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Mercado Abierto Electrónico S.A.


Financial Information eXchange (FIX)

Rules of Engagement


Version 1.0

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Change log

Date	Version	Description	Author
Nov 30 th 2009	1.0	First version	DAA

Preface

Introduction

MAE provides a FIX interface to SIOPEL, its electronic trading system. This interface is implemented as a set of services that act as a gateway between FIX-enabled counterparties and SIOPEL called MAE-ORS.

FIX (Financial Information eXchange) is a technical specification for electronic communication of trade-related messages. It is an open standard managed by members of FIX Protocol Limited (<http://www.fixprotocol.org/>). It is assumed that the reader of this document has knowledge of the basic functioning of the FIX protocol.

This document outlines MAE FIX implementation and is provided for third-parties which need trading connectivity with SIOPEL for the markets supported by MAE in Argentina.

Abbreviations

FIX : Financial Information Exchange Protocol
 TCP : Transport Control Protocol
 MAE : Mercado Abierto Electronico S.A.
 OMS : Order management system
 ORS : Order routing system

Glossary

MAE : Mercado Abierto Electronico S.A., an electronic exchange based on Buenos Aires, Argentina. For more information visit <http://www.mae.com.ar>

Counterparty : Party to a trade.

FIX Gateway : Service that provides connectivity to third-party clients and brokerages using the FIX protocol.

Instrument : Financial capital in a readily tradable form.

Matching : The process by which two counter-parties that have engaged in a trade compare the settlement details of the trade provided by both. Matching is done to verify all aspects of a trade and ensure that all parties agree on the terms of the transaction.

Vendor : Institution that sells services to its clients. In the context of this document, a vendor is an institution that sells access to market data feeds and order management interfaces to an Exchange.


Entering Firm : Broker who has recorded or reported an execution. This field is particularly useful where the trade is entered into a trade recording system by a broker who is not a party to the trade, as it allows any inquiries or problem resolution to be directed to the appropriate source.

Entering Trader : Individual usually identified by a trading badge number or initials that actually enters an order to a market (especially in open outcry markets). Usually the Entering Trader is the same as the Executing Trader. However, under some circumstances the Entering Trader will have the trade executed by another trader who is then identified as the Executing Trader.

Executing Firm: Identifies executing / give-up broker.

Executing Trader: Trader or broker id associated with Executing Firm who actually executes the trade.

Order Gateway : The service provided by MAE which relays FIX messages from a thirdparty

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client, usually a vendor, to the SIOPEL system.

ORS : FIX Gateway used by MAE to provide FIX connectivity to its electronic trading system

SIOPEL : The system used by MAE to trade instruments listed in its market.

Implementation

Connectivity

MAE offers connectivity via VPN over internet or via our network providers (currently COMSAT, IPLAN, TELMEX).

Regardless of the physical connection used, one TCP socket (session oriented) has to be established between the client platform (vendor network or broker OMS) and our ORS gateway. In this connection our gateway acts as the server, accepting the connection. MAE will be the acceptor of the FIX session. Although heartbeat parameters can be negotiated and set, this connection should not have limitations of traffic or inactivity time controlled by firewalls or other network equipment. This means the connection should not fall due to traffic or lack of it.

Transport

Although TCP sockets are the only current transport implementation, this specifications are transport independent, according to the concept introduced by the 5.0 version of the FIX protocol. This version introduced the TI (transport independent) framework notion, standing that the application protocol messages can be sent over any suitable transport technology.

Encryption

MAE does not support built-in FIX encryption. Security of the connection is provided by the lower layers (VPN in the case of Internet, for example) and physical isolation for dedicated links. MAE technical areas perform audits in case there is the suspicion of illegal connection procedures.

FIX version

The MAE FIX engine works with the 4.4 version of the specification.

Architecture

MAE ORS (FIX gateway) is implemented as a set of services running in one or several servers, developed over a licensed framework which implements SEDA (stage event driven architecture).

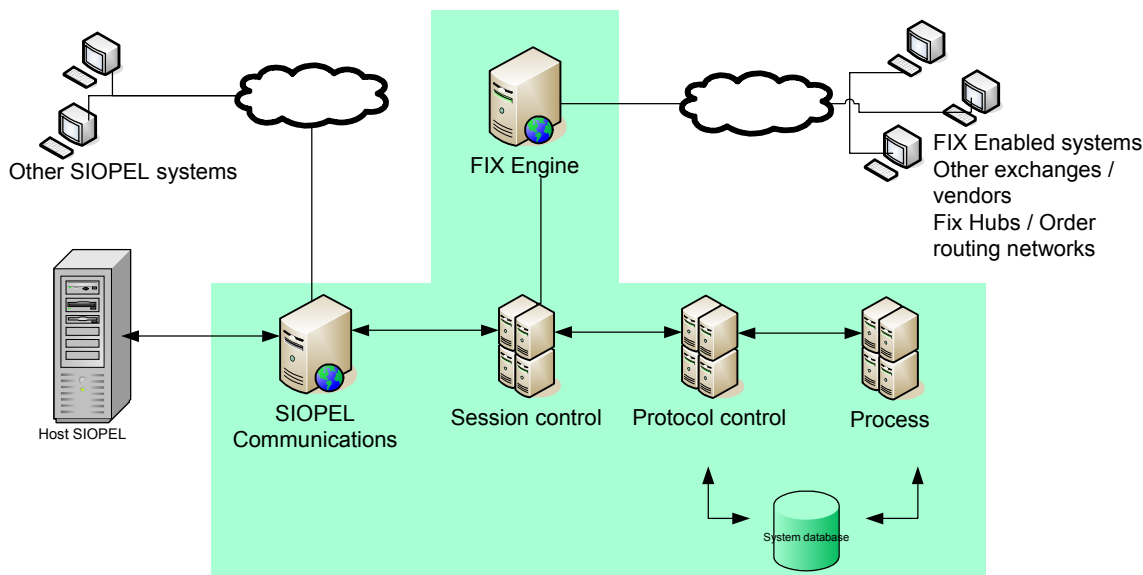


Figure 1 – MAE FIX gateway implementation

Counter Party Identification

FIX Comp IDs

FIX connections are established based on “comp IDs” – fields that identify, on the session level, the counterparty in the connection. These IDs do not convey trader or firm information. They are used only on the FIX session level.

