Technical Specifications

March 2017

SOLA Access Information Language
SAIL A6 Protocol Specification Guide

London
Stock Exchange Group

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1.0 Introduction

This is a technical document that describes LSE's SOLA® Access Information Language (SAIL) Protocol.

1.1 Scope

The scope of this document is to provide a detailed description of the internal SOLA® Access Information Language Protocol.

This includes but is not limited to the Message Format and Delivery Session Protocol Application Messages which include:

— Connection Messages

— Reference Data (Configuration Messages)

— Internal Trading Data Messages

— Market Operations Centre (MOC) Messages

— SAIL Technical Messages

— SAIL Business Messages

This document defines a common message format for the Downstream Systems. The contained information does not in any way provide engineering or other professional services.

1.2 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 SAIL specification provides essential information for participants and independent software vendors in the functional design of their application in order to interface with the Exchange using the native SOLA Access Information Language (SAIL) protocol.

1.3 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.

1.4 Revision History

Issue	Date	Description
0.1	18 May 2009	First official version. Removed redundant message types. Completed types descriptions. Normalized tables formats.
1.0	21 December 2010	Publication of initial version
2.0	27 July 2012	Message modification and new messages introduced with the updated version for Sola 5

Issue	Date	Description
2.1	16 December 2012	Minor corrections. Added Message Flow section.
2.2	27 August 2013	Corrected definition for: Order Type, Yes/No, Quantity Sign and Order Trading mode in section Field Definitions. Added KE message in Drop Copy section.
2.3	5 December 2013	Corrected missing Filler in MM Monitoring Status message and format changes in section Q<i>: Bulk Quote Message
3.0	21 July 2014	Sola 7: Message Impacts.
3.1	22 September 2014	New document layout. Added in Appendix: Regular Message Flow and Trade Reporting Message Flow
3.2	17 December 2014	Reviewed version
3.3	30 January 2015	Added SEP scenarios for incoming orders at Market Price. Added Field Definition "Strike Price". Corrected layout for Proposal Request (PR).
3.4	12 March 2015	Added NP in message flow for Global Cancellation. Enriched flexible series' creation message flow. Details added to the SEP message flow.
4.0	6 July 2015	Support for different Timezones in Time field New message BP: Best Price Setter Notice New field type Best Price Setter New value for Protocol Version field Updated message flow section including BP message
4.1	16 September 2015	Added NU message in Drop Copy Extended values for Special Trade Indicator
4.2	15 December 2015	
4.3	27 June 2016	Pre-Trade Validation functionalities added
4.4	1 July 2016	Pre-Trade Validation functionalities extended
5.0	3 March 2017	Protocol adaptation to MIFID requirements
5.1	27 March 2017	Reviewed version: KE: Order Acknowledgment removed filler (6) before Client Code Qualifier NL/NY Time stamp fields review
5.1.1	29 March 2017	Reviewed version: Amend Time UTC and microsec in SAIL Message Headers KB: Order Proposal Acknowledgment layout reviewed Amend description of PU,PN and PR filler fields
5.1.2	30 March 2017	Amend field type description of Time of the Trade field and Timestamp in NT/NL/NY/NX messages

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2.0 Overview

The SOLA® Access Information Language (SAIL) Protocol is defined at two levels: technical and business. The technical level deals with the delivery of data while the business level defines business-related data content. This document is organized to reflect the distinction.

The following sections summarize general specifications for constructing and transmitting SOLA® Access Information Language Protocol messages.

2.1 Message Format

All technical and business SAIL messages start with 4 bytes of Endian encoded message length. An End of Text (ETX) binary 3 is added after the last character of each business message, and it is padded with spaces of 4 bytes for alignment.
Example:

Message: <21>xxxxxxxxxxxxxxxxxxxxx<ETX>< >
<0021> (4 bytes) length of business message. Codification Little Endian.
<xxxxxxxxxxxxxxxxxxxxx>: (21 bytes) Business Message body
<ETX>: (1 byte) End of Text, binary 3
< > 2 spaces for alignment

2.2 Sequencing

Sequence numbers in the SAIL protocol are based on a daily cycle, order and trade sequences are unique for a given instrument and date.

2.3 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
CB	Circuit Breaker
CET	Central European Time
CEST	Central European Summer Time
EDT	Eastern Daylight Time
EDST	Eastern Daylight Savings Time
EOD	End Of Day
EFP	Exchange For Physical
GMT	Greenwich Mean Time

Term	Definition
Incoming	Message from Participant to Exchange
Msg	Message
Outgoing	Message from Exchange to Participant
Req	Required field
SEP	Self Execution Prevention

2.4 Required Fields

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

- R = Required
- C = Conditional (fields which are required based on the presence, or value of other fields).
- O = Optional

Systems should be designed to operate only when the required and conditionally required fields are present.

2.5 Drop Copy for SAIL 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 SAIL protocol. The following messages are included in the Drop Copy connection:

- KE: Order Acknowledgement
- KM: Order Modification Acknowledgment
- KZ: Order Cancellation Acknowledgment
- NG: Group State Change
- NL: Leg Execution Notice
- NT: Execution Notice
- NU: Update Order Notice
- NX: Execution Cancellation Notice
- NY: Leg Execution Cancellation Notice
- NZ: Order Cancellation Notice

These messages have been extended in order to provide complete order information, the added fields are flagged with 'Y' in the “Drop Copy” column on the Message’s layout description tables in the following sections. All incoming Business messages sent by Drop Copy user are rejected.

3.0 Message Headers Layout

3.1 SAIL Message Headers

Incoming Message Header

Total length: 30

This is the header for all incoming participant business messages.

Field Name	Field Type	Size	R/C/O
Message Type	Message Type	2	R
User Time	Time UTC and microsec	12	R
Trader ID (SAIL)	Trader ID (SAIL)	8	R
User Sequence ID	User Sequence ID	8	R

User Sequence ID

This field contains a unique sequential number that the participant must set in all business messages. The first business message must have this number set to 1, the second set to 2, and so on.

Outgoing Message Header

Total length: 30

This is the header included on all outgoing messages from the Exchange.

Field Name	Field Type	Size	R/C/O
Message Type	Message Type	2	R
Message Timestamp	Time UTC and microsec	12	R
User Sequence ID	User Sequence ID	8	C
Exchange Message ID	Exchange Message ID	6	C
Gap Sequence ID	Numeric (2)	2	R

User Sequence ID

This field contains the identical User Sequence ID number present in the incoming message or it contains zeroes. It is set for acknowledgement only. For unsolicited messages (trade notice, group state change, instrument state change, etc…) it is set to zeroes.

Exchange Message ID

It represents the Exchange's identifier of the message for the current session. It is used in a Connection message as a retransmission starting point. If it contains spaces, it means that this field is not subject to re-transmission.

Gap Sequence ID

It is a Sequence Numeric (base 10) used to track gaps. It runs from 0 to 99 over and over. If the participant detects a gap, he has to reconnect with a Trader Connection message.

3.2 Data types

Clearing Data

Total length: 20

This structure is used in order and order related messages for clearing purposes.

Field Name	Field Type	Size	R/C/O
Clearing Instruction	Clearing Instruction	12	R
Account Type	Account Type	1	R
Open/Close	Open/Close	1	R
Hedge/Spec	Hedge/Spec	1	O
Clearing Operation Mode	Clearing Operation Mode	1	C
Clearing Destination	Firm ID	4	C

Owner Data

Total length: 50

Owner data is an optional order reference for the participant that may appear within certain messages. This field is not subject to processing.

Field Name	Field Type	Size	R/C/O
Memo	String (50)	50	O

4.0 Technical Messages

4.1 TA: Disconnection Instruction

Incoming: Participant to Exchange

This message is used by a participant to indicate the instruction(s) to execute if the connection ends (terminated by the Exchange or by the Participant).

When a disconnection occurs, all the disconnection instructions sent by the traders are executed. For example, if a Market Maker wants to cancel their quotes upon disconnection, all the existing quotes he has on the Exchange are cancelled.

Disconnection Instructions are managed at the trader level. Once a connection is established, one Disconnection Instruction Message may be sent per trader that will use the connection.

Note: These instructions are valid only for the current session. This message is optional; if it is not sent by a specific trader, the system does not cancel any quote when that trader disconnects, or when the connection is lost.

Field Name	Field Type	Size	R/C/O	
Message Header (Message Type = TA)	Message Type	2	R	
Number of Instructions present in the message	Numeric (2)	2	R	
Trader ID	Trader ID	8	R	1 to 99 occurrences
Type of Cancellation	Type of Cancellation	1	R	
Active: Y (ON) N (OFF)	Flag	1	R	

4.2 TC: User Connection

Incoming: Participant to Exchange

User Connection is the first message to be sent by the participant at the beginning of the day.

Field Name	Field Type	Size	R/C/O	
Message Header (Message Type = TC)	Message Type	2	R	
Protocol Version	SAIL Protocol ID	2	R	
User ID	User ID	8	R	
Password (MD5 Encryption)	Password	8	R	
Session ID	Session ID	4	C	
Time	Time	6	R	
Exchange Message ID	Exchange Message ID	6	C	

Field Name	Field Type	Size	R/C/O	
Inactivity Interval	Numeric (2)	2	R	
Number of Message types to be received	Numeric (2)	2	R	
Message types to be received	Message Type	2	R	**1 to 99 occurrences**

The key fields for this message are described below.

Session ID

If set to blank spaces, means that the participant wants to connect to the current Session ID. The acknowledgment contains the current Session ID. When the Client connects for the first time each day, he must set the Session ID to blank spaces.

Exchange Message ID (Participant inbound)

If equal to zeroes: start from 1st message of the session. For the first connection, the only valid value for the User's Exchange Message ID is zeroes.

If equal to blanks: start from next message for Participant.

If valid Exchange Message ID: start at this message ID or the next message for the Participant.

Inactivity Interval

Number of missed heartbeats before considering the user disconnected. If set to 0, the user is never considered as disconnected by the system.

Number of Message Types to be Received

Indicates the number of message types (specified further in the message) the Participant wants to receive.

Message Types to be Received

A list (max 99 occurrences) of message types requested by the participant.
The following messages are sent to the Participant even if they are not part of the list: ER, TE, TO, TH, and TT.

SAIL Protocol ID

In the User Connection Message, the user specifies the protocol ID for the connection. When the SAIL protocol version changes, the Client could be able to communicate using the previous protocol version for a period. The expiration of the previous protocol time period will be communicated by the Exchange. If the specified Protocol ID is not supported, an error message (TE) is sent.

4.3 TD: User Disconnection

Incoming: Participant to Exchange

The Trader Disconnection message is sent by the participant to the Exchange when it wants to disconnect from the system. The User is disconnected and their Disconnection Instructions, if any, are processed.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TD)	Message Type	2	R
User ID	User ID	8	R
Session ID	Session ID	4	C

4.4 TE: Technical Error Notice

Outgoing: Exchange to Participant

This message is sent by the Exchange when a technical error is encountered in the message sent by the participant. Refer to Error Codes section for a detailed list of error codes.

If the client has sent an erroneous message, the Technical Error message (TE) sent back to the client will explain the error. The client will remain connected.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TE)	Message Type	2	R
Received Message Type	Message Type	2	R
Preceding User Sequence ID received (zeroes if none)	User Sequence ID	8	R
Error Code	Error Code	4	R
Error Position	Numeric (4)	4	R
Error Message	String (100)	100	R
Start of message in error	String (100)	100	R

Received Message Type

Refers to the message which contained the error.

Error Position

Determines the bytes at which an error has been detected.

Start of Message in Error

The first 100 characters of an erroneous message.

4.5 TH: Heartbeat (Outbound)

Outgoing: Exchange to Participant

This message is sent by the Exchange to the participant at the beginning of every Heartbeat period. For each connection, participants are allowed to send a configured number of messages per second.

This message indicates the first message to be processed in the Heartbeat period. If there is no pending message from the participant, the field User Sequence ID represents the next expected User Sequence ID.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TH)	Message Type	2	R
User Sequence ID (first User Sequence ID for next/current Heartbeat period)	User Sequence ID	8	R
Last Exchange Message ID (sent to participant)	Exchange Message ID	6	R
Time	Time	6	R

4.6 TI: Heartbeat (Inbound)

Incoming: Participant to Exchange

A Heartbeat message sent from the Exchange to the participant at the beginning of every Heartbeat period, must receive a response from the participant application within 'n' units specified in the Connection message. The response can be any message. If a Heartbeat is not responded to, the participant is considered as not connected and the disconnection instructions specified in the Disconnection Instructions message (TA: Disconnection Instruction) are executed.

Message TI is used to respond to a Heartbeat (TH) if no other message needs to be sent.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TI)	Message Type	2	R
User Sequence ID (first User Sequence ID for next/current Heartbeat period)	User Sequence ID	8	R
Last Exchange Message ID (sent to participant)	Exchange Message ID	6	R
Time	Time	6	R

4.7 TK: Connection Acknowledgement

Outgoing: Exchange to Participant

This message is sent to acknowledge receipt of **TC: User Connection** message.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TK)	Message Type	2	R
Current Session ID	Session ID	4	R
Last User Sequence ID received	User Sequence ID	8	C

4.8 TL: Disconnection Acknowledgement

Outgoing: Exchange to Participant

This message is sent to acknowledge receipt of **TD: User Disconnection** message.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TL)	Message Type	2	R
Current Session ID	Session ID	4	R
Last User Sequence ID received	User Sequence ID	8	C

4.9 TM: Disconnection Instruction Acknowledgement

Outgoing: Exchange to Participant

This message is sent to acknowledge receipt of **TA: Disconnection Instruction** message.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TM)	Message Type	2	R
Current Session ID	Session ID	4	R
Last User Sequence ID received	User Sequence ID	8	C

4.10TO: Out of Sequence

Outgoing: Exchange to Participant

This message is sent by the Exchange when the User Sequence ID in the message is out of sequence. Participant must reconnect.

For example, if the client sends an incorrect User Message ID, the Exchange then responds with an Out of Sequence message (TO). The incoming message is not processed and the user is disconnected. The ‘Out of Sequence’ message indicates the expected User Sequence Number.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TO)	Message Type	2	R
Received User Sequence ID	User Sequence ID	8	R
Expected Last User Sequence ID	User Sequence ID	8	R
Message Time	Time	6	R

4.11TT: End of Transmission

Outgoing: Exchange to Participant

This message is sent to indicate that the session's transmission is completed. Participant is disconnected.

SOLA sends an ‘End of Transmission’ message (TT), indicating the end of the session. The next trading day, clients must start the connection cycle and reset their User Sequence ID counter.

Field Name	Field Type	Size	R/C/O
Message Header (Message Type = TT)	Message Type	2	R
Ended Session ID	Session ID	4	R
Last User Sequence ID received	User Sequence ID	8	O
Time	Time	6	R

5.0 Business Messages

5.1 BD: Bulk Quote Data

Incoming: Participant to Exchange

This message contains clearing and protection data that will be used for further Bulk Quotes by the same Market Maker on the same group. A new BD message replaces a previous one entered for the same group by the same Market Maker.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = BD)	Incoming Message Header	30	R
Group	Group ID	2	R
Clearing Data	Clearing Data	20	C
Owner Data	Owner Data	50	O
Protection Number of Trades	Numeric (2)	2	C
Protection Trade Quantity	Quantity	8	C
Filler (must be blanks)	String (2)	2	R
Calculation Time Interval (number of seconds)	Numeric (8)	8	C
Maximum Volume	Quantity	8	C
Maximum Value	Numeric (8)	8	C
Maximum Delta Volume	Quantity	8	C
Maximum Delta Value	Numeric (8)	8	C
Client Code Qualifier	Client ID Code Qualifier	1	C
Client ID Code	Client ID Code	10	C
Investment Decision Qualifier	Investment Decision Qualifier	1	C
Investment Decision	Investment Decision	10	C
Execution Decision Qualifier	Execution Decision Qualifier	1	R
Execution Decision	Execution Decision	10	R
DEA Flag	Yes/No (1)	1	R
Algo Flag	Yes/No (1)	1	R
Liquidity Provision Flag	Yes/No (1)	1	R
Text	Filler (1)	1	R

5.2 BO: Bundle Order

Incoming: Participant to Exchange

This message is used for inserting pre-arranged trade(s) with multiple counterparties.

Field Name	Field type	Size	R/C/O	
Message Header (Message type = BO)	Incoming Message Header	30	R	
Filler	String (21)	21	C	
Proposal Type (must be B: Bundle Order)	Proposal Type	1	R	
Number of Legs	Numeric (2)	2	R	
Group	Group ID	2	R	1 up to 4 times
Instrument	Instrument ID	4	R	
Price Type	Price Type (C: Committed)	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type (J: Day)	Duration Type	1	R	
Filler	String (4)	4	C	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	O	
Filler	String (8)	8	R	
Clearing Data	Clearing Data	20	R	
Owner Data	Owner Data	50	O	
Filler	String (1)	1	C	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
Physical Leg	Text	20	R	

5.3 BP: Best Price Setter Notice

Outgoing: Exchange to Participant

This message reports unsolicited updates of the Best Price Setter status.

