-2.0500	5	Full
USDNOK	Forex	Market	No	No	0	-4.4600	2.0700	5	Full
USDZAR	Forex	Market	No	No	0	-16.4700	11.5100	5	Full
USOSEK	Forex	Market	No	No	0	-2.5000	0.5000	5	Full
USODKK	Forex	Market	No	No	0	-1.7800	0.2400	5	Full
USDSGD	Forex	Market	No	No	0	0.4000	-0.8900	5	Full
CHFJPY	Forex	Market	No	No	0	0.3100	-0.7400	5	Full
EURNZD	Forex	Market	No	No	0	-2.5000	1.8600	5	Full
GOLD	Commodities	Market	No	No	0	-3.3500	1.0600	5	Full
SILVER	Commodities	Market	No	No	0	-3.3500	1.0600	5	Full

For each currency pair Execution should be set to “Market”:

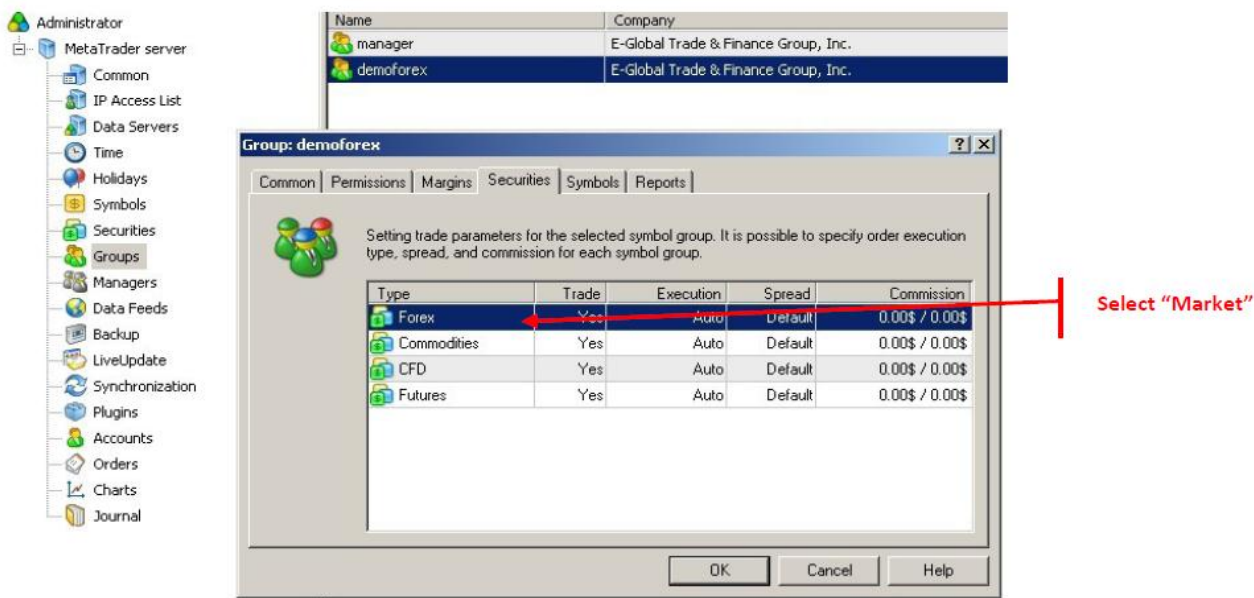
1. Select a currency pair
2. Double click on the currency
3. The window with Symbol Settings appears (see the picture bellow)
4. Select “Market” value in the **Execution** drop-down
5. Click the “Ok” button to save changes
6. Go to the next currency pair



