

Fix Trader: Message Specs

Version: 1.0

Last modified: 29/06/2020

Contacts

SUBJECT	EMAIL	TELEPHONE
Institutions registration	cadastro@b3.com.br	+55 11 2565-5070
FIX.SUITE services contracting	contratacao@b3.com.br	+55 11 2565-5080
Systems certification	tradingcertification@b3.com.br	+55 11 2565-5029
Projects and suggestions	trader@b3.com.br	+55 11 2565-5996
Operationalization of the TRADER Platform	copel@b3.com.br	+55 11 2565-5025
FIX.SUITE functionality and TRADER Platform connectivity	suporteanegociacao@b3.com.br	+55 11 2565-5021

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Change Log

Date	Version	Description	Author
Jun 29th, 2020	1.0	- Initial version	LCP / AYSF

1. Standard Message Header

Tag	Tag name	Req'd	Data Type	Comment
8	BeginString	Y	String (7)	"FIX.4.4".
9	BodyLength	Y	Length (6)	(Always unencrypted, must be second field in message)
35	MsgType	Y	String (4)	(Always unencrypted, must be third field in message) Valid values: 0 - Heartbeat 1 - Test Request 2 - Resend Request 3 - Reject 4 - Sequence Reset 5 - Logout 8 - Execution Report A - Logon j - Business Message Reject s - New Order Cross
49	SenderCompID	Y	String (50)	Please contact B3 for appropriate CompID assignment (see section 3.2).
56	TargetCompID	Y	String (50)	Please contact B3 for appropriate CompID assignment (see section 3.2).
34	MsgSeqNum	Y	Seqnum (9)	Integer message sequence number.
52	SendingTime	Y	UTCTimestamp (21)	Expressed in UTC (Universal Time Coordinated)

2. Standard Message Trailer

Tag	Tag name	Req'd	Data Type	Comment
10	Checksum	Y	String (3)	Always unencrypted, always last field in message

3. Session Level Messages

3.1. Heartbeat (35=0)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
112	TestReqID	N	String	Required when the heartbeat is the result of a Test Request message.
[Standard Message Trailer]				

3.2. TestRequest (35=1)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
112	TestReqID	Y	String	Identifier included in Test Request message to be returned in resulting Heartbeat
[Standard Message Trailer]				

3.3. ResendRequest (35=2)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
7	BeginSeqNo	Y	Seqnum (9)	Message sequence number of first message in range to be resent

Tag	Tag name	Req'd	Data Type	Comment
16	EndSeqNo	Y	Seqnum (9)	Message sequence number of last message in range to be resent. If request is for a single message BeginSeqNo = EndSeqNo. If request is for all messages subsequent to a particular message, EndSeqNo = 0 (representing=infinity).
[Standard Message Trailer]				

3.4. Reject (35=3)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
45	RefSeqNum	Y	Seqnum (9)	MsgSeqNum of rejected message.
371	RefTagID	N	Int	The tag number of the FIX field being referenced.
372	RefMsgType	N	String (2)	The MsgType of the FIX message being referenced.
373	SessionRejectReason	N	Int (6)	Code to identify reason for a session-level Reject message. Valid values: 0 - Invalid Tag Number 1 - Required Tag Missing 2 - Tag Not Defined For This Message Type 3 - Undefined Tag 4 - Tag Specified Without A Value 5 - Value Is Incorrect 6 - Incorrect Data Format For Value 9 - Compid Problem 10 - Sendingtime Accuracy Problem 11 - Invalid Msgtype 13 - Tag Appears More Than Once 14 - Tag Specified Out Of Required Order 15 - Repeating Group Fields Out Of Order 16 - Incorrect Numingroup Count For Repeating Group 17 - Non Data Value Includes Field Delimiter 99 - Other

Tag	Tag name	Req'd	Data Type	Comment
58	Text	N	String (250)	Where possible, message to explain reason for rejection.
[Standard Message Trailer]				

3.5. SequenceReset (35=4)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
123	GapFillFlag	N	Boolean (1)	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent.
36	NewSeqNo	Y	Seqnum (9)	New sequence number.
35033	PossMissingApplMsg	N	Boolean (1)	Indicates that the range of messages retransmitted after a Resend Request may not include all the application messages contained in the original range requested.
[Standard Message Trailer]				

3.6. Logout (35=5)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
58	Text	N	String (250)	Explanation for Logout reason (if any).
[Standard Message Trailer]				