One connection is thus identified by a unique Sender-Target pair. In MAE one of the elements will always be MAE-ORS (proper Comp ID will be provided with other connection specifications).

FIX Comp IDs will be assigned by MAE to connecting counterparties.


Instrument Identification

Fields of the Instrument block

Instruments are uniquely identified using the tags below.

Tag	Tag name	Req'd	Data Type	Coment
48	SecurityID	Y	String	Security ID as defined by MAE. Proper SecurityID list will be delivered by MAE to authorized counterparties. See “Security list request” to know how to obtain the list programmatically.
22	SecurityIDSource	N	String	Valid values: 8 = Exchange Symbol (MAE Security Identification)

Other tags as ‘Symbol’ are accepted but not used for instrument identification since the only Security IDs used will be the ones issued by MAE (which may be identical to the SIOPEL codes or not, since MAE ORS can have its own codes for instruments or use those of SIOPEL).

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SecurityID can contain only the instrument code or, if applicable, also information about coupon trading. The MAE structure

- Instrument code (characters 1 to 5)
- Coupon (C if a particular coupon is being traded, empty if the whole instrument is, character 6)
- Coupon number (characters 7 to 9 filled with zeros to the left if character 6 is C)

Can be used or if only the first five characters are used the coupon information is assumed empty.

Standard Header/Trailer

Standard Header

All messages, in both directions, must be initiated with the FIX standard header.

See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_49485052.html

The following list includes only required fields, please see the FIX protocol specification for complete description.


Tag	Field Name	Req'd	Comments
8	BeginString	✓	"FIX.4.4" (Always unencrypted, must be first field in message)
9	BodyLength	✓	(Always unencrypted, must be second field in message)
35	MsgType	✓	(Always unencrypted, must be third field in message)
49	SenderCompID	✓	(Always unencrypted) Contact MAE for appropriate assignement
56	TargetCompID	✓	(Always unencrypted) Contact MAE for appropriate assignement
...			
34	MsgSeqNum	✓	
...			
52	SendingTime	✓	

Standard Trailer

All messages, in both directions, must end with the FIX standard trailer.

See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_49485053.html

Tag	Field Name	Req'd	Comments
-----	------------	-------	----------

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10	Checksum	✓	(Always unencrypted, always last field in message)
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Message Summary

Session Messages

Session messages do not contain business or trade information, they enable the protocol to establish a session, negotiate parameters and maintain session control.

The following table summarizes the session messages supported by MAE, as defined by the FIX protocol.

Message	FIX Message type
Logon	A
Heartbeat	0
Test request	1
Resend request	2
Reject	3
Sequence reset	4
Logout	5

Brief description and parameters used by MAE

Logon (msgtype=A)

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

EncryptedMethod (tag 98) must be 0 (see above "Encryption").

Heartbeat (MsgType = 0)

The Heartbeat monitors the status of the communication link and identifies when the last of a string of messages was not received.


Value recommended = 30 (see tag 108 HeartBtInt of Logon Message).

Test Request (MsgType = 1)

The FIX Test Request (1) message requests a heartbeat from the counterparty. The Test Request message checks sequence numbers or verifies the communication line status. The opposite application responds to the Test Request with a Heartbeat (MsgType = 0) message, echoing the TestReqID (112) tag contained in the request.

Resend Request (MsgType = 2)

The resend request is sent by the receiving application to initiate message retransmission. This function is used if a gap in sequence numbers is detected, if the receiving application lost a message, or as a part of the initialization process.

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Reject (MsgType = 3)

The FIX Reject (3) message should be issued when a message is received but cannot be properly processed due to a session-level rule violation

Values issued by MAE for the tag SessionReject Reason (373) include

- 0 = Invalid tag number
- 1 = Required tag missing
- 2 = Tag not defined for this message type
- 3 = Undefined Tag
- 4 = Tag specified without a value
- 5 = Value is incorrect (out of range) for this tag
- 6 = Incorrect data format for value
- 9 = CompID problem
- 10 = SendingTime accuracy problem
- 11 = Invalid MsgType
- 13 = Tag appears more than once
- 14 = Tag specified out of required order
- 15 = Repeating group fields out of order
- 16 = Incorrect NumInGroup count for repeating group
- 17 = Non "data" value includes field delimiter (SOH character)
- 99 = Other

Sequence Reset (MsgType = 4)

The Sequence Reset (4) message has two modes: Gap Fill mode and Reset mode.

Gap Fill mode is used in response to a FIX Resend Request (2) when one or more messages must be skipped

Reset mode involves specifying an arbitrarily higher new sequence number to be expected by the receiver of the FIX Sequence Reset (4) message, and is used to reestablish a FIX session after an unrecoverable application failure.

Logout (MsgType = 5)

The FIX Logout (5) message initiates or confirms the termination of a FIX session. Disconnection without the exchange of Logout messages should be interpreted as an abnormal condition.

See complete layouts for the 4.4 version in <http://www.fixprotocol.org>

Application Messages

Application messages contain trade information and business logic, the set of the messages supported (all of the following) is a subset of the total defined by the protocol and defines which operations can be performed with the MAE interfase.