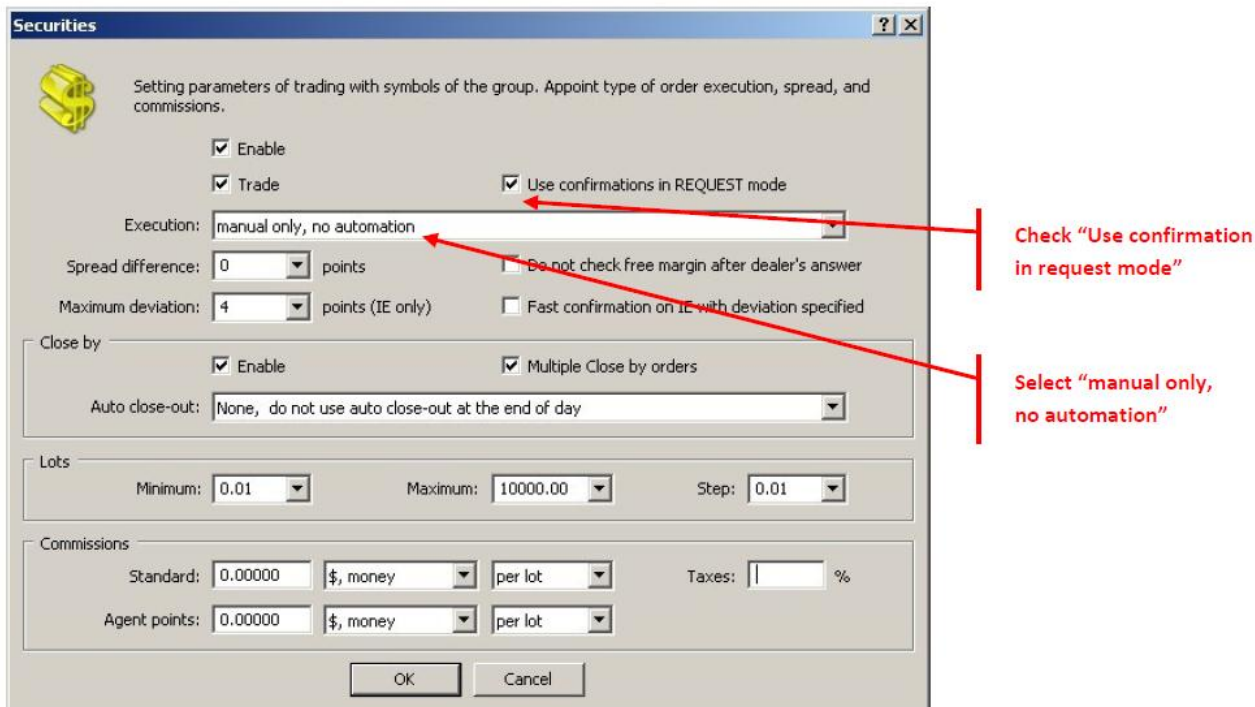
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Change "Groups" property

Select "Securities" tab. Select "Forex" in the tab and double click on it.



- Check the "Use confirmations in REQUEST mode" box



- Execution: Manual only, no automation

3. Configuration settings

FIX Bridge main configuration file **mtfix.cfg** has a simple structure similar to standard *.ini configuration files. All lines in the file begin with # are treated as comments and don't affect FIX Bridge.

General configuration settings

Option	Accepted Values	Description
ManagerLogin	string	MT4 manager's login
ManagerPass	string	MT4 manager's password
EndOfDay	time of day (MT4 server time)	Time when end of day activities are performed (backup database etc.). <i>For example: 23:00</i>
ShutdownTime	time of day (MT4 server time)	Time when FIX Bridge stops accepting user requests before reset of FIX sessions sequence numbers. Note: MUST BE less than SeqNumResetTime <i>For example: 23:55</i>
SeqNumResetTime	time of day (MT4 server time)	Time of FIX sessions sequence numbers reset at the end of the day. <i>For example: 23:59</i>
HBI	number of seconds	Specifies Heart Beat Interval common for all FIX sessions. This value can be overridden by a session settings.
DestinationType *	identifier for the session destination	Specifies session destination type.
Account	account	Client's account on the destination. Note: Option is deprecated, please use AccountOverride options instead
AccountWithoutCheckSession	account	If empty – then Bridge waiting for 35=h messages (session opened).
TradingSessionStatusOpenAlways	true false	If true then disable the Trading session status checking functionality
Host	hostname ip-address	Destination connection hostname or ip-address.
Port	number	The destination connection port number.
Password	password	User password. Can be omitted if the destination doesn't require authorization.
Target	string	Specifies Target identifier for the FIX session.
Sender	string	Specifies Sender identifier for the FIX session.
StartSeqNum	number	Overrides first expected incoming message sequence number with specified one.
LastSeqNoReset	number	Last sequence before rollover (SeqNumResetTime).
AgentPercentage	value	Agent's commission. By default is 0.005
AlertsRecipients	MT4 server managers accounts	FIX session state information for managers.
FilterGroupsByManager	true false	FilterGroupsByManager excludes messages from users not included in the manager group.

