Technical Specifications November 2017

FIX 4.2 Protocol Specification Guide

SOLA 11 - MIFID II: Version 5.6 - 14 November 2017



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1.0 Introduction

1.1 Purpose

The purpose of this publication is to provide participants with the knowledge and technical details necessary for accessing and using the LSEG's derivatives trading system.

This FIX specification provides essential information for participants and independent software vendors in the functional design of their application in order to interface with the Exchange's derivatives platform using the Financial Information eXchange (FIX) Protocol. This document defines the subset of the Financial Information eXchange (FIX) messages that are supported by the Exchange on its FIX trading interface.

The derivatives platform utilises FIX 4.2 with the exceptions specified in this document. This document is designed to supplement the FIX protocol documentation that can be found at <u>www.fixprotocol.org</u> rather than be a complete and self-sufficient reference.

Note: The only FIX messages and fields accepted by the Exchange are the ones described in this document. Unsupported fields are rejected.

1.2 Readership

The target audience for this publication is the business or Information Technology level of an organisation interested in the functional design of the LSEG's derivatives platform.

1.3 Revision History

This document has been through the following iterations:

Issue	Date	Description	
1.0	21 December 2010	Publication of initial version	
1.1	04 April 2011	Update to initial version	
1.2	16 May 2011	Accuracy adjusted to 4 decimal places from 6 decimal places	
2.0	July 2012	Message modifications and new error codes introduced with the updated version for Sola 5	
2.1	March 2014	Added the Message Flow section. Corrected "Order Type" specification with all possible markers.	
3.0	October 2014	Added Sola 7 Message Impacts	
3.1	November 2014	Added Self Execution Prevention (SEP) impacts	
3.2	December 2014	Reviewed version	
3.3	January 2015	Corrected scenarios: Orders Eliminated by Market Control and Committed Orders cancellation a End of Day.	
3.4	March 2015	Corrected TAG [ClOrdID 11] length. Added Error Code 9040. Documented TAG [SecurityID 48] in SecurityDefinition message [MsgType 35 = d].	
3.5	June 2015	Added market orders in description of TAG [StopPx 99]	
4.0	July 2015	New TAG [BestPriceSetter 16455] in Execution Report [MsgType 35 = 8] New FIX Drop Copy Gateway that receives notifications of Execution Report [MsgType 35 = 8] that belong to the member Updated Message Flow section including BestPriceSetter notification	

Issue	Date	Description	
4.1	September 2015	Extended values for TAG [SpecialTradeInd 9459] in Execution Report [MsgType 35 = 8]	
4.2	November 2015	Corrected length of TAGs [SenderSubID 50] and [TargetSubID 57]	
4.3	December 2015	Minor corrections	
4.4	March 2016	Message flow section scenarios amendment	
4.5	June 2016	Added a new value for TAG [OrdStatus 39] and new Error Codes	
4.6	July 2016	Amended possible values for TAGs [ExecType 150] and [OrdStatus 39]	
4.7	August 2016	Reviewed description of FIX Drop Copy. Amended of position of TAG [UnderlyingSymbol 311] in Execution Report [MsgType 35 = 8]	
4.8	November 2016	FIX Drop Copy Reconciliation Changes	
5.0	March 2017	New version of FIX Protocol related to MIFID requirements Refer to MIFID_FIX_MessageImpact v.1.0 for details	
5.1	12 April 2017	Amended GrossTrdAmt [Tag 381] tag name DeferralFlag [Tag 2669] and DeferralValue [Tag 2670] removed form 35=8 message (out of scope) FairValue [Tag 406] added to 35=D message Amended OrdType [Tag 40] and FairValue [Tag 406] in 35=s message	
5.2	28 April 2017	New value M: Matched Principal for Rule80 [Tag 40] Review Req type of OrderAttributeType [Tag 2594], OrderAttributeValue [Tag 2595], PartyID [Tag 448], PartyRole [Tag 452], PartyRoleQualifier [Tag 2376], FairValue [Tag 406]	
5.2.1	2 May 2017	FairValue [Tag 406] and OrdType [Tag 40] amended on Cross Entry 35=s message, Trade Capture Report 35=AE message and Trade Capture Report Acknowledgment 35=AR message	
5.2.2	9 May 2017	The following error codes have been modified for Pre Trade Validation functionality enhancement: 3107, 3108, 3127, 3128, 3137 error codes added	
5.3	18 May 2017	Text [Tag 58] added to 35=F Order Cancellation Request message Amend field length of Text [Tag 58], ClOrdID [Tag 11], FirmTradeID [Tag 1041] Update Drop Copy for FIX protocol table (Section 2.3). Trade status added to ExecID [Tag 17] and SecondaryExecId [Tag 527]	
5.4	29 June 2017	 Rename of: [Tag 8013] WaiverFlag/DeferralFlag replaced with [Tag 2669] TrdRegPublicationType [Tag 2670] WaiverFlagValue/DeferralFlagValue name replaced with [Tag 2670] TrdRegPublicationReason Values for [Tag 2670] TrdRegPublicationReason [Tag 448] PartyID values 	
5.4.1	20 July 2017	Corrected [Tag 41] OrigClOrdID length: 1 to 24 Rename of: - [Tag 1194] OptionStyle to ExerciseStyle - CancellationAndAmendments [Tag 847] replaced with [Tag 487]	
5.4.2	11 September 2017	Rename value of Matched Principale [Tag 47] Rule 80A from M to B.	
5.5	21 September 2017	Rename Exchange For Physical to Basis Trade/Exchange for Security/Exchange of Future for Swap	
5.6	14 November 2017	[TargetSubID 57] moved from Standard Message Trailer to Message Body	

2.0 Overview

2.1 Terms and Acronyms

The following legend defines some of the terms that are used in this document.

Term	Definition	
BST	British Summer Time	
BPS	Best Price Setter	
СВ	Circuit Breaker	
CET	Central European Time	
CEST	Central European Summer Time	
EDT	Eastern Daylight Time	
EDST	Eastern Daylight Savings Time	
EOD	End Of Day	
GMT	Greenwich Mean Time	
Incoming	Message from Participant to Exchange	
Msg	Message	
Outgoing	Message from Exchange to Participant	
Req	Required field	
SAIL	SOLA Access Information Language (native protocol)	
SEP	Self Execution Prevention	

2.2 Required Fields

Each message within the protocol is comprised of fields which are either:

- Y = Required
- N = Not mandatory

C = Conditional (fields which are required based on the presence, or value of other fields).

2.3 Drop Copy for FIX protocol

This feature allows a Drop Copy user to receive a copy of all order acknowledgements and trade notifications that belong to a specific member. All messages are sent using the FIX protocol (incoming Business messages sent by Drop Copy user are rejected).

The messages Execution Report [MsgType 35 = 8] included in the Drop Copy connection contains all fields specified in the Message's layout (section 5.13).

Reconciliation between FIX Front End and FIX Drop Copy Protocols can be performed using TAGs [ExecID 17], [ExecRefID 19], [SecondaryExecID 527], [OrderID 37] and [SecondaryOrderID 198].

It is as well possible to carry out reconciliation with SAIL Protocol by comparing the composite values of the SAIL fields with the values in the corresponding FIX TAGs as per the table below:

Action	[ExecID 17]	[ExecRefID 19]*	[SecondaryExecID 527]**	[OrderID 37]	[SecondaryO rderID 198]*
Standard Orders: • entry • modification • cancellation	Message Type (KE/KM/KZ/NZ) + Order ID + Instrument ID + Group ID + Verb				
Stop Orders: • entry • modification • cancellation	Message Type (KE/KM/KZ/NZ) + Order ID + Instrument ID + Group ID + Verb + Special Price Term +Trade Status	N/A	N/A	Order Type (O/X)+ Order ID + Instrument ID + Group ID	N/A
Order Update (SEP)	Message Type (NU) + Order ID + Instrument ID + Group ID + Quantity + Verb + Trade Status				
Trades inserted by the Exchange	Message Type (NT/NL) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	N/A	Message Type (NT) + Strategy Trade Number + Strategy Instrument ID + Strategy Group ID + Verb + Trade Status	Order Type (O) + Trade Number + Instrument ID + Group ID Note: Reference ID will be blank	
Standard Trade executed	Message Type (NT) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	N/A		Order Type (O/X/Q) + Reference ID + Instrument ID + Group ID	N/A
Standard Trade cancelled	Message Type (NX) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	Message Type (NT) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	N/A	Note: Format for this field is as TAG 198. Reference ID provided in this TAG relates to the latest Order ID (in case the order was modified) while in SAIL message always relates of to the Order ID at the time of the trade	Order Type (O/X/Q) + Reference ID + Instrument ID + Group ID
Implied Trade executed	Message Type (NL) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	N/A	Message Type (NT) + Strategy Trade Number + Strategy Instrument ID + Strategy Group ID + Verb + Trade Status	Strategy Order Type (O/X)+ Strategy Reference ID + Strategy Instrument ID + Strategy Group ID	N/A
Implied Trade cancelled	Message Type (NY) + Trade Number + Instrument ID + Group ID + Verb + Trade Status	Message Type (NL) + Trade Number + Instrument ID + Group ID + Verb + Trade Status		Note: Format for this field is as TAG 198. Strategy Reference ID provided in this TAG relates to the latest Order ID (in case the order was modified) while in SAIL message always relates of to the Order ID at the time of the trade	Strategy Order Type (O/X)+ Strategy Reference ID + Strategy Instrument ID + Strategy Group ID

* Only present in case of trade cancellation [ExecTransType 20] = 1: Cancel

** Used to refer to the Strategy ExecID. Send only when [MultipleReportingType 442 = 2].

3.0 Message Header and Trailer

For additional descriptive or definitive information on Tag Numbers and Field Names, refer to Field Definitions.

3.1 Standard Message Header

Тад	Field Name	Req	Comments
8	BeginString	Y	FIX.4.2 Must be the first field in the message.
9	BodyLength	Y	Must be the second field in the message.
35	МѕдТуре	Y	Must be the third field in the message.
49	SenderCompID	Y	Assigned value used to identify the sender in a FIX session.
56	TargetCompID	Y	Assigned value used to identify the receiver in a FIX session.
34	MsgSeqNum	Y	Message sequence number.
52	SendingTime	Y	Time of message transmission.
43	PossDupFlag	С	Always required for retransmitted messages, whether prompted by the sending system or as the result of a resend request.
122	OrigSendingTime	С	Required for message resends. If data is not available, set to same value as SendingTime.
97	PossResend	С	Required when message may be duplicate of another message sent under a different sequence number.

3.2 Standard Message Trailer

Тад	Field Name	Req	Comments
10	CheckSum	Y	Always unencrypted and last field in message.

4.0 Administrative Messages

4.1 A: Logon

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = A]
98	EncryptMethod	Y	Must be set to 0.
108	HeartBtInt	Y	0 (zero) means that no HeartBeat message will be sent. The value provided must not be less than 30 (unless using 0).
141	ResetSeqNumFlag	N	Used in messages coming from participant to indicate both sides of a FIX session should reset sequence numbers.
383	MaxMessageSize	N	Can be used to specify the maximum number of bytes supported for messages received.
	Standard Trailer	Y	

4.2 0: Heartbeat

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 0]
112	TestReqID	С	Required when the Heartbeat is the result of a Test Request message. Used only in Heartbeat message from server to client.
	Standard Trailer	Y	

4.3 1: Test Request

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 1]

Тад	Field Name	Req	Comments
112	TestReqID	Y	Identifier included in Test Request message to be returned in resulting Heartbeat
	Standard Trailer	Y	

4.4 2: Resend Request

Tag	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 2]
7	BeginSeqNo	Y	Message sequence number of first message in range to be resent
16	EndSeqNo	Y	Message sequence number of last message in range to be resent.
	Standard Trailer	Y	

4.5 3: FIX Protocol Error / Reject

Tag	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 3]
45	RefSeqNum	N	MsgSeqNum of rejected message.
371	RefTagID	N	The Tag number of the FIX field being referenced.
372	RefMsgType	N	The MsgType of the FIX message being referenced.
373	SessionRejectReason	N	Code to identify reason for a session-level. Reject message.
58	Text	N	Where possible, message to explain reason for rejection.
	Standard Trailer	Y	

4.6 4: Sequence Reset

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Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 4]
123	GapFillFlag	N	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent.
36	NewSeqNo	Y	Cannot be lower than the last [MsgSeqNum 34].
	Standard Trailer	Y	

4.7 5: Logout

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 5]
58	Text	N	Free format text string.
	Standard Trailer	Y	



5.0 Application Messages

5.1 AE: Trade Capture Report

This message is used for pre-arranged trade(s) with multiple counterparties. This message has been taken from FIX 5.0 and adapted to SOLA platform.