Message	FIX Message type	Sent by MAE	Received by MAE
New order single	D		X
Execution report	8	X	
Order status request	H		X
Order mass status request	AF		X

Order cancel replace request	G		X
Order cancel request	F		X
Order mass cancel request	Q		X
Order mass cancel report	r	X	
Order cancel reject	9	X	
Security List Request	x		X
Security List	y	X	
News	B	X	

Any unsupported messages received by MAE will be rejected with a Business Message Reject message, with tag BusinessRejectReason (380) = 3 (unsupported message type).

Message flow

The following figures show the application level message flow between MAE electronic trading system (SIOPEL), ORS FIX gateway and FIX clients and how FIX messages and events are translated to SIOPEL protocol and back (certain SIOPEL protocol knowledge is assumed).

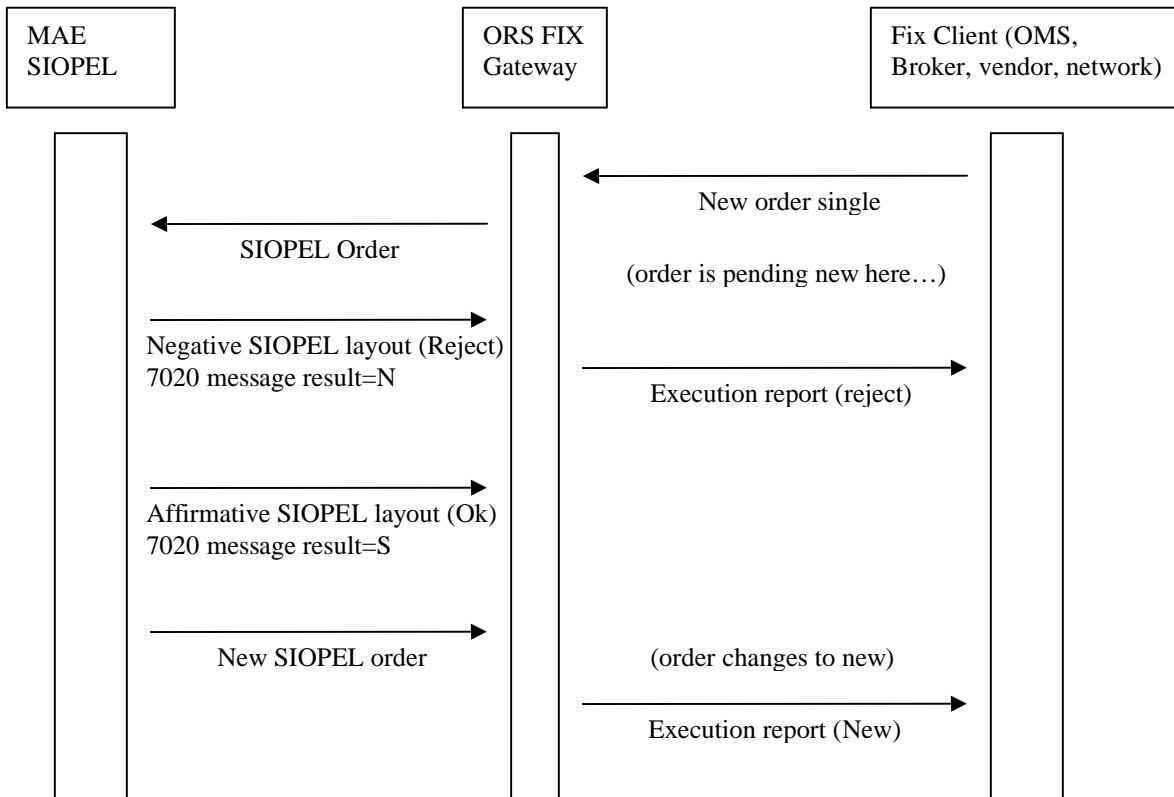


Figure 2 – New order message flow

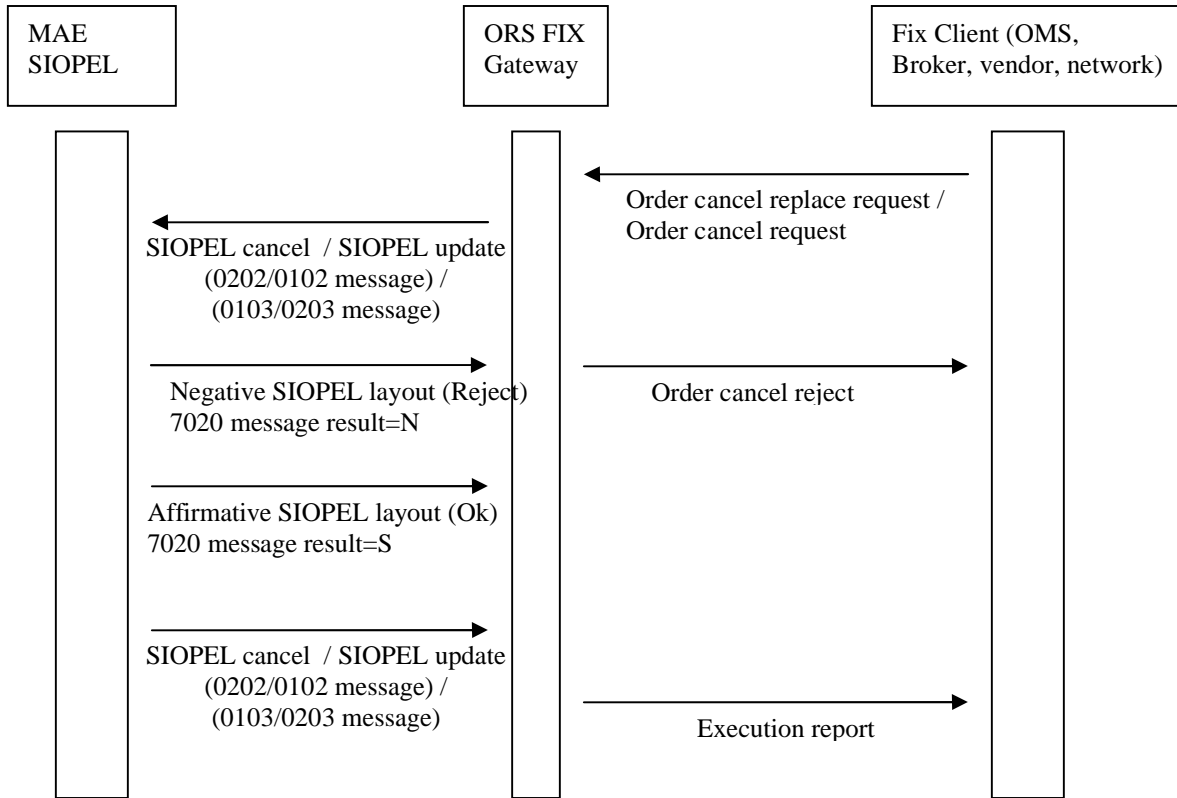


Figure 3 – Order cancel or replace message flow

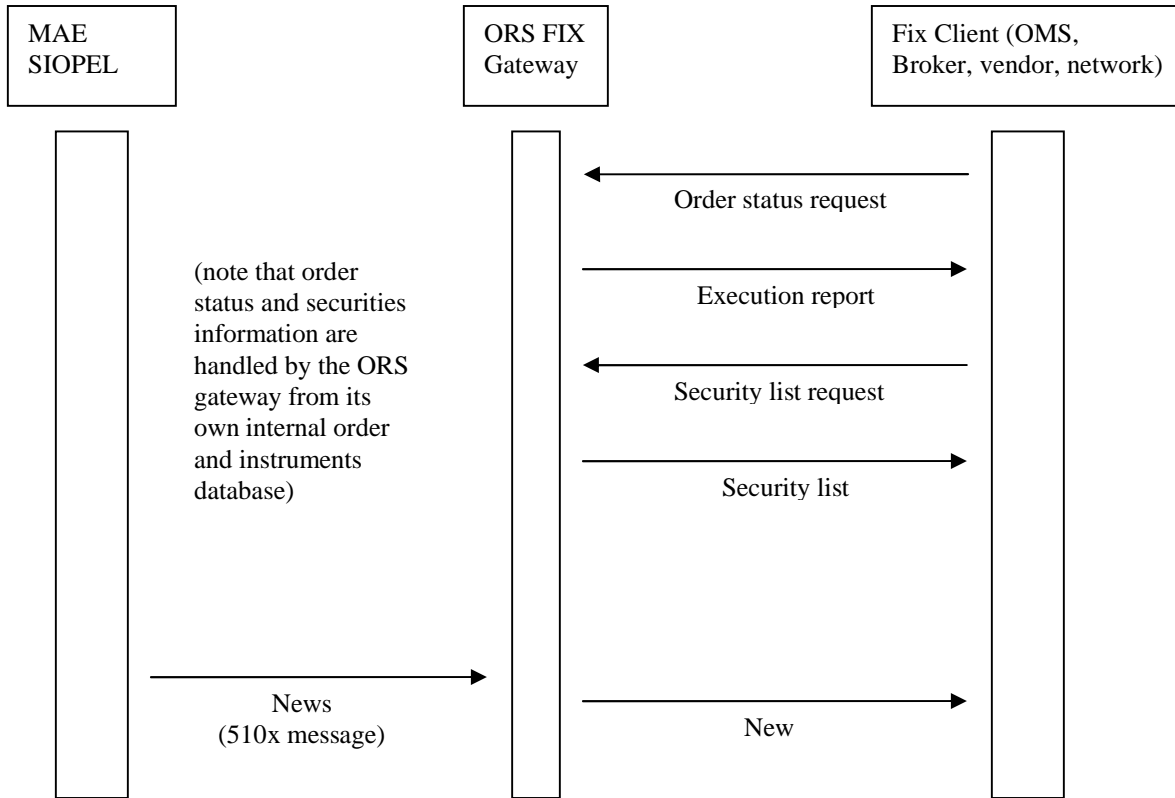


Figure 4 – Order status, security list and news message flow

Order Management

This section describes messages exchanged that are relevant to order management, i.e. the sending of orders, cancellations, modifications and reporting of state changes.

The following diagram illustrates the lifecycle of an order in MAE trading system. It represents the possible states indicated in the OrdStatus field.