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ForceAvgPx	true false	Ability to calculate real average price.
Mode	Net Hedge	Execution mechanism.
Mode24x7	true false	Ability to work 24h7d. If false then SeqNumResetTime functionality will be disabled
OlderDaysRepost	value	This parameter specifies the number of days for send new orders in place of old
TPAlwaysLimit	true false	TakeProfit with StopLoss always will send Limit order to Destination
Time2CheckGTC	time of day (MT4 server time)	Time to check GoodTillCancel orders. If expired reposted due next setting
ExecutionReport.commission	true false	If true then takes commission from 12 tag of ExecutionReport (8) message
SymbolAsIs	true false	If true then mt4 symbol correspond to Symbol (55) tag of FIX message as is (for example: EURUSD.b (mt4) will be 55=EURUSD.b (FIX))
TakeCommission	true false	If false then switch on the standart mt4 commission functionality
MarketOrderTIFValue	string	By default is 1(GTC). It could be used to define custom TIF value for the outgoing Market orders.
AcceptRejectsNoSuchOrder	true false	When bridge receives OrderCancelReject FIX message with RejectNoSuchOrderReason reason, OrderCancel request will be processed as accepted and order will be cancelled. This functionality is used to remove order, if it doesn't exist on the FIX Exchange side (for example it was deleted at EOD). By default is false.
RejectNoSuchOrderReason	string	Contains reject reason used by the AcceptRejectsNoSuchOrder option. Default value is "No such order".
TransformMT4FIXSymbols	true false	When false, bridge doesn't change name of symbols (from FIX to MT4 and back). Default value is true.
CollateralInquiryEnabled	true false	When false, bridge doesn't send CollateralInquiry(BB) FIX message into the FIX session (when new MT4 user is logged in). Default value is true.
SymbolsList	List of strings	Contains list of symbols (delimited by ',') that processed by the bridge. Bridge skips events for symbols that are not in this list.
SpreadMode	true false	If true, enables spread functionality in the bridge – bridge will extend symbols spread according to the configured values
Spread.Count	number	Contains number of spreads. Option is enabled if SpreadMode=true
Spread.<id>.Symbol Spread.<id>.Bid Spread.<id>.Ask		Defines symbol and value of the additional spread for Bid and Ask prices. <id> is a number from 1 to Spread.Count
StopSupportedByECN	true false	If false, bridge will emulate Stop orders
RoundPx	true false	If true, bridge will rounds prices in ExecReport

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		messages according to number of digits configured in MT4
MarketExpirationTime	Milliseconds	Defines time period after that pending order (not accepted by the ECN side) will be automatically canceled by the bridge. By default pending orders are never canceled.
SleepBeforeWE	Milliseconds	Contains timeout in milliseconds that used to shift EOD procedure before weekEnd. By default is 0
FixProfit	true false	If true, bridge (when starts) uses MT4 API to check and update profit of the closed trades. Process executed only once, bridge updates mtfix.cfg to switch FixProfit option off. By default is false.
CheckLivesQtyOnMinimum	true false	If true, bridge checks volume of the trade and reject it if trade doesn't satisfy minimum lot value or allowed lot step (configured for the security)
Logs.Locks	true false	If true, bridge creates additional log "locks" that contains additional information about executed operations. By default is true
TimeZoneOffset	hours	Contains time offset that is used to adjust position's open/close time. By default is 0
PassConvRateOnCheck	true false	If true, bridge doesn't use conversion rate (configured for the group) when cost of the trade is calculated. By default is false
EnableManagerInfo	true false	If true, bridge will add information about manager (who initiate request) into the Text(58) FIX tag. By default is false
StopsDeleteAtNoMargin	true false	Option is used when Stop orders are not supported by the ECN and emulated by the bridge. If true, bridge checks account buying power and closes pending "Stop" orders if it is not enough. By default is false
PendingsCloseAtMarginCall	true false	If true, bridge cancels pending orders in case of the margin call. By default is false
Filter.VolumeBefore Filter.VolumeAfter	number	Defines lower and upper volume limits accepted by the bridge. By default are 0 (no limit)
Alias.Count	Number	Defines aliases between MT4 and ECN symbols.
Alias.%ld.MT4	string	
Alias.%ld.External	string	
AccountDisableMessage	string	Defines reject reason test. If bridge receives BusinessReject(j) FIX message with this reason, corresponding MT4 account will be disabled. By default is not defined
SymbolAliasGroup.Count	Number	Defines suffixes for the symbols.
SymbolAliasGroup.<id>	String	SymbolAliasGroup.<id> - contains name of the MT4 user group.
SymbolAliasGroup.<id>.suffix	string	SymbolAliasGroup.<id>.suffix contains text that appends to the MT4 symbol
TransactionImport	true false	If true, Bridge will schedule TransactionImport

