FIX 4.2

Change History

Version	Date	Change details
1.1	05.06.2021	NewOrderSingle ExecInst 'y' added for ignoring dynamic limits

FIX components

Header

Tag	Name	Type	Presence	Possible values	Description
8	BeginString	String	mandatory	FIX.4.2	Must be first
9	BodyLength	Length	mandatory		Must be second
35	MsgType	String	mandatory		Must be third
49	SenderCompID	String(32)	mandatory		
56	TargetCompID	String(32)	mandatory		
34	MsgSeqNum	SeqNum	mandatory		
50	SenderSubID	String(16)	optional		
43	PossDupFlag	Boolean	optional	'Y', 'N'	
97	PossResend	Boolean	optional	'Y', 'N'	
52	SendingTime	UTCTimestamp	mandatory		Example: 20140910-15:14:12
122	OrigSendingTime	UTCTimestamp	optional		

Trailer

Tag	Name	Type	Presence	Possible values	Description
10	CheckSum	String	mandatory		

Instrument

Tag	Name	Type	Presence	Possible value	Description
55	Symbol	String(20)	mandatory		:e Exchange symbol name. In case of multi-leg order, it can be filled with '[N/A]' in case of • multileg order. Can be also filled with combination of legs. E.g. 'BRH6-BRM9' • when SecurityID specified
48	SecurityID	String	optional		Instead of Symbol(55) SecurityID can be specified as • ISIN - instrument ISIN • instument ID - internal XROAD instument unique ID number. E.g. '1234589' • alias - internal XROAD unique (across all exchanges) instrument name. E.g. 'LKOH.TQBR', 'XBTUSD.BITMEX', etc
22	IDSource	String	conditionally required	'4', '100', '101'	Required only if SecurityID specified • '4' - SecurityID is an ISIN • '100' - SecurityID is a instrument unique number • '101' - SecurityID is a instrument alias

207	SecurityExchange	Exchange	optional	e.g. 'XMIC', 'XLON'	Default value is 'XMIC'. Make sense only if instrument specified with Symbol(55) tag or SecurityID is an ISIN
11016	InstrumentCurrency	Currency	conditionally required	'RUB', 'USD', 'EUR', 'GBP', etc	Instrument currency. Required if instrument found by ISIN+SecurityExchange. Make sence for LSE, where instrument has different name with same ISIN and different currency

OrderQtyData

Tag	Name	Type	Presence	Possible value	Description
38	OrderQty	Qty	mandatory		

TradingSessions

	Tag	Name	Type	Presence	Possible values	Description
	386	NoTradingSessions	NumInGroup	conditionally required	1	Make sence only for MOEX exchange
=>	336	TradingSessionID	String	mandatory		Exchange trading session (e.g. TQBR, TQDB, etc)

Transport level

Heartbeat (0)

Tag	Name	Type	Presence	Possible value	Description
	<Header>		mandatory		MsgType = '0'
112	TestReqID	String	optional		
	<Trailer>		mandatory		

Example
8=FIX.4.4 9=58 35=0 34=3 49=qfixclient 52=20150430-10:58:53.098 56=xroad 10=054

TestRequest (1)

Tag	Name	Type	Presence	Possible value	Description
	<Header>		mandatory		MsgType = '1'
112	TestReqID	String	mandatory		
	<Trailer>		mandatory		

Example
8=FIX.4.4 9=73 35=1 49=xroad 56=qfixclient 34=4 52=20150430-10:59:03.098 112=XROAD_TEST 10=032

ResendRequest (2)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '2'
7	BeginSeqNo	SeqNum	mandatory		
16	EndSeqNo	SeqNum	mandatory		
<Trailer>			mandatory		

Reject (3)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '3'
45	RefSeqNum	SeqNum	mandatory		
16	RefTagID	int	optional		
372	RefMsgType	String	optional		
373	SessionRejectReason	int	optional		
58	Text	String	optional		
<Trailer>			mandatory		

SequenceReset (4)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '4'
123	GapFillFlag	Boolean	optional	'Y', 'N'	
36	NewSeqNo	SeqNum	mandatory		
<Trailer>			mandatory		

Logout (5)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '5'
58	Text	String	optional		
<Trailer>			mandatory		

Example
8=FIX.4.4 9=58 35=5 49=xroad 56=qfixclient 34=7 52=20150430-11:12:44.564 10=052

Logon (A)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'A'
98	EncryptMethod	int	mandatory	0	
108	HeartBtInt	int	mandatory		
141	ResetSeqNumFlag	Boolean	optional	'Y', 'N'	Default is 'N'
<Trailer>			mandatory		