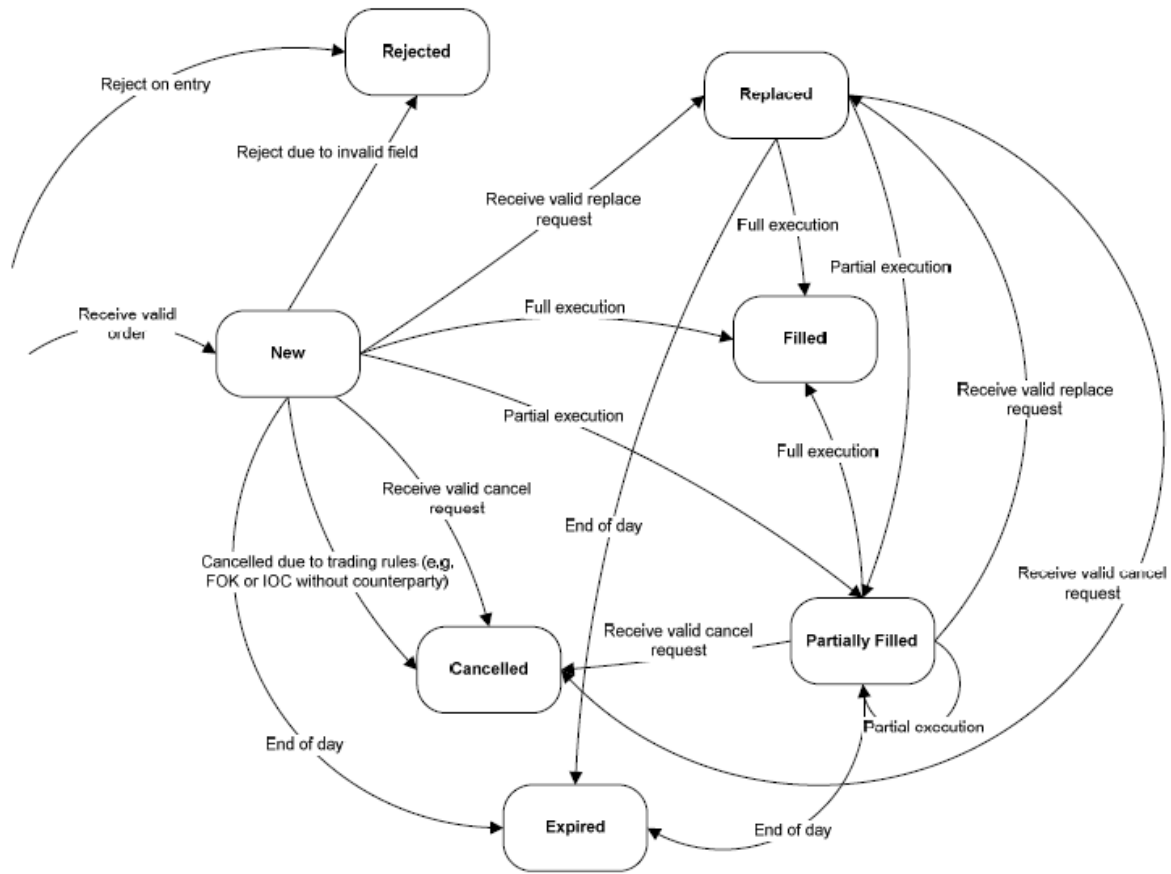


Figure 5 – Order lifecycle state diagram

Following are message by message specifications, with special focus on New Order Single and Execution report, where the connecting counterparty can focus to understand the particular treatment that some fields have to receive in order to comply with MAE rules. After those, only brief descriptions of the rest of the messages and special considerations are included.

New Order Single (MsgType = D)


The New Order Single message is used by institutions to electronically submit orders for execution to MAE.

Orders should have a unique identifier (see tag ClOrdID <11>) assigned by the institution for a trading day. Orders with duplicate identifiers will be rejected by MAE.

The reject of a New Order Single message is issued by MAE in the form of an Execution Report message.

The acknowledgment of receipt of a New Order Single message is issued by MAE in the form of an Execution Report message.

Important : if the order is to be manually handled by the trader who receives it (HandInst=3 see below) two different execution reports are to be received : the first acknowledges reception and delivery to the trader and the second informs that the order has been handled (is being traded).

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Trading on Behalf Considerations

An order may be entered into the trading system on behalf of another firm or another trader. There are two terms to specify the parties on an order: the entering trader (or firm) and the executing trader (or firm).

The entering trader is the trader who “owns” the order, i.e. the trader whose limits will be applied to, or the one against whose account the settlement will occur. The executing trader is the trader that actually inserts the order into the trading system. Most of the time, the entering trader **is** the executing trader; therefore there is no need to specify the executing trader. However, when a trader inserts an order into the system on behalf of another trader (i.e. is trading on behalf of another trader), this trader is the executing trader.

Entering and executing trader concepts are mapped to the SIOPEL concepts of “agent” and “on behalf of”, wherever allowed by the market definitions (SIOPEL parametrically handles the notion that certain negotiations and markets allow trading on behalf and certain do not).

Filling correctly the Parties component is key to specify this roles : MAE ORS will translate party roles according to the following table

PartyRole tag in NoPartyIDs	Will translate to SIOPEL field	Is trader
36	Agente	Entering
12	Comitente	Executing

Partyrole tag different than these will not affect the interpretation of the roles in the SIOPEL message.

Message structure


The following is the message structure of the New order single message as defined in the 4.4 FIX specification, with comments regarding interpretation and use of certain fields by MAE.

Message must include also the user defined fields used to represent concepts of the trade not yet supported by the protocol in standard fields that are listed after message structure.


“Information” means that the field is stored in the ORS internal database but not translated into a SIOPEL field (therefore not handled by the trading system). This data is stored to be included in execution reports or for future uses.