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		task. By default is false
TransactionFilePrefix	string	Contains prefix of the TransactionImport file that will be loaded by the TransactionImport task to update account balances. By default is 'transactions_'.
GTD	true false	If true, bridge sends orders with TimeInForce(59) FIX tag "Daily", "GTC" is used otherwise. By default is false
MTAccounts4Logon MTAccount4Logon."".Password	List of strings string	If MTAccounts4Logon contains account(s), bridge will send UserRequest(BE) FIX message for each account from MTAccounts4Logon list.
FIXProtocolGENERIC	FIX40-FIX50	Defines type of the FIX protocol for Trades FIX session. Option is used if Destination is 'Generic'. By default is FIX44
SendMTAccountLogonAfterReconnect	true false	If true, bridge will send BE FIX message (for each account configured in MTAccounts4Logon option) after each reconnect.
AccountOverride.Count	Number	Define account's override rules.
AccountOverride.<id>.SourceAccounts	String	AccountOverride.<id>.SourceAccounts contains list of MT4 accounts (with ',' delimiter) or '*' (any account). Bridge will use value of AccountOverride.<id>.TargetAccount in outgoing FIX messages for Account(1) tag.
AccountOverride.<id>.TargetAccount	String	
MarketOrderTIFValue	String	Define value of the TimeInForce(59) FIX tag that will be used for the outgoing Market orders.
LogFolder	String	Contains folder for the log files, created by the bridge. By default is '\plugins' folder.
FIXProcessingLog	true false	When true, Bridge creates additional logs that contains information about incoming FIX messages.
AccountWithoutTradingSessionStatusCheck	String	Contains list of accounts (with ',' delimiter) that are processed even if trading session is closed.
SendResendRequestAgain	true false	When true, bridge resends ResendReq FIX message if seqGap was detected by both sides
SendResendRequestAlerts	true false	When true, Bridge sends Email alerts when SeqGap is detected or resolved in the FIX orderflow session
ManualOrderIndicatorValue	String	If not empty, Bridge assign this value to the 1028 tag of the NewOrderSingle and OrderReplaceReq FIX messages

* Possibly supported destinations:

{ADS} ADS securities (<http://www.ads-securities.com>)

{CNX} Currenex (<http://www.currenex.com>)

{FXCM} FXCM (<http://www.fxcm.com>)

{MBT} MB Trading (<http://www.mbtrading.com>)

{OANDA} Oanda (<http://www.currenex.com>)

{SAXO} Saxo Bank (<http://saxobank.com>)

{CME} CME iLink and MarketData (over FAST) (<http://www.cmegroup.com>)

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Update balance configuration settings

BalanceFilePrefix	string	Defines prefix of the BalanceSynch file. Bridge loads file when BalanceSynch task is started and adjust account balances. By default not defined
BalanceSynchLimit	double	Bridge doesn't fix balance for the account, if difference between current balance and balance from <BalanceFilePrefix_date.csv> (for account) greater than this limit. By default is 0.0 (not defined).
BalanceUpdateTriesAmount	Number	Amount of BalanceUpdate tries. By default is 30.
BalanceUpdateRetryIfFails	true false	When true, Bridge retries BalanceUpdate task if any error detected during account's balance update
BalanceUpdateRetryIfFilesNotExist	true false	When true, Bridge retries BalanceUpdate task if balance files don't exist
BalanceUpdateNoFileInterval	Number	Time interval (in seconds) to retry BalanceUpdate task, if balance file doesn't exist. By default is 20 minutes
UseEquityForBalanceSynch	true false	When true, Bridge uses Equity value to update account balance. Balance value is used otherwise.