Example
8=FIX.4.4 9=68 35=A 34=1 49=quickfix 52=20150402-19:40:48.333 56=xroad 98=0 108=10 10=133

Application level messages

NewOrderSingle(D)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'D'
11	ClOrdID	String(32)	mandatory		
526	ClientID	String(16)	optional		client code
1	Account	String(16)	mandatory		account
<TradingSessions>			optional		Make sense only for MOEX FOND and CURR sections
<Instrument>			mandatory		

54	Side	char	mandatory	'1' - Buy '2' - Sell	
60	TransactTime	UTCTimestamp	mandatory		
<OrderQtyData>			mandatory		
40	OrdType	char	mandatory	'1' - Market '2' - Limit	
44	Price	Price	conditionally required		If OrdType(40) tag != market
15	Currency	Currency	optional	'RUB', 'USD', 'EUR', 'GBP', etc	Price currency
21	HandlInst	char	optional	'1', '2', '3'	Instructions for order handling on Broker trading floor • '1' - Automated execution order, private, no Broker intervention • '2' - Automated execution order, public, Broker intervention OK • '3' - Manual order, best execution
18	ExecInst	MultipleValueString	optional	'6', 'H', 'E', 'f', 'x', 'y', 'z', 't'	Execution instructions: • '6' - Participate don't initiate • 'H' - restate on system failed • 'E' - do not increase position • 'f' - close position. BITMEX specific • 'x' - cancel on cross. Crosser will not to try to re-execute order in this case • 'y' - ignore dynamic limits (for SPBEX) • 'z' - don't cross orders from MM • 't' - transit orders
529	OrderRestrictions	MultipleValueString	optional	'5'	• '5' - Acting as Market Maker or Specialist in the security
58	Text	String(32)	optional		Free format text string
59	TimeInForce	char	mandatory	'0' - Day '1' - GTC '2' - At open '3' - IOC (Immediate Or Cancel) '4' - FOK (Fill Or Kill) '6' - GTD '7' - At close	
432	ExpireDate	LocalMktDate	conditionally required	'20150905'	Required only if TimeInForce(59) tag == 'GTD'
11000	AlgorithmType	char	optional	'1' - iceberg '2' - TWAP '3' - VWAP '4' - POV '5' - Sniper '6' - Rake	
100	ExDestination	String	conditionally required	XMIC, XLON, XXRD, etc	execution market mic code. if 'XXRD' order will be executed at crosser
111	MaxFloor	Qty	conditionally required		Should be used for iceberg orders. Mandatory if AlgorithmType(11000) tag == '1'(iceberg), '4'(POV)
120	SettlCurrency	Currency	conditionally required	'USD', 'EUR'	hedge currency
121	ForexReq	boolean	optional	'Y' - hedge order	used to indicate that order should be hedged

11002	AlgoStart	UTCTimeOnly	optional		TWAP/VWAP/POV UTC start time. If absent, current time is used
11003	AlgoStop	UTCTimeOnly	optional		TWAP/VWAP/POV UTC stop time. If absent, order will be traded till session end
11004	AlgoPeriod	Int	optional		POV period (in seconds). Default value is 3 seconds
11005	AlgoAggressionLevel	Int	optional		TWAP/VWAP/POV aggression level. Count of ticks price shift during Aggression time. Default is 0
11006	AlgoMidTime	Int	optional		TWAP/VWAP/POV mid price period in percent. Default is 30%
11007	AlgoAggressionTime	Int	optional		TWAP/VWAP/POV aggression price period in percent. Default is 30%
11008	AlgoPOVRate	float	conditionally required		POV participation rate (in percent). Mandatory if AlgorithmType(11000) tag == '4'(POV)
11009	AlgoVWAPPriceMove	float	conditionally required		VWAP maximum algo price deviation from market VWAP in percent
11013	AlgoWorkingInt	Int	conditionally required		RAKE working interval (in seconds)
11014	AlgoBookDepth	Int	optional		RAKE book depth. Default is 1
11015	AlgoLevelDistance	Int	optional		RAKE level distance. Default is 1
<Trailer>			mandatory		

Example
8=FIX.4.4 9=178 35=D 34=2 49=quickfix 52=20150402-19:40:48.349 56=xroad 1=S01-00000F00 11=8/343504 38=1000 40=2 44=1834.1 54=1 55=LKOH 59=0 60=20150402-19:40:48 453=1 448=XXX 447=D 452=3 10=048