“Not used” means this fields are neither stored nor sent to the trading system (SIOPEL)


Tag or Component	Field Name	Req'd	FIX Comments	MAE comment
Component (-)	StandardHeader	✓	MsgType = D	Use Comp Ids assigned by MAE, no built-in encryption

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		✓		
11	CIOrdID		Unique identifier of the order as assigned by institution or by the intermediary (CIV term, not a hub/service bureau) with closest association with the investor.	Used as primary ID
526	SecondaryCIOrdID			Information
583	CIOrdLinkID			Information
Component (-)	Parties		Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"	See use of partyroles
Repeating Group 453	NoPartyIDs		Repeating group below should contain unique combinations of PartyID, PartyIDSource, and PartyRole	
448	PartyID			ID Assigned by MAE
447	PartyIDSource			Only MAE (see above)
452	PartyRole			36=Agent, 12=On behalf
end Repeating Group				
end Component				
229	TradeOriginationDate			Not used
75	TradeDate			Will be used as date
1	Account			Information
660	AcctIDSource			Information
581	AccountType		Type of account associated with the order (Origin)	Information

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589	DayBookingInst		Not used
590	BookingUnit		Not used
591	PreallocMethod		Not used
70	AllocID	Used to assign an overall allocation id to the block of preallocations	Not used
Component (-)	PreAllocGrp	Number of repeating groups for pre-trade allocation	Not used
63	SettlType		Used for period calculation (settlement)
64	SettlDate	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.	Used for period calculation (settlement)
544	CashMargin		Not used
635	ClearingFeeIndicator		Not used
21	HandlInst		Will determine if orders are to be delivered to a trader ("orden") for handling (value 3) or automatically executed by the system ("oferta")
18	ExecInst	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, W, a, d) must be specified.	Not used

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			Used to determine if order allows partial execution
110	MinQty		
			Used to determine if the order is to be shown in partial segments or as a whole
111	MaxFloor		
100	ExDestination		Not used
Component (-)			
	TrdgSesGrp		Specifies the number of repeating TradingSessionIDs
			Not used
81	ProcessCode		Used to identify soft trades at order entry.
			Not used
Component (-)		✓	
	Instrument		Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
			Only SecurityID is identification of instrument (see above)
55	Symbol		
			Common, "human understood" representation of the security. SecurityID value can be specified if no symbol exists (e.g. non-exchange traded Collective Investment Vehicles) Use "[N/A]" for products which do not have a symbol.
			Information

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			Used in Fixed Income with a value of "WI" to indicate "When Issued" for a security to be reissued under an old CUSIP or ISIN or with a value of "CD" to indicate a EUCP with lump-sum interest rather than discount price.	Not used
65	SymbolSfx			
48	SecurityID		Takes precedence in identifying security to counterparty over SecurityAltID block. Requires SecurityIDSource if specified.	Used to identify instrument
22	SecurityIDSource		Required if SecurityID is specified.	Always MAE
Component (-)	SecAltIDGrp		Number of alternate Security Identifiers	Not used
Component (-)	FinancingDetails		Insert here the set of "FinancingDetails" (symbology) fields defined in "Common Components of Application Messages"	StartDate and EndDate can be used for settlement date calculation if settledate not informed. DeliveryType can be used only with value 0 for DVP (otherwise determined by the system based on instrument)
140	PrevClosePx		Useful for verifying security identification	Not used
54	Side	✓		Sell or buy

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114	LocateRegd		Required for short sell orders	Not used
		✓		
60	TransactTime		Time this order request was initiated/released by the trader, trading system, or intermediary.	Will be use as time
Component (-)	Stipulations		Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "Common Components of Application Messages"	Not used
854	QtyType			Not used
		✓		
Component (-)	OrderQtyData		Insert here the set of "OrderQtyData" fields defined in "Common Components of Application Messages"	OrderQty is used for quantity of the order
38	OrderQty		One of CashOrderQty, OrderQty, or (for CIV only) OrderPercent is required. Note that unless otherwise specified, only one of CashOrderQty, OrderQty, or OrderPercent should be specified.	See previous
		✓		Order type. Values accepted by MAE: 2 = Limit 3 = Stop 4 = Stop Limit (see Price tag)
40	OrdType			
423	PriceType			Information

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			In MAE matching system, all order behave like stop orders, being impossible to avoid to get a better price if available, thus making the limit order behavior not accurate. Price will always be used unless empty and StopPx specified.
44	Price		Required for limit OrdTypes. For F/X orders, should be the "all-in" rate (spot rate adjusted for forward points). Can be used to specify a limit price for a pegged order, previously indicated, etc.
99	StopPx		Required for OrdType = "Stop" or OrdType = "Stop limit".
Component (-)	SpreadOrBenchmarkCurveData		Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "Common Components of Application Messages"
Component (-)	YieldData		Insert here the set of "YieldData" (yield-related) fields defined in "Common Components of Application Messages"
15	Currency		Always Required
376	ComplianceID		Not used
377	SolicitedFlag		Information

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			Required for Previously Indicated Orders (OrdType=E)	Not used
23	IOIID			
			Required for Previously Quoted Orders (OrdType=D)	Information
117	QuotelD			<p>Specifies how long the order remains in effect. Absence of this field is interpreted as DAY. Values accepted by MAE:</p> <p>0 = Day (or session) Interpreted as GTC 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD)</p> <p>Note that SIOPEL handles GTC as Day unless otherwise configured in the system</p>
59	TimeInForce		Absence of this field indicates Day order	
			Can specify the time at which the order should be considered valid	Information
168	EffectiveTime			
			Conditionally required if TimeInForce = GTD and ExpireTime is not specified.	Used with GTD
432	ExpireDate			

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			Conditionally required if TimeInForce = GTD and ExpireDate is not specified.	Used with GTD
126	ExpireTime			
427	GTBookingInst		States whether executions are booked out or accumulated on a partially filled GT order	Not used
Component (-)	CommissionData		Insert here the set of "CommissionData" fields defined in "Common Components of Application Messages"	Information
12	Commission			Information
13	CommType			Information
479	CommCurrency		For CIV - Optional	Information
497	FundRenewWaiv		For CIV - Optional	Not used
end Component				
528	OrderCapacity			Information
529	OrderRestrictions			Not used
582	CustOrderCapacity			Information
121	ForexReq		Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.	Not used
120	SettlCurrency		Required if ForexReq = Y.	Not used