Field Name	Field type	Length	R/C/O
Message Header (Message type = BP)	Outgoing Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Trader ID	Trader ID	8	R
Reference ID	Reference ID	8	R
Verb	Verb	1	R
Order Type	Order Type	1	R
New Quantity	Quantity	8	R
New Price	Price	10	R
Best Price Setter	Best Price Setter	1	R
Original Reference ID	Original Reference ID	8	R

5.4 ER: Error Notice

Outgoing: Exchange to Participant

This message is an error notification. It is sent in response to a message from the participant that the system cannot process.

Field Name	Field Type	Size	R/C/O	Extended
Message Header (Message type = ER)	Outgoing Message Header	30	R	
Error Code	Error Code	4	R	
Error Description	String (100)	100	R	

5.5 FS: Flexible Series Creation

Incoming: Participant to Exchange

This message is used for the creation of intraday Flexible Series.

Field Name	Field type	Size	R/C/O
Message Header (Message type = FS)	Incoming Message Header	30	R

Field Name	Field type	Size	R/C/O
Group	Group ID	2	R
Maturity Date (Symbol Date)	Date	8	R
Call/Put	Call Put Code	1	C (for options only)
Strike Price	Strike Price	11	C (for options only)
Filler (must be zeroes)	String (2)	2	R
Option Style	Option Style	1	C (for options only)
Filler	String	32	R

5.6 GC: Global Cancellation

Incoming: Participant to Exchange

This message is sent by the participant when he wants to cancel his quotes.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = GC)	Incoming Message Header	30	R
Group	Group ID	2	R
Type of Cancellation	Type of Cancellation	1	R

5.7 IX: Underlying Price

Outgoing: Exchange to Participant

This message is used to send customer the updates on Underlying Price used to calculate the ATM series.

Field Name	Field Type	Size	R/C/O
Messages Header (Message Type = IX)	Outgoing Message Header	30	R
Group	Group ID	2	R
Underlying Price Type	Underlying Price Type	1	R
Filler	String (1)	1	R
Underlying Price	Price	10	R

5.8 KB: Proposal Acknowledgment

Outgoing: Exchange to Participant

This message acknowledges the messages PR: Proposal Request, BO: Bundle Order, OB: Order Proposal.

Field Name	Field type	Size	R/C/O	
Message Header (Message type = KB)	Outgoing Message Header	30	R	
Trader ID	Trader ID	8	R	
Filler	String (4)	4	C	
Proposal ID	Proposal ID	8	R	
Proposal Status	Proposal Status	1	R	
Proposal Type	Proposal Type	1	R	
Number of Legs	Numeric	2	R	
Group	Group ID	2	R	1 to 8 times
Instrument	Instrument ID	4	R	
Price Type	Price Type	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type	Duration Type (J: Day)	1	R	
Entering Firm ID (same for all legs)	Firm ID	4	R	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	O	
Original Order ID	Original Order ID	8	R	
Clearing Data	Clearing Data	20	C	
Owner Data	Owner Data	50	O	
Order Status	Status	1	R	
Filler	Filler (1)	1	R	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
Physical Leg	Text	20	R	

5.9 KD: Bulk Quote Data Acknowledgment

Outgoing: Exchange to Participant

This message is used to acknowledge a Bulk Quote Data (BD) message.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = KD)	Outgoing Message Header	30	R
Group	Group ID	2	R
Trader ID	Trader ID	8	R
Quote ID (identifies trader's quote on this group)	Order ID	8	R
Client Code Qualifier	Client ID Code Qualifier	1	C
Client ID Code	Client ID Code	10	C
Investment Decision Qualifier	Investment Decision Qualifier	1	C
Investment Decision	Investment Decision	10	C
Execution Decision Qualifier	Execution Decision Qualifier	1	R
Execution Decision	Execution Decision	10	R
DEA Flag	Yes/No (1)	1	R
Algo Flag	Yes/No (1)	1	R
Liquidity Provision Flag	Yes/No (1)	1	R
Text	Filler (1)	1	R

5.10KE: Order Acknowledgment

Outgoing: Participant to Exchange

This message is used to acknowledge an OE: Order Entry message.

Field Name	Field Type	Size	R/C/O	Drop Copy
Message Header (Message type = KE)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Instrument	Instrument ID	4	R	
Trader ID	Trader ID	8	R	
Order ID	Order ID	8	R	
Status	Status	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	

Field Name	Field Type	Size	R/C/O	Drop Copy
Assigned Price	Assigned Price	10	R	
Clearing Data	Clearing Data	20	R	
Owner Data	Owner Data	50	O	
Original Order ID	Original Order ID	8	R	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
Physical Leg	Text	20	R	
Price Type	Price Type	1	C	Y
Previous Displayed Quantity	Quantity	8	C	Y
Previous Booked Price	Price	10	C	Y
Displayed Quantity	Quantity	8	C	Y
Filler	String (1)	1	C	Y
System Best Bid after immediate trades if any	Price	10	C	Y
System Best Offer after immediate trades if any	Price	10	C	Y
Proposal Type	Proposal Type	1	O	Y
Proposal ID	Proposal ID	8	O	Y
Filler	String (4)	4	O	Y
Operation Firm ID (for NZ only)	Firm ID	4	O	Y
Filler	String (3)	3	O	Y
End of Message Block	Yes/No	1	C	Y
Special Price Term	Special Price Term	1	C	Y
Additional Price	Additional Price	10	C	Y
Quantity Term	Quantity Term	1	C	Y
Additional Quantity	Additional Quantity	8	C	Y
Guaranteed Quantity	Quantity	8	C	Y

Field Name	Field Type	Size	R/C/O	Drop Copy
Duration Type	Duration Type	1	C	Y
GTD Date	GTD Date	8	C	Y
Opposite Firm	Firm ID	4	C	Y
Filler	String (1)	1	C	Y
Order Type	Order Type	1	C	Y
Previous Order ID	Order ID	8	C	Y
Linked Quantity	Quantity	8	C	Y
Filler	String (1)	1	C	Y
Filler	String (8)	8	C	Y
Remaining Quantity	Quantity	8	C	Y
Filler	String (1)	1	C	Y

5.11KF: Flexible Series Creation Acknowledgment

Outgoing: Participant to Exchange

This message is sent out to acknowledge the FS: Flexible Series Creation

Field Name	Field type	Size	R/C/O
Message Header (Message type = KF)	Outgoing Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Maturity Date (Symbol Date)	Date	8	R
Call/Put	Call Put Code	1	C (for options only)
Strike Price	Strike Price	11	C (for options only)
Filler (must be zeroes)	String (2)	2	R
Option Style	Option Style	1	C (for options only)
Filler (must be spaces)	String (1)	1	C (Marker for the CA, if any)
Root symbol	String (6)	6	R
Product Type	Product Type	1	R
Contract Size	Quantity	8	R
External Symbol	External Symbol	30	R
External ISIN	ISIN	12	R

Field Name	Field type	Size	R/C/O
Currency	Currency	1	R
Creation Status	Creation Status	1	R
Filler	String (2)	2	C

5.12KG: Global Cancellation Confirmation

Outgoing: Exchange to Participant

This message is used to acknowledge a GC: Global Cancellation message and it is sent to a participant when his quotes have been cancelled.

Field Name	Field Type	Size	R/C/O
Outgoing Messages Header (Message type = KG)	Outgoing Message Header	30	R
Group	Group ID	2	R
Trader ID	Trader ID	8	R
Type of Cancellation	Type of Cancellation	1	R

5.13KM: Order Modification Acknowledgment

Outgoing: Exchange to Participant

This message is used to acknowledge an OM: Order Modification message.

Field Name	Field Type	Size	R/C/O
KE Message Order Acknowledgment layout (Message type = KM)			

5.14KN: New Strategy Instrument Acknowledgement

Outgoing: Exchange to Participant

This message is used to acknowledge the creation of a strategy instrument and is sent from the Exchange to the Participant who submitted the ON message.

Field Name	Field Type	Size	R/C/O	
Message Header (Message Type = KN)	Outgoing Message Header	30	R	
Strategy Group	Group ID	2	R	
Strategy Instrument ID	Instrument ID	4	R	

Field Name	Field Type	Size	R/C/O	
Creation Status	Creation Status	1	R	
Number of Legs	Numeric (2)	2	R	
Leg Group	Group ID	2	R	2 to 4 times
Leg Instrument	Instrument ID	4	R	
Verb	Verb	1	R	
Filler	String (1)	1	R	
Ratio	Quantity	8	R	

5.15KO: Standard Acknowledgment

Outgoing: Exchange to Participant

This message is sent as an acknowledgment for the following messages: RQ: Request for Quote, RP: Market Maker Protection Subscription, OX: Cross Entry.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = KO)	Outgoing Message Header	30	R
Trader ID	Trader ID	8	R
Original Message Type (RQ, RP, OX)	Message Type	2	R

5.16KX: Proposal Cancellation Acknowledgment

Outgoing: Exchange to Participant

This message is used to acknowledge an XP: Proposal Cancellation message.

Field Name	Field type	Size	R/C/O
Message Header (Message type = KX)	Outgoing Message Header	30	R
Trader ID	Trader ID	8	R
Cancelled Proposal ID	Proposal ID	8	R
Proposal Type	Proposal Type	1	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Original Order ID	Original Order ID	8	R
Refusal reason	String (50)	50	C

5.17KZ: Order Cancellation Acknowledgment

Outgoing: Exchange to Participant

This message is used to acknowledge an XE: Order Cancellation message.

Field Name	Field Type	Size	R/C/O
KE Message Order Acknowledgment layout (Message type = KZ)			

5.18LA: Bulk Quote Acknowledgment

Outgoing: Exchange to Participant

This message acknowledges the receipt of a Q<i>: Bulk Quotes message.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = LA)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Quote ID (identifies trader's quote on this group)	Order ID	8	R	
Number of Quotes in Error	Numeric (3)	3	R	
Quote number	Numeric (3)	3	R	0 to 280 occurrences
Error Code	Error Code	4	R	

5.19LB: Bulk Command Message Acknowledge

Outgoing: Exchange to Participant

This message acknowledges the receipt of *MK: Risk Limits Configuration* and *MQ: MMP Limits Configuration* messages.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = LB)	Outgoing Message Header	30	R	
Number of Commands in Error	Numeric (3)	3	R	
Command Number	Numeric (3)	3	C	0 to 100 occurrences
Error Code	Error Code	4	C	

5.20MK: Risk Limits Configuration

Incoming: Participant to Exchange

This message is used by Risk Managers to set risk limits for their managed entities.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = MK)	Incoming Message Header	30	R	
Firm	Firm ID	4	R	
Trader	Short Trader ID	4	O	
Reset	Yes/No	1	R	
Number of Risk Limit Blocks	Numeric (3)	3	R	
Group	Group ID	2	R	1 to 100 occurrences
Instrument	Instrument ID	4	O	
Max Order Quantity	Quantity*	8	R	
Max Traded Long	Quantity*	8	R	
Max Traded Short	Quantity*	8	R	
Max Exposed Long	Quantity*	8	R	
Max Exposed Short	Quantity *	8	R	
Max Traded Spreads	Quantity*	8	C	
Max Exposed Spreads	Quantity*	8	C	
Max Committed Quantity	Quantity*	8	R	
Filler	Quantity	8	C	

* Empty or reset value for these fields is 99999999

5.21MM: Monitoring MM Status

Outgoing: Exchange to Participant

This message is used to notify a Market Maker that he has either, not achieved or has achieved his obligation of attaining a successful quote. It lists all the series on which an alert is triggered.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = MM)	Incoming Message Header	30	R	
Group	Group ID	2	R	
MM Obligation Type	MM Monitoring Activity	1	R	
Filler	String (1)	1	R	
Number of Instrument Updates	Numeric (4)	4	R	
Instrument	Instrument ID	4	R	1 to 200 occurrences
Previous MM Alert level	MM Alert Level	1	R	
Previous MM Alert Type	MM Alert Type	1	R	
MM Alert level	MM Alert Level	1	R	

Field Name	Field Type	Size	R/C/O	
MM Alert Type	MM Alert Type	1	R	
Previous State Duration	Numeric (6)	6	R	
Alert Start Time	Time UTC	6	R	
Infraction Start Time	Time UTC	6	R	
Daily Warning Count	Numeric (4)	4	R	
Daily Infraction Count	Numeric (4)	4	R	
Daily Warning Duration	Numeric (6)	6	R	
Daily Infraction Duration	Numeric (6)	6	R	
Filler	String (2)	2	R	

5.22MN: Risk Limits Usage Notice

Outgoing: Exchange to Participant

This message is sent by the Exchange to notify of current Risk Limits usage status.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = MN)	Outgoing Message Header	30	R	
Firm	Firm ID	4	R	
Number of Usage Notifications	Numeric (3)	3	R	
Trader	Short Trader ID	4	O	1 to 100 occurrences
Group	Group ID	2	R	
Instrument	Instrument ID	4	O	
Risk Limit Type	Risk Limit Type	1	R	
Current Usage	Quantity	8	R	
Limit	Quantity	8	R	

5.23MQ: MMP Parameters Configuration

Incoming: Participant to Exchange

This message is used by Risk Managers to set Market Maker Protection parameters for their managed entities.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = MQ)	Incoming Message Header	30	R	

Field Name	Field Type	Size	R/C/O	
Trader	Trader ID	8	R	
Reset	Yes/No	1	R	
Number of MMP Parameter Blocks	Numeric (3)	3	R	
Group	Group ID	2	R	1 to 100 occurrences
Protection Number of Trades	Numeric (2)	2	R	
Protection Trade Quantity	Quantity	8	R	
Calculation Time Interval (number of seconds)	Numeric (8)	8	R	
Maximum Volume	Quantity	8	R	
Maximum Value	Numeric (8)	8	R	
Maximum Delta Volume	Quantity	8	R	
Maximum Delta Value	Numeric (8)	8	R	

5.24MU: Monitoring ATM Series

Outgoing: Exchange to Participant

This message provides details on all At The Money series, for a group (an underlying), from the market maker obligation surface.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = MU)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Filler	String (2)	2	R	
Number of Instrument updates	Numeric (4)	4	R	
Instrument	Instrument ID	4	R	1 to 200 occurrences

5.25NG: Group State Change

Outgoing: Exchange to Participant

This message indicates a group state change.

Field Name	Field Type	Size	R/C/O	Drop Copy
Message Header (Message type = NG)	Outgoing Message Header	30	R	
Group	Group ID	2	R	Y

Field Name	Field Type	Size	R/C/O	Drop Copy
Group State	Group State	1	R	Y

Message flow:

This message is sent to advise of a group status change through SAIL and HSVF as per below.

SAIL Client		Exchange		Hsvf Client	Notes
	←	Group Status Change (NG)			*For all Instrument Types*
		Group Status Message (GR)	→		*For Options and Futures*
		Strategy Group Status (GS)	→		*For Strategies only*

5.26NI: Instrument State Change

Outgoing: Exchange to Participant

This message indicates an instrument status change.

Field Names	Field Type	Size	R/C/O
Message Header (Message type = NI)	Outgoing Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Instrument Status	Instrument Status	1	R

5.27NL: Leg Execution Notice

Outgoing: Exchange to Participant

This message reports the execution notice for a leg of a strategy trade.