Market data configuration settings

FIXMarketData	true false	Main parameter for swith on the market data receiving
FIXProtocolMarketData	FIX44	FIX protocol version for market data
ParallelMarketDataProcessing	true false	Ability use the additional threads for market data processing
MarketDataProcessorWorkers	value	Number of additional threads
MarketDataLog	true false	Ability to have the additional market data log (created in \plugins directory)
MDPersistent	true false	Ability to disable FIX logs for market data (if true - created in \plugins\logs directory)
FIXMarketData.Host FIXMarketData.Port FIXMarketData.Sender FIXMarketData.Target FIXMarketData.User FIXMarketData.Password FIXMarketData.InSeqNum FIXMarketData.OutSeqNum	values	The FIX parameters and credentials for market data
FIXMarketData.SeparateSession	true false	Separate trading and market data FIX session
FIXProtocolMarketData	FIX44	FIX version for market data session
SendSnapshotMDSubscription	true false	By default is 'false'. When true bridge will send MarketDataSubscription(V) FIX message with MDUpdateType=0(Full refresh).

CME iLink configuration settings

SenderSub	String	Specifies SenderSubId identifier for the FIX CME iLink session
SenderLocationId	String	Specifies SenderLocationId identifier for the FIX CME iLink session
TargetSubID	String	Specifies TargetSubId identifier for the FIX CME iLink session
CME.AccountsConfigFile	String	Path to the CME accounts configuration file
CME.InstrumentConfigFile	String	Path to the CME instruments configuration file

CME MarketData configuration settings

FIXMarketData.CMEMDSession.XMLTemplate	String	Contains definition of the CME MD FAST templates
FIXMarketData.CMEMDSession.ChannelConfig	String	Contains definition of the CME MD channels (snapshot, incremental, recovery, etc)
FIXMarketData.CMEMDSession.IsFAST2Protocol	true false	When true, bridge uses FAST2 protocol for CME MD channels
FIXMarketData.CMEMDSession.DumpMessages	true false	When true, incoming messages will be written to the log file
CME.InstrumentConfigFile	String	Path to the CME instruments configuration file
FIXMarketData.CMEMDSession.NumberOfWorkers	Number	Contains number of worker threads, used to process incoming CME messages
FIXMarketData.CMEMDSession.ListenInterfaceIP	String	Contains local IP interface (if server has several network interfaces)

Notes:

For safe HDD space switch to “false” following settings:

MDPersistent=false

MarketDataLog=false

4. FIX Component Blocks

4.1 Standard Message Header

Tag	Field name	Req'd	Comments
8	BeginString	Y	Identifies beginning of new message and protocol version. Always first field in message. Supported values: 'FIX.4.4'
9	BodyLength	Y	Message length, in bytes, forward to the CheckSum field. Always second field in message
35	MsgType	Y	Defines message type. Supported values: <ul style="list-style-type: none"> 'D' – New Order Single 'F' – Order Cancel Request 'G' – Order Cancel/Replace Request '8' - Execution Report '9' – Order Cancel Reject
9	SenderCompID	Y	Assigned value used to identify firm sending message
56	TargetCompID	Y	Assigned value used to identify receiving firm
34	MsgSeqNum	Y	Integer message sequence number
50	SenderSubID	N	Assigned value used to identify specific message originator
57	TargetSubID	N	Assigned value used to identify specific individual or unit intended to receive message
43	PossDupFlag	N	Indicates possible retransmission of message with this sequence number. Supported values: 'Y', 'N'
97	PossResend	N	Indicates that message may contain information that has been sent under another sequence number. Supported values: 'Y', 'N'
52	SendingTime	Y	Time of message transmission (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss
122	OrigSendingTime	N	Original time of message transmission when transmitting messages as the result of resend request (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss
116	OnBehalfOfSubID	N	Contains MT4 account

4.2 Standard Message Trailer

Tag	Field name	Req'd	Comments
10	CheckSum	Y	Three byte, simple checksum. Always last field in message

5. FIX session - level messages

5.1 Logon

The Logon (A) message authenticates a user establishing a connection. The Logon (A) message must be the first message sent by the application requesting to initiate a FIX session.

