FINANCIAL INFORMATION EXCHANGE PROTOCOL (FIX)

Version 4.4 with Errata 20030618

VOLUME 4 – FIX APPLICATION MESSAGES: ORDERS AND EXECUTIONS (TRADE)

Includes Errata adjustments as of June 18, 2003

Errata Purpose:

June 18, 2003

This document includes a list of minor adjustments to the FIX 4.4 Specification document due to typographical errors or ambiguities. The nature and scope of Errata adjustments do not introduce new functionality, additional fields, new values for existing fields, or new messages. Regretably some functionality was introduced in FIX 4.4 which contained errors that required a new value or field on a specific message in order to make the intended functionality implementable. Any such exceptions to the "do not introduce", "additional fields", or "new messages" Errata rules were kept to a minimum using the "required to make the intended functionality implementable" rationale. The list of items has been reviewed and approved by the FIX Technical Committee and Steering Committees. Implementers of FIX version 4.4 should refer to this document to ensure the most consistent implementation and clearest understanding of the FIX protocol.

The specific adjustments made to the original FIX version 4.4 specification as a result of the Errata can be seen and printed via Microsoft Word's revision feature of this document. A separate document with an itemized list of changes is available via the FIX website.

June 18, 2003

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FIX APPLICATION MESSAGES: ORDERS AND EXECUTIONS (TRADE)

"Orders and Executions" (or "Trade") messaging is characterized as messages which are used to place or amend orders and communicate the results and status of orders.

The specific FIX "Orders and Executions" (or "Trade") messaging categories are:

- 1. SINGLE/GENERAL ORDER HANDLING
- 2. CROSS ORDER HANDLING
- 3. MULTILEG ORDER HANDLING
- 4. LIST/PROGRAM/BASKET TRADING

Descriptions and formats of the specific FIX "Orders and Executions" (or "Trade") application messages follow.

CATEGORY: SINGLE/GENERAL ORDER HANDLING

See Volume 7 – PRODUCT: FIXED INCOME for usage guidance in using general order handling messages for Fixed Income trading.

New Order - Single -

The new order message type is used by institutions wishing to electronically submit securities and forex orders to a broker for execution.

The New Order message type may also be used by institutions or retail intermediaries wishing to electronically submit Collective Investment Vehicle (CIV) orders to a broker or fund manager for execution.

See VOLUME 7 - "PRODUCT: COLLECTIVE INVESTMENT VEHICLES"

Orders can be submitted with special handling instructions and execution instructions. Handling instructions refer to how the broker should handle the order on its trading floor (see HandlInst field). Execution instructions contain explicit directions as to how the order should be executed (see ExecInst field).

New Order messages received with the PossResend flag set in the header should be validated by ClOrdID. Implementations should also consider checking order parameters (side, symbol, quantity, etc.) to determine if the order had been previously submitted. PossResends previously received should be acknowledged back to the client via an Execution - Status message. PossResends not previously received should be processed as a new order and acknowledged via an Execution - New message.

The value specified in the TransactTime field should allow the receiver of the order to apply business rules to determine if the order is potentially "stale" (e.g. in the event that there have been communication problems). To support forex accommodation trades, two fields, ForexReq and SettlCurrency, are included in the message. To request a broker to execute a forex trade in conjunction with the securities trade, the institution would set the ForexReq = Y and SettlCurrency = "intended settlement currency". The broker would then execute a forex trade from the execution currency to the settlement currency and report the results via the execution message in the SettlCurrAmt and SettlCurrency fields.

The order message can also be used to request a straight forex trade. Conventions for identifying a forex transaction are as follows:

- The forex Symbol is defined in <u>Electronic Broking Services, Ltd. (see http://www.ebs.com)</u> format: "CCY1/CCY2".
 - Rates are expressed as "currency1 in currency2" (or "currency2 per currency1") and are calculated as CCY2 divided by CCY1 (NOT CCY1 divided by CCY2)
 - (e.g. "GBP/USD" represents a rate expressed as USD per GBP, "USD/JPY" represents a rate expressed as JPY per USD, etc.).
 - CCY1 and CCY2 are ISO currency codes
- The value of the Currency field represents the denomination of the quantity fields (e.g. JPY represents quantity of JPY).
- In the case of a Forex Swap (buying (or selling) a currency at one value date and selling (or buying)
 the same currency at a different value date), Side should represent the side of the SettlDate2
 transaction
- OrdType = Market, Limit, Forex Swap, or Previously Quoted. Product = Currency.
- Netting can be specified via the ExecInst field.
- See VOLUME 7 "PRODUCT: FOREIGN EXCHANGE"