Field Name	Field Type	Size	R/C/O	Drop Copy
Message Header (Message type = NL)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Instrument	Instrument ID	4	R	
Trader ID	Trader ID	8	R	
Reference ID	Reference ID	8	R	
Verb	Verb	1	R	

Field Name	Field Type	Size	R/C/O	Drop Copy
Quantity Traded	Quantity	8	R	
Trade Price	Price	10	R	
Time of the Trade	Date Time microsec	20	R	
Clearing Data	Clearing Data	20	C	
Owner Data	Owner Data	50	O	
Special Trade Indicator	Special Trade Indicator	1	R	
Price Type	Price Type	1	R	
Trade Type	Trade Type	1	R	
Filler	String (6)	6	C	
Trade Number	Trade Number	8	R	
Trade Memo	Trade Memo	50	R	
Original Reference ID	Original Reference ID	8	R	
ID Code for the Counterpart Participant	Firm ID	4	R	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
PTT trade types Flag	PTT trade types	1	R	
PTT Cancellations and Amendments Flag	PTT Cancellations and Amendments	1	R	
Waiver indicator flag	Waiver indicator flag	1	R	
Deferral Flag	Deferral flag Filler	1	O	
Trade Status	Sail Proposal Status	1	R	
Physical Leg	Text	20	R	
Previous Booked Quantity	Quantity	8	O	Y
Previous Booked Price	Price	10	O	Y
Displayed Quantity	Quantity	8	O	Y
Order Type	Order Type	1	O	Y

Field Name	Field Type	Size	R/C/O	Drop Copy
Liquidity Status	Liquidity Status	1	O	Y
End of Message Block	Yes/No	1	O	Y
Remaining Quantity	Quantity	8	O	Y
Filler	String (4)	4	O	Y
Price Variation (vs. Last)	Price	10	O	Y
Net Change (vs. reference day)	Price	10	O	Y
Open Price	Price	10	O	Y
High Price	Price	10	O	Y
Low Price	Price	10	O	Y
Last Price	Price	10	O	Y
Opening trade	Yes/No	1	O	Y
CrossLegTrade (always "N" in NT and NX)	Yes/No	1	O	Y
Proposal Type	Proposal Type	1	O	Y
Proposal ID	Proposal ID	8	O	Y
Initiator Firm ID	Firm ID	4	O	Y
Filler	String (7)	7	O	Y
Internal Market Bid before this trade	Price	10	O	Y
Internal Market Ask before this trade	Price	10	O	Y
OppositeMsgType	Message Type	2	O	Y
Original Price	Price	10	O	Y
Special Price Term	Special Price Term	1	O	Y
Additional Price	Additional Price	10	O	Y
Additional Quantity Type	Quantity Term	1	O	Y
Additional Quantity	Additional Quantity	8	O	Y
Duration Type	Duration Type	1	O	Y
GTD Date	GTD Date	8	O	Y
Filler	String (1)	1	O	Y
Clearing Firm	String (8)	8	O	Y
Connection ID	String (11)	11	O	Y
Exchange ID	Exchange ID	1	O	Y
OrderTradingMode	Order Trading Mode	1	O	Y
OrderTimeStamp	Date Time microsec	20	O	Y
Strategy Group	Group ID	2	C	Y

Field Name	Field Type	Size	R/C/O	Drop Copy
Strategy Instrument	Instrument ID	4	C	Y
Strategy Verb	Verb	1	C	Y
Strategy Trade Number	Trade Number	8	C	Y
Leg Number	Leg Number	2	C	Y
Match Number	Match Number	8	O	Y
Number In Match	Number In Match	4	O	Y
Filler	Filler (8)	8	R	Y
Filler	Filler (20)	20	R	Y
Is Amended	Yes/No Flag	1	C	Y
Notional Amount	Notional Value	16	R	Y
Quote Id	Quote Id	8	C	Y

5.28NP: Cancellation of All Quotes Notices

Outgoing: Exchange to Participant

This message is an advise sent to a participant when his quotes have been cancelled.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = NP)	Outgoing Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Trader ID	Trader ID	8	R
Cancel Reason	Quote Cancel Reason	1	R

5.29NQ: MMP Parameters Update Notice

Outgoing: Exchange to Participant

This message is sent unsolicited by the Exchange to notify of effective Market Maker Protection parameters.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = NQ)	Outgoing Message Header	30	R
Trader	Trader ID	8	O
Group	Group ID	2	R
Number of Trades	Numeric (2)	2	R

Field Name	Field Type	Size	R/C/O
Trade Quantity	Quantity	8	R
Calculation Time Interval (number of seconds)	Numeric (8)	8	R
Maximum Volume	Quantity	8	R
Maximum Value	Numeric (8)	8	R
Maximum Delta Volume	Quantity	8	R
Maximum Delta Value	Numeric (8)	8	R

5.30NT: Execution Notice

Outgoing: Exchange to Participant

This message is an execution notice for a trade.

Field Name	Field Type	Size	R/C/O	Drop Copy
Message Header (Message type = NT)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Instrument	Instrument ID	4	R	
Trader ID	Trader ID	8	R	
Reference ID	Reference ID	8	R	
Verb	Verb	1	R	
Quantity Traded	Quantity	8	R	
Trade Price	Price	10	R	
Time of the Trade	Date Time microsec	20	R	
Clearing Data	Clearing Data	20	C	
Owner Data	Owner Data	50	O	
Special Trade Indicator	Special Trade Indicator	1	R	
Price Type	Price Type	1	R	
Trade Type	Trade Type	1	R	
Filler	String (6)	6	C	
Trade Number	Trade Number	8	R	
Trade Memo	Trade Memo	50	R	
Original Reference ID	Original Reference ID	8	R	
ID Code for the Counterpart Participant	Firm ID	4	R	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	

Field Name	Field Type	Size	R/C/O	Drop Copy
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
PTT trade types Flag	PTTTradeType	1	R	
PTT Cancellations and Amendments Flag	PTTCancAndAmendFlags	1	R	
Waiver indicator flag	Waiver indicator flag	1	R	
Deferral Flag	Deferral flag Filler	1	O	
Trade Status	Sail Proposal Status	1	R	
Physical Leg	Text	20	R	
Previous Booked Quantity	Quantity	8	O	Y
Previous Booked Price	Price	10	O	Y
Displayed Quantity	Quantity	8	O	Y
Order Type	Order Type	1	O	Y
Liquidity Status	Liquidity Status	1	O	Y
End of Message Block	Yes/No	1	O	Y
Remaining Quantity	Quantity	8	O	Y
Filler	String (4)	4	O	Y
Timestamp	Date Time MS	17	O	Y
Price Variation (vs. Last)	Price	10	O	Y
Net Change (vs. reference day)	Price	10	O	Y
Open Price	Price	10	O	Y
High Price	Price	10	O	Y
Low Price	Price	10	O	Y
Last Price	Price	10	O	Y
Opening trade	Yes/No	1	O	Y
CrossLegTrade (always "N" in NT and NX)	Yes/No	1	O	Y
Proposal Type	Proposal Type	1	O	Y
Proposal ID	Proposal ID	8	O	Y

Field Name	Field Type	Size	R/C/O	Drop Copy
Initiator Firm ID	Firm ID	4	O	Y
Filler	String (7)	7	O	Y
Internal Market Bid before this trade	Price	10	O	Y
Internal Market Ask before this trade	Price	10	O	Y
OppositeMsgType	Message Type	2	O	Y
Original Price	Price	10	O	Y
Special Price Term	Special Price Term	1	O	Y
Additional Price	Additional Price	10	O	Y
Additional Quantity Type	Quantity Term	1	O	Y
Additional Quantity	Additional Quantity	8	O	Y
Duration Type	Duration Type	1	O	Y
GTD Date	GTD Date	8	O	Y
Filler	String (1)	1	O	Y
Clearing Firm	String (8)	8	O	Y
Connection ID	String (11)	11	O	Y
Exchange ID	Exchange ID	1	O	Y
Order Trading Mode	Order Trading Mode	1	O	Y
Order Time Stamp	Date Time microsec	20	O	Y
Strategy Group	Group ID	2	C	Y
Strategy Instrument	Instrument ID	4	C	Y
Strategy Verb	Verb	1	C	Y
Strategy Trade Number	Trade Number	8	C	Y
Leg Number	Leg Number	2	C	Y
Match Number	Match Number	8	O	Y
Number In Match	Number In Match	4	O	Y
Filler	Filler (8)	8	R	Y
Filler	Filler (20)	20	R	Y
Is Amended	Yes/No Flag	1	C	Y
Notional Amount	Notional Value	16	R	Y
Quote Id	Quote Id	8	C	Y

5.31NU: Update Order Notice

Outgoing: Exchange to Participant

This message reports unsolicited modifications of the order in case of Self Execution Prevention (SEP).

Field Name	Field type	Size	R/C/O	Drop Copy
Message Header (Message type = NU)	Outgoing Message Header	30	R	
Group	Group ID	2	R	
Instrument	Instrument ID	4	R	
Trader ID	Trader ID	8	R	
Order ID	Order ID	8	R	
Verb	Verb	1	R	
Order Type	Order Type	1	R	
Action ("Q" whenever the quantity is updated)	String	1	R	
New Quantity	Quantity	8	R	
New Price	Price	10	R	
Previous Quantity	Quantity	8	R	
Previous Price	Price	10	R	
Filler	String	6	R	
Original Order ID	Original Order ID	8	R	
Internal Market Bid	Price	10	C	
Internal Market Ask	Price	10	C	
External market Bid	Price	10	C	
External market Ask	Price	10	C	
Related Order ID	Order ID	8	C	
Displayed Quantity	Quantity	8	C	
Removed By SEP Quantity	Quantity	8	C (used in case of Reduce and Cancel)	
Filler	Filler (8)	8	R	Y
Physical Leg	Text	20	R	Y

5.32NX: Execution Cancellation Notice

Outgoing: Exchange to Participant

This message is an execution cancellation notice.

Field Name	Field Type	Size	R/C/O
NT Execution Notice Message layout (Message type = NX)			

5.33NY: Leg Execution Cancellation Notice

Outgoing: Exchange to Participant

This message reports the execution cancellation notice for a leg of the strategy trade.

Field Name	Field Type	Size	R/C/O
NL Execution Notice Message layout (Message type = NY)			

5.34NZ: Order Cancellation Notice (by system)

Outgoing: Exchange to Participant

This message is used when an order is cancelled by the Exchange (Market Operations) or by the system (expiration).

Field Name	Field Type	Size	R/C/O
KE Message Order Acknowledgment layout (Message type = NZ)			

5.35OB: Order Proposal

Incoming: Participant to Exchange

This message is used to accept the PN: Proposal Notice.

Field Name	Field type	Size	R/C/O	
Message Header (Message type = OB)	Incoming Message Header	30	R	
Filler	String (12)	12	C	
Proposal ID	Proposal ID	8	R	
Filler	String (1)	1	C	
Proposal Type	Proposal Type	1	R	
Number of Legs	Numeric	2	R	
Group	Group ID	2	R	1 up to 4 times
Instrument	Instrument ID	4	R	
Price Type	Price Type (C: Committed)	1	R	
Verb	Verb	1	R	

Field Name	Field type	Size	R/C/O	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type (J: Day)	Duration Type	1	R	
Filler	Filler	4	R	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	R	
Original Order ID	Original Order ID	8	R	
Clearing Data	Clearing Data	20	R	
Owner Data	Owner Data	50	O	
Filler	String (1)	1	C	
Client Code Qualifier	Client ID Code Qualifier	1	C	
Client ID Code	Client ID Code	10	C	
Investment Decision Qualifier	Investment Decision Qualifier	1	C	
Investment Decision	Investment Decision	10	C	
Execution Decision Qualifier	Execution Decision Qualifier	1	R	
Execution Decision	Execution Decision	10	R	
DEA Flag	Yes/No (1)	1	R	
Algo Flag	Yes/No (1)	1	R	
Liquidity Provision Flag	Yes/No (1)	1	R	
Text	Filler (1)	1	R	
Physical Leg	Text	20	R	

5.36OE: Order Entry

Incoming: Participant to Exchange

This message is used to enter a regular order in the system.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = OE)	Incoming Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Price Type	Price Type	1	R
Verb	Verb	1	R
Quantity	Quantity	8	R

Field Name	Field Type	Size	R/C/O
Price	Price	10	C
Special Price Term	Special Price Term	1	C
Additional Price	Additional Price	10	R
Quantity Term	Quantity Term	1	C
Additional Quantity	Additional Quantity	8	C
Duration Type	Duration Type	1	R
GTD Date	GTD Date	8	C
Opposite Firm	Firm ID	4	C
Filler	String (1)	1	R
Clearing Data	Clearing Data	20	C
Owner Data	Owner Data	50	O
Client Code Qualifier	Client ID Code Qualifier	1	C
Client ID Code	Client ID Code	10	C
Investment Decision Qualifier	Investment Decision Qualifier	1	C
Investment Decision	Investment Decision	10	C
Execution Decision Qualifier	Execution Decision Qualifier	1	R
Execution Decision	Execution Decision	10	R
DEA Flag	Yes/No (1)	1	R
Algo Flag	Yes/No (1)	1	R
Liquidity Provision Flag	Yes/No (1)	1	R
Text	Filler (1)	1	R
Physical Leg	Text	20	R

5.37OM: Order Modification

Incoming: Participant to Exchange

This message is used to modify a regular order entered through an OE: Order Entry message. The modified order has to be booked.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = OM)	Incoming Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Price Type	Price Type	1	R

Field Name	Field Type	Size	R/C/O
Verb	Verb	1	R
Quantity Sign	Quantity Sign	1	R
Quantity	Quantity	8	R
Price	Price	10	C
Special Price Term	Special Price Term	1	R
Additional Price	Additional Price	10	R
Quantity term	Quantity Term	1	R
Additional Quantity	Additional Quantity	8	R
Duration Type	Duration Type	1	R
GTD Date	GTD Date	8	C
Filler	String (4)	4	R
Modified Order ID	Modified Order ID	8	R
Clearing Data	Clearing Data	20	R
Owner Data	Owner Data	50	O
Physical Leg	Text	20	R

5.38 ON: New Strategy Instrument

Incoming: Participant to Exchange

This message is used to enter a request to create a new strategy instrument (flexible combinations) having up to 4 legs.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = ON)	Incoming Message Header	30	R	
Number of Legs	Numeric (2)	2	R	
Leg Group	Group ID	2	R	2 to 4 times
Leg Instrument	Instrument ID	4	R	
Verb	Verb	1	R	
Filler	String (1)	1	R	
Ratio	Quantity	8	R	

5.39 OX: Cross Entry

Incoming: Participant to Exchange

This message is used to enter a cross order (involving the same firm on both sides).

Field Name	Field Type	Size	R/C/O
Message Header (Message type = OX)	Incoming Message Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Filler	String (1)	1	R
Quantity	Quantity	8	R
Price	Price	10	R
Buying Clearing Data	Clearing Data	20	R
Selling Clearing Data	Clearing Data	20	R
Buying Owner Data	Owner Data	50	O
Selling Owner Data	Owner Data	50	O
Price Type	**Price Type**	**1**	**R**
Buying Client Code Qualifier	**Client ID Code Qualifier**	**1**	**C**
Buying Client ID Code	**Client ID Code**	**10**	**C**
Buying Investment Decision Qualifier	**Investment Decision Qualifier**	**1**	**C**
Buying Investment Decision	**Investment Decision**	**10**	**C**
Buying Execution Decision Qualifier	**Execution Decision Qualifier**	**1**	**R**
Buying Execution Decision	**Execution Decision**	**10**	**R**
Buying DEA Flag	**Yes/No (1)**	**1**	**R**
Buying Algo Flag	**Yes/No (1)**	**1**	**R**
Buying Liquidity Provision Flag	**Yes/No (1)**	**1**	**R**
Buying Text	**Filler (1)**	**1**	**R**
Selling Client Code Qualifier	**Client ID Code Qualifier**	**1**	**C**
Selling Client ID Code	**Client ID Code**	**10**	**C**
Selling Investment Decision Qualifier	**Investment Decision Qualifier**	**1**	**C**
Selling Investment Decision	**Investment Decision**	**10**	**C**
Selling Execution Decision Qualifier	**Execution Decision Qualifier**	**1**	**R**
Selling Execution Decision	**Execution Decision**	**10**	**R**
Selling DEA Flag	**Yes/No (1)**	**1**	**R**
Selling Algo Flag	**Yes/No (1)**	**1**	**R**
Selling Liquidity Provision Flag	**Yes/No (1)**	**1**	**R**
Selling Text	**Filler (1)**	**1**	**R**
Physical Leg	**Text**	**20**	**R**

5.40 PN: Proposal Notice

Outgoing: Exchange to Participant

Field Name	Field type	Size	R/C/O	
Message Header (Message type = PN)	Outgoing Message Header	30	R	
Filler	String (12)	12	C	
Proposal ID	Proposal ID	8	R	
Proposal Status	Proposal Status	1	R	
Proposal Type	Proposal Type	1	R	
Number of Legs (always 01: 1 leg)	Numeric	2	R	
Group	Group ID	2	R	1 to 8 times
Instrument	Instrument ID	4	R	
Price Type	Price Type	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type (J: Day)	Duration Type	1	R	
Entering Firm ID	Firm ID	4	R	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	O	
Original Order ID	Original Order ID	8	R	
Filler	String (20)	20	C	
External Symbol	External Symbol	30	R	
Filler	String (20)	20	C	
Order Status	Status	1	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (1)	1	R	

Field Name	Field type	Size	R/C/O	
Physical Leg	Text	20	R	

*Filler fields need to be filled "blank"

5.41PR: Proposal Request

Incoming: Participant to Exchange

This message can be used for an Inter Dealer Broker Firm (IDB Firm) in order to propose pre-arranged trade(s).