3.7. Logon (35=A)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
98	EncryptMethod	Y	Int (1)	Must be "0"
108	HeartBtInt	Y	Int	Recommended: "30"
95	RawDataLength	N	Length	Required when this message contains authentication data. For more details on authentication data in Logon messages, please contact B3.
96	RawData	N	Data	Required when this message contains authentication data. For more details on authentication data in Logon messages, please contact B3..
58	Text	Y	String (250)	Customers should use this field to provide the name and certified version of the client solution used to connect to the Exchange. For example: Solution name 1.0
141	ResetSeqNumFlag	N	Boolean (1)	Indicates that the both sides of the FIX session should reset sequence numbers.
464	TestMessageIndicator	N	Boolean (1)	Sent only by B3
553	Username	N	String	Userid or username.
10	Checksum	N	String	Always unencrypted, always last field in message
[Standard Message Trailer]				

4. Application Level Messages

4.1. Message Directions

Application Message	MsgType	From Fix Trader to Client	From Client to Fix Trader
TradeLogin	UCG		✓
TradeLoginResponse	UCI	✓	
TradeLogout	UCH		✓
TradeLogoutResponse	UCJ	✓	
BusinessMessageReject	j	✓	
ExecutionReport	8	✓	
NewOrderCross	s		✓
SecurityList	y	✓	
SecurityListRequest	x		✓

4.2. Trader Login (35 = UCG)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
553	Username	Y	String	Trader username
95	RawDataLength	Y	Integer	Password length, this field must come before Tag 96
96	RawData	Y	String	Password
[Standard Message Trailer]				

4.3. Trader Login Response (35=UCI)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
553	Username	Y	String	Trader username
58	Text	N	String	
[Standard Message Trailer]				

4.4. Trader Logout (35=UCH)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
553	Username	Y	String	Trader username
[Standard Message Trailer]				

4.5. Trader Logout Response (35=UCJ)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
553	Username	Y	String	Trader username
58	Text	N	String	
[Standard Message Trailer]				

4.6. BusinessMessageReject (35=j)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
45	RefSeqNum	N	Seqnum (9)	MsgSeqNum of rejected message.
372	RefMsgType	Y	String (2)	The MsgType of the FIX message being referenced.
380	BusinessRejectReason	Y	Int (6)	Code to identify the reason of the rejection. Valid values: 0 - Other 1 - Unkown ID 2 - Unkown Security 3 - Unsupported Message Type 4 - Application Not Available 5 - Conditionally Required Field Missing 6 - Not Authorized 7 - Deliver To Firm Not Avalilable At This Time
58	Text	N	String (250)	Message to explain reason for rejection, if available.
[Standard Message Trailer]				

4.7. ExecutionReport (35=8)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
37	OrderID	Y	String (20)	Unique identifier assigned by the exchange. Uniqueness is guaranteed within a single trading day/instrument. Value is "0" if order is rejected.
11	ClOrdID	N	String (20)	Unique identifier of the order as assigned by the market participant.
453	NoPartyIDs	Y	NumInGroup (2)	Repeating group below should contain unique combinations of PartyID, PartyIDSource, and PartyRole.
→ 448	PartyID	Y	String (50)	
→ 447	PartyIDSource	Y	Char (1)	
→ 452	PartyRole	Y	Int (5)	Used to identify source of PartyID. Conditionally required if NoPartyID > 0.
→ 802	NoPartySubIDs	N	NumInGroup	Number of (523) PartySubID fields values. Will be equal to 1 currently.
→ → 523	PartySubID	N	String	User who is registered in the Realtime trading platform and logged into the system that completed the trade. Equal to the (9139) OriginatorUserID of the order.
→ → 803	PartySubIDType	N	Integer	Supports value 2 = Person (Trader Name)
17	ExecID	Y	String (32)	Unique identifier of execution message as assigned by the exchange – unique per instrument.
19	ExecRefID	N	String (32)	Optionally sent when reporting a trade bust. Contains the identifier of the busted trade.
150	ExecType	Y	Char (1)	Describes the action that triggered this specific Execution Report - see the OrdStatus (39) tag for the current order status (e.g, Partially Filled). Valid values: 0 – New 2 - Filled 8 - Rejected H - Trade Cancel