Orders involving or requiring Pre-Trade Allocation consist of the following steps:

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- Buyside sends a New Order request message specifying one or more AllocAccount and AllocQty values within the repeating group designated by NoAllocs.
- Sellside sends Execution Report messages for the "New" and resulting fills.
- Post-Trade Allocation messaging takes place

To "take" an IOI (or Quote) from an ECN or exchange and not display the order on the book, the New Order message should contain the TimeInForce field with ImmediateOrCancel and an OrdType field with Previously Indicated (or Previously Quoted).

See "Order State Change Matrices"

The format for the new order message is as follows:

New Order - Single

Tag	Field I	Vame	Req'd	Comments
	Standard Header		Y	MsgType = D
11	ClOrd	ID	Y	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.
526	Secon	daryClOrdID	N	
583	ClOrd	LinkID	N	
compo	onent blo	ock <parties></parties>	N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
229	Trade	OriginationDate	N	
75	Tradel	Date	N	
1	Accou	nt	N	
660	60 AcctIDSource		N	
581	31 AccountType		N	Type of account associated with the order (Origin)
589			N	
590	·		N	
591	Prealle	ocMethod	N	
70	AllocID		N	Used to assign an overall allocation id to the block of preallocations
78	NoAllocs		N	Number of repeating groups for pre-trade allocation
→	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	661	AllocAcctIDSource	N	
→	736	AllocSettlCurrency	N	
→	467	IndividualAllocID	N	

→	component block <nestedparties></nestedparties>		N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES" Used for NestedPartyRole=Clearing Firm
→	80	AllocQty	N	
63	SettlT		N	
64	SettlD		N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
544	CashN	Margin	N	
635	Clearin	ngFeeIndicator	N	
21	Handl	Inst	N	
18	ExecI	nst	N	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.
110	MinQt	ty	N	
111	MaxFl	loor	N	
100	ExDes	stination	N	
386	NoTra	dingSessions	N	Specifies the number of repeating TradingSessionIDs
→	336	TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625	TradingSessionSubID	N	
81	Proces	ssCode	N	Used to identify soft trades at order entry.
compo	onent blo	ock <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent blo	ock <financingdetails></financingdetails>	N	Insert here the set of "FinancingDetails" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
711	NoUn	derlyings	N	Number of underlyings
→		onent block erlyingInstrument>	N	Must be provided if Number of underlyings > 0
140	PrevC	losePx	N	Useful for verifying security identification
54	Side		Y	
114	Locate	eReqd	N	Required for short sell orders
60			Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
compo	onent blo	ock <stipulations></stipulations>	N	Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
854	QtyTy	pe	N	

component block <orderqtydata></orderqtydata>		Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
40	OrdType	Y	
423	PriceType	N	
44	Price	N	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	N	Required for OrdType = "Stop" or OrdType = "Stop limit".
compo <spre< td=""><td>onent block adOrBenchmarkCurveData></td><td>N</td><td>Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</td></spre<>	onent block adOrBenchmarkCurveData>	N	Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent block <yielddata></yielddata>	N	Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
15	Currency	N	
376	ComplianceID	N	
377	SolicitedFlag	N	
23	IOIid	N	Required for Previously Indicated Orders (OrdType=E)
117	QuoteID	N	Required for Previously Quoted Orders (OrdType=D)
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Can specify the time at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
compo	onent block <commissiondata></commissiondata>	N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
528	OrderCapacity	N	
529	OrderRestrictions	N	
582	CustOrderCapacity	N	
121	ForexReq	N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
120	SettlCurrency	N	Required if ForexReq = Y.
775	BookingType	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.