Field Name	Field type	Size	R/C/O	
Message Header (Message type = PR)	Incoming Message Header	30	R	
Filler	String (8)	8	R	
Firm ID	Firm ID	4	R	
Filler	String (9)	9	R	
Proposal Type (must be T: Inter Dealer Broker Order)	Proposal Type	1	R	
Number of Legs	Numeric (2)	2	R	
Group	Group ID	2	R	1 up to 4 times
Instrument	Instrument ID	4	R	
Price Type	Price Type (C: Committed)	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type (J: Day)	Duration Type	1	R	
Filler	String (4)	4	C	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	O	
Filler	String (79)	79	C	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (1)	1	R	

Field Name	Field type	Size	R/C/O	
Filler*	Filler (1)	1	R	
Filler*	Filler (1)	1	R	
Physical Leg	Text	20	R	

*Filler fields need to be filled “blank”

5.42PU: Proposal Update

Outgoing: Exchange to Participant

Field Name	Field type	Size	R/C/O	
Message Header (Message type = PU)	Outgoing Message Header	30	R	
Filler	String (12)	12	C	
Proposal ID	Proposal ID	8	R	
Proposal Status	Proposal Status	1	R	
Proposal Type	Proposal Type	1	R	
Number of Legs	Numeric (2)	2	R	
Group	Group ID	2	R	1 to 8 times
Instrument	Instrument ID	4	R	
Price Type	Price Type	1	R	
Verb	Verb	1	R	
Quantity	Quantity	8	R	
Price	Price	10	R	
Duration Type (J: Day)	Duration Type	1	R	
Entering Firm ID	Firm ID	4	R	
Opposite Firm	Firm ID	4	R	
Flex Trade Transparency	Transparency	1	O	
Original Order ID	Original Order ID	8	R	
Filler	String (20)	20	C	
Refusal reason	String (50)	50	O	
Order Status	Status	1	R	
Filler*	Filler (1)	1	R	
Filler*	Filler (10)	10	R	
Filler*	Filler (1)	1	R	

Field Name	Field type	Size	R/C/O
Filler*	Filler (10)	10	R
Filler*	Filler (1)	1	R
Filler*	Filler (10)	10	R
Filler*	Filler (1)	1	R
Filler*	Filler (1)	1	R
Filler*	Filler (1)	1	R
Filler*	Filler (1)	1	R
Physical Leg	Text	20	R

*Filler fields need to be filled “blank”

5.43XP: Proposal Refusal Request

Incoming: Participant to Exchange

This message is used by the Participants to refuse a pre-arranged trade from an Inter Dealer Broker.

Field Name	Field type	Size	R/C/O
Message Header (Message type = XP)	Incoming Message Header	30	R
Filler	String (8)	8	R
Refused Proposal ID	Proposal ID	8	R
Proposal Type	Proposal Type	1	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Original Order ID	Order ID	8	C
Refusal reason	String (50)	50	C

5.44Q<i>: Bulk Quote

Incoming: Participant to Exchange

This is a set of messages to enter Bulk Quotes. The second letter of message type indicates the quantity and price formats (bytes).

<i> = A to P (See table below)

X | Y	2	4	6	8
4	A	E	I	M
6	B	F	J	N

X | Y	2	4	6	8
8	C	G	K	O
10	D	H	L	P

Where: X = Price size (including format indicator) and Y = Quantity size

Example: a Message QP is formatted with Price 10 bytes in length and Quantity 8 bytes long.

Field Name	Field Type	Size	R/C/O	
Message Header (Message type = Q<i>)	Incoming Message Header	30	R	
Group	Group ID	2	R	
Quote ID (identifies trader's quote on this group)	Order ID	8	R	
Number of Quotes	Numeric (3)	3	R	
Group	Group ID	2	R	1 to 280 occurrences (on IDEM market, the maximum is of 100 due to the regulation)
Instrument	Instrument ID	4	R	
Verb	Verb	1	R	
Quantity Sign	Quantity Sign	1	R	
Quantity	Quantity	8	C	
Price	Price	10	C	

5.45RP: Market Maker Protection Subscription

Incoming: Participant to Exchange

This message has two purposes:

- Specify to the trading system what kind of Market Maker Protection should be enabled (standard or advanced)
- Reactivate quoting when Advanced Market Maker Protection has been triggered.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = RP)	Incoming Message Header	30	R
Group	Group ID	2	R
Protection Type	Protection Type	1	R

5.46RQ: Request for Quote

Incoming: Participant to Exchange

This message is sent by the participant to broadcast a Request for Quote message to other participants.

Field Name	Field Type	Size	R/C/O
Messages Header (Message type = RQ)	Incoming Messages Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Quantity (number of contracts in the request for quote)	Quantity	8	C

5.47RT: Risk Master Switch

Incoming: Participant to Exchange

This message is sent by a Risk Manager with the intent of disabling a managed entity and removing all its order and quotes.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = RT)	Incoming Message Header	30	R
Firm	Firm ID	4	R
Trader	Short Trader ID	4	O
Trader Only Flag	Yes/No	1	R

5.48XE: Order Cancellation

Incoming: Participant to Exchange

This message is sent by the participant to cancel an order present in the book.

Field Name	Field Type	Size	R/C/O
Message Header (Message type = XE)	Incoming Messages Header	30	R
Group	Group ID	2	R
Instrument	Instrument ID	4	R
Cancelled Order ID	Order ID	8	R

6.0 Error Codes

6.1 Error Code Numbers and Description

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

Error Code	Error Description
0001	User Identification is not correct
0002	Protocol Version is not supported
0003	Message Type is not supported
0004	Session ID is not active
0006	Message Type requested is not supported
0008	Message is too short
0009	Message is too long
0010	Message contains Binary Data
0011	No Heartbeat Activity: Disconnection
0012	Message Type is Out Of Context
0013	User ID has been deactivated: Disconnection
0014	Syntax Error + <detailed text>
0015	Field value is too small
0016	Field value is too big
0100	Firm is Forbidden to trade on this Group
0101	Duration Type is Forbidden for current Group state
0102	Verb field (Side) cannot be modified
0103	Order is not active
0104	Price Type is forbidden for this instrument
0105	Price Term is Forbidden for current Instrument state
0108	Duration Type is Forbidden for current Instrument state
0109	Order cannot be processed: No opposite limit
0110	Price does not represent a valid tick increment for this Instrument
0111	Duration Type is invalid for this Price Type
0112	Cross Order price must be within the Instrument trading limits
0113	Cross Order price is outside price spread
0114	Opposite firm must be filled for committed order
0116	Cross order is not allowed
0117	Cross order quantity is outside limits

Error Code	Error Description
0118	Duration Type Is Invalid For This Price Term
0119	Cross order notional value is outside limits
0120	Disclosed Notional value is below the instrument threshold
0121	Order Notional value is outside the instrument thresholds
0122	Physical Leg must be filled for this type of order
0123	Trade has already been approved
0124	Order from Account type House cannot have Client Id Code
0125	Investment decision code is missing
0126	Client Identification is missing
0201	GTD date must be equal to or greater than current day
0202	GTD date must be equal to or less than Instrument expiration date
0203	GTD date must be filled only if Duration Type is equal to GTD
0300	Quantity Term is Forbidden for current Instrument state
0302	Quantity must be less than or equal to Maximum Improvement Quantity
0303	Quantity Term is not authorized for this Order Type
0304	Additional Quantity must be less than Order Quantity
0305	Additional Quantity is too small
0306	Minimum quantity cannot be modified
0307	Quantity Term is forbidden for Duration Type
0308	Order quantity is outside the instrument quantity threshold
0309	Quantities must be multiples of lot size
0402	Trader ID field cannot be modified
0403	Market Maker not authorized for Group
0500	Order price is outside the instrument price threshold
0501	Price field is mandatory for Limit Orders
0502	Price field must not be filled for this Price Type
0503	Order cannot be modified or cancelled
0504	Additional Price is forbidden for Price Term
0505	Order price must be greater than additional price
0506	Order price must be lower than additional price
0507	Additional price must be lower than last price or last day price
0508	Additional price must be greater than last price or last day price
0509	Order rejected. Cannot trade outside instrument price thresholds.

Error Code	Error Description
0510	Order cannot be modified
0511	Order price is outside circuit breaker limits
0512	Price Term Invalid For Price Type
0700	Only one quote per Instrument and per Side is accepted
0701	Quote is not present in the Instrument Book
0702	Market Maker Protection in progress; Quote not processed.
0703	Advanced Market Maker Protection not enabled for this Group
0704	Buy and Sell must not cross for the same instrument
0705	Number of quotes is not in sync with the message length
0707	Market Maker Protection state must be re-activated
0708	Trader ID has no quote for this Group
0709	All the Instruments must belong to the same Group
0710	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 A6 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
1111	Participant not authorized for this Account Type
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

Error Code	Error Description
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
3103	ExposedLong limit exceeded at the trader/instrument level
3104	ExposedShort limit exceeded at the 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
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
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
3200	Risk Limit disabled for current group configuration
3201	Spread Risk Limits cannot be defined for instruments
3202	Risk Limits cannot be defined for strategy groups
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

Error Code	Error Description
9023	Group state does not allow this function
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	Flex Series Delivery Date is out of allowed range
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 non longer active

6.2 Internal error codes

The following table displays the internal Error Codes for SAIL. These Error Code are not responded to participant but only to SOLA interface commands.

Error Code	Error Description
0509	Order Rejected. Cannot trade outside instrument price thresholds.
1105	Invalid datas for Low and high limits
3032	Other
9000	Internal. To be defined
9001	Price Term is forbidden for ISO order
9002	Quantity Term is forbidden for ISO order
9003	ISO order must be Limit
9004	Group Opening not allowed, number of instruments exceeds threshold
9005	Group Opening not allowed, trading volume exceeds threshold
9006	Instrument Opening not allowed, a quote crosses the CTO
9007	ISO order must be IOC
9008	Change to ISO order is forbidden
9009	Unknown CPU
9010	CPU State Forbids This Command
9013	No order to delete in the book
9014	Strategy trade must be cancelled leg by leg
9015	Strategy instrument has some legs closed
9016	Maximum pending instrument creation reached
9038	Trading Privilege Is Invalid (MOC)
9039	Firm Authorization is Invalid (MOC)

7.0 Field Definitions

The following table displays the format, length, and description for each field and further explanation of the field types.

Possible formats are:

AlphaNum = Alphanumeric
Enum = Predefined set of values
Numeric = Numeric value

7.1 Field types and description

Field type	Format	Length	Description
Account Type	Enum	1	Must contain one of the following values: 1: Client 2: House 4: Market Maker 5: Non-Segregated Client
Additional Price	AlphaNum	10	If Special Price Term = S, this field represents the trigger price: i.e. the price from which a STOP order will be triggered. Mandatory if Special Price Term is different from spaces.
Additional Quantity	Numeric	8	It must be different from 0 if Quantity Term = M or D. It must be lower or equal to the number in the Quantity field. It must be higher than the Minimum Displayed Quantity configured by the Exchange for the Underlying.
Assigned Price	Numeric	10	It is the price stored in the system. It would be the limit price for a limit order and the booked price assigned by the system to a partially filled order.
Best Price Setter	Enum	1	BPS indicates for an incoming order a prevailing best price in the market at a given price level. Must contain one of the following values: 0: Price has not the Best Price Setter status 1: Price has the Best Price Setter status
Bulletin Type	Enum	1	Must contain one of the following values: 0: Regular Text Bulletin 1: Stressed Market Condition Start 2: Stressed Market Condition End 3: Fast Market Start 4: Fast Market End
Call Put Code	Enum	1	C: Call P: Put Must be ignored if not an option.
Clearing Data	AlphaNum	20	This structure is used in order and order related messages for clearing purposes.
Clearing Instruction	AlphaNum	12	The client account number.

Field type	Format	Length	Description
Clearing Operation Mode	Enum	1	Indicates the pre-posting action to be taken by the Clearing System when a trade has occurred. (blank): none G: Giveup
Client ID Code	Numeric	10	Must contain one of the following values: 0000000000: None 0000000001: Pending Allocation (PNAL) 0000000002: Aggregation of multiple Client Order (AGGR) From 0000000004 to 4294967295 Conditional: must be filled in case Client Code Qualifier is specified
Client Code ID Qualifier	Enum	1	Must contain one of the following values: L: Legal Entity Identifier P: Natural Person 0: None Conditional: must be filled in case Client Code is specified
Creation Status	Enum	1	C: Strategy created as specified M: Strategy created with modifications F: Flexible series created A: Flexible series already exists S: Standard series already exists
Date	Numeric	8	YYYYMMDD (Year, Month and Day)
Date Time	Numeric	14	YYYYMMDDHHMMSS (Year, Month, Day, Hours, Minutes, Seconds) Time provided by the Exchange in Central European Time (CET/CEST) for IDEM and LSEDM Equity derivatives/OB markets and London Local Time (GMT/BST) for LSEDM Interest Rate derivatives.
Date Time MS	Numeric	17	YYYYMMDDHHMMSSmmm (Year, Month, Day, Hours, Minutes, Seconds, Milliseconds) Time provided by the Exchange in Central European Time (CET/CEST) for IDEM and LSEDM Equity derivatives/OB markets and London Local Time (GMT/BST) for LSEDM Interest Rate derivatives.
Date Time microsec	Numeric	20	YYYYMMDDHHMMSSmmmuuu (Year, Month, Day, Hours, Minutes, Seconds, Milliseconds,Microseconds) Time provided by the Exchange in UTC for IDEM, LSEDM Equity derivatives/OB markets and LSEDM Interest Rate derivatives.
Duration Type	Enum	1	Specifies how long the order remains in effect. Must contain one of the following values: J: Day (Valid for the current Day only) D: Good till date (Order is Valid until date)y F: Good till cancel (Valid until instrument expiration) E: Fill and Kill (Immediate order, cannot be booked) W: While Connected
Error Code	Numeric	4	See Error codes section.
Exchange ID	Enum	1	Indicates to which exchange the order needs to be sent. Valid values are: E: London Stock Exchange Derivatives Market (LSEDM)

Field type	Format	Length	Description
			I: Italian Derivatives Exchange Market (IDEM) O: Oslo Bors (OB) R: London Stock Exchange Derivatives Market Interest Rate Derivatives (LSEDM)
Exchange Message ID	AlphaNum	6	Identifies a message sent by the exchange for a participant connection. If Exchange Message ID is blank, the message will not be included in retransmitted messages.
Execution Decision Qualifier	Enum	1	Must contain one of the following values: A' (Algorithm) 'P' (Natural Person) '0' None Conditional: must be filled in case Investment Decision is specified
Execution Decision	Numeric	10	Must contain one of the following values: 0000000003: Client From 0000000004 to 4294967295
External Symbol	AlphaNum	30	**Naming convention:** Standard Future Series = Class Symbol + Maturity Year + Maturity Moth Code Standard Option Series = Class Symbol + Maturity Year Code + Maturity Month Code + Strike Price Flexible Future Series = Class Symbol + Maturity Year + Maturity Day + Maturity Month Code Flexible Option Series = Class Symbol + Maturity Year Code + Maturity Day + Maturity Month Code + Strike Price + Option Style
Firm Authorization	Enum	1	E: Enable D: Disable
Firm ID	AlphaNum	4	Identifies a firm referenced in SOLA® database
Group ID	AlphaNum	2	Group Identification within the system. A Group is composed of instruments.
GTD Date	Numeric	8	Year, Month and Day (YYYYMMDD) Must be present only if Duration type = D. Represents the order's last active day.
Group State	Enum	1	This parameter indicates the new status of the group. It contains one of the following values: C: Consultation Start E: Intervention before Opening P: Pre-opening O: Opening S: Continuous Trading Session F: End of Consultation N: Exchange Intervention M: Mini-batch B: Closing I: Prohibited Z: Interrupted (general interruption in trading)
Hedge/Spec	Enum	1	Must contain one of the following values: H: Hedger S: Speculator

Field type	Format	Length	Description
Instrument ID	AlphaNum	4	Instrument identification within a Group
Instrument Status	Enum	1	Can contain the following values: N : Normal. The instrument follows group state processing. F : Forbidden. Trading is forbidden for this instrument. Orders and quotes are rejected. R : Reserved (Auction) C: Not Trading (strategies) H: Hidden (Flexible) S: Suspended
Investment Decision ID	Numeric (10)	10	Only numeric values are allowed for Investment Decision Conditional: must be filled in case Investment Decision Qualifier is specified
Investment Decision ID Qualifier	Enum	1	Must contain one of the following values: A' (Algorithm) 'P' (Natural Person) '0' None
Liquidity Status	Enum	1	M: Maker T: Taker (blank): None
Leg Number	Numeric	2	Number of legs for a strategy instrument. Maximum value of 40
Match Number	AlphaNum	8	Format GGxxxxxx GG = Group of strategy instrument X = numeric Unique ID to link all trades issued from a strategy-order match
Measurement Units	Enum	1	Must contain one of the following values: M: MWh K: kWh T: Ton
Memo	AlphaNum	50	Free text zone, which can be used to transmit additional information for processing. No validations are carried out on this field.
Message Type	AlphaNum	2	Type of Message
MM Alert Level	Enum	1	Indicates the severity level of the alert: 0: OK 1: Warning 2: Infraction
MM Alert Type	Enum	1	Indicates the reason for the alert: 0: OK 1: Prices missing 2: Bid price missing 3: Ask Price missing 4: Spread too wide 5: Quantities too small 6: Bid quantity too small 7: Ask quantity too small 8: Quote minimum lifetime not fulfilled
MM Monitoring Activity	Enum	1	Q: Quoting R: RFQ S: FM Quoting

Field type	Format	Length	Description
			T: FMRFQ
Modified Order ID	Alpahum	8	Order ID of the original order being modified.
Month Code	Alphanum	1	Indicates in 1 char the month.
Notional Value	Numeric	16	Notional Value: 12 integer + 4 decimals
Number In Match	Numeric	4	Number of trades which are generated from a match
Numeric (X)	Numeric	X	Absolute number. Used to identify the number of occurrences for fields. X determines field length in bytes.
Open/Close	Enum	1	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 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 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 Open F: 1st Leg Open, 2nd Leg Close, 3rd Leg Open, 4th Leg Close G: 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 Close, 2nd Leg Open, 3rd Leg Open, 4th Leg Open J: 1st Leg Close, 2nd Leg Open, 3rd Leg Open, 4th Leg Close K: 1st Leg Close, 2nd Leg Open, 3rd Leg Close, 4th Leg Open L: 1st Leg Close, 2nd Leg Open, 3rd Leg Close, 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 Close P: 1st Leg Close, 2nd Leg Close, 3rd Leg Close, 4th Leg Open
Option Style	Enum	1	A : American E : European
Order ID	AlphaNum	8	Identifies an order. Associated with Group ID and Instrument ID; it is the order Key identifier.
Original Order ID	AlphaNum	8	First Order ID assigned to the order by the trading system.
Original Reference ID	AlphaNum	8	References either the Original Order ID of the traded order, or the Quote ID of the quote that has traded.