8=FIX.4.4 9=149 35=D 34=2 49=qfixclient 52=20150430-11:12:40.571 56=xroad 1=Z15 11=1/19975/0 15=RUB 38=1000 40=2 44=6800 54=2 55=OFZ6-6.15 59=0 60=20150430-11:12:40 10=187

8=FIX.4.4 9=211 35=8 34=2 49=xroad 52=20200211-08:41:46.995 56=client 6=0 11=1/18548/0 14=0 17=141 37=141 38=1 39=0 44=7000 54=1 55=XBTUSD 59=0 60=20200211-08:41:46.804 150=0 151=1 198=2f576f92-232a-fcc4-e2d4-f6dd325e 207=XBMX 10=212

ExecutionReport(8)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '8'
37	OrderID	String	mandatory		
11	ClOrdID	String(32)	mandatory		
41	OrigClOrdID	String(32)	optional		
198	SecondaryOrderID	String	optional		Can be used to provide order id used by exchange or executing system
527	SecondaryExecID	String	optional		Can be used to provide trade id used by exchange or executing system
17	ExecID	String	mandatory		

150	ExecType	char	mandatory	'0' - New '1' - Partially Filled '2' - Fill '4' - Canceled '5' - Replaced '6' - Pending Cancel '8' - Rejected 'A' - Pending New 'C' - Expired 'E' - Pending Replace	
39	OrdStatus	char	mandatory	'0' - New '1' - Partially Filled '2' - Filled '4' - Canceled '6' - Pending Cancel '8' - Rejected 'A' - Pending New 'C' - Expired 'E' - Pending Replace	
103	OrdRejReason	int	optional		
336	TradingSessionID	String	optional	TQBR	Make sense only for MOEX FOND and CURR sections
<Instrument>			optional		
54	Side	char	mandatory	'1' - Buy '2' - Sell	
<OrderQtyData>			mandatory		
44	Price	Price	conditionally required		If OrdType(40) tag != market
59	TimeInForce	char	mandatory		
432	ExpireDate	LocalMktDate	conditionally required		required only if TimeInForce(59) tag == 'GTD'
32	LastShares	Qty	optional		
31	LastPx	Price	optional		
30	LastMkt	Exchange	optional		Market of execution for last fill
18	ExecInst	MultipleValueString	optional	'6', 'E', 'f', 'A', '5', 'x'	Execution instructions: • '6' - Participate don't initiate • 'A' - no cross allowed. It is a sign to bypass crosser • 'E' - do not increase position • 'f' - close position. BITMEX specific • 'x' - cancel on cross. Crosser will not to try to re-execute order in this case
151	LeavesQty	Qty	mandatory		
21	HandlInst	char	optional	'1', '2', '3'	Instructions for order handling on Broker trading floor • '1' - Automated execution order, private, no Broker intervention • '2' - Automated execution order, public, Broker intervention OK • '3' - Manual order, best execution
14	CumQty	Qty	mandatory		

6	AvgPx	Price	mandatory		Средневзвешенная цена
60	TransactTime	UTCTimestamp	optional		
58	Text	String	optional		
119	SettlCurrAmt	Qty	optional		Hedge amount
120	SettlCurrency	Currency	optional	'USD', 'EUR'	Hedge currency
155	SettlCurrFxRate	Price	optional		FX rate of hedge
11100	SettlCurrFxAvgRate	Price	optional		средневзвешенный курс хеджирования
11101	SettlCurrFxAvgPrice	Price	optional		средневзвешенная цена в валюте хеджирования
<Trailer>			mandatory		

Example
8=FIX.4.4 9=150 35=8 49=xroad 56=qfixclient 34=2 52=20150430-11:12:40.623 37=1119 11=1/19975/0 17=1119 150=0 39=0 55=OFZ6-6.15 54=2 38=1000 44=6800 151=1000 14=0 6=0 10=013

OrderCancelRequest (F)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'F'
11	ClOrdID	String(32)	mandatory		
41	OrigClOrdID	String(32)	mandatory		
<Instrument>			mandatory		
54	Side	char	mandatory	'1' - Buy '2' - Sell	
60	TransactTime	UTCTimestamp	mandatory		
<OrderQtyData>			mandatory		
<Trailer>			mandatory		

Example
8=FIX.4.4 9=123 35=F 34=4 49=qfixclient 52=20150430-11:12:42.572 56=xroad 11=1/19975/2 41=1/19975/0 54=2 55=OFZ6-6.15 60=20150430-11:12:42 10=229

OrderCancelReplaceRequest (G)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'G'
11	ClOrdID	String(32)	mandatory		