58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.
192	OrderQty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.
640	Price2	N	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).
77	PositionEffect	N	For use in derivatives omnibus accounting
203	CoveredOrUncovered	N	For use with derivatives, such as options
210	MaxShow	N	
component block <peginstructions></peginstructions>		N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <discretioninstructions></discretioninstructions>		N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element NewOrdSingle

<!ENTITY % OrderContent "ClOrdID, SecondaryClOrdID?, ClOrdLinkID?, PartiesList?, TradeOriginationDate?, Acco $unt?, Account Type?, \, Day Booking Inst?, \,$ BookingUnit?, PreallocMethod?,OrdAllocGroupList?, Settlement?, CashMargin?, HandInst, ExecInstList?, Mi nQty?,MaxFloor?,ExDestination?,TrdSes sionList?,ProcessCode?,¶ Instrument, PrevClosePx?, Side, LocateReq d?, TransactTime, StipulationsList?, QtyTy pe?, OrderQtyData,OrdType PriceType?,Price?,StopPx?,SpreadOrBen chmarkCurveData?,YieldData?,Currency ?,ComplianceID?,¶ SolicitedFlag?,IOI ID?,QuoteID?,Order Duration?,EffectiveTime?,¶ GTBookingInst?, CommissionData?, Orde rCapacity?,OrderRestrictions?,CustOrder Capacity?,ForexReqOrder?,¶ Text?, EncodedTextGroup?, FutSettDate2? ,OrderQty2?,PositionEffect?,CoveredOrU ncovered?,¶ MaxShow?,PegDifference?,DiscretionIns t?,DiscretionOffset?,CancellationRights?,¶ MoneyLaunderingStatus?,RegistID?,Desi gnation?, AccruedInterestRate?, AccruedIn terestAmt?,¶
NetMoney? %OrderCustom;" >¶ <!ELEMENT Order (%OrderContent;)>¶ <!ATTLIST Order FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'D' >

Deleted: <!ENTITY % OrderCustom

Execution Reports -

The execution report message is used to:

- 1. confirm the receipt of an order
- 2. confirm changes to an existing order (i.e. accept cancel and replace requests)
- 3. relay order status information
- 4. relay fill information on working orders
- 5. relay fill information on tradeable or restricted tradeable quotes
- 6. reject orders
- 7. report post-trade fees calculations associated with a trade

NOTE: Execution reports do not replace the end-of-day confirm. Execution reports are to be regarded only as replacements for the existing fill messages currently communicated via telephone.

NOTE: Individual Execution Reports are sent for each order on a New Order - List.

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

In an execution report the OrdStatus is used to convey the current state of the order. If an order simultaneously exists in more than one order state, the value with highest precedence is the value that is reported in the OrdStatus field. The order statuses are as follows (in highest to lowest precedence):

Precedence	OrdStatus	Description
11	Pending Cancel	Order with an Order Cancel Request pending, used to confirm receipt of an Order Cancel Request. DOES NOT INDICATE THAT THE ORDER HAS BEEN CANCELED.
10	Pending Replace	Order with an Order Cancel/Replace Request pending, used to confirm receipt of an Order Cancel/Replace Request. DOES NOT INDICATE THAT THE ORDER HAS BEEN REPLACED.
9	Done for Day	Order not, or partially, filled; no further executions forthcoming for the trading day
8	Calculated	Order has been completed for the day (either filled or done for day). Commission or currency settlement details have been calculated and reported in this execution message
7	Filled	Order completely filled, no remaining quantity
6	Stopped	Order has been stopped at the exchange. Used when guranteeing or protecting a price and quantity
5	Suspended	Order has been placed in suspended state at the request of the client.
4	Canceled	Canceled order with or without executions
4	Expired	Order has been canceled in broker's system due to time in force instructions.
3	Partially Filled	Outstanding order with executions and remaining quantity
2	New	Outstanding order with no executions

2 Rejected Order has been rejected by sell-side (broker, exchange, ECN). NOTE: An order can be rejected subsequent to order acknowledgment, i.e. an order can pass from New to Rejected status. 2 Pending New Order has been received by sell-side's (broker, exchange, ECN) system but not yet accepted for execution. An execution message with this status will only be sent in response to a Status Request message. Accepted for bidding Order has been received and is being evaluated for pricing. It is anticipated that this status will only be used with the "Disclosed" BidType List Order Trading model.