Field type	Format	Length	Description
Order Type	Enum	1	Must contain one of the following values for regular order: O: Order Q: Quote X: Cross Order
Order Trading mode	Enum	1	Contains one of the following values for regular order: (blank): Normal
Owner Data	AlphaNum	50	Memo
Password	AlphaNum	8	This is used to validate the user’s connection to the SAIL interface. The password is provided by service desk.
Physical Leg	Memo Text	20	Text
Price	AlphaNum	10	**Price** format with format indicator and price mantis. Format indicator (1): If the format indicator is Alpha, it means that the price is negative (A means negative value with no decimal, B means negative value with 1 decimal, C means negative value with 2 decimals, etc). If the format indicator is Numeric, it means that the price is positive (0 means positive value with no decimal, 1 means positive value with one decimal, 2 means positive value with 2 decimals, etc). The maximum is 4 decimal places for both positive and negative values. If the format indicator is set to spaces, it means that the price is not significant. Price mantis (9): The mantis represents the price value including the number of decimals defined in the format indicator. Examples: Format indicator = 2; Price mantis = 3789438; Price = 35094.38 Format indicator = A; Price mantis = 3567838; Price = -3567838 Format indicator = ; Price mantis = 3567838; Price = not significant
Price Notation	Enum	1	Must contain one of the following values: 'M' MONE 'P' PERC 'Y' YIEL 'B' BAPO
Price Type	Enum	1	Must contain one of the following values for regular order: L: Limit (price set in message) O: at Opening price M: at best opposite price (Top Order) W: at any price (Market Order) C: Committed (blank): Unknown P: Exchange For Physical
Product Type	Enum	1	O: Option F: Future B: Binary
Proposal ID	Alphanum	8	Unique identifier during the current trading session of the Proposal in the platform (associated to the Proposal Type).

Field type	Format	Length	Description
Proposal Status	Enum	1	W: Waiting for approval A: Approved R: Refused
Proposal Type	Enum	1	B: Bundle Order T: Inter Dealer Broker Order
Protection Type	Enum	1	Type of protection requested by the Market Maker. Allowable values are: N: Standard Protection A: Advanced Protection
PTT Trade Type	Enum	1	Must contain one of the following values: ‘ ‘: None T: Trade Type Pack Trans X: Exchange For physical
PTT Cancellations and Amendments	Enum	1	Must contain one of the following values: ‘ ‘: None C: Cancelled A: Amended
Quantity	Numeric	8	Number of contract or shares
Quantity Sign	Enum	1	For a quote or an order update, it identifies how to handle the quantity: +: add the incoming quantity to the booked quantity - : subtract the incoming quantity from the booked quantity =: replace the booked quantity with the incoming quantity
Quantity Term	Enum	1	M: Minimum D: Disclosed (blank): None
Quote Cancel Reason	Enum	1	S: Cancelled by System M: Cancelled by Market Control A: Cancelled by Trader P: MMP Nb Trades T: MMP Volume R: MMP Value N: MMP Delta Volume V: MMP Delta Value B: Eliminated out of Limits I: Eliminated on Disconnect
Reference ID	Alphanum	8	It references the order (Order ID) or the quote (Quote ID) that has traded.
Risk Limit Type	Enum	1	Must contain one of the following values: 1: Traded Long 2: Traded Short 3: Exposed Long 4: Exposed Short 5: Traded Spreads 6: Exposed Spreads

Field type	Format	Length	Description
SAIL Protocol ID	AlphaNum	2	Sail Protocol ID. Only supported value is A6.
Session ID	AlphaNum	4	Identifies the current session ID.
Short Trader ID	AlphaNum	4	Identifies the trader in messages where the Firm is already expressed in another field. It is the same as the 4 last characters of the type Trader ID.
Special Price Term	Enum	1	Can contain the following values: (blank): No term S: Stop T: If Touched E: Stop On Bid F: If Bid Touched I: Stop On Ask H: If Ask Touched P:Exchange For Physical
Special Trade Indicator	Enum	1	(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: Exchange for Physical (EFP) L: Late Trade
Status	Enum	1	This parameter provides the participant with the outcome reserved for the order that is the subject of the entry, modification, or cancellation. This parameter takes the following values: (blank): Order put in the order book (having possibly been partially executed) A: Cancelled by trader X: Order executed (remaining quantity having possibly been eliminated due to FAK or SEP) E: The order has been eliminated by the trading engine. B: Order eliminated (Out of instrument limits) C: Order eliminated by Circuit Breaker M: Eliminated by Market Control I: Eliminated on disconnection U: Eliminated due to Unpriced Leg R: Eliminated Due To Risk Master Switch S: Order put in book as Stop order T: Eliminated Due To Risk Limit Exceeded W: Waiting for approval (applicable for messages related to Proposals) Z: Removed by SEP (Self Execution Prevention Rule)
Strike Price	Numeric	11	First 7 characters represent the integer part and following 4 characters represent the decimal part. For example, strike 10.05 representation is 00000100500
String	AlphaNum	X	Free text depending on the context

Field type	Format	Length	Description
Time	Numeric	6	HHMMSS Time provided by the Exchange in Central European Time (CET/CEST) for IDEM and LSEDM Equity derivatives/OB markets and London Local Time (GMT/BST) for LSEDM Interest Rate derivatives.
Time UTC and microsec	Numeric	12	HHMMSSmmmsss Time provided by the Exchange in UTC and microseconds for IDEM and LSEDM Equity derivatives/OB markets and for LSEDM Interest Rate derivatives.
Trade Memo	AlphaNum	50	Text entered by the Exchange when it is a manual Trade Entry.
Trade Number	Numeric	8	Identifies the trade number for an instrument and one day
Trade Type	Enum	1	Identifies the origin of the trade O: Opening M: Trade entered by the Exchange F: Traded during Continuous Trading
Trader ID	AlphaNum	8	Identifies the trader: 4 first characters : Firm Identifier 4 Last characters: Trader Identifier
Transparency	Enum	1	(blank): Published U: Unpublished
Type of Cancellation	Enum	1	It must be Q: Quotes.
Underlying Price Type	Enum	1	Identifies the type of the Update. Possible values are: N: Normal C: Closing A: At the money update
User ID	AlphaNum	8	Identifies the User for a connection. The User ID must be referenced in the Exchange's configuration database.
User Sequence ID	Numeric	8	Identifies all the incoming business messages for one connection. Must be sequential and start at 1 at the beginning of the day. Used by the Exchange to track gaps in message sequence.
Verb	Enum	1	Identifies an order/quote side: B: Buy S: Sell (blank): Empty for trades on strategy
Waiver Flag	Enum	1	Must contain one of the following values: ' ': None L: Large In Scale O: Illiquid Inst S: Above Size
Yes/No	Enum	X	Set of Yes/No values: Y: Yes N: No (blank): Unknown

7.2 Internal fields

Field Type	Format	Length	Description
Account Type List	AlphaNum	8	List of account types (right padded with spaces) to be included in cancellation. If empty, all account types are cancelled.
Action ID	AlphaNum	3	Add: New record Upd: Update of already transmitted record Note: everyday the full configuration is retransmitted for that day. If an object does not appear in that configuration, it means that it is no longer active. There are no explicit deletion messages being sent.
Algorithm Policy	Enum	1	0: Pro-Rata Residual The Residual Pro-Rata allocation algorithm takes a sorted list of eligible orders and calculates the allocated share for each eligible order, one after the other in sequence. It is designed to use up all the quantity to allocate with no residual volume left over. Note that as a consequence, the rounding used may result in a slight preference given to orders at the front of the sorted list. So with a list sorted by order size there may be a slight preference given to larger orders, and in the case of equal open order quantities, a slight preference given to older orders. 1: FIFO FIFO Algorithm with a Time, Size or Allocation Sorting Criteria 2: Pro-Rata Age The Age Pro-Rata allocation algorithm takes the list of eligible orders (in time sequence) and calculates an allocated share for each order. The allocation that each order gets is a function of the quantity of the order and the age of the order compared with the oldest order at that price level. 3: Pro-Rata Progressive Progressive Pro-Rata is designed to give a greater priority to larger and earlier orders. The position the order has in the list of eligible orders has a greater emphasis in the allocation process the greater the time weighting value the product is configured to have. It uses an order allocation factor which depends on both the order's volume and the position of the order in the list of eligible orders. Orders are assumed to be in time–stamp sequence, oldest orders first.
Allocation Type	Enum	1	S: Single M: Multiple E: External
Authorization	Enum	1	A: Authorized I: Forbidden
Broadcast Type	Enum	1	B: Beginning of day E: End of day
BTF Committed Validation	Enum	1	F: First Side Reception T: At Trade B: Both
BTF Spread Check Rule	Enum	1	N: No Validation I: Inside Bid/Ask A: At Bid/Ask
Call Put Code (extended)	Enum	1	C: Call P: Put O: Over

Field Type	Format	Length	Description
			U: Under Must be ignored if not an option.
Call Put Code Set	Yes/No	16	•Call •Put •Over •Under
ClosingPriceAlgo	Enum	1	(blank): None T: Last Trade B: Last Bid A: Last Ask C: Closing Price
Clearing Firm ID	AlphaNum	8	The clearing firm referenced in SOLA® database.
Clearing Operation Mode (extended)	Enum	1	Indicates the pre-posting action to be taken by the Clearing System when a trade has occurred. (blank): none G: Giveup
Connection Status	Enum	1	C: Connected A: Logon Accepted R: Logon Rejected L: Logged Out D: Disconnected
Content Type	Enum	2	ST: Start of Trading Engine Information ET: End of Trading Engine Information SG: Start of Group Orders EG: End of Group Orders G1: Start of Guardian Statistics G2: End of Guardian Statistics
Corporate Action	Enum	1	Possible values : "X", "Y", "Z", "Q", "R", "S", "G", "U", "V" and " "
Corporate Action List Flags	Yes/No	20	•Reserved •X •Y •Z •Q •R •S •G •U •V •O •B •C •D •E •F •H •I
CPU State	Enum	1	A: Active F: Frozen
Cross Leg Price Algo	Enum	1	(blank): None S: Same Contract Size And Tick Value D Different Contract Size Or Tick Value
Currency	Enum	1	A: AUD B: SGD C: CAD

Field Type	Format	Length	Description
			D: DKK E: EUR F: CHF G: GBP H: HKD I: INR J: GBX K: CZK L: BRL M: MYR N: NOK O: HUF P: RUB Q: AAA (spare) R: CNY S: SEK T: TYRY U: USD V: RON W: BBB (spare) X: ZAR Y: JPY Z: PLN
Cycle ID	Enum	1	A: CycleID A B: CycleID B C: CycleID C D: CycleID D E: CycleID E F: Front G: CycleID G H: CycleID H I: CycleID I J: CycleID J K: CycleID K L: Long Term M: CycleID M N: CycleID N O: CycleID O P: CycleID P Q: Quarterly R: CycleID R S: CycleID S T: CycleID T U: CycleID U V: CycleID V W: CycleID W X: CycleID X Y: CycleID Y Z: CycleID Z a: CycleID a b: CycleID b c: CycleID c d: CycleID d e: CycleID e f: CycleID f
Delivery Type	Enum	1	C: Cash P: Physical
Deviation	Numeric	8	Indicates a Percentage or a Number of Ticks <u>Format indicator (1)</u> <u>Mantis (7)</u> The mantis represents the value including the number of decimals defined in the format indicator. <u>Examples</u> **Percentage**: Format indicator = 5; Mantis = 1234500; Percentage = 12.34500 %

Field Type	Format	Length	Description
			NbOfTicks: Format indicator = 0; Mantis = 0009999; NbOfTicks = 9999
Event ID	AlphaNum	4	Identify the connection.
Exchange Status	Enum	1	T: End of Trading Activities A: End of Activities I: End of Instrument Creation Activities S: End of MM Quotation Statistics
Exotic Option Type	Enum	1	R: Regular B: Binary (blank): None
FE Heartbeat Type	Enum	1	?: Unknown (blank): Normal I: Startup M: Become Master
Instrument State Change Reason	Enum	1	Y: Triggered By Circuit Breaker Y Z: Triggered By Circuit Breaker Z
Instrument Type	Enum	1	E: Equity F: Future I: Index O: Option S: Strategy X: Equity Option Y: Future Option Z: Sponsored Option
ISIN	AlphaNum	12	Instrument identification
ISIN Assignation Status	Enum	1	A: Isin Assigned D: Duplicate ISIN S: Instrument ISIN Is Already Set U: Unknown Instrument W: Action Not Allowed T: Technical Error
ISIN Country	AlphaNum	2	ISO 3166-alpha2 country code
Language	Enum	1	0: English 1: French
Market Type	Enum	1	?: Unknown R: Regular S: Stop D: One Day Settlement P: Exchange For Physical
Market Type Code	AlphaNum	1	C: Climate D: Credit E: Equity F: Future G: FX I: Index M: Metal N: Energy O: Option R: Interest Rate S: Strategy T: Commodity V: Other V W: Other W X: Other X Y: Other Y

Field Type	Format	Length	Description
			Z: Other Z
Matching Type	Enum	1	0: Unknown 1: FIFO 2: Pro-Rata
MM Monitoring Mode	Enum	1	0: Automatic 1: Disabled 2: Forced
Opening Type	Enum	1	0: Unknown 1: Plain FIFO 2: FIFO Decreasing Volume 3: FIFO Decreasing Volume II
Option Type	Enum	1	0: American Option 1: European Option 2: Empty
Percentage	Numeric	8	**Percentage** format with format indicator and percentage mantis. Format indicator (1): Percentage mantis (7): The mantis represents the percentage value including the number of decimals defined in the format indicator. Examples: Format indicator = 5; Percentage mantis = 1234500; Percentage = 12.34500 %
Protection Code	Enum	1	1: None 3: Regular Market Maker Protection 4: Advanced Market Maker Protection
Price Eval Mode	Enum	1	0: Unknown 1: Points 2: Percentage
SEP Criteria	Enum	1	Self Execution Prevention Criteria: (blank): none I: Cancel Incoming Order (CIO) R: Cancel Resting Order (CRO) B: Cancel Both Orders (CBO) C: Reduced and Cancel (RC)
Sorting Criteria	Enum	1	0: Time The FIFO allocation algorithm will apportion traded volume to each order in turn. FIFO Time priority will use the price and the time as the only criteria for filling an order as orders will be held in time sequence. With this algorithm, all orders at the same price level are filled according to time priority; the first order at a price level is the first order matched; the second is filled second and so on. 1: Size In FIFO Size priority, orders will be filled in sequence with a sorted book with orders with larger open quantity coming first; if there are orders with the same open quantity these are then sorted by their time-stamp, orders with earlier (or older) time-stamps preceding those with a newer time-stamp. 2: Allocation In FIFO Allocation priority, orders will be filled in sequence with sorting the book as follows: orders that have yet to receive any allocation get priority over other orders and go to the front, orders are then sorted by their time-stamp, orders with earlier (or older) time-stamps preceding those with a newer time-stamp.
Strategy Code	Enum	1	Define the Strategy type. 0: None 1: Vertical Spread