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			Can be used with OrdType = "Forex - Swap" to specify the price for the future portion of a F/X swap which is also a limit order. For F/X orders, should be the "all-in" rate (spot rate adjusted for forward points).	Not used
640	Price2			
			For use in derivatives omnibus accounting	Not used
77	PositionEffect			
			For use with derivatives, such as options	Not used
203	CoveredOrUncovered			
210	MaxShow			Not used
			Insert here the set of "PegInstruction" fields defined in "Common Components of Application Messages"	Not used
Component (-)	PegInstructions			
			Insert here the set of "DiscretionInstruction" fields defined in "Common Components of Application Messages"	Not used
Component (-)	DiscretionInstructions			
847	TargetStrategy		The target strategy of the order	Not used
			For further specification of the TargetStrategy	Not used
848	TargetStrategyParameters			

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			Mandatory for a TargetStrategy=Participate order and specifies the target participation rate. For other order types optionally specifies a volume limit (i.e. do not be more than this percent of the market volume)	Not used
849	ParticipationRate			
480	CancellationRights		For CIV - Optional	Not used
481	MoneyLaunderingStatus			Information
513	RegistID		Reference to Registration Instructions message for this Order.	Not used
494	Designation		Supplementary registration information for this Order	Not used
Component (-)	StandardTrailer	✓		

Important user defined fields to be included in New Order Single message

Tag or Component	Field Name	Req'd	FIX Comments	MAE comment
5682	ExchangeTradeBoard	✓	User defined	Used as "Rueda" within SIOPEL, will be determined by the system if not informed.

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	✓	
5681	ExchangeTradeType	User defined
		Used as "Negotiation Type" : in SIOPEL the same instrument can be traded in a variety of ways. Will be determined by the system with a default value if not informed.

Execution report (MsgType = 8)

The Execution Report message is used in the following scenarios:

- Confirm the receipt of an order;
- Confirm changes to an existing order (i.e. accept order cancel requests);
- Relay order status information;
- Relay fill information on working orders (trades);
- Reject orders.

Each execution report contains two fields which are used to communicate both the current state of the order as understood by the broker and the purpose of the message: OrdStatus (used to convey the current status of an order) and ExecType (used to identify the purpose of the Execution Report message).


End of Day Considerations

At the market closing trading phase, all unexecuted orders are cancelled from the order book, causing the generation of Execution Report messages with OrdStatus=Cancelled and ExecType=Expired to the order owners.


Message information

From all the fields accepted by the protocol specification (see http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_5756.html) the following are the ones that MAE include in its messages :

Field	Type	Tag	Comments
OrderId	String	37	Id assigned by the system
ClOrdID	String	11	Id known by the owner
SecondaryClOrdID	String	198	If sent in the order, the system stores it and includes the field in this message
ClOrdLinkID	String	583	If sent in the order, the system stores it and includes the field in this message

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Instrument.SecurityId	String	48	Original SecurityID sent in the order
Instrument.SecurityId Source	String	22	Original SecurityIDSource sent in the order, if any
OrderQtyData.OrderQty	Number	38	Quantity
OrdType	String		Order type Valid values : 0 – New 1 – Partially Filled 2 – Filled 4 – Canceled 5 – Replaced (Removed/Replaced) 8 – Rejected
OrdStatus	String	39	2 – Filled 4 – Canceled 5 – Replaced (Removed/Replaced) 8 – Rejected
Side	String	54	Side of order. Valid values: 1 = Buy 2 = Sell
Text	String	58	Original text sent in the order or reject reason in case of status 8 (rejected)
Parties	Component		Original parties component
ExecType	String	150	If sent in the order, the system stores it and includes the field in this message
LeavesQty	Number	151	Amount of shares open for further execution. If the OrdStatus is Canceled, DoneForTheDay, Expired, Calculated, or Rejected (in which case the order is no longer active) then LeavesQty is 0, otherwise LeavesQty = OrderQty - CumQty.
CumQty	Number	14	Total number of shares or contracts filled.
AvgPx	Number	6	Average price in executions over this order
OrdStatusReqID	String	790	ID of the Order Status Request message being answered, if any For optional use with ExecType = 8 (Rejected). Code to identify reason for order rejection. Valid values: 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order (e.g. dupe ClOrdID)
OrdRejReason	Number		1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order (e.g. dupe ClOrdID)

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11 = Unsupported order characteristic
13 = Incorrect Quantity
15 = Unknown Account
99 = Other (generic error, see tag Text)

Order Status Request (MsgType = H)

The Order Status Request message is used by the client institution to request the current status of an order previously sent. An accepted Order Status Request is responded to with an Execution Report message containing the status of the order defined by the tag ClOrdID and ID of the Order Status Request message it is responding to.

This is the standard structure of the message. Note that Order IDs and other components are needed to identify uniquely the order being requested. Note also the possible use of OrdStatusReqID to identify uniquely a request and its answering execution report.

Tag or Component	Field Name	Req'd	Comments
Component (-)	StandardHeader	✓	MsgType = H
37	OrderID	✓	
11	ClOrdID	✓	The ClOrdID of the order whose status is being requested.
526	SecondaryClOrdID		
583	ClOrdLinkID		
Component (-)	Parties		Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages"
790	OrdStatusReqID		Optional, can be used to uniquely identify a specific Order Status Request message. Echoed back on Execution Report if provided.
1	Account		
	AcctIDSource		

660			
Component (-)	Instrument	✓	Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
54	Side	✓	
Component (-)	StandardTrailer	✓	

Order Mass Status Request (MsgType = AF)

This message is used to request the history of all orders (open and closed) in a trading session: the response to this message is a series of Execution Report messages (sent in the order they occurred) that represents the history of the execution reports issued for orders of that trader in a trading session. The result of the request is returned according to the filtering criteria specified by the Parties repeating group (tags NoPartyIDs, PartyID, PartyIDSource and PartyRole).