The ExecType is used to identify the purpose of the execution report message. To transmit a change in OrdStatus for an order, the broker (sell side) should send an Execution Report with the new OrdStatus value in both the ExecType AND the OrdStatus fields to signify this message is changing the state of the order. The only exception to this rule is that when rejecting a cancel or cancel/replace request the CancelReject message is used both to reject the request and to communicate the current OrdStatus. An ExecType of Pending Cancel or Pending Replace is used to indicate that a cancel or cancel/replace request is being processed. An ExecType of Canceled or Replace is used to indicate that the cancel or cancel/replace request has been successfully processed.

Execution information (e.g. new partial fill or complete fill) should not be communicated in the same report as one which communicates other state changes (such as pending cancel, pending replace, canceled, replaced, accepted, done for day etc).

Any fills which occur and need to be communicated to the customer while an order is "pending" and waiting to achieve a new state (i.e. via a Order Cancel Replace (aka Order Modification) Request) must contain the "original" (current order prior to state change request) order parameters (i.e. ClOrdID, OrderQty, Price, etc). These fills will cause the CumQty and AvgPx to be updated. An order cannot be considered replaced until it has been explicitly accepted and confirmed to have reached the replaced status via an execution report with ExecType = 'Replace', at which time the effect of the replacement (ClOrdID, new quantity or limit price etc) will be seen.

Requests to cancel or cancel/replace an order are only acted upon when there is an outstanding order quantity. Requests to replace the OrderQty to a level less than the CumQty will be interpreted by the broker as requests to stop executing the order. Requests to change price on a filled order will be rejected (see Order Cancel Reject message type). The OrderQty, CumQty, LeavesQty, and AvgPx fields should be calculated to reflect the cumulative result of all versions of an order. For example, if partially filled order A were replaced by order B, the OrderQty, CumQty, LeavesQty, and AvgPx on order B's fills should represent the cumulative result of order A plus those on order B.

The general rule is: OrderQty = CumQty + LeavesQty.

There can be exceptions to this rule when ExecType and/or OrdStatus are Canceled, DoneForTheDay (e.g. on a day order), Expired, Calculated, or Rejected in which case the order is no longer active and LeavesQty could be 0.

Communication of information about a new fill is via the Execution report with ExecType = Trade. Execution Reports with ExecType = Trade Cancel or Trade Correct are used to cancel or correct a previously modified execution report as follows:

The ExecType of Trade Cancel applies at the execution level and is used to cancel an execution which
has been reported in error. The canceled execution will be identified in the ExecRefID field. Note:
ExecType of Trade Cancel should not be used to cancel a previous ExecutionRpt with ExecType of
Trade Cancel (e.g. cannot cancel a cancel).

The ExecType of Trade Correct applies at the execution level and is used to modify an incorrectly reported fill. The incorrect execution will be identified in the ExecRefID field. If a single execution is corrected more than once, ExecRefID should refer to the ExecID of the last corrected ExecutionRpt (same convention as ClOrdID and OrigClOrdID). To correct an ExecutionRpt which was previously canceled, an ExecutionRpt with ExecType=Trade should be sent (e.g. cannot send ExecType=Trade Correct for an ExecutionRpt with ExecType=Trade Cancel). Note: Data reported in the CumQty, LeavesQty, and AvgPx fields represent the status of the order as of the time of the correction, not as of the time of the originally reported execution.

An ExecType of Order Status indicates that the execution messages contains no new information, only summary information regarding order status. It is used, for example, in response to an Order Status request message

See "Order State Change Matrices" for examples of key state changes, processing of cancel and cancel/replace requests, and for execution cancel/corrects.

An ExecutionRpt with ExecType = Restated represents an ExecutionRpt sent by the sellside communicating a change in the order or a restatement of the order's parameters without an electronic request from the customer. ExecRestatementReason must be set. This is used for GT orders and corporate actions (see below), changes communicated verbally to the sellside either due to normal business practices or as an emergency measure when electronic systems are not available, repricing of orders by the sellside (such as making Sell Short orders compliant with uptick / downtick rules), or other reasons (Broker option). ExecRestatementReason can also be used to communicate unsolicited cancels.

The field ClOrdID is provided for institutions or buy-side brokers or intermediaries to affix an identification number to an order to coincide with internal systems. The OrderID field is populated with the sell-side brokergenerated order number (or fund manager-generated order number for CIVs). Unlike ClOrdID/OrigClOrdID which requires a chaining through Cancel/Replaces and Cancels, OrderID and SecondaryOrderID are not required to change through changes to an order.