Field Type	Format	Length	Description
			2: Horizontal Spread 3: Hybrid Spread 4: Future Strip
Strategy Pricing	Enum	1	Indicates the pricing method for the strategy: (blank): None (not configured or Instrument is not a Strategy) L: Same as legs N: Notional
Strategy Set Type	Numeric	4	Defines the Strategy types which are active for a given functionality. Encoded using the values defined in the following mapping Strategy Type -> Values None: 0 Vertical spread: 2 Horizontal spread: 4 Hybrid spread: 8 Future strip: 16 **Example** StrategyAllowImplied would have a value of 4 if HorizontalSpread is configured to allow implied, or have a value of 6 is both VerticalSpread and HorizontalSpread
Strategy Type	Enum	1	(blank): None C: Classic S: Strip D: Delta Neutral
Strip Price Algo	Enum	1	E: Reference Price Preferred Bid/Ask Excluded (blank): None
Trading Privilege (X)	AlphaNum	X	Privilege required by the firm to allow trading on related groups. Up to 26 possible values from "A" to "Z"
Trd Leg Price Algo	Enum	1	M: Last Trade No Minimum Tick I: Reference Price Preferred Bid/Ask Included T: Last Trade Preferred (blank): None
Underlying Instrument Type	Enum	1	!: Others A: Interest Rate Index B: Basket C: Currency D: Dividend E: Equity F: Future H: Forward I: Index J: Forward Rate Agreements K: Spreadbet M: Commodity N: Dividend Index O: Option P: Paneuropean Q:Contracts for Difference R: Interest Rate S: Strategy T: Debt U: Paneuropean Index V: Volatility Variance Index W: Swap X: Equity Option Y: Future Option Z: Sponsored Option

Field Type	Format	Length	Description
			1: Agrics 2: Extraction 3: Industrial 4: Service 5: Energy Power 6_ Energy Gas 7: Environmental 8: Polypropylene products 9: Generated resources ?: Unknown
User Name	AlphaNum	25	Identify the User logged on SOLA interfaces

8.0 Appendix A: Regular Message Flow

8.1 Status Information Dissemination

A Group of Instruments is Opening

Participant		Exchange	Notes
	←	Group State Change (NG)	*Group Status = Trading Session*

Authorize / Forbid / Reserve Order Entry

Participant		Exchange	Notes
	←	Instrument State Change (NI)	

Interrupt / Forbid an Instrument Group

Participant		Exchange	Notes
	←	Group State Change (NG)	*Group Status = Interrupted / Forbidden*

8.2 Order Processing

Order is rejected

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Error Notice (ER) / Technical Error Notice (TE)	

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

Participant		Exchange	Notes
Order Entry (OE)	→		

Participant		Exchange	Notes
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order put in the order book***

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

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order put in the order book***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***

Order is accepted and partially executed

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	*The order acknowledgement indicates the quantity traded at order entry.*
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
	←	Execution Notice (NT)	
	←	Leg Execution Notice (NL)	*Several Leg Execution Notices also sent to Participant if OE is on a Strategy Instrument.*

Order is accepted and fully executed

Participant		Exchange	Notes

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = X: Order Executed***
	←	Execution Notice (NT)	*In all Execution scenarios, SOLA will automatically set the 'ID Code for Counterpart Participant' field to the receiving firm's Participant ID if the participant traded against one of its own orders.*
	←	Leg Execution Notice (NL)	*Several Leg Execution Notices also sent to Participant if OE is on a Strategy Instrument*

Stop order triggered trades partially

Participant		Exchange	Notes
Order Entry (OE)	→		*Special Price Term =* *S: Stop* *T: If Touched* *E: Stop On Bid* *F: If Bid Touched* *I: Stop On Ask* *H: If Ask Touched*
	←	Order Acknowledgment (KE)	***Order Status = S: Order put in book as Stop order***
The Stop condition is triggered			
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order put in the order book***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
	←	Execution Notice (NT)	

Market order partially trades

Participant		Exchange	Notes
Order Entry (OE)	→		*Price Type =* *M: at best opposite price (Top Order)* *W: at any price (Market Order)*
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order in book***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
	←	Execution Notice (NT)	*N Trade Execution Notices, one for each trade, at the same price (M at best opposite price) or different price levels (W: at any price).*

Pre-opening

During Auction phase, orders will not be assigned with BPS status.

Participant		Exchange	Notes
	←	Group Status Change (NG)	Group Status = P: Preopening
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	Order Status = (blank): Booked

8.3 Time validity

Immediate Order is partially executed in Trading Session

Participant		Exchange	Notes
Order Entry (OE)	→		

Participant		Exchange	Notes
	←	Order Acknowledgment (KE)	***Order Status= X: Order executed***
	←	Execution Notice (NT)	*In all Execution scenarios, SOLA will automatically set the 'ID Code for Counterpart Participant' field to the receiving firm's Participant ID if the participant traded against one of its own orders.*
	←	Leg Execution Notice (NL)	*Several Leg Execution Notices also sent to Participant if OE is on a Strategy Instrument*
	←	Order Cancellation Notice (NZ)	*The remaining quantity (not traded) is cancelled.*

Immediate Order is not executed in Trading Session

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = E: Eliminated by Trading Engine***

While Connected orders cancelled on disconnection with the Exchange

Orders with Time Validity parameter set to "W" ("While Connected") will be automatically cancelled in case of disconnection from the SOLA System. An ORDER CANCELLATION NOTICE message (NZ) with Order Status equal to "Eliminated on Disconnect" is received by the Participant on reconnection.

Participant		Exchange	Notes
Order Entry (OE)	→		*Duration type is While Connected*
	←	Order Acknowledgment (KE)	

Participant		Exchange	Notes
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
Connection Interruption			
	←	NZ	*One NZ with **Order Status = I: Eliminated on Disconnect** is emitted per While Connected order entered*

While Connected orders cancelled on End Of Day

Participant		Exchange	Notes
Order Entry (OE)	→		*Duration type is While Connected*
	←	Order Acknowledgment (KE)	
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
End Of Day			
	←	NZ	*One NZ with **Order Status = E: Eliminated by Trading Engine** is emitted per While Connected order entered*

Good Till Date orders cancelled on date reached

Good Till Date orders holding the BPS status will lose it at the end of the trading session when they were inserted.

Participant		Exchange	Notes
Order Entry (OE)	→		*Duration type is Good Till Date (GTD)*
	←	Order Acknowledgment (KE)	

Participant		Exchange	Notes
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
End of Day			
	←	Best Price Setter Notice (BP) *If the BPS is configured and order had the BPS status*	***Best Price Setter = 0***
Current Day = GTD (End of Day)			
	←	NZ	*One NZ with **Order Status = E: Eliminated by Trading Engine** is emitted per GTD order expired on a given date*

Good Till Cancel orders cancelled on message cancellation sent

Participant		Exchange	Notes
Order Entry (OE)	→		*Duration type is Good Till Cancel (GTC)*
	←	Order Acknowledgment (KE)	
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
End of Day			
	←	Best Price Setter Notice (BP) *If the BPS is configured and order had the BPS status*	***Best Price Setter = 0***
Current Day <= GTC			
Order Cancellation (XE)	→		
	←	Order Cancellation Acknowledgment (KZ)	

Day orders cancelled during the End of Day process

Participant		Exchange	Notes
Order Entry (OE)	→		*Duration type is Day*
	←	Order Acknowledgment (KE)	
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
End Of Day			
	←	NZ	*One NZ with **Order Status = E: Eliminated by Trading Engine** is emitted per Day order entered for a given date*

8.4 Quantity Terms

Minimum quantity with partial execution

Participant1		Exchange	Notes
Order Entry (OE)	→		***Quantity Term = M: Minimum***
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order put in the order book***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
	←	Execution Notice (NT)	*Quantity Traded >= Minimum Quantity* *Remaining Quantity = Original Quantity- Quantity Traded*

Disclosed quantity order

Pro-Rata algorithm does not support Orders with Disclosed Quantity (Iceberg Orders).

Participant1		Exchange	Notes
Order Entry (OE)	→		***Quantity Term = D: Disclosed***
	←	Order Acknowledgment (KE)	***Order Status = (blank): Order put in the order book***
	←	Execution Notice (NT)	*Order Remaining Quantity = Original Quantity - Traded Quantity*

8.5 Circuit Breaker

Limit Order Trigger Circuit Breaker when the Circuit Breaker State is Suspended

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = E: Eliminated by Trading Engine***
	←	Instrument State Change (NI)	*NI is sent to all Participants with the new instrument state equal to Suspended.*

Limit Order Trigger Circuit Breaker and when the Circuit Breaker state is Reserved

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = (blank): Booked***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***

Participant		Exchange	Notes
	←	Instrument State Change (NI)	*NI is sent to all Participants with the new instrument state equal to Reserved.*
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = (blank): Booked***

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

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	***Order Status = (blank): Booked***
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	***Best Price Setter = 1***
Instrument Limit Update (X, Y or Z Validation)			
	←	Order Cancellation Notice (NZ)	*Order Status= Eliminated*

Incoming limit order with price outside the instrument minimum or maximum price (X Validation)

Participant		Exchange	Notes
Order Entry (OE)	→		
	←	Order Acknowledgment (KE)	*Order Status = Eliminated*

8.6 Self Execution Prevention

Self Execution Prevention (SEP) is a mechanism to prevent, if configured, that an order book from a Firm trades against its own orders in Continuous Trading session whenever the traders involved belong to the same SEP group. SEP does not apply to Trade Reports and Implied orders (currently is not supported for Orders with Minimum/Disclosed Quantity Term).

- Order vs Order: Trader SEP Criteria rule from incoming order applies
  - Cancel Incoming Order
  - Cancel Resting Order
  - Cancel Both Orders
  - Reduce and Cancel: Order with higher quantity is reduced and order with lower quantity is cancelled. When incoming order quantity is lower than resting order quantity and resting Order SEP Criteria is not Reduce and Cancel, then both orders are cancelled.
- Quotes: quote takes priority over submitted orders
  - Incoming Quote vs. Resting Order: Cancel Resting Order
  - Incoming Order vs. Resting Quote: Cancel Incoming Order
  - Incoming Quote vs. Resting Quote: no SEP rule is applied i.e. the trade will be processed and executed if market conditions are met.

Cancel Incoming Order (CIO) Rule (order vs order) with no execution

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With **Order Status = Z: Removed by SEP** if the SEP has been triggered at the first book level for FIFO or first price level in case of Pro-Rata matching type*

Cancel Incoming Order (CIO) Rule (order vs order) triggered after partial execution

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
		Order Acknowledgement (KE)	→		*With **Order Status= X: Order executed** if the SEP has been triggered after the incoming order has partially traded against one/more book levels.*
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*
		Order Cancellation Notice (NZ) *unsolicited*	→		*Order Cancellation Notice* *The remaining quantity (not traded) is cancelled.*

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

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = (blank): Order put in the order book***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***
		Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	→		***Best Price Setter = 1***

Cancel Resting Order (CRO) Rule (order vs order) when incoming Market Order is at any price with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
		Order Acknowledgement (KE)	→		***Order Status = E: Eliminated***
		Order Update Notice (NU) *unsolicited*	→		*Order Update Notice with new quantity* *Order Quantity of the Incoming Order = 0*

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

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = (blank): Order put in the order book***
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*
		Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	→		Best Price Setter = 1
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***

Cancel Resting Order (CRO) Rule (order vs order) fully traded

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status= X: Order executed***

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*

Cancel Both Orders (CBO) Rule (order vs order) with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With* ***Order Status = Z: Removed by SEP*** *if the SEP has been triggered at the first book level*
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***

Cancel Both Orders (CBO) Rule (order vs order) and partial execution

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With* ***Order Status= X: Order executed*** *has been triggered after the incoming order has partially traded against one/more book levels*
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
		Order Cancellation Notice (NZ) *unsolicited*	→		*Order cancellation notice having* ***Order Status = Z: Removed by SEP*** *in case the incoming order has been partially executed against one or more levels before the SEP is triggered*

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is greater than resting order - with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = (blank): Order put in the order book***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
		Order Update Notice (NU) *unsolicited*	→		*Order Update Notice with new quantity* *Order Quantity of the Incoming Order = Incoming Qty - Resting Qty*
		Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	→		***Best Price Setter = 1***

Reduce and Cancel (RC) Rule (order vs order) when incoming Market Order is at any price and quantity is greater than resting order - with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = E: Eliminated***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
		Order Update Notice (NU) *unsolicited*	→		*Order Update Notice with new quantity* *Order Quantity of the Incoming Order = 0*

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is greater than resting order - with partial execution

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = (blank): Order put in the order book***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*
		Order Update Notice (NU) *unsolicited*	→		*Order Update Notice with new quantity* *Order Quantity of the Incoming Order = Incoming Qty (when SEP is triggered) - Resting Qty*
		Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*	→		***Best Price Setter = 1***

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is greater than resting order - fully executed

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status= X: Order executed***
		Order Update Notice (NU) *unsolicited*	→		*Order Update Notice with new quantity* *Order Quantity of the Incoming Order = Incoming Qty (when SEP is triggered) - Resting Qty*
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is equal to resting order – with no execution (at first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With* ***Order Status = Z: Removed by SEP***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is equal to resting order – partially executed

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With* ***Order Status = X: Order Executed***
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*
		Order Cancellation Notice (NZ) *unsolicited*	→		*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having* ***Order Status = Z: Removed by SEP***

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is less than resting order – with no execution (at first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*Order cancellation notice having* ***Order Status = Z: Removed by SEP***
	←	Update Order Notice (NU) *unsolicited*			*New Quantity = Resting Qty – Incoming Qty.*
		Update Order Notice (NU) *unsolicited*	→		*New Quantity = 0*

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is less than resting order – partially executed

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		***Order Status = X: Order Executed***
		Execution Notice (NT) *unsolicited*	→		*Trade Execution. Qty Traded*
		Update Order Notice (NU) *unsolicited*	→		*Removed Quantity = Incoming Qty – Traded Qty*
	←	Update Order Notice (NU)			*New Quantity = Resting Qty – Incoming Qty.*

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is less than resting order – with SEP Criteria for Resting Order different than RC with no execution (first book level)

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With **Order Status = Z: Removed by SEP** if the SEP has been triggered at the first book level*
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***

Reduce and Cancel (RC) Rule (order vs order) when incoming order quantity is less than resting order – with SEP Criteria for Resting Order different than RC with partial execution

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With **Order Status= X: Order executed** has been triggered after the incoming order has partially traded against one/more book levels*
		Execution Notice (NT) *unsolicited*	→		*Trade Execution*
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***
		Order Cancellation Notice (NZ) *unsolicited*	→		*Order cancellation notice having **Order Status = Z: Removed by SEP** in case the incoming order has been partially executed against one or more levels before the SEP is triggered*

SEP Rules in case of Incoming Quote vs Order

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Bulk Quote Entry (QP)	
		Bulk Quote Acknowledgement (LA)	→		

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*			*Order cancellation notice having **Order Status = Z: Removed by SEP***
		Best Price Setter Notice (BP) *If the BPS is configured and the quote price improves the market (for each single quote)*	→		***Best Price Setter = 1***
		Best Price Setter Notice (BP) *If the BPS is configured and modification of price or quantity is accepted for an quote that loses its BPS status (for each single quote)*	→		***Best Price Setter = 0***

SEP Rules in case of Incoming Order vs Quote

Participant1 (Resting)		Exchange		Participant2 (Incoming)	Notes
			←	Order Entry (OE)	
		Order Acknowledgement (KE)	→		*With **Order Status = Z: Removed by SEP***

8.7 Modification Processing

Order modifications will be handled as per below:

- If an order is the BPS, and Quantity is increased or Price is modified, the order is re-evaluated (it could either lose or maintain the BPS status). Otherwise, the order keeps the BPS status.
- If an order is not the BPS, any requested modification will trigger the order to be re-evaluated and it will gain the BPS if it improves the market.

Modification is rejected

Participant		Exchange	Notes
Order Modification (OM)	→		
	←	Error Notice (ER)	

Modification is accepted

Participant		Exchange	Notes
Order Modification (OM)	→		
	←	Order Modification Acknowledge (KM)	
	←	Best Price Setter Notice (BP) *BPS is configured*	*If modification is accepted for an order with no BPS status and order price improves the market* *E.g. Price is modified / Quantity is increased / Quantity is decreased* ***Best Price Setter = 1*** *If modification of price or quantity increase is accepted for an order that loses its BPS status Previous BPS value was 1* *E.g. Quantity is increased (New Quantity > Remaining Quantity)* ***Best Price Setter = 0*** *If the modification of price or quantity increase is accepted and order that maintains its BPS status. Previous BPS value was 1* *E.g. Price is modified / Quantity is increased (New Quantity > Remaining Quantity)* ***Best Price Setter = 1***

Modification is Accepted, Order Trades against n Counterparts

Participant	Exchange	Participant (1..n) Counterparties	Notes

Participant		Exchange		Participant (1..n) Counterparties	Notes
Order Modification (OM)	→				
	←	Order Modification Acknowledge (KM)			
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*			***Best Price Setter = 1***
	←	Execution Notice (NT)	→		
	←	Execution Notice (NT)	→		
	←	Execution Notice (NT)	→		
Order Modification (OM)	→				*E.g. Quantity is increased* *New Quantity > Remaining Quantity*
	←	Order Modification Acknowledge (KM)			
	←	Best Price Setter Notice (BP) *If the BPS is configured*			*If modification of price or quantity increase is accepted for an order that loses its BPS status* ***Best Price Setter = 0*** *If modification of price or quantity increase is accepted for an order that maintains its BPS status* ***Best Price Setter = 1***

Cancellation is accepted

Participant		Exchange	Notes
Order Cancellation (XE)	→		
	←	Order Cancellation Acknowledgment (KZ)	

Cancel all Quotes of a Group for a Market Maker (Global Cancellation)

Participant		Exchange	Notes
Global Cancellation (GC)	→		
	←	Global Cancellation Acknowledgment (KG)	

8.8 Quote Processing

Any requested modification will trigger the quote to be re-evaluated and it will gain the BPS if it improves the market, regardless its previous BPS status.