From FIX Client to MT4 Server Plug-in

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'A'
98	EncryptMethod	Y	Method of encryption. Supported value: '0' (None)
108	HeartBtInt	Y	Heartbeat interval (seconds)
553	Username	N	Username assigned by MT4
554	Password	N	Password.
	< StandardMessageTrailer >	Y	

From MT4 Server to FIX Client Plug-in. Successful Logon

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'A'
98	EncryptMethod	Y	Method of encryption. Supported value: '0' (None)
108	HeartBtInt	Y	Heartbeat interval (seconds)
	< StandardMessageTrailer >	Y	

5.2 Logout

The Logout (5) message is used to close established session or to notify about failed authentication.

From FIX Client to MT4 Server Plug-in

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = '5'
58	Text	N	Free format text.
	< StandardMessageTrailer >	Y	

From MT4 Server to FIX Client Plug-in. Successful Logout

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = '5'
58	Text	N	'Logged out'
	< StandardMessageTrailer >	Y	

From MT4 Server to FIX Client Plug-in. Failed Logon

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = '5'
58	Text	N	'User authentication failed'
	< StandardMessageTrailer >	Y	

5.3 Session Level Reject

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = '3'
45	RefSeqNum	N	MsgSeqNum of rejected message
372	RefMsgType	Y	MsgType of rejected message
373	SessionRejectReason	N	Code to identify reason for a session-level Reject (3) message. Valid values: '1' (Required field is missing), '6' (Incorrect data format for value)
58	Text	N	Reason of rejection.
	< StandardMessageTrailer >	Y	

6. FIX application-level messages

6.1 New Order — Single

Tag	Field name	Req'd	Comments
< StandardMessageHeader >			MsgType = 'D'
1	Account	Y	Account mnemonic
11	ClOrdID	Y	Unique identifier for order as assigned by institution.
526	SecondaryClOrdID	N	Position ID assigned by MetaTrader. Note: Field is required to outline ID of position which should be closed. (Can be used only when MT4 Plug-In is configured to treat all new orders as different as different positions)
21	HandlInst	Y	Instructions for order handling on broker trading floor. Supported values: '1'
<OrderQtyData>			
38	OrderQty	Y	Number of lots
</OrderQtyData>			
40	OrdType	Y	Order type. Supported values: '1' (Market), '2' (Limit)
44	Price	C	Limit price. Required if OrdType (40) = '2'
54	Side	Y	Side of order. Supported values: '1' (Buy), '2' (Sell)
<Instrument>			
55	Symbol	Y	Currency pair
</Instrument>			
58	Text	N	Free format text string
59	TimeInForce	N	Specifies how long the order remains in effect. Supported values: '0', '1' Absence of this field is interpreted as '0'
60	TransactTime	Y	Time of execution/order creation (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss or YYYYMMDD-HH:MM:SS
21	HandlInst		Instructions for order handling Supported values: '1'
100	ExDestination	Y	Contains value of Destination, configured in the mtfix.cfg file
10002	Bid price	N	Tag contains current MT4 market Bid price. Tag is used for the SMART destination only.
10003	Ask price	N	Tag contains current MT4 market Ask price. Tag is used for the SMART destination only.
< StandardMessageTrailer >			Y

6.2 Order Cancel Request

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'F'
1	Account	Y	Account mnemonic
11	ClOrdID	Y	Unique identifier for order as assigned by institution. Must be unique across all sessions/clients!
526	SecondaryClOrdID	N	Position ID assigned by MetaTrader. Note: Field is can be used only by Extended FIX Client
41	OrigClOrdID	Y	ClOrdID of the previous order as assigned by the institution, used to identify the previous order in cancel and cancel/replace requests
37	OrderID	N	Unique identifier for order as assigned by broker
	<OrderQtyData>		
38	OrderQty	Y	Number of lots
	</OrderQtyData>		
54	Side	Y	Side of order. Supported values: '1' (Buy), '2' (Sell)
	<Instrument>		
55	Symbol	Y	Currency pair
	</Instrument>		
60	TransactTime	C	Time of execution/order creation (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss
	< StandardMessageTrailer >	Y	