The underlying business assumption of orders that can trade over multiple days, such as GTC and Good Till Date orders expiring on a future trading date (henceforth referred to as GT orders) is that a GT order that is not fully executed and has not been canceled and has not expired on a given day remains good for the broker to execute the following day. Note that the concept of "day" is determined by the market convention, which will be security specific. At the end of each trading day, once the order is no longer subject to execution, the broker may optionally send an Execution Report with ExecType=Done for Day(3). When the ExpireDate or ExpireTime of a Good Till Date order is reached, or a GTC order reaches a maximum age, the order is considered expired and the broker may optionally send an Execution Report with ExecType and OrdStatus=Expired(C).

In handling GT orders, the OrderQty, CumQty and AvgPx fields will represent the entirety of the order over all days. The fields DayOrderQty, DayCumQty, and DayAvgPx can be used on days following the day of the first trade on a GT order. Prior to the start of business each day, for all GT orders that have partial fills on previous days, DayCumQty and DayAvgPx are set to zero, and DayOrderQty becomes the LeavesQty. The following relationship holds: DayOrderQty = OrderQty - (CumQty - DayCumQty). Since (CumQty - DayCumQty) represents the volume traded on all previous days, DayOrderQty = OrderQty - Volume traded on all previous days. Note that when changing the quantity of an order, both OrderQty and DayOrderQty will change. Requests to change or cancel an order will be made in terms of the total quantity for the order, not the quantity open today. For example, on an order where OrderQty=10000 and 2000 shares trade during the previous days, a request to change OrderQty to 15000 will mean that 13000 shares will be open. See "Order State **Change Matrices**" for examples of canceling and changing GT orders partially filled on previous days.

A Cancel on an execution (trade bust, ExecType = Trade Cancel) happening the same day of the trade will result in CumQty and DayCumQty each decreasing by the quantity busted, and LeavesQty increasing by the quantity busted. OrderQty and DayOrderQty will remain unchanged. If the business rules allow for a trade bust to be reported on a later date than the trade being busted, the OrderQty and DayCumQty will remain unchanged, the LeavesQty and DayOrderQty will increase by the quantity busted, and the CumQty will decrease by the quantity busted.

If bilaterally agreed between counterparties, a broker may wish to transmit a list of all open GT orders, permitting reconciliation of the open orders. Typically this transmission may occur at the end of the trading day or at the start of the following trading day. There is no expected response to such retransmission; in the event of a reconciliation problem this should be resolved manually or via the DK message. Assuming no corporate actions have occurred, the broker will send an Execution Report with ExecType = Restated (D) and ExecRestatementReason = GT renewal / restatement (no corporate action) (1) for each open GT order. These Execution Reports may have DayCumQty and DayAvgPx restated to zero, and DayOrderQty restated to LeavesQty if the transmission occurs at the start of the following business day. The broker has the option of changing the OrderID and SecondaryOrderID fields, or leaving them unchanged. If they are changed, then the buy-side should use these new ID fields when sending Order Cancel Request, Order Cancel/Replace Request, and Order Status Request messages.

In the case of a corporate action resulting in the adjustment of an open GT order, the broker will send an Execution Report with ExecType = Restated (D) and ExecRestatementReason = GT Corporate action (0) with the order's state after the corporate action adjustment. In the case of stock splits, OrderQty, CumQty, AvgPx, and LeavesQty will be adjusted to reflect the order's state in terms of current quantity (e.g. shares), not pre-split quantity (e.g. shares). See "Order State Change Matrices" for examples of GT order restatement with and without a corporate action.

CIV orders to be executed by the fund manager do not use the TimeInForce field and only a subset of OrdStatus values are expected to be used. **See VOLUME 7 - "PRODUCT: COLLECTIVE INVESTMENT VEHICLES"** for the CIV-specific OrdStatus values.

The Execution Report message is also used for multileg instrument. See "<u>Use of the Execution Report for Multileg Instruments</u>" for multileg-specific details.

The execution report message format is as follows:

Execution Report

Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = 8
37	OrderID	Y	OrderID is required to be unique for each chain of orders.
198	SecondaryOrderID	N	Can be used to provide order id used by exchange or executing system.
526	SecondaryClOrdID	N	
527	SecondaryExecID	N	
11	ClOrdID	N	Required for executions against electronically submitted orders which were assigned an ID by the institution or intermediary. Not required for orders manually entered by the broker or fund manager (for CIV orders).