Tag	Tag name	Req'd	Data Type	Comment
39	OrdStatus	Y	Char (1)	Order status. Valid values: 0 - New 2 - Filled 4 - Canceled 8 - Rejected
63	SettlType	N	Char(1)	Code that reflects the settlement date. Valid values: 0 - T+0 1 - T+1 2 - T+2 3 - T+3
55	Symbol	Y	String (20)	Indicates the unique reference identifier for the instrument. The plain text value of the instrument in the format Security Type + (space) + Security Code ie. DEBPETR12. If not applicable this will read "N/A"
48	SecurityID	N	String (12)	Security ID as defined by B3. For the SecurityID list, see the Security List message in Market Data feed. If not applicable this will read "N/A"
22	SecurityIDSource	N	String (1)	Conditionally required if the SecurityID field is set. Valid values: 8 - Exchange Symbol
236	Yield		Percentage	(Will be reported as decimal percentage) Yield to Maturity
54	Side	Y	Char (1)	Side of order. Valid values: 1 - Buy 2 - Sell
38	OrderQty	Y	Qty (15)	Quantity ordered.
40	OrdType	Y	Char (1)	Conditionally required when ExecType != 8 (Reject) or ExecType != H (Trade bust). Valid values: 2 - Limit

Tag	Tag name	Req'd	Data Type	Comment
423	PriceType	Y	Int	Required for bonds, qualifies the (44) Price field by type. 2 – Per Unit 6 – Spread 9 - Yield
44	Price	Y	Price (20)	The price associated with the order. For a Bond, will correspond to the price net commission. Will not be sent for a Bond entered with a Yield, for which the Price has yet to be calculated.
32	LastQty	N	Qty (9)	Quantity of shares bought/sold on this (last) fill. Conditionally required when ExecType = F (Trade).
151	LeavesQty	Y	Qty (9)	Amount of shares open for further execution, or unexecuted. LeavesQty = OrderQty - CumQty.
14	CumQty	Y	Qty (9)	Total number of shares or contracts filled.
6	AvgPx	Y	Price (1)	Average price of all fills up to the point the message is received.
60	TransactTime	N	UTCTimestamp (21)	Time of execution/order creation; expressed in UTC.
58	Text	N	String (250)	Free format text string.
9139	OriginatorUserId	Y	String	The authorized trader username to assign the order to. If the order is submitted through an intermediary, the value must correspond to the end-user's trader username.
548	CrossID	N	String (20)	Identifier for the cross order. Must be unique during a given trading day.
828	TrdType	N	Int (1)	Type of Trade for cross order. Valid values: 0 - Regular Voice 1 - Prime Broker Voice 3 - Funds Transfer
[Standard Message Trailer]				

4.8. NewOrderCross (35=s)

Tag		Tag name	Req'd	Data Type	Comment
[Standard Message Header]					
548		CrossID	Y	String (38)	Identifier for a cross order. Must be unique during a given trading day.
549		CrossType	Y	Int (1)	Type of cross being submitted to a market. Valid values: 1 - Cross Trade Which Is Executed Completely. Both sides are treated in the same manner. This is equivalent to an All or None.
550		CrossPrioritization	N	Char (1)	Indicates if one side or the other of a cross order should be prioritized. Valid values: 0 - None 1 - Buy side is prioritized 2 - Sell side is prioritized
828		TrdType	N	Int (1)	Type of Trade Valid values: 0 - Regular Voice 1 - Prime Broker Voice 3 - Funds Transfer
552		NoSides	Y	NumInGroup (2)	Number of Side (54) repeating group instances. Must be always 2 (both sides)
→	54	Side	Y	Char (1)	Side of order. Valid values: 1 - Buy 2 - Sell
→	11	ClOrdID	Y	String (38)	Unique identifier of the order as assigned by the market participant.
→	423	PriceType	Y	Int (5)	Conditionally required for bonds, qualifies the Price (44) by type. Valid values: 2 - Units 6 - Spread 9 - Yield
→	44	Price	Y	Price(2)	Indicates the order price.

Tag				Tag name	Req'd	Data Type	Comment
→	453			NoPartyIDs	Y	NumInGroup (2)	Repeating group below should contain unique combinations of PartyID, PartyIDSource, and PartyRole.
→	→	448		PartyID	Y	String (50)	Used to identify source of PartyID. Conditionally required if NoPartyID > 0. The legal entity representing one side of the trade.
→	→	447		PartyIDSource	Y	Char (1)	Identifies class or source of the PartyID (448) value. Conditionally required if NoPartyID > 0. Valid values: D - Proprietary Custom Code
→	→	452		PartyRole	Y	Int (5)	Identifies the type or role of the PartyID (448) specified. Conditionally required if NoPartyID > 0. Valid values: 1 - Executing Broker (Prime Broker) 24 – Customer Account 27 – Byer Seller
→	→	802		NoPartySubIDs	N	NumInGroup (2)	Number of PartySubID fields values. Valid values: 1
→	→	→	523	PartySubID	N	String (20)	User who is registered in the Trader platform and is assigned the trade.
→	→	→	803	PartySubIDType	N	Int (5)	Type of PartySubID (523) value. Valid values: 2 - Person (Trader Name)
9139				OriginatorUserId	Y	String (20)	The authorized trader username to assign the order to. If the order is submitted through an intermediary, the value must correspond to the end-user's trader username.
63				SettlType	N	Char (1)	Code that reflects the settlement date. Valid values: 0 - T+0 1 - T+1 2 - T+2 3 - T+3