Entering or Modifying Quotes

Participant		Exchange	Notes
Bulk Quote Data (BD)	→		*The clearing data present in the BD message is valid for all the Bulk quotes sent by this trader until either another BD message is sent or the end of the session.*
	←	Bulk Quote Data Acknowledgment (KD)	
Bulk Quote (Q<i>)	→		*The Message Type for bulk quote messages varies depending on the volume of quantity and price.*
	←	Bulk Quote Acknowledgment (LA)	

Participant		Exchange	Notes
	←	Best Price Setter Notice (BP) *If the BPS is configured and the quote price improves the market (for each single quote)*	***Best Price Setter = 1***
	←	Best Price Setter Notice (BP) *If the BPS is configured and modification of price or quantity is accepted for an quote that loses its BPS status (for each single quote)*	***Best Price Setter = 0***

Entering or Modifying Quotes that Trade

Participant initiator		Exchange		Participant (1..n)	Notes
Bulk Quote (Q<i>)	→				
	←	Bulk Quote Acknowledgment (LA)			
	←	Execution Notice (NT)			*One execution notice (Message Type NT) per trade.*
	←	Leg Execution Notice (NL)			*Several Leg Execution Notices also sent to Participant if Q<i> is on a Strategy Instrument*
		Execution Notice (NT)	→		
	←	Best Price Setter Notice (BP) *If the BPS is configured and the quote price improves the market (for each single quote)*			***Best Price Setter = 1***
	←	Best Price Setter Notice (BP) *If the BPS is configured and modification of price or quantity increase is accepted for an quote that loses its BPS status (for each single quote)*			***Best Price Setter = 0***

Request for Quote

Participant		Exchange	Notes

Participant		Exchange	Notes
Request for Quote (RQ)	→		
	←	Standard Acknowledgment (KO)	

8.9 Market Maker Messages

Market Maker Monitoring - Invalid Bulk Quote Grace Period Elapsed

Participant		Exchange	Notes
Bulk Quote (Q<i>)	→		*Invalid bulk quote.*
	←	Bulk Quote Acknowledgment (LA)	*The LA message contains the number of quotes in error.*
Market Maker status in Warning state. When grace period ends, it becomes in Infraction state.			
	←	Monitoring MM Status (MM)	*MM message is sent every time the Market Maker is Status = Infraction*
Bulk Quote (Q<i>)	→		*The Market Maker sends a valid new quote.*
	←	Bulk Quote Acknowledgment (LA)	
	←	Monitoring MM Status (MM)	*Status = OK*

Underlying last traded price raised an MM Infraction message

Participant		Exchange	Notes

Participant		Exchange	Notes
	←	Monitoring MM Status (MM)	*A MM message is sent only if the Market Maker is in infraction, following the last traded price on the underlying.*

Market Maker Protection Subscription Accepted

Participant		Exchange	Notes
Market Maker Protection Subscription (RP)	→		
	←	Standard Acknowledgment (KO)	

Market Maker Protection Subscription Rejected

Participant		Exchange	Notes
Market Maker Protection Subscription (RP)	→		
	←	Error Notice (ER)	

Market Maker Protection Triggered

Participant		Exchange	Notes
	←	Cancellation of all Quotes Notice (NP)	*A single NP message to indicate all cancelled quotes for a group and market maker.*

Underlying Price used to Determine MM obligation Surface

Participant		Exchange	Notes

Participant		Exchange	Notes
	←	Underlying Price (IX)	*It will be disseminated for each single group belonging to the given Underlying if the MM subscribed to the message and there is an Underlying Price movement.*

ATM series for MM obligations

Participant		Exchange	Notes
	←	Monitoring ATM Series (MU)	*For each group the ATM series will be disseminated if the MM subscribed to the message and there is an Underlying Price movement*

8.10Unsolicited Services

Cancellation of all Quotes and Orders for a Member for a Particular Group of Instruments (Initiated by the Exchange or GCM)

This command cancels all orders and quotes belonging to a given member for a particular group of instruments.

Participant		Exchange	Notes
	←	Order Cancellation Notice (NZ)	*One NZ message for each cancelled order.* *DC messages will specify that the action was performed by either the Exchange or the General Clearing Member (GCM).*
	←	Cancellation of all Quotes Notice (NP)	*A single NP message for all the cancelled quotes for the instruments belonging to the group.*

Eliminate all Orders for an Instrument (Initiated by the Exchange or GCM)

Participant		Exchange	Notes

Participant		Exchange	Notes
	←	Order Cancellation Notice (NZ)	*One NZ message for each cancelled order.* *DC messages will specify that the action was performed by either the Exchange or the General Clearing Member (GCM).*
	←	Cancellation of all Quotes Notice (NP)	*One NP message to all members to indicate that all quotes for all instruments on that group have been cancelled.*

Cancel all Quotes of a Market Maker or a Group (Initiated by the Exchange or GCM)

Participant		Exchange	Notes
	←	Cancellation of all Quotes Notice (NP)	*A single NP message for all the cancelled quotes of each group.* *DC message will specify that the action was performed by either the Exchange or the General Clearing Member (GCM).*

Cancel Trade on the Last Price (Initiated by the Exchange)

Participant		Exchange	Notes
	←	Execution Cancellation Notice (NX)	

Create Manual Trade with or without Impact on the Last Price (Performed by the Exchange at Client's request)

Participant		Exchange	Notes
	←	Execution Notice (NT)	
	←	Leg Execution Notice (NL)	*Several Leg Execution Notices NL sent for each NT if instrument is a strategy.*

8.11 Strategy Messages

User defined Strategy (FLEXCO) Creation Request Accepted

Participant		Exchange	Notes
New Strategy Instrument (ON)	→		
	←	New Strategy Instrument Acknowledgement (KN)	

User defined Strategy (FLEXCO) Creation Request Rejected

Participant		Exchange	Notes
New Strategy Instrument (ON)	→		
	←	Error Notice (ER)	

Strategy Order trades partially against contra strategy order (same book)

Participant initiator		Exchange		Participant (1..n)	Notes
Order Entry (OE)					
	←	Order Acknowledgment (KE)			*Order Status = (blank) Order put in book*
	←	Execution Notice (NT)			*Quantity Traded*
	←	Leg Execution Notice (NL)			*One NL message per leg sent for each NT on the strategy to the submitting trader.*

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Best Price Setter Notice (BP) *If the BPS is configured and the order price improves the market*			***Best Price Setter = 1***
		Execution Notice (NT)	→		
		Leg Execution Notice (NL)	→		*One NL message per leg sent for each NT on the strategy to the counterpart trader*

Strategy Order fully trades against contra leg order (implied trade)

Participant initiator		Exchange		Participant (1..n)	Notes
Order Entry (OE)					
	←	Order Acknowledgment (KE)			*Order Status = X: Order Executed*
	←	Execution Notice (NT)			*Execution Notice for strategy instrument trade.*
	←	Leg Execution Notice (NL)			*Leg Execution Notices for NT message on strategy instrument.*
		Execution Notice (NT)	→		*Execution Notices for each counterpart resting leg order*

8.12Pre-Trade Validation Messages

Risk limits configuration or update by Risk Manager

Sail Participant		Exchange		Participant Risk Manager	Notes
			←	Risk Limits Configuration MK	*This message is used by Risk Managers to set risk limits for their managed entities*

Sail Participant		Exchange		Participant Risk Manager	Notes
		Bulk Command Message Acknowledge LB	→		*This message acknowledges the receipt of MK: Risk Limits Configuration*
		Risk Limits Usage Notice MN	→		*This message is sent by the Exchange to notify of current Risk Limits usage status after limits re-evaluation*
	←	Order Cancellation NZ			*All Sail Participant orders on the traded instrument/group are cancelled if any trade limit is breached* *Status = **T***
	←	Quotes cancellation NP			*All Sail Participant quotes on the traded instrument/group are cancelled if any trade limit is breached* *Cancel Reason = **S***

Order Triggers a Risk Limit Usage Notification

Sail Participant		Exchange		Participant Risk Manager	Notes
Order Entry/Order Modification OE/OM	→				*New order or modified causes a exposure risk limit to be reached*
	←	Order/Modification Acknowledgment KE/KM			*The order or modification is acknowledged*
		Risk Limits Usage Notice MN	→		*This message is sent by the Exchange to notify of current Risk Limits usage status*

Order Triggers Exposure Risk Limit

An incoming order hits a configured exposition risk limit and is rejected.

Sail Participant		Exchange		Notes

Sail Participant		Exchange		Notes
Order Entry/Order Modification **OE/OM**	→			*New order or modification would cause a risk limit to be reached*
	←	**Error Message** **ER**		*The rejection message will contain a specific error code indicating the limit that caused the rejection*

Trade Triggers Traded Risk Limit

An incoming order trades against trader booked order(s) and traded Risk limits configured for her team on the specific instrument is breached.

Sail Participant		Exchange		Participant Risk Manager	Notes
	←	Execution Notice NT			*Creation of a new trade causes a RiskLimit to be exceeded*
		Risk Limits Usage Notice MN	→		*This message is sent by the Exchange to notify of current Risk Limits usage status*
	←	Order Cancellation NZ			*All Sail Participant orders on the traded instrument are cancelled* *Status =* ***T***
	←	Quotes cancellation NP			*All Sail Participant quotes on the traded instrument are cancelled* *Cancel Reason =* ***S***

Market Maker Risk limits configuration or update by Risk Manager

Sail Participant		Exchange		Participant Risk Manager	Notes
			←	Risk Limits Configuration MQ	*This message is used by Risk Managers to set risk limits for their managed entities*
		Bulk Command Message Acknowledge LB	→		*This message acknowledges the receipt of MK: Risk Limits Configuration and MQ: MMP Limits Configuration messages*

Sail Participant		Exchange		Participant Risk Manager	Notes
	←	MMP Parameters Update Notice NQ			*This message is sent unsolicited by the Exchange to notify of effective Market Maker Protection parameters in case the one set by the Risk Manager are stricter than the one previously in force.*

Risk Manager sends a Master Switch message to disable a Trader

Sail Participant		Exchange		Participant Risk Manager	Notes
			←	Risk Master Switch RT	*This message is sent by a Risk Manager with the intent of disabling a managed entity and removing all its order and quotes.*
		Standard Acknowledgment KO	→		*This message acknowledges the correct receipt of the RT message.* *In case of error an ER message is sent.*
	←	Order Cancellation NZ			*All Trader's orders are cancelled* *Status = **R***
	←	Quotes cancellation NP			*All Trader's quotes are cancelled* *Cancel Reason = **S***

9.0 Appendix B: Trade reporting Message Flow

9.1 Cross/Committed functionality

Committed orders traded

Participant		Exchange		Participant Counterpart	Notes
Order Entry (OE)	→				*A valid Committed order is entered*
	←	Order Acknowledgment (KE)			*Order Status = Booked*
			←	Order Entry (OE)	*A valid opposite Committed order is entered*
		Order Acknowledgment (KE)	→		*Order Status = Executed*
	←	Execution Notice (NT)			
		Execution Notice (NT)	→		

Committed order cancelled by participant before it trades

Participant		Exchange	Notes
Order Entry (OE)	→		*A valid Committed order is entered*
	←	Order Acknowledgment (KE)	*Order Status = Booked*
Order Cancellation (XE)	→		
	←	Order Cancellation Acknowledge (KZ)	*Order Status= Cancelled*

Pending Committed order cancelled during the End Of Day Process

Participant		Exchange	Notes
Order Entry (OE)	→		*A valid Committed order is entered. Duration type is Day.*
	←	Order Acknowledgment (KE)	*Order Status = Booked*
End Of Day			
	←	Order Cancellation Notice (NZ)	*NZ is emitted per unexecuted Committed order entered for a given date.* *Order Status= Eliminated*

Entering an Accepted Cross Order

Participant		Exchange	Notes
Cross Entry (OX)	→		*A valid Cross order is entered.*
	←	Standard Acknowledgment (KO)	
	←	Execution Notice (NT)	*2 times*

Cross Order Rejected

Participant		Exchange	Notes
Cross Entry (OX)	→		*A invalid Cross order is entered.*
	←	Error Notice (ER)	

9.1 Flexible Series

Standard flow for flexible series creation

Participant		Exchange	Notes
Flexible creation request (FS)	→		
	←	Flexible creation acknowledgment (KF)	*Flexible creation ack. If creation is accepted, field 'Creation Status' will be returned with new value 'F': Flexible series created*

Message flow in case an instrument with the same characteristics already exists as a Flexible series

Participant		Exchange	Notes
Flexible creation request (FS)	→		
	←	Flexible creation acknowledgment (KF)	*Instrument creation ack. In case the instrument already exists on the market, KF message will returned the characteristics (Sico, ISIN, External Symbol) of the existing series and Creation Status= 'A': Flexible series already exists*

Message flow in case an instrument with the same characteristics already exists as a Standard series

Participant		Exchange	Notes
Flexible creation request (FS)	→		
	←	Flexible creation acknowledgment (KF)	*Instrument creation ack. In case the instrument already exists on the market, KF message will returned the characteristics (Sico, ISIN, External Symbol) of the existing series and Creation Status= 'S': Standard series already exists*

Message flow in case of flexible creation is rejected

Participant		Exchange	Notes
Flexible creation request (FS)	→		
	←	Error Notice (ER) *unsolicited*	*Example of Errors:* *0014: Syntax Error/Bad Delivery Date* *0014: Syntax Error/ Option Style must not be specified for Futures* *0014: Syntax Error/ Strike Price must not be specified for Futures* *0014;Syntax Error/ Call/Put must not be specified for Futures* *9020: Firm Creation Quotas Has Been Reached* *9031: Flex Series Delivery Date is not a valid trading day* *9032: Flex Series Delivery Date is out of allowed range* *1002: Group ID does not exist*

9.2 Inter Dealer Broker (IDB) Order

Single Proposal Request with Flexible series completed successfully

Participant initiator		Exchange		Participant (1 to n)	Notes
Proposal Request (PR)	→				*Trade proposal sent by the Initiator. It will be possible to specify at this level whether the trade is Published or Unpublished (only for flexible instruments).*
With original Initiator UserSequenceId	←	Proposal Acknowledgment (KB)			*Proposal acknowledgment indicating the double of legs specified in the initial Proposal Request with the* ***Trader ID*** *used.* ***Proposal Status = W: Waiting for approval*** *The Proposal legs with* ***Order Status = W: Waiting for approval*** *refer to the Proposal to be sent to the* ***Entering Firm ID*** *and the reverse sided Proposal to be sent to* ***Opposite Firm ID*** *(in the original PR).* ***Proposal Type = T: Inter Dealer Broker Order***
		Proposal Notice (PN) *unsolicited*	→		*Order Proposal Notice broadcast to all Participants of the Counterparty Firms (Entering and Opposite Firm of the Initial PR).* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related leg information.* ***Proposal Status = W: Waiting for approval*** ***Order Status = W: Waiting for approval*** ***Proposal Type = T: Inter Dealer Broker Order***
			←	Order Proposal (OB)	*Proposal Acceptance for one Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the* ***Trader ID*** *used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Order Proposal.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Order Proposal leg acceptance notice sent to the Initiator Participant with the details of the leg accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***
			←	Order Proposal (OB)	*Proposal Acceptance of the other involved Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the **Trader ID** used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the OB.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Proposal Update for leg acceptance notice sent to the Initiator Participant with the details of accepted leg.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = A: Approved***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been completed successfully* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related Proposal leg information initially sent plus the updated status:* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = A: Approved***
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*

Multiple Proposal Request against different Counterparties completed successfully

Participant initiator		Exchange		Participant (1 to n)	Notes
Proposal Request (PR)	→				*Multiple Proposal Request sent by the Initiator.*
With original Initiator UserSequenceId	←	Proposal Acknowledgment (KB)			*Proposal acknowledgment indicating the double of Legs specified in the initial Proposal Request with the **Trader ID** used.* ***Proposal Status = W: Waiting for approval*** *The Proposal legs with **Order Status = W: Waiting for approval** refer to the Proposal to be sent to the **Entering Firm ID** and the reverse sided Proposal to be send to **Opposite Firm ID** (in the original PR).* ***Proposal Type = T: Inter Dealer Broker Order***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Order Proposal Notice broadcast to all Participants of the Counterparty Firms (Entering and Opposite Firm of the Initial PR).* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related leg information.* ***Proposal Type = T: Inter Dealer Broker Order*** ***Proposal Status = W: Waiting for approval*** ***Order Status = W: Waiting for approval***
			←	Order Proposal (OB)	*Proposal Acceptance for one Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the **Trader ID** used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the OB.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Proposal leg acceptance notice sent to the Initiator Participant with the details of multiple leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***
			←	Order Proposal (OB)	*Proposal Acceptance of the other Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the **Trader ID** used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved***
		Order Acknowledgement (KE)	→		*A single KE will be sent for*