6.3 Order Cancel/Replace Request

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'G'
1	Account	Y	Account mnemonic
11	ClOrdID	Y	Unique identifier for order as assigned by institution. Must be unique across all sessions/clients!
526	SecondaryClOrdID	N	Position ID assigned by MetaTrader. Note: Field is can be used only by Extended FIX Client
41	OrigClOrdID	Y	ClOrdID of the previous order as assigned by the institution, used to identify the previous order in cancel and cancel/replace requests
21	HandlInst	Y	Instructions for order handling on broker trading floor. Supported values: '1'
37	OrderID	N	Unique identifier for order as assigned by broker
	<OrderQtyData>		
38	OrderQty	Y	Number of lots
	</OrderQtyData>		

40	OrdType	Y	Order type. As specified in original order Supported values: '1' (Market), '2' (Limit)
44	Price	C	Limit price. Required if OrdType (40) = '2'
54	Side	Y	Side of order. As specified in original order Supported values: '1' (Buy), '2' (Sell)
<Instrument>			
55	Symbol	Y	Currency pair
</Instrument>			
58	Text	N	Free format text string
59	TimelnForce	N	Specifies how long the order remains in effect. Supported values: '0', '1' Absence of this field is interpreted as '0'
60	TransactTime	Y	Time of execution/order creation (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss
<StandardMessageTrailer>		Y	

6.5 Execution Report

Tag	Field name	Req'd	Comments
<StandardMessageHeader>		Y	MsgType = '8'
1	Account	Y	Account mnemonic
37	OrderID	Y	Unique identifier for order as assigned by MT4 Plug-in
11	CIOrdID	Y	Unique identifier for order as assigned by institution Note: CIOrdID (11) should have following format for the case when Execution Report is sent as a result of unsolicited position closing on MT4 side: "ClosedByMT4_N_YYYYMMDD:HH:MM:SS.sss", where N – number of unsolicited position closing; YYYYMMDD:HH:MM:SS.sss – timestamp.
526	SecondaryCIOrdID	N	Unique position ID. As assigned by MT4. Note: Field is can be used for Extended FIX Client only
41	OrigCIOrdID	N	CIOrdID of the previous order as assigned by the institution, used to identify the previous order in cancel and cancel/replace requests
6	AvgPx	Y	Calculated average price of all fills on this order
14	CumQty	Y	Total number of shares filled
17	ExecID	Y	Unique identifier of execution message as assigned by MT4 Plug-in
19	ExecRefID	C	ExecID of the trade that was canceled. Required if ExecType (150) = 'H'
21	HandlInst	N	Instructions for order handling on broker trading floor. Supported values: '1'
31	LastPx	C	Price of this (last) fill.

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			Required if ExecType (150) = 'F'
32	LastQty	C	Quantity of shares bought/sold on this (last) fill. Required if ExecType (150) = 'F'
38	OrderQty	Y	Number of lots Not required if ExecType (150) = 'I'
39	OrdStatus	Y	Current status of order. Supported values: '0', '1', '2', '4', '8', ' C '
40	OrdType	N	Order type. Supported values: '1', '2', '3', 'J'
44	Price	C	Limit price. Required if OrdType (40) = '2', 'J'
54	Side	Y	Side of order. Supported values: '1', '2'
55	Symbol	Y	Currency pair
58	Text	N	Free format text string
59	TimeInForce	N	Specifies how long the order remains in effect. Supported values: '0' Absence of this field is interpreted as '0'
60	TransactTime	N	Time of execution/order creation (expressed in UTC). Format: YYYYMMDD-HH:MM:SS.sss
75	TradeDate	N	Used when reporting other than current day trades
77	OpenClose	N	Indicates whether the resulting position after a trade should be an opening position or closing position. Supported values: 'O', 'C'
103	OrdRejReason	C	Code to identify reason for order rejection. Supported values: '0', '4', '5', '6' Required if ExecType (150) = '8'
150	ExecType	Y	Identifies the type of execution report. Supported values: '0', '1', '4', '5', '6', 'F', 'H'
151	LeavesQty	Y	Amount of shares open for further execution
336	TradingSessionID	C	Is used to indicate that message is sent to DropCopy session. Valid value: 'DropCopy' Required for all messages sent to drop copy session(s).
625	TradingSessionSubID	C	Is used to indicate name of DropCopy session. Format: '<MainSessionTargetCompID, MainSessionSenderCompID >'. Required for all messages sent to drop copy session(s).
99	StopPx	N	Stop price
6	AvgPx	N	Calculated average price of all fills on this order.
12	Commission	N	Commission
	< StandardMessageTrailer >	Y	