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = AE]
60	TransactTime	N	Time at which this order request was initiated/released by the trader or trading system.
150	ExecType	С	Present in messages coming from Exchange. Proposal Status: 0: New (Waiting for approval) 4: Cancelled (Refused) F: Trade (Approved)
555	NoLegs	Y	Number of legs. Up to 4 for messages coming from Participant.
571	TradeReportID	С	Proposal ID. For messages coming from Exchange.
1041	FirmTradelD	С	The ID assigned to a trade by the Firm to track a trade within the Firm system. Required in messages coming from Participant.
1117	RootPartyID	С	Required when ProposalType 16453 = T: Inter Dealer Broker Order
16453	ProposalType	Y	B: Bundle Order T: Inter Dealer Broker Order
40	OrdType	Y	OrderType possible values: C: Committed P: Basis Trade/Exchange for Security/Exchange of Future for Swap
N Times (NoLeg	is)		
600	LegSymbol	Y	Mandatory as the first Tag present for the Leg. Indicates the instrument root Symbol

Тад	Field Name	Req	Comments
609	LegSecurityType	Y	Indicates if Option (OPT) or a Future (FUT)
610	LegMaturityMonthYear	С	Required for Options (LegSecurityType 609 = OPT) and Futures(LegSecurityType 609 = FUT)
613	LegOptAttribute	С	Corporate Action Marker
612	LegStrikePrice	С	Required for Options (LegSecurityType 609 =OPT)
624	LegSide	Y	1: Buy 2: Sell
687	LegQty	Y	Order quantity
16454	LegMaturityDay	С	Can be used in conjunction with LegMaturityMonthYear <610> to specify a particular maturity date.
1358	LegPutOrCall	С	Required for Options (LegSecurityType 609 = OPT)
1194	ExerciseStyle	С	Required for Options (LegSecurityType 609 = OPT) 0: European 1: American
566	LegPrice	Y	Order Price
37	OrderID	с	Present in messages coming from the Exchange
1462	TargetPartyID	Y	Executing Firm ID
577	ClearingInstruction	С	Clearing instruction. Free text field (up to 12 chars). Required for messages coming from Participant when Proposal Type 16453 = B: Bundle.

Тад	Field Name	Req	Comments
581	CaptRptAccountType	с	Type of account. Required for messages coming from Participant when Proposal Type 16453 = B: Bundle
77	Open/Close	С	Please refer to Field Definitions. Required for messages coming from Participant when Proposal Type 16453 = B: Bundle
8001	AccountProfile	с	Type of trader. H: Hedger S: Speculator Required for messages coming from Participant when Proposal Type 16453 = B: Bundle
9433	TextExecutionReport	С	Owner Data for messages coming from Participant when 16453 = B. Indicates the Refusal Reason when ExecType 150 = 4: Cancelled
852	PublishTrdIndicator	Y	Transparency for the Flexible trade. Y: Published N: Unpublished
39	OrdStatus	с	0: New (Waiting for approval) 2: Fill (In Order Book) Only for messages coming from Exchange
11	ClOrdID	С	Must be unique for messages coming from Participant. Not to be specified when ProposalType 16453 = T: Inter Dealer Broker Order.
2593	NoOrderAttribute	Y	Number of Order Attributes. It must be a value between 0 and 2

The next 2 tag are present as many times as it is specified in NoOrderAttribute [Tag 2593]

2594	OrderAttributeType	с	Must contains one of the following values: - 2: Liquidity Provision - 4: Algo Flag
2595	OrderAttributeValue	С	Must contain one of the following values: - Y: Yes - N: No
453	NoPartyID	Y	Number of Party IDs. It must be a value between 1 and 3

Тад	Field Name	Req	Comments
The next 3 tag a	re present as many times as it is spe	ecified in Ta	g 453 NoPartyID
448	PartyID	С	Refer to field Definition Tag 448 PartyID
452	PartyRole	с	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID 122: Investor ID 12: Executing Trader
2376	PartyRoleQualifier	0	Refer to field Definition Tag 2376 PartyRoleQualifier
1724	OrderOrigination	0	DEA Flag indicator. It must contain one of the following values: 5: Yes 0: No
406	FairValue	С	Text for Physical Leg. It must be filled in case Tag 40 OrdType is P: Basis Trade/Exchange for Security/Exchange of Future for Swap
	Standard Trailer	Y	

5.2 AF: Order Mass Status Request

Execution Report [MsgType 35 = 8] with [ExecTransType 20 = 3: Status] are returned for each active order belonging to the participant. If no active order belongs to the participant, no response is returned.

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = AF]
584	MassStatusReqID	N	Value assigned by issuer of Mass Status Request to identify the request.
585	MassStatusReqType	N	= 7 (Status for all orders for the participant)

Тад	Field Name	Req	Comments
	Standard Trailer	Y	

5.3 AR: Trade Capture Report Acknowledgment

This message is used for accepting or refusing pre-arranged trade(s) with multiple counterparties. This message has been taken from FIX 5.0 and adapted to SOLA platform.

Тад	Field Name	Req	Comments	
	Standard Header	Y	[MsgType 35 = AR]	
60	TransactTime	N	Time at which this order request was initiated/released by the trader or trading system	
16453	ProposalType	Y	B: Bundle Order T: Inter Dealer Broker Order	
571	TradeReportID	Y	Proposal ID	
856	TradeReportType	Y	2: Accept 3: Decline	
1041	FirmTradelD	Y	The ID assigned to a trade by the Firm to track a trade within the Firm system.	
40	OrdType	Y	OrderType possible values: C: Committed P: Basis Trade/Exchange for Security/Exchange of Future for Swap	
555	NoLegs	С	Number of legs. Required for messages coming from Participant when TradeReportType 856 = 2: Accept.	
N Times (NoLegs) - The following fields are required for messages coming from Participant when TradeReportType 856 = 2: Accept				
600	LegSymbol	Y	Mandatory as the first Tag present for the Leg. Indicates the instrument root Symbol.	
609	LegSecurityType	Y	Indicates if Option (OPT) or a Future (FUT).	

Тад	Field Name	Req	Comments
610	LegMaturityMonthYear	Y	Required for Options [LegSecurityType 609 = OPT] and Futures[LegSecurityType 609 = FUT].
612	LegStrikePrice	С	Required for Options [LegSecurityType 609=OPT].
613	LegOptAttribute	С	Corporate Action Marker.
624	LegSide	Y	1: Buy 2: Sell
687	LegQty	Y	Order quantity
16454	LegMaturityDay	С	Required for Options [LegSecurityType 609 = OPT] and Futures [LegSecurityType 609 = FUT]. Can be used in conjunction with LegMaturityMonthYear <610> to specify a particular maturity date.
1358	LegPutOrCall	С	Required for Options [LegSecurityType 609 = OPT]
1194	ExerciseStyle	С	Required for Options [LegSecurityType 609 = OPT] 0: European 1: American
566	LegPrice	С	Order Price. Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].
37	OrderID	Y	Required for all messages coming from Participant.
1462	TargetPartyID	С	Executing Firm ID. Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].
577	ClearingInstruction	С	Clearing instruction. Free text field (up to 12 chars). Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].
581	CaptRptAccountType	С	Type of account. Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].
77	Open/Close	С	Please refer to Field Definitions. Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].

Тад	Field Name	Req	Comments
8001	AccountProfile	С	Type of trader: H: Hedger S: Speculator Required for messages coming from Participant when [TradeReportType 856 = 2: Accept]
9433	TextExecutionReport	С	Indicates the Refusal Reason. Required for messages coming from Participant when [TradeReportType 856 = 3: Decline].
852	PublishTrdIndicator	N	Transparency for the Flexible trade when [TradeReportType 856 = 2: Accept]: Y: Published N: Unpublished
11	ClOrdID	С	Must be unique for messages coming from Participant. Required for messages coming from Participant when [TradeReportType 856 = 2: Accept].
2593	NoOrderAttribute	Y	Number of Order Attributes. It always must be set to 2.
The next 2 tag a	re present as many times as it is spe	ecified in No	OrderAttribute [Tag 2593]
2594	OrderAttributeType	С	Must contain one of the following values: - 2: Liquidity Provision 4: Algo Flag
2595	OrderAttributeValue	С	It's always required in case OrderAttributeType [Tag 2594] is specified. It must contain one of the following values: Y: Yes N: No
453	NoPartyID	Y	Number of Party IDs. It must be a value between 1 and 3
The next 3 tag a	re present as many times as it is spe	ecified in Ta	g 453 NoPartyID
448	PartyID	С	Refer to field Definition Tag 448 PartyID
452	PartyRole	с	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID 122: Investor ID 12: Executing Trader
2376	PartyRoleQualifier	0	Refer to field Definition Tag 2376 PartyRoleQualifier
1724	OrderOrigination	0	DEA Flag indicator. It must contain one of the following values: 5: Yes 0: No

Тад	Field Name	Req	Comments
406	F airVa lue	С	Text for Physical Leg. It must be filled in case Tag 40 OrdType is P: Basis Trade/Exchange for Security/Exchange of Future for Swap
57	TargetSubID	Y	Assigned value used to identify specific trader intended to receive message.
	Standard Trailer	Y	

5.4 D: New Order – Single

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = D]
11	ClOrdID	Y	Unique identifier of the order as assigned by institution.
1	Account	N	Account mnemonic as agreed between broker and institution.
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Mandatory
201	PutOrCall	С	Mandatory for [SecurityType 167 = OPT: Option]
202	StrikePrice	С	Mandatory for [SecurityType 167 = OPT: Option]
200	MaturityMonthYear	С	Mandatory for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.
206	OptAttribute	С	Indicates a corporate action
54	Side	Y	Verb of order. Valid values: 1: Buy 2: Sell

Tag	Field Name	Req	Comments
60	TransactTime	N	Time at which this order request was initiated/released by the trader or trading system.
38	OrderQty	Y	Number of shares ordered.
40	OrdType	Y	Please refer to Field Definitions
44	Price	С	Required when [OrdType 40 = 2: Limit, 4: Stop Limit or C: Committed].
59	TimeInForce	Ν	Absence of this field indicates Day order.
432	ExpireDate	С	Conditionally required if [TimeInForce 59 = 6] (GTD)
58	Text	N	Free format text string.
77	Open/Close	Y	Please refer to Field Definitions
47	Rule80A	Y	Identify the type of account.
99	StopPx	с	For Stop orders. Required when: [OrdType = 4]: Stop Order [OrdType = 3]: Stop Market Order [OrdType = W]: Stop U.S. Market Order
110	MinQty	N	Minimum quantity of an order to be executed.
210	MaxShow	N	Maximum number of shares within an order to be shown to other customers.
8001	AccountProfile	N	Indicate the type of trader.
337	Contra Trader	С	Required if OrdType is C (Committed). This tag is the opposite firm when entering a committed order.
5255	StopPxCondition	С	Required if Tag [StopPx 99] is filled. This tag specifies the type of stop orders.
2593	NoOrderAttribute	Y	Number of Order Attributes.

The next 2 tag are present as many times as it is specified in NoOrderAttribute [Tag 2593]

Тад	Field Name	Req	Comments
2594	OrderAttributeType	С	Must contain one of the following values: - 2: Liquidity Provision 4: Algo Flag
2595	OrderAttributeValue	С	It's always required in case OrderAttributeType [Tag 2594] is specified. It must contain one of the following values: Y: Yes N:No
453	NoPartyID	Y	It must be a value between 1 and 3
The next 3 tag	g are present as many times as it is spo	ecified in Tag	g 453 NoPartyID
448	PartyID	С	Refer to field Definition Tag 448 PartyID
452	PartyRole	с	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID 122: Investor ID 12: Executing Trader
2376	PartyRoleQualifier	0	Refer to field Definition Tag 2376 PartyRoleQualifier
1724	OrderOrigination	0	DEA Flag indicator. It must contain one of the following values: 5: Yes 0: No
406	FairValue	С	Text for Physical Leg
	Standard Trailer	Y	

5.5 G: Order Cancel/Replace Request (Order Modification Request)

All fields can be modified except; [OrigClOrdID 41], [Symbol 55], [SecurityType 167], [PutOrCall 201], [StrikePrice 202], [MaturityMonthYear 200], [MaturityDay 205], [OptAttribute 206], and [Side 54].

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = G]
37	OrderID	N	Identifier of most recent order as assigned by the Exchange.

Тад	Field Name	Req	Comments
1	Account	Ν	Account mnemonic as agreed between broker and institution.
41	OrigClOrdlD	Y	[CIOrdID 11] of the previous order (NOT the initial order of the day) when cancelling or replacing an order.
11	ClOrdID	Y	Unique identifier of replacement order as assigned by institution. Note that this identifier will be used in [ClOrdID 11] field of the Cancel Reject message if the replacement request is rejected.
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Must match original order. Mandatory.
201	PutOrCall	С	Must match original order. Mandatory for Option.
202	StrikePrice	С	Must match original order. Mandatory for Option.
200	MaturityMonthYear	с	Must match original order. Mandatory for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.
206	OptAttribute	С	Must match original order
54	Side	Y	Must match original verb of order. Valid values: 1: Buy 2: Sell
60	TransactTime	N	Time this order request was initiated/released by the trader or trading system.
38	OrderQty	Y	Represent the remaining active quantity.
40	OrdType	Y	Please refer to Field definitions.
44	Price	с	Required when [OrdType 40 = 2 or 4].
59	TimeInForce	N	Absence of this field indicates Day order.
99	StopPx	с	For Stop orders. Required when: [OrdType = 4]: Stop Order [OrdType = 3]: Stop Market Order [OrdType = W]: Stop U.S. Market Order
432	ExpireDate	С	Conditionally required if [TimeInForce 59 = 6: GTD].