41	OrigClOrdID	String(32)	mandatory		
<Instrument>			mandatory		
21	HandlInst	char	optional	'1', '2', '3'	Instructions for order handling on Broker trading floor • '1' - Automated execution order, private, no Broker intervention • '2' - Automated execution order, public, Broker intervention OK • '3' - Manual order, best execution
54	Side	char	mandatory	'1' - Buy '2' - Sell	
60	TransactTime	UTCTimestamp	mandatory		
<OrderQtyData>			mandatory		
40	OrdType	char	mandatory	'1' - Market '2' - Limit	
44	Price	Price	mandatory		
111	MaxFloor	Price	optional		Make sense only for iceberg order
120	SettlCurrency	Currency	conditionally required	'USD', 'EUR'	hedge currency
121	ForexReq	boolean	optional	'Y' - hedge order	used for TWAP/VWAP/POV to indicate that order should be hedged
11002	AlgoStart	UTCTimeOnly	optional		For TWAP, VWAP, POV
11003	AlgoStop	UTCTimeOnly	optional		For TWAP, VWAP, POV
11004	AlgoPeriod	Int	optional		For POV
11005	AlgoAgressionLevel	Int	optional		For TWAP, VWAP, POV
11006	AlgoMidTime	Int	optional		For TWAP, VWAP, POV
11007	AlgoAgressionTime	Int	optional		For TWAP, VWAP, POV
11008	AlgoPOVRate	float	optional		For POV
11009	AlgoVWAPPriceMove	float	optional		For VWAP
11010	HedgeCurrency	Currency	optional		If 'XXX' currency is set, order will stop hedging if any
11013	AlgoWorkingInt	Int	optional		For RAKE
11014	AlgoBookDepth	Int	optional		For RAKE
11015	AlgoLevelDistance	Int	optional		For RAKE
<Trailer>			mandatory		

Example
8=FIX.4.4 9=143 35=G 34=3 49=qfixclient 52=20150430-11:12:41.571 56=xroad 11=1/19975/1 38=400 40=2 41=1/19975/0 44=6800 54=2 55=OFZ6-6.15 60=20150430-11:12:41 10=104

OrderCancelReject(9)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = '9'
37	OrderID	String	mandatory		
11	ClOrdID	String(32)	mandatory		
41	OrigClOrdID	String(32)	mandatory		
39	OrdStatus	char	mandatory	'0' - New '1' - Partially Filled '2' - Filled '4' - Canceled '6' - Pending Cancel '8' - Rejected 'A' - Pending New 'C' - Expired 'E' - Pending Replace	
434	CxlRejResponseTo	char	mandatory	'1' - Order Cancel request '2' - Order Cancel/replace request	
102	CxlRejReason	int	optional	0 - Too late to cancel 1 - Unknown order 2 - Broker option 3 - Already in Pending state 6 - Duplicate ClOrdID 99 - Other	
58	Text	String	optional		
<Trailer>			mandatory		

Example
8=FIX.4.4 9=109 35=9 49=xroad 56=qfixclient 34=6 52=20150430-11:12:42.663 37=1119 11=1/19975/2 41=1/19975/0 39=0 434=1 102=1 10=157

SecurityListRequest(x)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'x'
320	SecurityReqID	String	mandatory		
559	SecurityListRequestType	int	mandatory	'4' - all securities	
<Trailer>			mandatory		

Example
8=FIX.4.4 9=76 35=x 34=14 49=qfix_client 52=20151023-14:35:18.819 56=xroad\ 320=req_1 559=4 10=207

SecurityList(y)

Tag		Name	Type	Presence	Possible value	Description
<Header>				mandatory		MsgType = 'y'
320		SecurityReqID	String	mandatory		
322		SecurityResponseID	String	mandatory		
560		SecurityRequestResult	int	mandatory	'0' - valid request '1' - invalid or unsupported request '2' - no instruments found	
393		TotNoRelatedSym	int	optional		
893		LastFragment	bool	optional	'Y' - last message 'N' - not last message	
146		NoRelatedSym	NumInGroup	conditionally required		
=>	<Instrument>			conditionally required		
=>	15	Currency	Currency	optional		
=>	561	RoundLot	Qty	optional		
=>	625	TradingSessionID	String	optional		
<Trailer>				mandatory		

Example
8=FIX.4.4 9=128 35=y 49=SENDER 56=TARGET 34=1 52=20151023-14:35:18.819 320=req_1 322=1/5005/298 560=0 393=14 893=N 146=10 55=LKOH| 15=RUB 336=TQBR 55=Si-9.14 15=RUB 55=Si28500BU4 15=RUB 55=Si28000BI4 15=RUB 55=LKOH 15=RUB 336=EQRP 55=GAZR-9.14 15=RUB 55=GAZR-6.14 15=RUB 55=MFON 15=RUB 336=TQBR 55=SBER 15=RUB 336=TQBR 55=XYZ-6.15 15=RUB 10=256