The regular usage of order mass status request, to request the current status of all open orders according to search criteria, will be supported in later releases.

If no orders match the criteria entered in the Order Mass Status Request message, then an Execution Report (message type 8) will be returned with the following tags set:


- OrderID <37> = "UNKNOWN";
- Symbol <55> = "[N/A]";
- MassStatusReqID <584> = original MassStatusReqID value from the request;
- TotNumReports <911> = 0 (this indicates that no orders matched the criteria);
- LastRptRequested <912> = Y;
- All other quantity and price fields, as well as side <54> should be ignored.

See protocol specifications (http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_54536570.html) for complete message structure, but remember only the Parties criteria is allowed for the request, so 8 is the only value allowed for MassStatusRequestType and a valid Parties block has to be included.

Order Cancel Replace Request (MsgType = G)

The Order Cancel Replace Request message is used to change the parameters of a previously entered order. It may be used to change any attribute of an order (i.e. reduce/increase quantity, change price, etc.)

The Cancel/Replace request will only be accepted if the order can successfully be pulled back from the exchange floor without executing. Requests which cannot be processed will be rejected using the Order Cancel Reject message, containing the ClOrdID of the cancel/replace request and the OrigClOrdID of the order the client is trying to cancel. The client has cancel the order by its OrderID.

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Only the fields that are being changed need to be sent in the replacement. Fields that are not sent are considered to be the same as the cancelled order. Only the following fields may change:

- **Quantities (OrderQty, MinQty, MaxFloor);**
- **Prices (Price, StopPx);**

Attempts to change another field will be rejected with an Order Cancel Reject, with tag CxlRejectReason (102) = 2 (Exchange/Broker option) and a description in tag Text (58).

An order that is replaced will keep its OrderID.

See protocol specifications for complete layout :

http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_495571.html .

Order Cancel Request (MsgType = F)

The Order Cancel Request message requests the cancellation of all of the remaining quantity of an existing order. The request will only be accepted if the order can successfully be pulled back from the exchange floor without executing.

A cancel request is assigned a ClOrdID and is treated as a separate entity. If rejected, the ClOrdID of the cancel request will be sent in the Cancel Reject message, as well as the ClOrdID of the actual order in the OrigClOrdID field. The ClOrdID assigned to the cancel request must be unique amongst the ClOrdID assigned to regular orders and cancellation requests. Although MAE will not validate for uniqueness of ClOrdID of Order Cancel Request messages, connecting parties are strongly advised to do so.

An Execution Report message responds to an accepted Order Cancel Request message.

In examining the complete layout (http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_495470.html) note that the ClOrderID (ID provided and known by the owner) is needed. This covers the case of orders not yet approved by the trading system or handled by the trader not having an OrderID assigned yet.

Order Mass Cancel Request (MsgType = q)

The Order Mass Cancel Request message is used to cancel all the remaining quantity of open orders according to criteria specified by the client institution. This message is uniquely identified by the value in the ClOrdID field (note that it is NOT the ClOrdID of the orders to be cancelled).

This message is acknowledged with the Order Mass Cancel Report. It will cross-reference the original request message by the ClOrdID field. An individual Execution Report or Order Cancel Reject message will be issued to requestor indicating the result of the operation for each individual order contained in the Order Mass Cancel request.

The cancellation criteria are specified in the MassCancelRequestType field. Only values accepted by MAE are 1 (all orders of an instrument) and 7 (all orders).


See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_5348113.html for complete layout.

Order Mass Cancel Report (MsgType = r)

The Order Mass Cancel Report is used to acknowledge an Order Mass Cancel Request. It will reference the original request by the ClOrdID field.

Note that each affected order that is affected is acknowledged with a separate Execution Report or Order Cancel Reject message.

Complete layout in http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_5349114.html

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Security List Request (MsgType = x)

The Security List Request message is used by institutions that connect to MAE to retrieve a list of all securities that are available for trading.

In MAE specification, a Security List Request is not a suscription but a one-time request, so it does not allow to receive further updates on securities.

Its response is a Security List message, which contains information about the instruments traded such as Security IDs and relevant trading information. In case the request fails, its response will be the Security List message with the SecurityRequestResult field indicating the reason of the rejection.

See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_5355120.html for complete layout.

Only value valid for SecurityListRequestType is 4 (all).

Security List (MsgType = y)

The Security List message is used to return a list of securities that matches the criteria specified in a Security List Request. Remember the only criteria supported by MAE at the present time is 4 (all securities), a complete list of instruments is to be delivered.

If the list of securities returned is so large it requires message fragmentation (i.e.more than one message to return all the securities), tag TotNoRelatedSym will be set, containing the total number of securities to be returned in the stream of messages, as opposed to the value of NoRelatedSym, which indicates the number of securities returned in that specific message.

The last message in the stream will have tag LastFragment set to Y. Absence of tag LastFragment should be interpreted as LastFragment = N.

See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_5356121.html for complete layout.

Only a basic set of attributes will be included in the instruments data, this feature is provided por compatibility purposes and for allowing counterparties to discover which instruments and listed and available to trade via order routing.


News (MsgType = B)

The News message is utilized to publish news information from MAE to the connected community. News published by MAE may be:

- Security-specific news (such as beginning of auction or price adjustment information);
- MAE official notices;
- Generic news.

News messages are based on a push model. As soon as the counterparty connects, it will start receiving news as they occur. Retransmission of News messages is not supported.

See http://www.fixprotocol.org/FIXimate3.0/en/FIX.4.4/body_495066.html for layout. Remember this is a free format message for various communications purposes.

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