Тад	Field Name	Req	Comments
58	Text	N	Free format text string.
77	Open/Close	Y	Please refer to Field Definitions
47	Rule80A	Y	Identifies the type of account.
210	MaxShow	N	Maximum number of shares within an order to be shown to other customers.
8001	AccountProfile	N	Indicate the type of trader.
337	Contra Trader	С	Required if OrdType 40 = C (Committed). This tag is the opposite firm when entering a committed order
5255	StopPxCondition	с	Required if Tag 99 (StopPx) is filled. This tag specifies the type of stop orders.
406	FairValue	С	Text for Physical Leg
	Standard Trailer	Y	

5.6 F: Order Cancel Request

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = F]
41	OrigClOrdID	Y	[ClOrdID 11] of the previous order (NOT the initial order of the day) when cancelling or replacing an order.
37	OrderID	N	Identifier of most recent order as assigned by the Exchange.
11	ClOrdID	Y	Unique ID of cancel request as assigned by the institution.
38	OrderQty	N	Number of shares ordered.
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Must match original order.
201	PutOrCall	С	Must match original order. Mandatory for Option.
202	StrikePrice	С	Must match original order. Mandatory for Option.

Тад	Field Name	Req	Comments
200	MaturityMonthYear	С	Must match original order. Mandatory for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.
206	OptAttribute	С	Indicates a corporate action.
54	Side	Y	Verb of order. Valid values: 1: Buy 2: Sell
60	TransactTime	N	Time this order request was initiated/released by the trader or trading system.
58	Text	N	Free format text string.
	Standard Trailer	Y	

5.7 R: Quote Request

This message is used to broadcast a request for a quote on a particular instrument. The request is broadcasted on the HSVF Market Data feed.

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = R]
131	QuoteReqID	N	Identifier for Quote Requests.
146	NoRelatedSym	N	If provided, must be set to 1.
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Class root symbol for options or strategy symbol.
201	PutOrCall	С	Mandatory for Option.
202	StrikePrice	С	Mandatory for Option.

Тад	Field Name	Req	Comments
200	MaturityMonthYear	С	Mandatory for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date. Mandatory when TAG [PutOrCall 201] = 2: Over or TAG [PutOrCall 201] = 3: Under.
206	OptAttribute	С	Indicates a corporate action.
38	OrderQty	N	Number of shares ordered.
	Standard Trailer	Y	

5.8 b: Quote Acknowledgement

Тад	Field Name	Comments
	Standard Header	[MsgType 35 = b]
131	QuoteReqID	Identifier for quote request.
297	QuoteAckStatus	Status of the quote acknowledgement. 0: Accepted 5: Rejected
300	QuoteRejectReason	Reason Quote was rejected.
57	TargetSubID	Assigned value used to identify specific trader intended to receive message.
	Standard Trailer	

5.9 c: Security Definition Request

This transaction can be used to:

• Request the creation of a New Instrument Series: either a Strategy or a Flexible Series (Option/Future).

Req

• Query a list of all securities in the Exchange.

Tag

Field Name

Comments

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = c]
320	SecurityReqID	N	ID for the Security Definition Request.
321	SecurityRequestType	Y	1: Request New Instrument Series 2: Request List Security Types
167	SecurityType	С	Only provided when [SecurityRequestType 321 = 1] STR : Strategy OPT: Option FUT: Future
146	NoRelatedSym	с	Only provided when [SecurityRequestType 321 = 1] From 2 to 4 when [SecurityType 167 = STR: Strategy] (Number of legs that make up the instrument) 1 when [SecurityType 167 = OPT: Option] or [SecurityType 167 = FUT: Future]

N Times (NoRelatedSym). The following fields are only provided when [SecurityRequestType 321=1].

54	Side	С	Defined as follows: 1: Buy 2: Sell Must Be the first tag of each block.
311	UnderlyingSymbol	С	Underlying Symbol.
310	UnderlyingSecurityType	С	Security Type (required when [SecurityType 167 = STR: Strategy] OPT: Option FUT: Future
313	UnderlyingMaturityMonthYear	С	Maturity Date
314	UnderlyingMaturityDay	С	Maturity Day
315	UnderlyingPutOrCall	С	Put or Call.
316	Underlying Strike Price	С	Strike Price (mandatory for options).
317	UnderlyingOptAttribute	С	Required if there is a corporate action on that leg.
319	RatioQty	С	Ratio of the Strategy Leg (when [SecurityType 167 = STR] only).

Тад	Field Name	Req	Comments
1194	ExerciseStyle	N	Default value is derived from Underlying: 0: European 1: American
	Standard Trailer	Y	

5.10d: Security Definition

The Security Definition message is the acknowledgement of a Security Definition Request message.

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = d]
320	SecurityReqID	Y	ID of a Security Definition Request. Only present if specified in the [MsgType 35 = c].
322	SecurityResponseID	С	ID of a Security Definition Message. Only present if [SecurityRequestType 321 = 2] in the Security Definition Request.
323	SecurityResponseType	C	Only present if [SecurityRequestType 321 = 1] in the Security Definition Request. 1: Accept security proposal as is 2: Accept security proposal with revisions as indicated in the message 3: Standard Already exists 4: Flex Already exists 5: Reject security proposal
48	SecurityID	С	Security identifier value for [SecurityType 167 = STR].
55	Symbol	Y	Class root symbol for options or strategy symbol dependent on value of SecurityType For Options/Futures: A Class Root Symbol (1-6 characters) For Strategies: External Symbol (30 character string)
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
200	MaturityMonthYear	С	Provided for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Provided for Options and Futures only, when [SecurityType 167 = OPT: Option or FUT: Future]

Тад	Field Name	Req	Comments
206	OptAttribute	С	Indicates a corporate action.
201	PutOrCall	С	Provided for Options only, when [SecurityType 167 = OPT: Option].
202	StrikePrice	С	Provided for Options only, when [SecurityType 167 = OPT: Option].
1194	ExerciseStyle	N	For Options only. Default value is derived from Underlying 0: European 1: American
146	NoRelatedSym	Y	From 2 to 40. Number of legs that make up the instrument. Provided only when [SecurityType 167=STR: Strategy].

N Times - The following fields are only provided only when [SecurityType 167=STR].

	R		
54	Side	Y	Verb of order. Valid values: 1: Buy 2: Sell
311	UnderlyingSymbol	Y	Strategy Leg Symbol. See [Symbol 55] field for description.
310	UnderlyingSecurityType	Y	Strategy Leg SecurityType. See [SecurityType 167] field for description.
313	UnderlyingMaturityMonthYear	Y	Strategy Leg Maturity month and year. See [MaturityMonthYear 200] field for description.
314	UnderlyingMaturityDay	Y	Strategy Maturity day. See [MaturityDay205] field for description.
315	UnderlyingPutOrCall	С	Strategy Leg PutOrCall. See [PutOrCall 201] field for description
316	UndelyingStrikePrice	С	Strategy Leg strike price. See [StrikePrice 202] field for description.
317	UnderlyingOptAttribute	С	Strategy Leg corporate action indicator. See [OptAttribute 206] field for description.
319	RatioQty	Y	Strategy Leg Ratio to determine valid quantity. Should not contain decimals.
	Standard Trailer	Y	

5.11 j: Business Reject

Business reject [MsgType 35 = j] is returned following a rejected Security Definition request [MsgType 35 = c].

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = j]
45	RefSeqNum	Y	Message sequence number for the 'j' message
58	Text	Y	Free-form text to explain the reason for rejection.
372	RefMsgType	Y	The MsgType of the FIX message being referenced – This should be 'c' when strategy instrument cannot be created.
379	BusinessRejectRefID	С	[SecurityReqID 320] from the submitted Security Definition request.
380	BusinessRejectReason	Y	Code to identify reason for reject.
	Standard Trailer	Y	

5.12s: New Order Cross

This message is used to enter a cross order.

Тад	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = s]
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Mandatory.
201	PutOrCall	С	Mandatory for Option.
202	StrikePrice	С	Mandatory for Option.
200	MaturityMonthYear	С	Mandatory for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.
206	CorporateAction	С	Required if there is a corporate action.
38	OrderQty	Y	Mandatory.
44	Price	Y	Mandatory.

Тад	Field Name	Req	Comments
			OrderType possible values:
40	OrdType	Y	C: Committed
			P: Basis Trade/Exchange for Security/Exchange of Future for Swap
552	NoSides	Ν	2: Two Sided.
2 Times			
			Must be the first tag after NoSides [Tag 552]
54	Side	Y	Verb of order. Valid values:
54	Side	T	1: Buy 2: Sell
11	ClOrdID	Y	Unique identifier of the side (specified in Tag 54 above) as assigned by the institution.
1	Account	Y	Account mnemonic as agreed between broker and institution.
8001	AccountProfile	N	H: Hedger S: Speculator
77	Open/Close	Y	Please refer to Field Definitions.
58	Text	Ν	Free format text string.
47	Rule80A	Y	Identifies the type of account.
2593	NoOrderAttribute	Y	Number of Order Attributes.
The next 2	tag are present as many times as	it is specified in N	loOrderAttribute [Tag 2593]
			Must contain one of the following values:
2594	OrderAttributeType	С	2: Liquidity Provision
			4: Algo Flag
			It's always required in case OrderAttributeType [Tag 2594] is specified. It must contain one of the following values:
2595	OrderAttributeValue	С	Y: Yes
			N:No
453	NoPartyID	Y	It must be a value between 1 and 3
The next 3	tag are present as many times as	it is specified in T	ag 453 NoPartyID
448	PartyID	С	Refer to field Definition Tag 448 PartyID

Тад	Field Name	Req	Comments
452	PartyRole	С	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID 122: Investor ID 12: Executing Trader
2376	PartyRoleQualifier	0	Refer to field Definition Tag 2376 PartyRoleQualifier
1724	OrderOrigination	0	DEA Flag indicator. It must contain one of the following values: 5: Yes 0: No
406	FairValue	С	Text for Physical Leg
	Standard Trailer	Y	

Technical Specifications

November 2017

5.138: Execution Report

Execution Report can be generated for the following:

- An order gets traded
- A trade is cancelled by the Exchange on behalf of a participant
- An order gets eliminated
- An order gets expired
- A 'New Order Single' confirmation
- An 'Order Cancel/Replace Request' confirmation or Updated Order Notification due to SEP
- An 'Order Cancel Request' confirmation
- In response to an 'Order Mass Status Request'
- An order gets Eliminated by Self Execution Prevention (SEP)
- An order/quote obtains the Best Price Setter (BPS) status (unsolicited notification)

Tag	Field Name	Req	Comments
	Standard Header	Y	[MsgType 35 = 8]
37	OrderID	N	Must be unique for each chain of orders. Is set to "NONE" if in response to a New Order Single being rejected.



Tag	Field Name	Req	Comments
11	ClOrdID	Y	As provided in the original New Order, Cancel Request, or Order Cancel/Replace. The same value is received in FIX Drop Copy , except in case of
			acknowledgment of an Order Cancellation (system limitation) and messages coming from Sola native protocol (SAIL). In such cases, the ID will be assigned by the Exchange.
41	OrigClOrdID	С	Conditionally required for response to a Cancel or Cancel/ Replace request [ExecType 150] = Replaced or Cancelled. [ClOrdID 11] of the previous order (NOT the initial order of the day) when cancelling or replacing an order. Not provided when [ExecTransType 20=1], nor in case of an Unsolicited Notification of Updated Order or Best Price Setter status.
1	Account	N	Used for firm identification. If provided in the original order.
17	ExecID	Y	Unique identifier of execution message as assigned by the Exchange. It will be 0 (zero) for [ExecTransType 20 = 3: Status]
20	ExecTransType	Y	See table below for possible values.
19	ExecRefID	С	Reference identifier used with Cancel transaction types. Provided only when [ExecTransType 20 = 1].
150	ЕхесТуре	Y	Describes the type of execution report. Possible values: 0: New 1: Partial fill 2: Fill 4: Cancelled 5: Replaced 8: Rejected
103	OrdRejReason	С	May be provided only when [ExecType 150 = 8: Rejected].
39	OrdStatus	Y	Describes the current state of a CHAIN of orders, same scope as OrderQty, [CumQty 14], [LeavesQty 151], and [AvgPx 6]. See table below for possible values.
38	OrderQty	с	Quantity of the order (as opposed to [LastShares 32] which refer to the fill).
44	Price	С	Price of the order (as opposed to [LastPx 31] which refer to the fill). If provided in the original order.
167	SecurityType	Y	Indicates if Option (OPT), a Future (FUT), or Strategy (STR).
55	Symbol	Y	Class root symbol for options or strategy symbol.
201	PutOrCall	С	For Options only.
202	StrikePrice	С	For Options only.
200	MaturityMonthYear	С	Provided for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].