Tag	Tag name	Req'd	Data Type	Comment
48	SecurityID	Y	String (20)	Security ID as defined by B3. For the SecurityID list, see the Security List message in Market Data feed. The reference identifier for the instrument.
22	SecurityIDSource	Y	String (1)	Conditionally required if the SecurityID field is set. Valid values: 8 - Exchange Symbol
38	OrderQty	Y	Qty (15)	Quantity ordered.
40	OrdType	N	Char (1)	Order type. Valid values: 2 - Limit
60	TransactTime	Y	UTCTimestamp (21)	Time of execution/order creation; expressed in UTC.
[Standard Message Trailer]				

4.9. SecurityList (35=y)

Tag	Tag name	Req'd	Data Type	Comment
[Standard Message Header]				
320	SecurityReqID	Y	String	The request ID that this security list corresponds to. If the Security Definition is being sent due to an intraday update this field will read "update." See Intraday Updates for more information.
322	SecurityResponseID	Y		Identifier of the Security List message.
560	SecurityRequestResult	Y		Result of the Security Request identified by the SecurityReqID.
393	TotNoRelatedSym	N	Integer	Indicates total number of instruments being sent for the given request.
893	LastFragment	N	Boolean	Indicates the last fragment with a 'Y'
146	NoRelatedSym	N	NumInGroup	Number of repeating symbols in this message
→ 48	SecurityID	Y	String	The platform reference identifier for the instrument.
→ 22	SecurityIDSource	Y	String	Will be equal to 8 = Market Symbol
→ 9844	CXMaturityDate	N	LocalMktDate	
--	LCX Fields			Various fields containing CX data Custom Fields
→ 9899	CXClearinghouse	N	String	Defines for which clearinghouse the instrument is available. Currently, uncleared instruments may carry the values "N" or "B". C – Ice Clear Canadá I – Ice Clear Credit E – Ice Clear Europe L – LCH M – CME N – None U – ICE Clear US (futures only)
[Standard message trailer]				

4.10. SecurityListRequest (35=x)

Tag	Tag name	Req'd	Data type	Comment
[Standard Message Header]				
→ 320	SecurityReqID	Y	String	User specified security request ID.
→ 559	SecurityListRequestType	Y	Integer	Supported value. 4 = All Instruments (Securities). Please note that this value does not preclude providing either a (48) SecurityID or (9802) CXTradingSector value, 1 of which is required.
→ 48	SecurityID	N	String	If set value of this tag is unique Symbol identifier for a single security. If supplied, (9802) CXTradingSector is ignored.
→ 9802	CXTradingSector	N	String	If set requests all securities for this CX Trading Sector. Contains the mnemonic for the trading sector, please see Erro! Fonte de referência não encontrada. for the list of available sectors.
→ 9883	CXMarketType	N	String	Specifies for which marketplace the instrument can be traded. See Market Segmentation. IDB - IDB D2C - D2C OL - OL ICE - ICE ICT - ICT SEF -SEF SWAP – SWAP
[Standard Message trailer]				

5. Custom Fields

Tag	Tag name	Req'd	Data type	Comment
9139	OriginatorUserId	Y	String (20)	The authorized trader username to assign the order to. If the order is submitted through an intermediary, the value must correspond to the end-user's trader username.
9702	CXAcctType	N	String	Corresponds to the type value associated with the market participant trading desk completing the trade. Shall not be sent for markets that trade anonymously
9802	CXTradingSector	N	String.	The trading sector mnemonic.
9803	CXRefName	N	String	The readable name of the instrument.
9844	CXMaturityDate	N	LocalMktDate	Date of maturity
9883	CXMarketType	Y	String	Specifies for which marketplace the instrument can be traded. See Market Segmentation. IDB - IDB D2C - D2C OL - OL ICE - ICE ICT - ICT SEF -SEF SWAP - SWAP
9889	CXIsCleared	N	Boolean	Defines if an instrument is subject to credit-limit checks for clearing. This field is not currently used in Production.