6.6 Order Cancel Reject

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = '9'
11	ClOrdID	Y	Unique identifier for order as assigned by institution
526	SecondaryClOrdID	N	Unique position ID assigned by MT4. Note: Field is can be used for Extended FIX Client only
37	OrderID	C	Unique identifier for order as assigned by MT4 Plug-in.
39	OrdStatus	Y	Current status of order. Supported values: '0', '1', '2', '4', '8', 'C', 'E'.
41	OrigClOrdID	Y	ClOrdID of the previous order as assigned by the institution, used to identify the previous order in cancel and cancel/replace requests
58	Text	N	Free format text string
102	CxlRejReason	N	Code to identify reason for cancel rejection. Supported values: '0', '1', '2', '3', '6'
434	CxlRejResponseTo	Y	Supported values: '1' (corresponds to Order Cancel Request (F)) '2' (corresponds to Order Cancel/Replace Request (G))
	< StandardMessageTrailer >	Y	

6.7 Market Data Request

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'V'
262	MdReqID	Y	Unique identifier of Market Data Request message
263	SubscriptionRequestType	Y	Subscription Request Type Supported values: '1' (Subscribe), '2' (Unsubscribe)
264	MarketDepth	Y	Depth of market for Book Snapshot Supported value: '1' (Top of the book)
265	MDUpdatetype	C	Specifies the type of Market Data update. Conditionally required if SubscriptionRequestType (263) = '1' Supported value: '0' (Full refresh)
267	NoMDEntryTypes	Y	Supported value: '2'
=>269	MDEntryType	Y	Type of market data entry. Supported values: '0' (Bid); '1' (Ask)
146	NoRelatedSym	Y	Number of currency pair which market data is requested for. Supported value: '1'
=>55	Symbol FIXField::AggregatedBook	Y	Currency pair
	< StandardMessageTrailer >	Y	

6.8 Market Data Reject

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'Y'
262	MdReqID	Y	Unique identifier of Market Data Request message
281	MDReqRejReason	N	Reject reason. Supported values: '0' (Unknown symbol) '1' (Duplicate MDReqID (262)) '4' (Unsupported SubscriptionRequestType (263)) '5' (Unsupported MarketDepth (264)) '6' (Unsupported MDUpdateType (265)) '8' (Unsupported MDEntryType (269))
58	Text	N	Description of reject.
	< StandardMessageTrailer >	Y	

6.9 Market Data Snapshot/Full Refresh

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'W'
262	MdReqID	Y	Unique identifier of Market Data Request message
55	Symbol	Y	Currency pair
268	NoMDEntries	Y	Supported value: '2'
=> 269	MDEntryType	Y	Market Data entry type. Supported values: '0' (Bid), '1' (Offer)
=> 270	MDEntryPx	Y	Bid/Ask price
=> 271	MDEntrySize	Y	Bid/Ask size
=> 15	Currency	N	Can be used to specify the currency of the quoted price.
	< StandardMessageTrailer >	Y	

6.10 Market Data Incremental Refresh

Tag	Field name	Req'd	Comments
	< StandardMessageHeader >	Y	MsgType = 'X'
262	MdReqID	Y	Unique identifier of Market Data Request message
268	NoMDEntries	Y	Supported value: '2'
=> 279	MDUpdateAction	Y	Type of Market Data update action.
=> 269	MDEntryType	C	Market Data entry type. Supported values: '0' (Bid), '1' (Offer)

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55	Symbol	Y	Currency pair
=> 270	MDEntryPx	Y	Bid/Ask price
=> 271	MDEntrySize	Y	Bid/Ask size
=> 15	Currency	N	Can be used to specify the currency of the quoted price.
	< StandardMessageTrailer >	Y	

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