Tag	Field Name	Req	Comments
205	MaturityDay	С	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.
			Always present in messages coming from the Exchange.
206	OptAttribute	C	Indicates a corporate action.
210	MaxShow	Ν	Maximum number of shares within an order to be shown to other customers
54	Side	Y	Verb of order. Valid values: 1: Buy 2: Sell
40	OrdType	С	Please refer to Field Definitions.
59	TimeInForce	N	Absence of this field indicates Day order
432	ExpireDate	С	Provided when [TimeInForce 59 = 6: GTD]
32	LastShares	N	Quantity of shares bought/sold on this (last) fill.
31	LastPx	N	Price of this (last) fill.
151	LeavesQty	N	Amount of shares open for further execution. If the [OrdStatus 39 = 4: Cancelled], then [LeavesQty 151] is zero (0). For other values of OrdStatus in case of Participants are enabled with Original Quantity Management [LeavesQty 151] = [OrderQty 38] - [CumQty 14], otherwise [LeavesQty 151] = [OrderQty 38].
14	CumQty	N	Currently executed shares for chain of orders.
6	AvgPx	N	Calculated average price of all fills on this order.
60	TransactTime	N	Time of execution/order creation, expressed in UTC.
77	Open/Close	N	Please refer to Field Definitions.
442	MultipleReportingType	N	Indicates the type of instrument the Execution Report refers to. Used with multi- leg securities such as, Options Strategies, Spreads, etc.
10455	SecurityAltID	N	Indicates the Strategy Instrument in Execution Report Message sent for the Strategy. Send only when [MultipleReportingType 442 = 2] Example: If [MsgType 35 = 8] and [MultipleReportingType 442 = 2], then [SecurityAltID 10455] = Symbol of the Strategy.
527	SecondaryExecID	с	Use to refer to the Strategy ExecID. Send only when [MultipleReportingType 442 = 2] Example: If [MsgType 35 = 8] and [MultipleReportingType 442 = 2], then [SecondaryExecID 527] = ExecID of the Strategy.
198	SecondaryOrderID	С	Used to provide the OrderID (37) used by an exchange or executing system. Provided only when [ExecTransType 20 = 1].

Tag	Field Name	Req	Comments
58	Text	N	If provided in the original order. When [ExecType 150 = 8: Rejected], contains the text associated with the reason of the rejection.
47	Rule80A	N	Identifies the type of account.
8001	AccountProfile	N	Indicate the type of trader
382	NoContraBrokers	N	Number of ContraBrokers repeating group instances. Always appear before tag [ContraBroker 375].
375	ContraBroker	N	Exchange number of the firm on the opposite side of the trade. Value will be equal to the receiver's Exchange number when reporting cross/committed trades and self executions.
584	MassStatusReqID (taken from FIX 4.3)	С	Required if responding to an Order Mass Status Request. Echo back the value provided by the requester.
337	Contra Trader	N	Returned when tag is sent for a Committed Order
5255	StopPxCondition	N	Returned when tag is sent for a Stop Order
99	StopPx	С	For Stop orders. Required when: [OrdType = 4]: Stop Order [OrdType = 3]: Stop Market Order [OrdType = W]: Stop U.S. Market Order
9459	SpecialTradeInd	N	Returned for a trade message.
84	CxlQty	N	Quantity removed by Self Execution Prevention (SEP).
16455	BestPriceSetter	N	Returned when tag is sent for a BPS notification.
110	MinQty	N	Minimum quantity of an order to be executed.
583	ClOrdLinkID	с	Present only in FIX Drop Copy protocol to indicate the SenderCompID of the originating User ID connection.
2593	NoOrderAttribute	Y	Number of Order Attributes.
The next 2	2 tag are present as many times a	as it is speci	fied in NoOrderAttribute [Tag 2593]
2594	OrderAttributeType	С	Must contain one of the following values: - 2: Liquidity Provision - 4: Algo Flag
2595	OrderAttributeValue	С	It's always required in case OrderAttributeType [Tag 2594] is specified. It must contain one of the following values:

Tag	Field Name	Req	Comments
453	NoPartyID	Y	It must be a value between 1 and 3
The next 3	tag are present as many times as	it is speci	fied in Tag 453 NoPartyID
448	PartyID	с	Refer to field Definition Tag 448 PartyID
452	PartyRole	С	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID
2376	PartyRoleQualifier	0	Refer to field Definition Tag 2376 PartyRoleQualifier
1724	OrderOrigination	0	DEA Flag indicator. It must contain one of the following values: 5: Yes 0: No
487	CancellationAndAmendments	Y	Must contain one of the following values: 1: Cancel 2: Amend
2669	TrdRegPublicationType	С	It must be set to 0.
2670	TrdRegPublicationReason	С	Must contain one of the following values: 4: Illiquid (ILQD) 5: Above size (SIZE) 6: Large in scale (LRGS)
406	FairValue	с	Text for Physical Leg
381	GrossTrdAmt	Y	Only present when in FIX Drop Copy Total amount traded expressed in units of currency. (i.e. quantity * price * contract size).
1057	AggressorIndicator	Y	Only present when in FIX Drop Copy
57	TargetSubID	Y	Assigned value used to identify specific trader intended to receive message.
	Standard Trailer	Y	

The following table defines the use of fields, [ExecType 150], [OrdStatus 39], [ExecTransType 20] according to the action performed on an Order or a Trade (Fill).

Action

[OrdStatus 39]

[ExecTransType 20]

Action	[ExecType 150]	[OrdStatus 39]	[ExecTransType 20]
New Order accepted and put on book	0: New	0: New	0: New
Stop Order is inserted with TAG [OrdType 40]:			
 3: Stop Market 4: Stop Limit W: Stop U.S. Market 			
When the Stop is triggered and transformed into a regular order, the [OrdType 40] is changed to:	0: New	0: New	0: New
 1: Market Order 2: Limit V: U.S. Market Order 			
Order Traded	1: Partial fill 2: Fill	1: Partial filled 2: Filled	0: New
Order Eliminated for one of the following reasons:			
because of an update on the instrument			
 an Immediate or Cancel order is not filled or partially filled 	4: Cancelled	4: Cancelled	0: New
 a MinQty order that cannot be filled immediately for the minimum specified quantity when it is received by the Exchange 			
Order Eliminated by Market Control:			
by the Exchange	4: Cancelled	M: Eliminated by Market Control	0: New
 by the Risk Manager by the General Clearing Member (GCM) 			
Order Eliminated by Self Execution Prevention and [Leaves Quantity 151] = 0	4: Cancelled	Z: Eliminated by SEP	0: New 3: Status
While Connected orders cancelled on disconnection	4: Cancelled	I: Eliminated on Disconnect	0: New 3: Status
Order price is outside the instrument series' thresholds	4: Cancelled	F: Eliminated out of Limits G: Eliminated by Circuit Breaker	0: New
A Trade Report has been placed in a Strategy, which legs are unpriced (no trade nor book is present)	4: Cancelled	U: Eliminated due to Unpriced Leg	0: New
Order Eliminated due to Pre-Trade Validations	4: Cancelled	T: Eliminated Due To Risk Limit Exceeded	0: New
Order Rejected due to Pre-Trade Validations at Entry	8: Rejected	8: Rejected	0: New

Action	[ExecType 150]	[OrdStatus 39]	[ExecTransType 20]
Order Cancelled/Replaced and put in the book	5: Replaced	5: Replaced	0: New
Order Cancelled/Replaced and put in the book on a partially filled order	5: Replaced	1: Partial filled	0: New
Order Expired	C: Expired	C: Expired	0: New
Trade Killed (Busted)	1: Partial fill 2: Fill	The current status of the order. 0: New 1: Partial fill 4: Cancelled	1: Cancel
Notification of order's Best Price Setter status (Not available in FIX Drop Copy)	The current status of the order. 0: New 1: Partial fill 5: Replaced	The current status of the order. 0: New 1: Partial fill 5: Replaced	3: Status
Response to an Order Mass Status Request message [MsgType 35 = AF] (Not available in FIX Drop Copy)	The current status of the order. 0: New 1: Partial fill 2: Fill 5: Replaced	The current status of the order. 0: New 1: Partial fill 2: Fill 5: Replaced	3: Status
New Order already received with [PossResend 97 = Y] (Not available in FIX Drop Copy)	According to the status of the order at that time	According to the status of the order at that time	3: Status

5.149: Order Cancel Reject

Тад	Field Name	Comments
	Standard Header	[MsgType 35 = 9]
37	OrderID	If the order is unknown the [OrderID 37] will equal 'NONE', otherwise the [OrderID 37] will be populated with the [OrderID 37] of the order referenced in the Cancel or Cancel Replace message.
11	ClOrdID	Unique order ID assigned by institution to the cancel request or to the replacement order.
41	OrigClOrdlD	[CIOrdID 11] which could not be cancelled/replaced. [CIOrdID 11] of the previous order (NOT the initial order of the day) when cancelling or replacing an order.

Тад	Field Name	Comments
39	OrdStatus	Value after this cancel reject is applied.
434	CxIRejResponseTo	Identifies the type of request that a Cancel Reject is in response to.
58	Text	Contains the reason why the Cancel/Replace message has been rejected.
	Standard Trailer	

6.0 Field Definitions

Tag	Field Name	Description	Field Length
1	Account	Account mnemonic as agreed between broker and institution. Valued with "NoAccNum" when subscribing SAIL Drop Copy protocol in case the field was not provided by the Participant.	1 to 12
6	AvgPx	Calculated average price of all fills on this order.	1 to 9
7	BeginSeqNo	Message sequence number of first message in range to be resent	1 to 9
8	BeginString	Identifies beginning of new message and protocol version. Always the first field in the message. Valid values: FIX.4.2	7
9	BodyLength	Message length, in bytes, forward to the [CheckSum 10] field. Always the second field in the message.	2 to 4
10	CheckSum	Three bytes, simple checksum (see FIX 4.2 document for description). ALWAYS LAST FIELD IN MESSAGE; i.e. serves, with the trailing <soh>, as the end-of-message delimiter. Always defined as three characters.</soh>	3
11	ClOrdID	Unique identifier for Order as assigned by institution. Uniqueness must be guaranteed within a single trading day. Firms which submit multi-day orders should consider embedding a date within this field to assure uniqueness across days.	1 to 24
14	CumQty	Total number of shares filled.	1 to 9
16	EndSeqNo	Message sequence number of last message in range to be resent. If request is for a single message [BeginSeqNo 7 = EndSeqNo 16]. If request is for all messages subsequent to a particular message, [EndSeqNo 16 = 0].	1 to 9
17	ExecID	Unique identifier of execution message as assigned by the Exchange. It will be 0 (zero) for [ExecTransType 20 = 3: Status]	10 to 20
19	ExecRefID	Reference identifier used with Cancel transaction types. Provided only when [ExecTransType 20 = 1].	10 to 20
20	ExecTransType	Identifies transaction type. Valid values: 0: New 1: Cancel 3: Status	1
31	LastPx	Price of this (last) fill.	1 to 9

Tag	Field Name	Description	Field Length
32	LastShares	Quantity of shares bought/sold on this (last) fill	1 to 9
34	MsgSeqNum	Message sequence number.	1 to 9
35	MsgType	Defines message type. Should always be the third field in the message. Valid values: 0: Heartbeat 1: Test Request 2: Resend Request 3: Reject 4: Sequence Reset 5: Logout 8: Execution Report 9: Order Cancel Reject A: Logon AE: Trade Capture Report AF: Order Mass Status Request AR: Trade Capture Report Acknowledgment D: New Order – Single F: Order Cancel Request G: Order Cancel Request B: Outer Request b: Quote Request b: Quote Acknowledgement c: Security Definition Request d: Security Definition j:Business Reject s: New Order Cross	2
36	NewSeqNo	New sequence number	1 to 9
37	OrderID	Identifier for Order as assigned by the Exchange.	10 to 20
38	OrderQty	Number of shares ordered.	1 to 9
39	OrdStatus	Identifies current Status of order. Valid values: 0: New 1: Partially filled 2: Filled 4: Cancelled 5: Replace 8: Rejected C: Expired F: Eliminated out of Limits G: Eliminated by Circuit Breaker I: Eliminated by Circuit Breaker I: Eliminated by Circuit Breaker I: Eliminated by Market Control T: Eliminated Due To Risk Limit Exceeded U: Eliminated Due To Risk Master Switch Z: Eliminated by Self Execution Prevention (SEP)	1

Tag	Field Name	Description	Field Length
40	OrdType	Indicates the Price Type of the order. Must contain one of the following values for regular orders: 1: Market Order: Top of book order (only executes against best opposite side offer) 2: Limit 3: Stop Market (top of book) 4: Stop Limit C: Committed V: U.S. Market Order (executes against different levels of the book) W: Stop U.S. Market P: Basis Trade/Exchange for Security/Exchange of Future for Swap	1
41	OrigClOrdID	[ClOrdID 11] of the previous order (NOT the initial order of the day) as assigned by the institution, used to identify the previous order in cancel and cancel/replace requests.	1 to 24
43	PossDupFlag	Indicates possible retransmission of message with this sequence number. Valid values: Y: Possible duplicate N: Original transmission	1
44	Price	Price per contract. A maximum of 4 decimals are accepted.	1 to 9
45	RefSeqNum	Reference message sequence number	1 to 9
47	Rule80A	Identifies the type of account. Valid values: C: Client F: House P: Market Maker N: Non-Segregated Client B: Matched Principal	1
48	SecurityID	Security identifier value	12
49	SenderCompID	Assigned value used to identify the sender in a FIX session	4 to 8
50	SenderSubID	Assigned value used to identify specific message originator (desk, trader, etc.). Participant database to enable them to use a single FIX session to send orders for different Traders/Users (deprecated).	Up to 8 characters
52	SendingTime	Time of message transmission (always expressed in UTC) YYYYMMDD-HH:MM:SS.mmmsss	17 to 24
54	Side	Verb of order. Valid values: 1: Buy 2: Sell It must be the first tag of the legs	1
55	Symbol	Class root symbol for options or strategy symbol	1 to 30