Participant initiator		Exchange		Participant (1 to n)	Notes
					every leg (committed order) of the OB. ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Proposal Update notice sent to the Initiator Participant with the details of multiple leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Updates (PU) will be received after* ***Proposal Status = A: Approved***
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been completed successfully* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related Proposal leg information initially sent plus the updated status:* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Notice (PN) will be received after* ***Proposal Status = A: Approved***
			←	Proposal Cancellation (XP)	*In case a* ***Proposal Status = A: Approved*** *is triggered it won't be possible to refuse the Proposal (XP)*
		Error Notice (ER)	→		***Error Code = 9033: Invalid Proposal ID or Confirmation Order ID***

PR Leg Modification by Participants (before Proposal Execution/Refusal)

Participant initiator	Exchange	Participant (1..n)	Notes

Participant initiator		Exchange		Participant (1..n)	Notes
			←	Order Cancellation (XE)	*Proposal leg cancellation request. This message can be sent by Participant once an OB has already been submitted but it's his intention to modify the committed order leg.* *It will be possible to re-submit it again with different clearing parameters.*
		Order Cancellation Acknowledgement (KZ)	→		*Proposal leg cancellation acknowledgment.* ***Order Status = A: Cancelled by trader***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the IDB Initiator Participant connection.* *Contains only the cancelled leg and Indicates the updated status:* ***Order Status = W: Waiting for approval*** ***Proposal Status = W: Waiting for approval***
			←	Order Proposal (OB)	*Re-submit Proposal Acceptance with reviewed Clearing Parameters.* *Note: This action is possible only if the proposal is still in* ***Proposal Status = W: Waiting for Approval****.* *In case of* ***Proposal Status = A: Approved*** *or* ***Proposal Status = R: Refused*** *the system will return an* ***Error***
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for approval***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the OB* ***Order Status = (blank): Order put in the order book***

Participant initiator		Exchange		Participant (1..n)	Notes
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Proposal leg acceptance notice sent to the Initiator Participant with the details of all the leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***

PR Cancellation by Initiator

Participant initiator		Exchange		Participant (1..n)	Notes
Proposal Cancellation (XP)	→				*Proposal cancellation specifying <u>any leg</u> (Original Order Id) of the Proposal and the **Refusal Reason***
	←	Proposal Cancellation Acknowledgement (KX)			*Proposal cancellation acknowledgment with the latest Order Status and the **Refusal Reason**. Specifies the **Trader ID** used.* ***Proposal Status = R: Refused***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the PR Initiator Participant connection.* *Contains only the refused leg with the latest Order Status and Indicates the **Refusal Reason**.* ***Proposal Status = R: Refused*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = R: Refused***
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related Proposal leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***

Participant initiator		Exchange		Participant (1..n)	Notes
			←	Order Proposal (OB)	*In case a **Proposal Status = R: Refused** is triggered, it will no longer be possible to accept (OB) or refuse (XP) a Proposal leg. For such transactions, the system will return an **Error Code = 9040: Proposal is no longer active*** *Note: In case an order (OB) has already been sent before the Proposal cancellation request, it will remain in the book of committed orders and it will expire at the end of trading day*
		Error Notice (ER)	→		***Error Code = 9040: Proposal is no longer active***

PR Leg Refusal by Participant

Participant initiator		Exchange		Participant (1..n)	Notes
			←	Proposal Cancellation (XP)	*Proposal leg refusal by Participant specifying an own leg (Original Order Id) received in the initial PN and the **Refusal Reason**.*
		Proposal Cancellation Acknowledgement (KX)	→		*Proposal leg refusal acknowledgment with the latest Order Status and the **Refusal Reason**. Specifies the **Trader ID** used.* ***Proposal Status = R: Refused***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the IDB Initiator Participant connection.* *Contains only the refused leg indicating the latest Order Status and the **Refusal Reason**.* ***Proposal Status = R: Refused.*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = R: Refused.***

Participant initiator		Exchange		Participant (1..n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related Proposal leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***

PR Cancellation by Market Supervision

Participant initiator		Exchange		Participant (1..n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related Proposal leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the IDB Initiator Participant connection in case of Market Operations Activities.* *Contains only the refused leg information and Indicates the **Refusal Reason**.* ***Proposal Status = R: Refused*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = R: Refused***

PR Leg Cancellation by Market Supervision

Participant initiator		Exchange		Participant (1..n)	Notes

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*	→		*Order cancellation notice for each cancelled Proposal leg (previously confirmed)* ***Order Status = M: Eliminated by Market Control***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the IDB Initiator Participant connection in case of Market Operations Activities.* *It is received one PU update for each refused leg.* ***Order Status = W: Waiting for approval*** ***Proposal Status = W: Waiting for Confirmation***

Proposal Request automatic cancellation at market closure (expiry)

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*	→		*Order expiration notice at the end of the trading day.* ***Order Status = E: The order has been eliminated by the trading engine.*** *Proposal Requests are valid only during the trading day.* *No specific message (PU nor PN) will be sent at market closure, but all confirmed legs will be removed.*

9.3 Bundle Order

Single Bundle Order with Flexible series completed successfully

Participant initiator		Exchange		Participant (1 to n)	Notes
Bundle Order (BO)	→				*Bundle proposal sent by the Initiator. It will be possible to specify at this level whether the trade is Published or Unpublished (only for flexible instruments).*

Participant initiator		Exchange		Participant (1 to n)	Notes
With original Initiator UserSequenceId	←	Proposal Acknowledgment (KB)			*Proposal acknowledgment indicating the double of Legs specified in the initial Bundle Order Proposal with own* ***Trader ID*** *used.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** *The Bundle Order Legs with* ***Order Status = (blank): Order put in the order book*** *relate to the own committed orders specified.* *The Bundle Order legs with* ***Order Status = W: Waiting for approval*** *refer to the reverse sided Proposal(s) to be sent to* ***Opposite Firm(s) ID*** *(in the original BO).*
With original Initiator UserSequenceId	←	Proposal Acknowledgement (KE)			*A single KE message will be sent for every leg (committed order) of the Bundle Order.* ***Order Status = (blank): Order put in the order book***
		Proposal Notice (PN) *unsolicited*	→		*Order Proposal Notice broadcast to all Participants of the Counterparty Firms.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related leg information.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** ***Order Status = W: Waiting for approval***
			←	Order Proposal (OB)	*Proposal Acceptance(in case the Participant is involved in more than one leg of the Bundle).*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the* ***Trader ID*** *used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Bundle.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of accepted leg.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = A: Approved***
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been completed successfully* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent plus the updated status:* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = A: Approved***
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*

Multiple Bundle Order against different Counterparties completed successfully

Participant initiator		Exchange		Participant (1 to n)	Notes
Bundle Order (BO)	→				*Bundle proposal sent by the Initiator.*

Participant initiator		Exchange		Participant (1 to n)	Notes
With original Initiator UserSequenceId	←	Proposal Acknowledgment (KB)			*Proposal acknowledgment indicating the double of Legs specified in the initial Bundle Order Proposal with own **Trader ID** used.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** *The Bundle Order Legs with **Order Status = (blank): Order put in the order book** relate to the own committed orders specified.* *The Bundle Order legs with **Order Status = W: Waiting for approval** refer to the reverse sided Proposal(s) to be send to **Opposite Firm(s) ID.***
With original Initiator UserSequenceId	←	Order Acknowledgement (KE)			*A single KE message will be sent for every leg (committed order) of the Bundle Order.* ***Order Status = (blank): Order put in the order book***
		Proposal Notice (PN) *unsolicited*	→		*Proposal Notice broadcast to all Participants of the Counterparty Firms.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related leg information.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** ***Order Status = W: Waiting for approval***
			←	Bundle Proposal (OB)	*Proposal Acceptance for one Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acknowledgment will be received by the Participant that sent the OB with the **Trader ID** used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Bundle.* ***Order Status = (blank): Order put in the order book*** ***Proposal Type = B: Bundle Order***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of multiple leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***
			←	Order Proposal (OB)	*Proposal Acceptance of the other Counterparty Firm.*
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with the **Trader ID** used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Bundle.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of multiple leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = A: Approved***

Participant initiator		Exchange		Participant (1 to n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been completed successfully* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent plus the updated status:* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = A: Approved***
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*
			←	Proposal Cancellation (XP)	*In case a **Proposal Status = A: Approved** is triggered it won't be possible to refuse the Proposal (XP)*
		Error Notice (ER)	→		***Error Code = 9033: Invalid Proposal ID or Confirmation Order ID***

Multiple Bundle Order against same Counterparty completed successfully

Workflow for Bundle Orders where the same Counterparty Firm is involved more than once.

Participant initiator		Exchange		Participant (1 to n)	Notes
Bundle Order (BO)	→				*Bundle proposal sent by the Initiator. It will be possible to specify at this level whether the trade is Published or Unpublished (only for flexible instruments).*

Participant initiator		Exchange		Participant (1 to n)	Notes
With original Initiator UserSequenceId	←	Proposal Acknowledgment (KB)			*Proposal acknowledgment indicating the double of Legs specified in the initial Bundle Order Proposal with own* ***Trader ID*** *used.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** *The Bundle Order Legs with* ***Order Status = (blank): Order put in the order book*** *relate to the own committed orders specified.* *The Bundle Order legs with* ***Order Status = W: Waiting for approval*** *refer to the reverse sided Proposal(s) to be send to* ***Opposite Firm(s) ID.***
With original Initiator UserSequenceId	←	Order Acknowledgement (KE)			*A single KE message will be sent for every leg (committed order) of the Bundle Order.* ***Order Status = (blank): Order put in the order book***
		Proposal Notice (PN) *unsolicited*	→		*Order Proposal Notice broadcast to all Participants of the Counterparty Firms.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related leg information.* ***Proposal Type = B: Bundle Order*** ***Proposal Status = W: Waiting for approval*** ***Order Status = W: Waiting for approval***
			←	Order Proposal (OB)	*Multiple Proposal Acceptance(in case the Participant is involved in more that one leg of the Bundle).*

Participant initiator		Exchange		Participant (1 to n)	Notes
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB with own* ***Trader ID*** *used.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Bundle.* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of multiple leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Updates (PU) will be received after* ***Proposal Status = A: Approved***
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been completed successfully* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent plus the updated status:* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = A: Approved*** *Note: No further Proposal Notice (PN) will be received after* ***Proposal Status = A: Approved***
	←	Execution Notice (NT) *unsolicited*	→		*Trade Execution*

BO Leg Modification by Participants (before Proposal Execution/Refusal)

Participant initiator		Exchange		Participant (1..n)	Notes
			←	Order Cancellation (XE)	*Bundle leg cancellation request. This message can be sent by Participant once an OB has already been submitted but it's his intention to modify the committed order leg.* *It will be possible to re-submit it again with different clearing parameters.*
		Order Cancellation Acknowledgement (KZ)	→		*Bundle leg cancellation acknowledgment.* ***Order Status = A: Cancelled by trader***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection.* *Contains only the cancelled leg and Indicates the updated status:* ***Order Status = W: Waiting for approval*** ***Proposal Status = W: Waiting for approval***
			←	Order Proposal (OB)	*Re-submit Proposal Acceptance with reviewed Clearing Parameters.* *Note: This action is possible <u>only</u> if the proposal is still in* ***Proposal Status = W: Waiting for Approval****.* *In case of* ***Proposal Status = A: Approved*** *or* ***Proposal Status = R: Refused*** *the system will return an* ***Error***
		Proposal Acknowledgement (KB)	→		*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for approval***
		Order Acknowledgement (KE)	→		*A single KE will be sent for every leg (committed order) of the Bundle* ***Order Status = (blank): Order put in the order book***

Participant initiator		Exchange		Participant (1..n)	Notes
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of all the leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***

BO Leg Modification by Initiator (before Proposal Execution/Refusal)

Participant initiator		Exchange		Participant (1..n)	Notes
Order Cancellation (XE)	→				*Bundle leg cancellation request. This message can be sent by the Initiator once an BO has already been submitted but it's his intention to modify the committed order leg.* *It will be possible to re-submit it again with different clearing parameters.*
	←	Order Cancellation Acknowledgement (KZ)			*Bundle leg cancellation acknowledgment.* ***Order Status = A: Cancelled by trader***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection.* *Contains only the cancelled leg and Indicates the updated status:* ***Order Status = W: Waiting for approval*** ***Proposal Status = W: Waiting for approval***
Order Proposal (OB)	→				*Re-submit Proposal Acceptance with reviewed Clearing Parameters.* *Note: This action is possible only if the proposal is still in **Proposal Status = W: Waiting for Approval**.* *In case of **Proposal Status = A: Approved** or **Proposal Status = R: Refused** the system will return an **Error***

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Proposal Acknowledgement (KB)			*Proposal Acceptance acknowledgment will be received by the Participant that sent the OB.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for approval***
	←	Order Acknowledgement (KE)			*A single KE will be sent for every leg (committed order) of the Bundle* ***Order Status = (blank): Order put in the order book***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Bundle leg acceptance notice sent to the Initiator Participant with the details of all the leg(s) accepted.* ***Order Status = (blank): Order put in the order book*** ***Proposal Status = W: Waiting for Approval***

BO Cancellation by Initiator

Participant initiator		Exchange		Participant (1..n)	Notes
Bundle Cancellation (XP)	→				*Bundle order cancellation specifying any leg (Original Order Id) of the BO and the* ***Refusal Reason***
	←	Proposal Cancellation Acknowledgement (KX)			*Bundle order cancellation acknowledgment with the latest Order Status and the* ***Refusal Reason****. Specifies the own* ***Trader ID*** *used.* ***Proposal Status = R: Refused***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection.* *Contains only the refused leg with the latest Order Status and Indicates the* ***Refusal Reason****.* ***Proposal Status = R: Refused*** *Note: No further Proposal Updates (PU) will be received after* ***Proposal Status = R: Refused***

Participant initiator		Exchange		Participant (1..n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***
			←	Order Proposal (OB)	*In case a **Proposal Status = R: Refused** is triggered, it will no longer be possible to accept (OB) or refuse (XP) a BO leg. For such transactions, the system will return an **Error Code = 9040: Proposal is no longer active*** *Note: In case an order (OB) has already been sent before the Bundle cancellation request, it will remain in the book of committed orders and it will expire at the end of trading day*
		Error Notice (ER)	→		***Error Code = 9040: Proposal is no longer active***

BO Leg Refusal by Participant

Participant initiator		Exchange		Participant (1..n)	Notes
			←	Proposal Cancellation (XP)	*Bundle leg refusal by Participant specifying an <u>own leg</u> (Original Order Id) received in the initial PN and the **Refusal Reason**.*
		Proposal Cancellation Acknowledgement (KX)	→		*Bundle leg refusal acknowledgment with the latest Order Status and the **Refusal Reason**. Specifies the own **Trader ID** used.* ***Proposal Status = R: Refused***

Participant initiator		Exchange		Participant (1..n)	Notes
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection.* *Contains only the refused leg indicating the latest Order Status and the **Refusal Reason**.* ***Proposal Status = R: Refused.*** *Note: No further Proposal Updates (PU) will be received after **Proposal Status = R: Refused***
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***

BO Cancellation by Market Supervision

Participant initiator		Exchange		Participant (1..n)	Notes
		Proposal Notice (PN) *unsolicited*	→		*Message sent to notify the Proposal has been refused.* *All Participants belonging to the Counterparty Firms will receive a unique PN containing all related BO leg information initially sent, with their latest Order Status.* ***Proposal Status = R: Refused*** *Note: No further Proposal Notice (PN) will be received after **Proposal Status = R: Refused***

Participant initiator		Exchange		Participant (1..n)	Notes
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection in case of Market Operations Activities.* *Contains only the refused leg information and Indicates the* ***Refusal Reason (E.g. Eliminated by Market Supervision)****.* ***Proposal Status = R: Refused*** *Note: No further Proposal Updates (PU) will be received after* ***Proposal Status = R: Refused***

BO Leg Cancellation by Market Supervision

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*	→		*Order cancellation notice for each cancelled BO leg (previously confirmed)* ***Order Status = M: Eliminated by Market Control***
With original Initiator UserSequenceId	←	Proposal Update (PU) *unsolicited*			*Sent to the BO Initiator Participant connection in case of Market Operations Activities.* *One PU update is received for each refused leg.* ***Order Status = W: Waiting for approval*** ***Proposal Status = W: Waiting for Confirmation***

BO automatic cancellation at market closure (expiry)

Participant initiator	Exchange	Participant (1..n)	Notes

Participant initiator		Exchange		Participant (1..n)	Notes
	←	Order Cancellation Notice (NZ) *unsolicited*	→		*Order expiration notice at the end of the trading day.* ***Order Status = E: The order has been eliminated by the trading engine.*** *Bundle Orders are valid only during the trading day.* *No specific message (PU nor PN) will be sent at market closure, but all confirmed legs will be removed.*