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41	OrigClOrdID		N	Conditionally required for response to an electronic Cancel or Cancel/Replace request (ExecType=PendingCancel, Replace, or Canceled). ClOrdID of the previous accepted order (NOT the initial order of the day) when canceling or replacing an order.
583	ClOrd	LinkID	N	
693	Quote	RespID	N	Required if responding to a QuoteResponse message. Echo back the Initiator's value specified in the message.
790	OrdSta	atusReqID	N	Required if responding to and if provided on the Order Status Request message. Echo back the value provided by the requester.
584	MassS	StatusReqID	N	Required if responding to a Order Mass Status Request. Echo back the value provided by the requester.
911	TotNu	mReports	N	Can be used when responding to an Order Mass Status Request to identify the total number of Execution Reports which will be returned.
912	LastR	ptRequested	N	Can be used when responding to an Order Mass Status Request to indicate that this is the last Execution Reports which will be returned as a result of the request.
compo	component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
229	229 TradeOriginationDate		N	
382	NoCo	ntraBrokers	N	Number of ContraBrokers repeating group instances.
→	375	ContraBroker	N	First field in repeating group. Required if NoContraBrokers > 0.
→	337	ContraTrader	N	
→	437	ContraTradeQty	N	
→	438	ContraTradeTime	N	
→	655	ContraLegRefID	N	
66	ListID		N	Required for executions against orders which were submitted as part of a list.
548	CrossI	D	N	CrossID for the replacement order
551	551 OrigCrossID		N	Must match original cross order. Same order chaining mechanism as ClOrdID/OrigClOrdID with single order Cancel/Replace.
549	Cross	Гуре	N	
17	ExecII)	Y	Unique identifier of execution message as assigned by sell-side (broker, exchange, ECN) (will be 0 (zero) forExecType=I (Order Status)).
19	ExecR	efID	N	Required for Trade Cancel and Trade Correct ExecType messages
150	ExecT	ype	Y	Describes the purpose of the execution report.
		·		· · · · · · · · · · · · · · · · · · ·

1			
39	OrdStatus		Describes the current state of a CHAIN of orders, same scope as OrderQty, CumQty, LeavesQty, and AvgPx
636	WorkingIndicator	N	For optional use with OrdStatus = 0 (New)
103	OrdRejReason	N	For optional use with ExecType = 8 (Rejected)
378	ExecRestatementReason	N	Required for ExecType = D (Restated).
1	Account	N	Required for executions against electronically submitted orders which were assigned an account by the institution or intermediary
660	AcctIDSource	N	
581	AccountType	N	Specifies type of account
589	DayBookingInst	N	
590	BookingUnit	N	
591	PreallocMethod	N	
63	SettlType	N	
64	SettlDate	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
544	CashMargin	N	
635	ClearingFeeIndicator	N	
component block <instrument></instrument>		Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent block <financingdetails></financingdetails>	N	Insert here the set of "FinancingDetails" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
711	NoUnderlyings	N	Number of underlyings
→	component block <underlyinginstrument></underlyinginstrument>	N	Must be provided if Number of underlyings > 0
54	Side	Y	
compo	onent block <stipulations></stipulations>	N	Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
854	QtyType	N	
component block <orderqtydata></orderqtydata>		**	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
			**Note: OrderQty field is required for Single Instrument Orders unless rejecting or acknowledging an order for a CashOrderQty or PercentOrder.
	O IT	N	
40	OrdType		
40	PriceType	N	
		N N	Required if specified on the order

component block <peginstructions></peginstructions>			Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <discretioninstructions></discretioninstructions>		N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
839	PeggedPrice	N	The current price the order is pegged at
845	DiscretionPrice	N	The current discretionary price of the order
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
850	TargetStrategyPerformance	N	For communication of the performance of the order versus the target strategy
15	Currency	N	
376	ComplianceID	N	
377	SolicitedFlag	N	
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Time specified on the order at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
18	ExecInst	N	Can contain multiple instructions, space delimited.
528	OrderCapacity	N	
529	OrderRestrictions	N	
582	CustOrderCapacity	N	
32	LastQty	N	Quantity (e.g. shares) bought/sold on this (last) fill. Required if ExecType = Trade or Trade Correct.
			If ExecType=Stopped, represents the quantity stopped/guaranteed/protected for.
652	UnderlyingLastQty	N	
31	LastPx	N	Price of this (last) fill. Required if ExecType = Trade or Trade Correct.
			Should represent the "all-in" (LastSpotRate + LastForwardPoints) rate for F/X orders.).
			If ExecType=Stopped, represents the price stopped/guaranteed/protected at.
651	UnderlyingLastPx	N	