Тад	Field Name	Description	Field Length
56	TargetCompID	Assigned value used to identify the receiver in a FIX session.	4 to 8
57	TargetSubID	Assigned value used to identify specific trader intended to receive message. Identifies the Trader ID in SAIL: 4 first characters : Firm Identifier 4 Last characters: Trader Identifier Present in Application messages coming from the Exchange.	Up to 8 characters
58	Text	Free format text string. If provided in the original order. When [ExecType 150=8] (rejected), contains the text associated with the reason of the rejection.	1 to 26 1 to 80 when [ExecType 150=8] (rejected)
59	TimeInForce	Specifies how long the order remains in effect. Absence of this field is interpreted a DAY. Valid values: 0: Day 1: Good Till Cancel (GTC) 3: Immediate or Cancel (IOC) 6: Good Till Date W: While Connected	1
60	TransactTime	Time of execution/order creation, expressed in UTC YYYYMMDD-HH:MM:SS.mmmsss	17 to 24

Тад	Field Name	Description	Field Length
		This data field indicates how the participant's position will be handled by the clearing system. Must contain one of the following values:	
		Any number of Legs or Single Security: O: All Legs are open or single security C: All Legs are closed or single security	
		2 Legged Strategy: 1: 1st Leg Open, 2nd Leg Close 2: 1st Leg Close, 2nd Leg Open	
77	Open/Close	3 Legged Strategy: 3: 1st Leg Open, 2nd Leg Open, 3rd Leg Close 4: 1st Leg Open, 2nd Leg Close, 3rd Leg Open 5: 1st Leg Open, 2nd Leg Close, 3rd Leg Close 6: 1st Leg Close, 2nd Leg Open, 3rd Leg Open 7: 1st Leg Close, 2nd Leg Open, 3rd Leg Close 8: 1st Leg Close, 2nd Leg Close, 3rd Leg Open	1
		4 Legged Strategy: A: 1st Leg Open, 2nd Leg Open, 3rd Leg Open, 4th Leg Close B: 1st Leg Open, 2nd Leg Open, 3rd Leg Close, 4th Leg Open D: 1st Leg Open, 2nd Leg Open, 3rd Leg Close, 4th Leg Close E: 1st Leg Open, 2nd Leg Close, 3rd Leg Open, 4th Leg Close G: 1st Leg Open, 2nd Leg Close, 3rd Leg Open, 4th Leg Open H: 1st Leg Open, 2nd Leg Close, 3rd Leg Close, 4th Leg Open H: 1st Leg Open, 2nd Leg Close, 3rd Leg Close, 4th Leg Close I: 1st Leg Open, 2nd Leg Close, 3rd Leg Close, 4th Leg Close I: 1st Leg Close, 2nd Leg Open, 3rd Leg Open, 4th Leg Close I: 1st Leg Close, 2nd Leg Open, 3rd Leg Open, 4th Leg Open J: 1st Leg Close, 2nd Leg Open, 3rd Leg Close, 4th Leg Open L: 1st Leg Close, 2nd Leg Open, 3rd Leg Close, 4th Leg Open N: 1st Leg Close, 2nd Leg Open, 3rd Leg Close, 4th Leg Open N: 1st Leg Close, 2nd Leg Close, 3rd Leg Open, 4th Leg Close M: 1st Leg Close, 2nd Leg Close, 3rd Leg Open, 4th Leg Close M: 1st Leg Close, 2nd Leg Close, 3rd Leg Open, 4th Leg Open N: 1st Leg Close, 2nd Leg Close, 3rd Leg Open, 4th Leg Open	
84	CxlQty	Indicates the quantity removed by Self Execution Prevention (SEP)	1 to 9
97	PossResend	Indicates that message may contain information that has been sent under another sequence number. Valid Values: Y: Possible resend N: Original transmission	1
98	EncryptMethod	Method of encryption. Valid values: 0: None	1
99	StopPx	For Stop orders. Required when: [OrdType = 4]: Stop Order [OrdType = 3]: Stop Market Order [OrdType = W]: Stop U.S. Market Order	1 to 9

Тад	Field Name	Description	Field Length
103	OrdRejReason	Code to identify reason for order rejection. 0: Broker option 1: Unknown symbol 2: Exchange closed 3: Order exceeds limit 4: Too late to enter 5: Unknown Order 6: Duplicate Order (e.g. duplicated CIOrdID) 7: Duplicate of a verbally communicated order 8: Stale Order 9: Group state doesn't allow this function	1 to 6
108	HeartBtInt	Heartbeat interval (seconds). Must be equal or greater than 30 or equal to 0 (no heartbeat)	1 to 5
110	MinQty	Minimum quantity of an order to be executed.	1 to 9
112	TestReqID	Identifier included in Test Request message to be returned in resulting Heartbeat	1 to 20
122	OrigSendingTime	Original time of message transmission (always expressed in UTC) when transmitting orders as the result of a resend request. YYYYMMDD-HH:MM:SS.mmmsss	17 to 24
123	GapFillFlag	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent. Valid values: Y: Gap Fill message, MsgSeqNum field valid N: Sequence Reset, ignore MsgSeqNum	1
131	QuoteReqID	Identifier for quote request	1 to 50
141	ResetSeqNumFlag	Indicates that the both sides of the FIX session should reset sequence numbers. Valid values: Y: Yes, reset sequence numbers N: No	1
146	NoRelatedSym	Specifies the number of repeating symbols specified.	1
150	ExecType	Describes the specific Execution Report. Valid values: 0: New 1: Partial fill 2: Fill 4: Cancelled 5: Replace 8: Rejected C: Expired F: Trade	1

Tag	Field Name	Description	Field Length
151	LeavesQty	Amount of shares open for further execution.	1 to 9
167	SecurityType	Indicates the type of security. Valid values: OPT: Option FUT: Future STR: Strategy For Options: [Symbol 55], [PutOrCall 201], [MaturityMonthYear200] and [StrikePrice 202] are required. For Futures: [Symbol 55], and [MaturityMonthYear200] are required. For Strategy: only [Symbol 55] is required.	3
198	SecondaryOrderID	Used to provide the OrderID (37) used by an exchange or executing system. Provided only when [ExecTransType 20 = 1].	10 to 20
200	MaturityMonthYear	MaturityMonthYear Month and Year of the maturity for [SecurityType 167 = OPT: Option] and [SecurityType 167 = FUT: Future].	
201	Indicates whether an Option is for a put or call. Valid values: PutOrCall 0: Put 1: Call		1
202	StrikePrice Strike Price for an Option. A maximum of 4 decimals are accepted.		1 to 9
205	MaturityDay	Used in conjunction with MaturityMonthYear <200> to specify a particular maturity date.	1 to 2
206	OptAttribute	Indicates a corporate action (Possible values : "X", "Y", "Z", "Q", "R", "S", "G", "U", "V")	1
210	MaxShow	Maximum number of shares within an order to be shown to other customers	1 to 9
297	QuoteAckStatus	Identifies the status of the quote acknowledgement. Valid values: 0: Accepted 5: Rejected	1
300	QuoteRejectReason	Reason Quote was rejected. See Error Code Section for the list of error codes	4 to 6

Тад	Field Name	Description	Field Length
310	UnderlyingSecurityTy pe Strategy leg SecurityType. See [SecurityType 167] field for description		3
311	UnderlyingSymbol Strategy leg Symbol. See [Symbol 55] field for description.		1 to 30
313	UnderlyingMaturityMo nthYear	Strategy leg maturity date. See [MaturityMonthYear 200] field for description.	6
314	UnderlyingMaturityDa y	Strategy Leg maturity day. See [MaturityDay 205] field for description.	1 or 2
315	UnderlyingPutOrCall	Strategy leg PutOrCall. See [PutOrCall 201] field for description.	1
316	UndelyingStrikePrice	Strategy leg strike price. See [StrikePrice 202] field for description.	1 to 9
317	UnderlyingOptAttribut e	Strategy Leg corporate action indicator. See [OptAttribute 206] field for description.	1
319	RatioQty	Strategy leg ratio to determine a valid quantity. Should not contain decimals	1 to 9
320	SecurityReqID	ID of a Security Definition Request.	1 to 50
321	SecurityRequestType	Type of Security Definition Request.	1
322	SecurityResponseID	ID of a Security Definition message.	1 to 15
323	SecurityResponseTyp e	Only present if [SecurityRequestType 321 = 1] in the Security Definition Request. 1: Accept security proposal as is 2: Accept security proposal with revisions as indicated in the message 4: Already exists 5: Reject security proposal	1
371	RefTagID The tag number of the FIX field being referenced.		1 to 5
372	RefMsgType The message type of the FIX message being referenced.		1 to 2

Tag	Field Name	Description	Field Length
373	SessionRejectReason	Code to identify reason for a session-level Reject message: 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/ Out Of Range For This Tag 6: Incorrect Data Format For Value 7: Decryption Problem 8: Signature Problem 9: Compld Problem 11: Invalid Msg Type 12: Session Not Established 13: Invalid Tag Sequence 14: Incompatible With Order Type 15: Security Definition Request Not Allowed 16: Security Definition Request Maximum Request Reach 17: Order Mass Status Request Maximum Request Reach 18: Insufficient Qty Available 19: Unknown 20: Invalid Leg Instrument 25: Tag Not Defined For This SecurityRequestType 26: Duplicate Login 27: Incorrect SenderCompld	1 to 2
375	ContraBroker	Exchange number of the firm on the opposite side of the trade. Value will be equal to the receiver's Exchange number when reporting cross/committed trades and self executions.	3
379	BusinessRejectRefID	[SecurityReqID 320] from the submitted Security Definition request.	1 to 50
380	BusinessRejectReaso n	Code to identify reason for reject: 0: Other 1: Unknown ID 2: Unknown Security (default value) 3: Unsupported Message Type 4: Application not available 5: Conditionally Required Field Missing	1
381	GrossTrdAmt	Only present when in FIX Drop Copy Total amount traded expressed in units of currency. (i.e. quantity * price * contract size).	Up to 16

Tag	Field Name	Description	Field Length
382	NoContraBrokers	Number of ContraBrokers repeating group instances. Always appear before tag [ContraBroker 375].	1
383	MaxMessageSize	Maximum number of bytes supported for a single message.	2 to 4
406	FairValue	Free Text used for PhysicalLeg.	Up to 20
432	ExpireDate	Date of order expiration (last day the order can trade), always expressed in terms of the local market date	8
434	CxIRejResponseTo	Identifies the type of request that a Cancel Reject is in response to. Valid values: 1: Order Cancel Request 2: Order Cancel/Replace Request	1
442	MultipleReportingTyp e	Indicates the type of instrument the Execution Report refers to. Used with multi-leg securities such as, Options Strategies, Spreads, etc. Valid Values are: 1: Single security or outright contract(default) 2: Individual leg of a multi-leg or Strategy Instrument 3: Multi-leg or Strategy Instrument	1
448	PartyID	 In case PartyRole [Tag 452] is 3 (Client ID), PartyID [Tag448] must contain one of the following value: 0: None 1: Aggregation of multiple Client Order (AGGR) 2: Pending Allocation (PNAL) From 4 to 4294967295: Short Code In case PartyRole [Tag 452] is 122 (Investor ID), PartyID [Tag448] must contain one of the following value: From 4 to 4294967295: Short Code In case PartyRole [Tag 452] is 12 (Investor ID), PartyID [Tag448] must contain one of the following value: From 4 to 4294967295: Short Code In case PartyRole [Tag 452] is 12 (Executing Trader), PartyID [Tag448] must contain one of the following value: 3: Client From 0 to 4294967295: Short Code 	Up to 10

Tag	Field Name	Description	Field Length
452	PartyRole	Role of the PartyID [Tag 448]. Must contain one of the following values: 3: Client ID 122: Investor ID 12: Executing Trader	Up to 3
453	NoPartyID	Number of Party ID [Tag448] identifiers. It always must be set to 3.	1
487	CancellationAndAm endments	Must contain one of the following values: 1: Cancel 2: Amend	1
527	SecondaryExecID	Used to refer to the Strategy ExecID. Send only when [MultipleReportingType 442 = 2]. Example: If [MsgType 35 = 8] and [MultipleReportingType 442 = 2], then [SecondaryExecID 527] = ExecID of the Strategy	10 to 20
555	NoLegs	Number of legs	1
566	LegPrice Order price		1 to 9
571	TradeReportID	Proposal ID. Only for messages coming from Exchange	8
577	ClearingInstruction	Clearing instruction	12
581	CaptRptAccountType	Identify the Account Type. Valid values: 1: Client 2: House 4: Market Maker 5: Non-Segregated Client	1
583	ClOrdLinkID	Present in FIX Drop Copy protocol only to indicate the SenderCompID of the originator FIX connection	1 to 8
584	MassStatusReqID	This field is taken from FIX 4.3. Value assigned by issuer of Mass Status Request to identify the request.	1 to 50