MarketDataRequest(V)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'V'
262	MDReqID	String	mandatory		
263	SubscriptionRequestType	char	mandatory	'0' - snapshot '1' - snapshot + updates '2' - unsubscribe	

264		MarketDepth	int	mandatory		
265		MDUpdateType	int	conditionally required	'0' - full refresh	
267		NoMDEntryTypes	NumInGroup	mandatory		
=>	269	MDEntryType	char	mandatory	'0' - bid '1' - offer '2' - trade	
146		NoRelatedSym	NumInGroup	mandatory		
=>	<Instrument>			mandatory		
=>	<TradingSessions>			optional		
=>	854	QtyType	int	optional	'0', '1'	Type of quantity specified in a quantity field. Valid values: • '0' - Units (shares, par, currency) • '1' - Contracts or lots (if used - ContractMultiplier can be specified) If not specified, '1' isused
<Trailer>				mandatory		

Example
8=FIX.4.4 9=134 35=V 34=6 49=qfix_client 52=20151026-09:02:11.233 56=xroad 146=1 55=LKOH 386=1 336=TQBR 262=req_1 263=1 264=0 267=3 269=0 269=1 269=2 10=224

MarketDataRequestReject(Y)

Tag	Name	Type	Presence	Possible value	Description
<Header>			mandatory		MsgType = 'Y'
262	MDReqID	String	mandatory		
281	MDRequestRejReason	char	optional	'0' - unknown symbol '1' - duplicate MDReqID '5' - unsupported MarketDepth '6' - unsupported MDUpdateType '8' - upsupported MDEntryType	
58	Text	String	optional		
<Trailer>			mandatory		

Example
8=FIX.4.4 9=71 35=Y 49=SENDER 56=TARGET 34=1 52=20151026-09:02:11.233 262=req_1 281=8 10=128

MarketDataSnapshotFullRefresh(W)

Tag		Name	Type	Presence	Possible value	Description
<Header>				mandatory		MsgType = 'Y'
262		MDReqID	String	optional		
<Instrument>				mandatory		
268		NoMDEntries	NumInGroup	mandatory		
=>	269	MDEntryType	char	mandatory	'0' - bid '1' - offer '2' - trade	
=>	270	MDEntryPx	Price	optional		
=>	15	Currency	Currency	optional		
=>	271	MDEntrySize	Qty	optional		
=>	273	MDEntryTime	UTCTimeOnly	optional		
=>	336	TradingSessionID	String	optional		
=>	290	MDEntryPositionNo	int	optional		
<Trailer>				mandatory		

Example
8=FIX.4.4 9=116 35=W 49=SENDER 56=TARGET 34=2 52= 20151026-09:02:11.233 55=LKOH 268=1 269=2 270=122 271=80 273=10:01:22.222 336=TQBR 10=128

SecurityStatusRequest(e)

Tag		Name	Type	Presence	Possible value	Description
<Header>				mandatory		MsgType = 'e'
324		SecurityStatusReqID	String	mandatory		
<Instrument>				mandatory		
=>	263	SubscriptionRequestType	char	mandatory	'0' - Snapshot '1' - Snapshot + Updates (Subscribe) '2' - Disable previous Snapshot + Update Request (Unsubscribe)	
=>	336	TradingSessionID	String	optional		
<Trailer>				mandatory		

Example
8=FIX.4.2 9=134 35=e 34=2 49=SENDER 52=20151026-09:02:11.233 56=TARGET 324=req_1 146=1 55=LKOH 386=1 336=TQBR 263=1 10=224

SecurityStatus(f)

Tag		Name	Type	Presence	Possible value	Description
<Header>				mandatory		MsgType = 'e'
324		SecurityStatusReqID	String	mandatory		
<Instrument>				mandatory		
=>	263	SecurityTradingStatus	int	optional	2 - halt 17 - regular trading 18 - stopped 20 - unknown 21 - opening period 124 - closing period 125 - opening auction 126 - closing auction 127 - auction 128 - auction price trading 129 - auction closing	
=>	336	Text	String	optional		
=>	12000	FeedStatus	Int	optional	1 - Offline, 2 - Online	Market data feed status
<Trailer>				mandatory		

Example
8=FIX.4.2 9=39 35=f 49=xroad 56=CLIENT 34=2 52=20151026-09:02:11.233 324=req_1 55=LKOH 207=MISX 326=2 10=105