	·		T .
669	669 LastParPx		Last price expressed in percent-of-par. Conditionally required for Fixed Income trades when LastPx is expressed in Yield, Spread, Discount or any other price type that is not percent-of-par.
194	LastSpotRate	N	Applicable for F/X orders
195	LastForwardPoints	N	Applicable for F/X orders
30	LastMkt	N	If ExecType = Trade (F), indicates the market where the trade was executed. If ExecType = New (0), indicates the market where the order was routed.
336	TradingSessionID	N	
625	TradingSessionSubID	N	
943	TimeBracket	N	
29	LastCapacity	N	
151	LeavesQty	Y	Quantity 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 could be 0, otherwise LeavesQty = OrderQty - CumQty.
14	CumQty	Y	Currently executed quantity for chain of orders.
6	AvgPx	Y	
424	DayOrderQty	N	For GT orders on days following the day of the first trade.
425	DayCumQty	N	For GT orders on days following the day of the first trade.
426	DayAvgPx	N	For GT orders on days following the day of the first trade.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
75	TradeDate	N	Used when reporting other than current day trades.
60	TransactTime	N	Time the transaction represented by this ExecutionReport occurred
113	ReportToExch	N	
compo	component block <commissiondata></commissiondata>		Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES" Note: On a fill/partial fill messages, it represents value for that fill/partial fill. On ExecType=Calculated, it represents
			cumulative value for the order. Monetary commission values are expressed in the currency reflected by the Currency field.
	component block <spreadorbenchmarkcurvedata></spreadorbenchmarkcurvedata>		Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	component block <yielddata></yielddata>		Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
381	GrossTradeAmt	N	
157	NumDaysInterest	N	

230	ExDate	N	
158	AccruedInterestRate	N	
159	AccruedInterestAmt	N	
738	InterestAtMaturity	N	For fixed income products which pay lump-sum interest at maturity.
920	EndAccruedInterestAmt	N	For repurchase agreements the accrued interest on termination.
921	StartCash	N	For repurchase agreements the start (dirty) cash consideration
922	EndCash	N	For repurchase agreements the end (dirty) cash consideration
258	TradedFlatSwitch	N	
259	BasisFeatureDate	N	
260	BasisFeaturePrice	N	
238	Concession	N	
237	TotalTakedown	N	
118	NetMoney	N	Note: On a fill/partial fill messages, it represents value for that fill/partial fill, on ExecType=Calculated, it represents cumulative value for the order. Value expressed in the currency reflected by the Currency field.
119	SettlCurrAmt	N	Used to report results of forex accommodation trade
120	SettlCurrency	N	Used to report results of forex accommodation trade
155	SettlCurrFxRate	N	Foreign exchange rate used to compute SettlCurrAmt from Currency to SettlCurrency
156	SettlCurrFxRateCalc	N	Specifies whether the SettlCurrFxRate should be multiplied or divided
21	HandlInst	N	
110	MinQty	N	
111	MaxFloor	N	
77	PositionEffect	N	For use in derivatives omnibus accounting
210	MaxShow	N	
775	BookingType	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.