Tag	Field Name	Description	Field Length
585	MassStatusReqType This field is taken from FIX 4.3. Mass Status Request Type. Valid values: 7 = Status for all orders		1
600	LegSymbol	See [Symbol 55] field for description.	1 to 30
609	LegSecurityType	See [SecurityType 167] field for description.	3
610	LegMaturityMonthYea r	See [MaturityMonthYear 200] field for description.	6
612	LegStrikePrice	See [StrikePrice 202] field for description.	1 to 9
613	LegOptAttribute	See [OptAttribute 206] field for description.	1
624	LegSide	Side of the order. 1: Buy 2: Sell	1
687	LegQty	Order quantity	1 to 9
828	TradeTypeFlag Must contain one of the following values: 2: Basis Trade/Exchange for Security/Exchange of Future for 565: Trade Type Pack Trans 0: None		Up to 2
852	PublishTrdIndicator	Transparency for the Flexible trade. Y: Published N: Unpublished	1
856	TradeReportType	2: Accept 3: Decline	1
1041	FirmTradeID	The ID assigned to a trade by the Firm to track a trade within the Firm system.	1 to 24
1057	AggressorIndicator	Only present when in FIX Drop Copy Used to identify whether the order initiator is an aggressor or not in the trade Y: Order initiator is aggressor N: Order initiator is passive	1

Тад	Field Name	Description	Field Length
1117	RootPartyID	Root Party ID	4
1194	ExerciseStyle	Valid for options only. 0: European 1: American.	1
1358	LegPutOrCall	See [PutOrCall 201] field for description.	1
1462	TargetPartyID	Executing Firm ID (Ex Tag 448 PartyID)	4
1724	OrderOrigination	DEA Flag. It must contain one of the following values: 5: Yes 0: No	1
2376	PartyRoleQualifier	 Provides a further qualification for the value specified in the PartyRole [Tag 452]. In case PartyRole [Tag 452] is set to 3 and PartyID [Tag 448] is a short code (values 4,5,6, 4294967295), PartyRoleQualifier [Tag 2376] must contain one of the following values: 23: Firm or Legal Entity 24: Natural Person In case PartyRole [Tag 452] is set to 12 or 122 and PartyID [Tag 448] is a short code (values 4,5,6, 4294967295), PartyRoleQualifier [Tag 2376] must contain one of the following values: 22: Algorithm 24: Natural Person In any other case it has to be set to 0: None	Up to 2
2593	NoOrderAttribute	Number of Order Attributes. It always must be set to 2.	1
2594	OrderAttributeType	Must contain one of the following values: - 2: Liquidity Provision - 4: Algo Flag	1
2595	OrderAttributeValue	It's always required in case OrderAttributeType [Tag 2594] is specified. It must contain one of the following values: Y: Yes N: No	1
2669	TrdRegPublicationT ype	It must be set to 0: Pre-trade transparency waiver	1
2670	TrdRegPublicationR eason	Must contain one of the following values: 4: Illiquid (ILQD) 5: Above size (SIZE) 6: Large in scale (LRGS)	1

Тад	Field Name	Description	Field Length
5255	StopPxCondition	Required if Tag 99 (StopPx) is filled. Indicates the type of stop orders: S: Regular Stop (optional: default value used if none provided) T: If Touched E: Stop On Bid F: If Bid Touched I: Stop On Ask H: If Ask Touched	1
8001	AccountProfile	Indicate the type of trader. Valid Values: H: Hedger S: Speculator (default value if not provided in the order)	1
9433	TextExecutionReport	Free text	50
9459	SpecialTradeInd	Indicates the type of trade. (blank): Normal Trade 1: Exchange Granted 1 (EG1) 2: Exchange Granted 2 (EG2) 3: Unpublished Crossed Block 4: Unpublished Committed Block B: Block D: Crossed K: Committed Block T: Committed A: As of Trade E: Basis Trade/Exchange for Security/Exchange of Future for Swap L: Late Trade	1
10455	SecurityAltID	Indicates the Strategy Instrument in Execution Report Message sent for the Strategy. Send only when [MultipleReportingType 442 = 2] Example: If [MsgType 35 = 8] and [MultipleReportingType 442 = 2], then [SecurityAltID 10455] = Symbol of the Strategy.	1 to 15
16453	ProposalType	B: Bundle Order T: Inter Dealer Broker Order	1
16454	LegMaturityDay	Leg Maturity Day. See [MaturityDay 205] field for description.	1 or 2

Тад	Field Name	Description	Field Length
16455	BestPriceSetter	Indicates the status of the Best Price Setter: 0: Order does not have the Best Price Setter status 1: Order has the Best Price Setter status	1

7.0 Error Codes

The following table displays the error codes and text that will appear in error responses.

Error Code	Error Description
1	User Identification is not correct
2	Protocol Version is not supported
3	Message Type is not supported
4	Session ID is not active
6	Message Type requested is not supported
8	Message is too short
9	Message is too long
10	Message contains Binary Data
11	No Heartbeat Activity: Disconnection
12	Message Type is Out Of Context
13	User ID has been deactivated: Disconnection
14	Syntax Error + <detailed text=""></detailed>
15	Field value is too small
16	Field value is too big
100	Firm is Forbidden to trade on this Group
101	Duration Type is Forbidden for current Group state
102	Verb field (Side) cannot be modified
103	Order is not active
104	Price Type is forbidden for this instrument
105	Price Term is Forbidden for current Instrument state
108	Duration Type is Forbidden for current Instrument state
109	Order cannot be processed: No opposite limit
110	Price does not represent a valid tick increment for this Instrument
111	Duration Type is invalid for this Price Type
112	Cross Order price must be within the Instrument trading limits
113	Cross Order price is outside bid/ask price spread
114	Opposite firm must be filled for committed order
116	Cross order is not allowed
117	Cross order quantity is outside limits
118	Duration Type Is Invalid For This Price Term

Error Code	Error Description
119	Cross order notional value is outside limits
120	Disclosed Notional value is below the instrument threshold
121	Order Notional value is outside the instrument thresholds
122	Physical Leg must be filled for this type of order
123	Trade has already been approved
124	Order from Account type House cannot have Client Id Code
125	Investment decision code is missing
126	Client Identification is missing
201	GTD date must be equal to or greater than current day
202	GTD date must be equal to or less than Instrument expiration date
203	GTD date must be filled only if Duration Type is equal to GTD
300	Quantity Term is Forbidden for current Instrument state
302	Quantity must be less than or equal to Maximum Improvement Quantity
303	Quantity Term is not authorized for this Order Type
304	Additional Quantity must be less than Order Quantity
305	Additional Quantity is too small
306	Minimum quantity cannot be modified
307	Quantity Term is forbidden for Duration Type
308	Order quantity is outside the instrument quantity threshold
309	Quantities must be multiples of lot size
402	Trader ID field cannot be modified
403	Market Maker not authorized for Group
500	Order price is outside the instrument price threshold
501	Price field is mandatory for Limit Orders
502	Price field must not be filled for this Price Type
503	Order cannot be modified or cancelled
504	Additional Price is forbidden for Price Term
505	Order price must be greater than additional price
506	Order price must be lower than additional price
507	Additional price must be lower than last price or last day price
508	Additional price must be greater than last price or last day price
509	Order rejected. Cannot trade outside instrument price thresholds.
510	Order cannot be modified
511	Order price is outside circuit breaker limits

Error Code	Error Description
512	Price Term Invalid For Price Type
700	Only one quote per Instrument and per Side is accepted
701	Quote is not present in the Instrument Book
702	Market Maker Protection in progress; Quote not processed.
703	Advanced Market Maker Protection not enabled for this Group
704	Buy and Sell must not cross for the same instrument
705	Number of quotes is not in sync with the message length
707	Market Maker Protection state must be re-activated
708	Trader ID has no quote for this Group
709	All the Instruments must belong to the same Group
710	Clearing Data has not been initialized
1000	Cross orders forbidden in Pre-opening phase.
1001	Instrument does not exist
1002	Group ID does not exist
1003	Trader ID is invalid
1004	Message Type is forbidden for current Instrument state
1007	Participant must use A4 protocol version
1008	RFQ currently underway for this instrument
1009	Action not allowed under current configuration
1010	Number of entries is invalid
1107	Firm or trader had been disabled
1108	Instrument mandatory when using MM Monitoring mode forced
1109	Market maker has no obligation for this group
1110	Participant not authorized for this Group (for Execution Report [MsgType 35 = 8])
1111	Participant not authorized for this Account Type (for Execution Report [MsgType 35 = 8])
2000	Technical error; function not performed. Contact Technical Help Desk.
2001	Gateway State forbids this command. Contact Technical Help Desk.
2002	Function only partially performed. Contact Technical Help Desk.
3017	Open Close Missing Invalid
3041	Unknown Clearing Operation Mode
3042	Invalid Price Type
3100	Order Quantity Limit exceeded at the trader/instrument level
3101	TradedLong limit exceeded at the trader/instrument level
3102	TradedShort limit exceeded at the trader/instrument level

Error Code	Error Description
3103	ExposedLong limit exceeded at the trader/instrument level
3104	ExposedShort limit exceeded at the trader/instrument level
3107	Order Value limit exceeded at trader/instrument level
3108	Order Price outside High/Low limits at trader/instrument level
3110	Order Quantity Limit exceeded at the trader/group level
3111	TradedLong limit exceeded at the trader/group level
3112	TradedShort limit exceeded at the trader/group level
3113	ExposedLong limit exceeded at the trader/group level
3114	ExposedShort limit exceeded at the trader/group level
3115	TradedSpreads limit exceeded at the trader/group level
3116	ExposedSpreads limit exceeded at the trader/group level
3117	Order Value limit exceeded at the trader/group level
3120	Order Quantity Limit exceeded at the Firm/instrument level
3121	TradedLong limit exceeded at the firm/instrument level
3122	TradedShort limit exceeded at the firm/instrument level
3123	ExposedLong limit exceeded at the firm/instrument level
3124	ExposedShort limit exceeded at the firm/instrument level
3127	Order value limit exceeded at the firm/instrument level
3128	Order Price outside High/Low limits at the firm/instrument level
3130	Order Quantity Limit exceeded at the firm/group level
3131	TradedLong limit exceeded at the firm/group level
3132	TradedShort limit exceeded at the firm/group level
3133	ExposedLong limit exceeded at the firm/group level
3134	ExposedShort limit exceeded at the firm/group level
3135	TradedSpreads limit exceeded at the firm/group level
3136	ExposedSpreads limit exceeded at the trader/group level
3137	Order Value limit exceeded at the firm/group level
9017	Invalid number of legs
9018	Invalid leg information
9019	Unknown strategy type
9020	Firm creation quota has been reached
9021	Leg instrument is not active
9022	Strategy has unpriced legs
9023	Group state does not allow this function

Error Code	Error Description
9024	Legs have different Multi-group Strategy Key
9025	Legs have different Multi-group Strategy Group
9026	Order rejected. Cannot assign a valid price to all legs
9027	Maximum pending flexible creation reached
9028	Duration type is invalid for this Message Type
9029	Legs must be on the same CPU
9030	Strike price is not multiple of tick size
9031	Flex Series Delivery Date is not a valid trading day
9032	Symbol Date is out of limits
9033	Invalid Proposal ID or Confirmation Order ID
9034	Invalid order type on Flexible Instrument
9035	Trading not allowed on Flexible Instrument
9036	Bundle creation quotas has been reached for the Firm
9037	Proposal creation quotas has been reached for the Firm
9040	Proposal is no longer active

8.0 Message Flow

8.1 Connection Management

Establishing a FIX Session

In order to establish a FIX session, clients need to pay special attention to the following items:

- Clients are allowed to establish FIX sessions on each trading day
- The Exchange CompID is 'LSE1'
- No encryption technique is supported
- For a Resend Request, the Exchange will always request all messages subsequent to the last received ([BeginSeqNo 7=first message of range], [EndSeqNo 16=0]). Any new messages received before the reception of the last requested message will be discarded
- The Exchange does not support 24-hour connectivity and a new session must be re-established each morning
- The Exchange allows only one participant per FIX session (or per CompID). ISVs offering a service bureau are required to have a separate CompID, and therefore a separate FIX session, for each of their clients
- For message traffic efficiency, the Exchange does not allow clients to send a Heartbeat message at intervals of less than 30 seconds. Consequently, Logon messages with a value of less than 30 seconds, and not equal to 0 (meaning no Heartbeat will be sent) in the [HeartBtInt 108] field are rejected. If a participant does not send a message within 2 Heartbeat periods, the Exchange will send a Test Request message and wait for a response from the participant. If the participant does not respond to the Test Request within the Heartbeat period, the session will be disconnected with a Logout message [MsgType 35 = 5]. To summarize, if a participant does not send any messages within 3 Heartbeat periods, the connection is dropped and the participant will need to reconnect.

Initializing a FIX Connection

PARTICIPANT	EXCHANGE	
Logon [MsgType 35 = A]	<i>→</i>	
	÷	Logon [MsgType 35 = A]

Terminating a FIX Connection

PARTICIPANT

EXCHANGE

PARTICIPANT	EXCHANGE	
Logout [MsgType 35 = 5]	<i>→</i>	
	÷	Logout [MsgType 35 = 5]

Sending a Heartbeat

PARTICIPANT	EXCHANGE	
Heartbeat [MsgType 35 = 0]	<i>→</i>	
	÷	Heartbeat [MsgType 35 = 0]

Heartbeat Management

PARTICIPANT	EXCHANGE	
Test Request [MsgType 35 = 1] [TestReqID 112 = value]	÷	
	÷	Heartbeat [MsgType 35 = 0] [TestReqID 112 = value]

Sending a Resend Request

PARTICIPANT		EXCHANGE
Resend Request [MsgType 35 = 2] [BeginSeqNo 7 = SeqNo] [EndSeqNo 16 = SeqNo or 0]	<i>→</i>	
	÷	Resend Original Messages [PossDupFlag 43 = Y] and/or [MsgType 35 = 4] [GapFillFlag 123 = Y]

Sending a Sequence Reset

PARTICIPANT		EXCHANGE		
Sequence Reset [MsgType 35 = 4] [GapFillFlag 123 = Y]	<i>→</i>			
	÷	Resend Original Messages [PossDupFlag 43 = Y] or Resend Request [MsgType 35 = 2] [EndSeqNo 16 = 0]		

Receiving a Session Level Reject

PARTICIPANT	EXCHANGE	
New Order [MsgType 35 = D] required field missing	<i>→</i>	
	÷	Reject [MsgType 35 = 3] [RefSeqNum 45 = offending msg#] [Text 58 = description]

8.2 Order Processing

To enter an order, a participant sends a NEW ORDER SINGLE message.

The Exchange carries out validation on the parameters of the message received. If one of these parameters is invalid, the Exchange sends back an EXECUTION REPORT - REJECT rejecting the message received and specifying the first error detected.

If validation is successful, the Exchange accepts the message received and attributes an [OrderId 37] to the order entered.

An EXECUTION REPORT message received immediately after an order entry can indicate that it has been:

- Entered on the order book (a part of the order having possibly been executed)
- Eliminated
- Executed partially or in full

Rejected

If an order is either partially or fully executed, the client receives, immediately after the EXECUTION REPORT ([OrdStatus 39=0]) message, one or more EXECUTION REPORT ([OrdStatus 39=1 or 2]) messages providing more information about the trade that took place.

If the order was on a strategy instrument, the client receives an EXECUTION REPORT for the strategy instrument ([OrdStatus 39=1 or 2, MultiLegReportingType = 3]) and additional EXECUTION REPORT messages for each leg ([OrdStatus 39=1 or 2, MultiLegReportingType = 2]) providing additional information related to the price and quantity at which each of the individual legs of the strategy instrument traded.

If the order has been booked (an EXECUTION REPORT message is sent with [OrdStatus 39=0]) the participant will automatically receive at a later time one of the following messages:

- One or more EXECUTION REPORT ([OrdStatus 39=1 or 2]) messages
- In the case of a Strategy Order, several EXECUTION REPORT messages ([OrdStatus 39=1 or 2, MultiLegReportingType 442=2]) in addition to the EXECUTION REPORT on the strategy instrument ([OrdStatus 39=1 or 2, MultiLegReportingType 442=3]) are sent. Each of the leg EXECUTION REPORT can be linked to its parent strategy trade (EXECUTION REPORT on the strategy instrument) message by the Strategy Instrument Id ([SecurityAltId 10455]) and Strategy Execution Id ([SecondaryExecId 527]).
- An EXECUTION REPORT ([OrdStatus 39=4]) message if the order is eliminated

Order is rejected

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D]	÷	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 8] [OrdStatus 39 = 8] [ExecTransType 20 = 0] [OrderID 37 = OrdID]

Order is accepted and fully executed

PARTICIPANT		EXCHANGE	 PARTICIPANT (Resting)
New Order [MsgType 35 = D]	÷		

PARTICIPANT		EXCHANGE		PARTICIPANT (Resting)
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]		
			<i>→</i>	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 2] [OrdStatus 39 = 2] [ExecTransType 20 = 0]		

Order is accepted but not executed with a price that improves the market

Participant		Exchange	Notes
New Order [MsgType 35 = D]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market

Order is accepted but not executed with a price that does not improve the market

Participant

Exchange

Notes

Participant		Exchange	Notes
New Order [MsgType 35 = D]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	

Order is accepted and partially executed

Participant		Exchange	Notes
New Order [MsgType 35 = D]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 1] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]	

Minimum Quantity Order is not executed when entered

PARTICIPANT

EXCHANGE

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D] [MinQty 110 = 20]	÷	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 =4] [OrdStatus 39 = 4] [ExecTransType 20 = 0]

Minimum quantity with partial execution

Participant		Exchange	Notes
New Order [MsgType 35 = D] [MinQty 110 = 20]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]	

New Order is sent with Possible Resend

PARTICIPANT

EXCHANGE

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D] [PossResend 97 = Y]	÷	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = 4] [ExecTransType 20 = 0] [OrderID 37 = OrdID]

Order is resent with Possible Resend

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D] [PossResend 97 = Y]	<i>→</i>	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [ExecTransType 20 = 3] [OrderID 37 = OrdID]

Stop and If Touched Order

If the order entered is a STOP or IF TOUCHED order, the participant will later receive another EXECUTION REPORT message with [OrdStatus 39 = 0] and [OrdType 40 = 2] when the order is triggered and becomes a regular limit order (trigger price reached).

The following table illustrates all possible triggering surfaces:

Triggering Surface	Verb	StopPxCondition	
	Buy	5255 = T: If Touched	
Trigger Price ≥ LAST	Sell	5255 = S: Stop	
Trigger Price ≤ LAST	Buy	5255 = S: Stop	
	Sell	5255 = T: If Touched	
	Buy	5255 = F: If BID Touched	
Trigger Price ≥ BID	Sell	5255 = E: Stop on BID	
	Buy	5255 = E: Stop on BID	
Trigger Price ≤ BID	Sell	5255 = F: If BID Touched	

Triggering Surface	Verb	StopPxCondition
Trigger Price ≥ ASK	Buy	5255 = H: If ASK Touched
	Sell	5255 = I: Stop on ASK
Trigger Price ≤ ASK	Buy	5255 = I: Stop on ASK
	Sell	5255 = H: If ASK Touched

Stop Order is triggered

PARTICIPANT		EXCHANGE	
New Order [MsgType 35 = D] [StopPx 99 = 1.00]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 =0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrdType 40 = 4] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrdType 40 = 2]	When the Stop order is triggered and becomes a regular limit order.
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market

Market order at any price partially trades

Participant		Exchange	Notes
New Order [MsgType 35 = D] [OrdType 40 = V]	→		

Participant		Exchange	Notes
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 1] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]	

Market order at top price partially trades

Participant		Exchange	Notes
New Order [MsgType 35 = D] [OrdType 40 = 1]	÷		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 1] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market

Participant		Exchange	Notes
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]	

Order on a Strategy is rejected due to Unpriced legs

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D]	÷	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = U] [ExecTransType 20 = 0] [OrderID 37 = OrdID]

8.3 Time Validity

Order designated as "While Connected" [TimeInForce 59 = W] is automatically cancelled following a participant disconnection.

Immediate Order Completely Filled upon entry

Immediate or Cancel order (IOC) is also referred to as a Fill and Kill order. The participant will receive an EXECUTION REPORT ([OrdStatus 39=0]) message indicating that the order has been accepted. Then one or more EXECUTION REPORT ([OrdStatus 39=1 or 2]) messages will be sent. In each of the reports, the [LeavesQty 151] field specifies whether a part of the order remains to be traded. In the last EXECUTION REPORT, the [LeavesQty 151] is set to 0.

In the case of a strategy order fill, several EXECUTION REPORT messages ([OrdStatus 39=1 or 2, MultiLegReportingType 442=2]) in addition to the EXECUTION REPORT on the strategy instrument are sent.

Immediate Order partially Executed in Continuous Trading

PARTICIPANT		EXCHANGE
New Order [MsgType 35 = D] [TimeInForce 59 = 3]	÷	

PARTICIPANT		EXCHANGE
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0]
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = 4] [ExecTransType 20 = 0]

Immediate is not executed in Continuous Trading

PARTICIPANT	-	EXCHANGE
New Order [MsgType 35 = D] [TimeInForce 59 = 3]	÷	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = 4] [ExecTransType 20 = 0]

Fill or Kill functionality can be simulated using a combination of TimeInForce (59 = 3) and MinQty (110 =-total quantity>).

While Connected orders cancelled on disconnection of a participant

PARTICIPANT

EXCHANGE

PARTICIPANT		EXCHANGE	
NewOrderSingle [MsgType 35 = D] [TimeInForce 59 = W]	÷		
¢		ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [TimeInForce 59 = W] [OrderID 37 = OrdID]	While Connected Order FIX <d> entered with TimeInForce 59=W</d>
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
Service interruption or MOC disable	es a participa	nt	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = I] [ExecType 150 = 4]	A FIX<8> is emitted per While Connected order entered with [OrdStatus 39 = I: Eliminated On Disconnect]

While Connected orders cancelled on EOD Mini batch

PARTICIPANT		EXCHANGE	
NewOrderSingle [MsgType 35 = D] [TimeInForce 59 = W]	÷		
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [TimeInForce 59 = W] [OrderID 37 = OrdID]	While Connected Order FIX <d> entered with [TimeInForce 59=W]</d>

PARTICIPANT		EXCHANGE	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
EOD Minibatch			
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = C] [ExecType 150 = C]	

Good Till Date orders cancelled on date reached

Participant		Exchange	Notes
NewOrderSingle [MsgType 35 = D] [TimeInForce 59 = 6] [ExpireDate 432 = YYYYMMDD]	÷		
	÷	ExecutionReport [MsgType 35 = 8] [ExecType 150 = 0] [ExecTransType 20 = 0] [TimeInForce 59 = 6] [ExpireDate 432 = YYYYMMDD] [OrderID 37 = OrdID]	Good Till Date Order FIX <d> entered with TimeInForce 59=6 and ExpireDate 432 = YYYYMMDD</d>
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
EOD Minibatch			
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 0]	If the BPS phase is configured and the order holds the BPS status

Participant		Exchange	Notes	
		[OrderID 37 = OrdID]		
CurrentDay = GTD				
	← ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = C] [ExecType 150 = C]			

Day orders cancelled during the End of Day process

Participant		Exchange	Notes
NewOrderSingle [MsgType 35 = D] [TimeInForce 59 = 0]	÷		
	÷	ExecutionReport [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [TimeInForce 59 = 0] [OrderID 37 = OrdID]	Day Order FIX <d> entered with TimeInForce 59=0</d>
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market
EOD Minibatch			
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = C] [ExecType 150 = C]	

8.4 Trading Controls

Order is not accepted since it is outside the instrument series' thresholds (X Validation)

Participant		Exchange	Notes
New Order [MsgType 35 = D]	<i>→</i>		
	÷	Execution Report [MsgType 35 = 8] [OrdStatus 39 = F] [ExecType 150 = 4] ExecTransType 20 = 0]	Order eliminated since price is out of Limits

Order eliminated by a CB instrument limit update (X, Y or Z Validation)

Participant		Exchange	Notes	
New Order [MsgType 35 = D]	<i>→</i>			
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]		
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	If the BPS phase is configured and the order price improves the market	

Instrument Limit Update (X, Y or Z Validation)

Participant		Exchange	Notes
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = G] [ExecType 150 = 4]	A FIX<8> is emitted per Cancelled by Circuit Breaker order entered with [OrdStatus 39 = G: Eliminated by Circuit Breaker]

SEP Cancel Resting Order (CRO) Rule (order vs order) with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			÷	New Order [MsgType 35 = D]	
		Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	<i>→</i>		
	÷	ExecutionReport [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = Z]			A FIX<8> is emitted per Cancelled by SEP order entered with [OrdStatus 39 = Z: Eliminated by SEP]
		Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	→		If the BPS phase is configured and the order holds the BPS status

SEP Cancel Resting Order (CRO) Rule (order vs order) with partial execution

|--|

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			÷	New Order [MsgType 35 = D]	
		Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	<i>→</i>		
		Execution Report [MsgType 35 = 8] [ExecType 150 = 1] [OrdStatus 39 = 1] [ExecTransType 20 = 0] [OrderID 37 = OrdID]	÷		
	÷	ExecutionReport [MsgType 35 = 8] [ExecType 150 = 4] [OrdStatus 39 = Z]			A FIX<8> is emitted per Cancelled by SEP order entered with [OrdStatus 39 = Z: Eliminated by SEP]
		Execution Report [MsgType 35 = 8] [ExecType 150 = 0] [OrdStatus 39 = 0] [ExecTransType 20 = 3] [BestPriceSetter 16455 = 1] [OrderID 37 = OrdID]	→		If the BPS phase is configured and the order holds the BPS status

8.5 Modification Processing

Modification is accepted

A participant may amend any open orders. Orders that have been fully executed, deleted or cancelled cannot be modified.

A participant cannot modify the instrument ID or the side (buy or sell) of the order. If the quantity is reduced or the Clearing Data (Account, Rule80A, Open/Close, AccountProfile, Text) is modified the order retains price/time priority. Any other attributes that are modified will result in the order being eliminated and replaced by a new one.

To modify an order, the participant sends an ORDER CANCEL/REPLACE REQUEST message. In this message, the participant specifies the following elements enabling the Exchange to locate the order:

- The instrument affected by the modification [Symbol 55], [SecurityType 167], [PutOrCall 201], [StrikePrice 202], [MaturityMonthYear 200], [MaturityDay 205] and [OptAttribute 206]
- The [OrigClOrdID 41]
- The side of the order [Side 54]

If the message is valid, the Exchange eliminates the old order from the order book and replaces it with a new one, to which it attributes a new [Orderld 37]. It sends the acknowledgement of the modification in the form of an EXECUTION REPORT message. This message contains the new [Orderld 37] attributed to the modified order by the Exchange and the revised characteristics of the modified order.

The modified order can be:

- Entered in the book (the order has been modified and at least a part of the order has been entered in the Order Book)
- Eliminated (the order has been modified and immediately eliminated)
- Executed partially or in full (the order has been modified and immediately executed in full or partially)

Modification of price or quantity increase is accepted

Participant		Exchange	Notes
Order Modification [MsgType 35 = G] [OrdQty 38 = Qty] [Price 44 = Prc]	÷		E.g Price is modified / Quantity is increased Qty > Original Quantity or Prc != Original Price
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 0] [LeavesQty 151 = Qty] [Price 44 = Prc]	

Participant		Exchange	Notes
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 3] [OrdQty 38 = Qty] [Price 44 = Prc] [BestPriceSetter 16455 = 1]	If the BPS phase is configured and the order price improves the market

Modification of price or quantity increase is accepted for an order that looses its BPS status

Participant		Exchange	Notes
Order Modification [MsgType 35 = G] [OrdQty 38 = Qty] [Price 44 = Prc]	÷		E.g Price is modified / Quantity is increased Qty > Original Quantity or Prc != Original Price
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 0] [LeavesQty 151 = Qty] [Price 44 = Prc]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 3] [OrdQty 38 = Qty] [Price 44 = Prc] [BestPriceSetter 16455 = 0]	If the BPS phase is configured and the order looses the BPS status

Modification is accepted with no price change nor quantity increase for an order that maintains its BPS status

Participant		Exchange	Notes
Order Modification [MsgType 35 = G] [OrdQty 38 = Qty]	<i>→</i>		E.g. Quantity is decreased (Qty < Remaining Quantity) / Clearing Data is modified
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 0] [OrdQty 38 = Qty]	
	÷	Execution Report [MsgType 35 = 8] [ExecType 150 = 5] [OrdStatus 39 = 5] [ExecTransType 20 = 3] [OrdQty 38 = Qty] [Price 44 = Prc] [BestPriceSetter 16455 = 1]	If the BPS phase is configured and the order holds the BPS status

Modification is rejected

The Exchange performs validation on the message received. When an error is detected in the incoming message, the Exchange sends a CANCEL REJECT message specifying the error code for the first error detected. If no parameters have been modified, the Exchange sends a CANCEL REJECT specifying 'No modification of the order'.

PARTICIPANT		EXCHANGE
Order Cancel/Replace [MsgType 35 = G]	<i>→</i>	
	÷	Order Cancel Reject [MsgType 35 = 9]

Cancellation is accepted

Clients may cancel all orders entered by themselves. Cancellations will only be valid for orders, or part of an order, which are currently booked.

To cancel an order, the client sends a CANCEL REQUEST message. This message specifies all the parameters allowing the Exchange to locate the order:

- The instrument affected by the modification [Symbol 55], [SecurityType 167], [PutOrCall 201], [StrikePrice 202], [MaturityMonthYear 200], [MaturityDay 205] and [OptAttribute 206]
- The [OrigClOrdID 41]
- The side of the order [Side 54]

PARTICIPANT	_	EXCHANGE	
Cancel Request [MsgType 35 = F]	→		
	÷	Execution Report [MsgType 35 = 8] [OrdStatus 39 = 4]	If the CANCEL REQUEST is valid, the Exchange will send the acknowledgement of the cancellation in the form of an EXECUTION REPORT ([OrdStatus 39=4]) message specifying the outcome reserved for the order.

Cancellation is rejected

PARTICIPANT		EXCHANGE	
Cancel Request [MsgType 35 = F]	<i>→</i>		
	÷	Order Cancel Reject [MsgType 35 = 9]	Exchange performs validation on the message received. If the CANCEL REQUEST is not valid, the Exchange sends a CANCEL REJECT message indicating the error code for the first error detected.

8.6 Quote Processing

Indication of Interest to Trade

Indication of Interest to Trade entry allows participants to broadcast a INDICATION OF INTEREST TO TRADE to other participants.

The client enters a QUOTE REQUEST message with the symbol and an optional quantity. If the message is valid, the participant receives a QUOTE ACKNOWLEDGEMENT message with [QuoteAckStatus 297=0]. If the QUOTE REQUEST message is not valid, the Exchange sends a QUOTE ACKNOWLEDGEMENT message with [QuoteAckStatus 297=5].

Technical Specifications

November 2017

 PARTICIPANT
 EXCHANGE

 Quote Request [MsgType 35 = R]
 →

 ←
 Quote Acknowledgement [MsgType 35 = b]

8.7 Unsolicited Services

Entry or Cancellation of an Order by the Exchange.

The Exchange may enter or cancel orders on behalf of a participant.

The cancellation can be done for orders entered by the Exchange in the participant's account. This action can take place during:

- Order Cancellation
- Trading Session

If the Exchange enters an order on behalf of a participant, the client does not receive any acknowledgements or receive any messages related to this order.

The participant that entered the initial order will receive the EXECUTION REPORT [OrdStatus 39=4 or 5] message for any orders cancelled by the Exchange.

Elimination of an Order

The table below describes all the scenarios where order elimination may occur <u>without</u> the participant sending a cancellation message.

Reason for Elimination

The order price is outside the instrument limit price

EXECUTION REPORT [OrdStatus 39 = F or G] message sent to the Participant who initially entered the order



Reason for Elimination	
During the instrument opening Market Order without opposite order are eliminated	EXECUTION REPORT [OrdStatus 39 = 4] message sent to the Participant who initially entered the order
Participant disconnection eliminates While Connected Order	EXECUTION REPORT [OrdStatus 39 = I] message sent to the Participant who initially entered the order
Instrument state does not allow order with disclosed quantity	EXECUTION REPORT [OrdStatus 39 = 4] message sent to the Participant who initially entered the order
Cancellation of an order by the Exchange	Possible during: Order Cancellation, Trading Session, Exchange Intervention, End of Consultation and Group Interruption.
	EXECUTION REPORT [OrdStatus 39 = 4] message sent to the Participant who initially entered the order
	Carried out during Mini Batch or Post-session.
Instrument has expired, updated or is deleted	If the TICK INCREMENT for prices is modified, all prices that do not respect the new TICK INCREMENT are purged. The others remain on the order book.
	Carried out at the end of each trading day just before or during Maintenance.
Validity of the order is reached	Also carried out at the end of the week (last trading day of the weekly session) just before Post-session
Solf Execution Brownstion is triggered	EXECUTION REPORT [OrdStatus 39 = Z] message is sent to the Participant whose order has been eliminated due to Self Execution Prevention (SEP).
Self Execution Prevention is triggered	Order Updates are notified with TAG 84 (CxlQty) in the EXECUTION REPORT message [OrdStatus 39 = 5] indicating the quantity removed b Self Execution Prevention (SEP).

Global Cancellation of all Orders for a Member Initiated by the Exchange

PARTICIPANT		EXCHANGE	
	÷	Execution Report [MsgType 35 = 8]	Will be sent for every booked order posted by the member
		[OrdStatus 39 = 4]	No [OrigClOrdID 41] is sent

Cancellation of a Trade by the Exchange

If required, the Exchange can cancel a trade that took place during the day. This cancellation can be initiated in accordance with the Exchange rules.

This can take place during:

- Order Cancellation
- Pre-Opening
- Trading Session

- Suspended
- Exchange Intervention
- End of Consultation
- On an Interrupted group

The Exchange sends the two clients concerned an EXECUTION REPORT ([ExecTransType 20 = 1]) message. This message specifies all the parameters relating to the cancelled trade.

If the trade involved a strategy instrument, the Exchange will cancel a trade on a leg-by-leg basis. For each leg trade cancellation, the Exchange sends an EXECUTION REPORT ([ExecTransType 20 = 1, MultiLegReportingType = 2) to each of the two Participants. When all the legs-trades have been cancelled, the Exchange also sends an EXECUTION REPORT ([ExecTransType 20 = 1, MultiLegReportingType = 3]) to the participant(s) who entered the strategy order.

Cancellation of a Trade with Impact on the Last Price Made by the Exchange

PARTICIPANT	_	EXCHANGE
	÷	Execution Report [MsgType 35 = 8] [OrdStatus 39 = 4] [ExecTransType 20 = 1]

8.8 Strategy Messages

User defined Strategy (FLEXCO) Creation Accepted

A trader can request the creation of a user defined strategy (UDS) by submitting a SECURITY DEFINITION REQUEST. The SECURITY DEFINITION REQUEST must include the strategy leg information.

Strategy Creation requests can be accepted ([MsgType 35 = d] [SecurityResponseType 323=1]), accepted but modified ([MsgType 35 = d] [SecurityResponseType 323=2]) or rejected ([MsgType 35 = d] [SecurityResponseType 323=3] or [MsgType 35 = j]).

If the creation is modified the SECURITY DEFINITION message includes the new instrument structure. The leg ordering sequence may differ from the original request but will not be marked as modified if the ratio and the verb for all legs remain the same.

PARTICIPANT		EXCHANGE
Security Definition Request [MsgType 35 = c]	<i>→</i>	
	÷	Security Definition [MsgType 35 = d]

User defined Strategy (FLEXCO) Creation Error

PARTICIPANT		EXCHANGE
Security Definition Request [MsgType 35 = c]	<i>→</i>	
	÷	Error [MsgType 35 = 3]

8.9 Cross/Committed Functionality

Cross/Committed Orders do not interact with the instrument order book. A Cross/Committed Order is submitted:

- NEW ORDER CROSS [MsgType 35 = s] whenever the same member is present on both sides of the order.
- NEW ORDER SINGLE [MsgType 35 = D] and [OrdType 40 = C], specifying the opposite firm [ContraTrader 337].

Committed orders traded

PARTICIPANT		EXCHANGE
NewOrderSingle [MsgType 35 = D] [OrdType 40 = C]	÷	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [OrderID 37 = OrdID]
NewOrderSingle [MsgType 35 = D] [OrdType 40 = C]	÷	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [OrderID 37 = OrdID2]
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 2] [ExecType 150 = 2]

PARTICIPANT		EXCHANGE
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 2] [ExecType 150 = 2]

Committed order cancelled by participant before it trades

PARTICIPANT		EXCHANGE
NewOrderSingle [MsgType 35 = D] [OrdType 40 = C]	<i>→</i>	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [OrderID 37 = OrdID]
OrderCancelRequest [MsgType 35 = F]	÷	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 4] [ExecType 150 = 4]

Pending Committed order cancelled during EOD

PARTICIPANT		EXCHANGE
NewOrderSingle [MsgType 35 = D] [OrdType 40 = C]	÷	

PARTICIPANT		EXCHANGE
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 0] [ExecType 150 = 0] [OrderID 37 = OrdID]
EOD Minibatch, pending one sided orders a	are flushed	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = C] [ExecType 150 = C]

Committed order not accepted by the trading engine

PARTICIPANT		EXCHANGE
NewOrderSingle [MsgType 35 = D] [OrdType 40 = C]	÷	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 8] [ExecType 150 = 8]

Entering an Accepted Cross Order

PARTICIPANT		EXCHANGE
NewOrderCross [MsgType 35 = s]	÷	
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 2] [ExecType 150 = 2]
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 2] [ExecType 150 = 2]

Cross Order Rejected

Technical Specifications

November 2017

PARTICIPANT		EXCHANGE	_
NewOrderCross [MsgType 35 = s]	÷		
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 8] [ExecType 150 = 8]	A NEW ORDER CROSS can be rejected or traded at reception.
	÷	ExecutionReport [MsgType 35 = 8] [OrdStatus 39 = 8] [ExecType 150 = 8]	

8.10Queries

In order to assist clients manage and synchronize their trading database, the Exchange offers two types of queries: Order Mass Status and Security Definition.

Order Mass Status

This query returns all active orders that were entered by the participant. One EXECUTION REPORT [ExecTransType 20=3] is returned for each active order of the Participant. The maximum number of requests is limited to 5 per Participant connection per day.

Security Definition

This query returns all listed instruments on the Exchange. This request generates one message per instrument. For strategies, SECURITY DEFINITION responses include the definition of each leg.

The maximum number of requests is limited to 3 per Participant connection per day and they are only permitted before the Market Opening.