192	Order	Qty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.
641	LastFo	orwardPoints2	N	Can be used with OrdType = "Forex - Swap" to specify the forward points (added to LastSpotRate) for the future portion of a F/X swap.
442	MultiL	egReportingType	N	Default is a single security if not specified.
480	Cancel	llationRights	N	For CIV - Optional
481	Money	LaunderingStatus	N	
513	Regist	ID	N	Reference to Registration Instructions message for this Order.
494	Design	nation	N	Supplementary registration information for this Order
483	TransE	BkdTime	N	For CIV - Optional
515	ExecV	aluationPoint	N	For CIV - Optional
484	ExecP	riceType	N	For CIV - Optional
485		riceAdjustment	N	For CIV - Optional
638	Priorit	yIndicator	N	
639	PriceIr	nprovement	N	
851	LastLi	quidityInd	N	Applicable only on OrdStatus of Partial or Filled.
518	NoCor	ntAmts	N	Number of contract details in this message (number of repeating groups to follow)
\rightarrow	519	ContAmtType	N	Must be first field in the repeating group.
\rightarrow	520	ContAmtValue	N	
\rightarrow	521	ContAmtCurr	N	
555	NoLeg	īS	N	Number of legs Identifies a Multi-leg Execution if present and non-zero.
→	compo <instr< td=""><td>nent block umentLeg></td><td>N</td><td>Must be provided if Number of legs > 0</td></instr<>	nent block umentLeg>	N	Must be provided if Number of legs > 0
→	687	LegQty	N	
→	690	LegSwapType	N	Instead of LegQty – requests that the sellside calculate LegQty based on opposite Leg
→	compo <legs< td=""><td>nent block tipulations></td><td>N</td><td></td></legs<>	nent block tipulations>	N	
→	564	LegPositionEffect	N	Provide if the PositionEffect for the leg is different from that specified for the overall multileg security
→	565	LegCoveredOrUncovered	N	Provide if the CoveredOrUncovered for the leg is different from that specified for the overall multileg security.
→	compo <neste< td=""><td>onent block edParties></td><td>N</td><td>Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</td></neste<>	onent block edParties>	N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Used for NestedPartyRole=Leg Clearing Firm/Account, Leg Account/Account Type
→	654	LegRefID	N	Used to identify a specific leg.

→	566	LegPrice	N	Provide only if a Price is required for a specific leg. Used for anchoring the overall multileg security price to a specific leg Price.
→	587	LegSettlType	N	
→	588	LegSettlDate	N	Takes precedence over LegSettlType value and conditionally required/omitted for specific LegSettlType values.
→	637	LegLastPx	N	Used to report the execution price assigned to the leg of the multileg instrument
797	CopyN	/IsgIndicator	N	
136	NoMis	scFees	N	Required if any miscellaneous fees are reported. Indicates number of repeating entries. Repeating group.
		T-		** Nested Repeating Group follows **
\rightarrow	137	MiscFeeAmt	N	Required if NoMiscFees > 0
→	138	MiscFeeCurr	N	
→	139	MiscFeeType	N	Required if NoMiscFees > 0
→	891	MiscFeeBasis	N	
	Standa	ard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element ExctnRpt

ExecReportCustom "">¶ <!ENTITY % ExecReportContent "OrderID,SecondaryOrderID?,Secondary ClOrdID?,SecondaryExecID?, ClOrdID?, OrigClOrdID?, ClOrdLinkID?, Parties List?, Trade Origination Date?, ContraBrokerList?. ListID?,CrossID?,OrigCrossID?,CrossTy pe?,ExecID,ExecRefID?,ExecType,OrdSt atus, WorkingIndicator?, OrdRejReason?,ExecRestatementReason ?,Account?,AccountType?, DayBookingInst?, BookingUnit?, PreallocMethod?, Settlement?.CashMargin?. ClearingFeeIndicator?, ,Side,StipulationsList?,QtyType?, OrderQtyData,OrdType?,PriceType?,Pric e?,StopPx?,PegDifference?, DiscretionInst?, DiscretionOffset?, Curren cy?,ComplianceID?,SolicitedFlag?,Order Duration?, EffectiveTime?,ExecInstList?,OrderCapa city?,OrderRestrictions?,CustOrderCapac ity?,, LastQty?, LastPx?, UnderlyingLastPx?,LastSpotRate?,LastF orwardPoints?,LastMkt?,TradingSessionI D?, Trading Session SubID?, Last Capacity? LeavesQty,CumQty,AvgPx,DayOrderQty ?,DayCumQty?,DayAvgPx?,GTBookingI nst?,TradeDate?,¶ TransactTime?,ReportToExch?,Commissi onData?,SpreadOrBenchmarkCurveData? ,YieldData?,GrossTradeAmt?,NumDaysI nterest?. ExDate?,AccruedInterestRate?,AccruedIn terestAmt?, TradedFlatSwitch?, BasisFeatureDate?, BasisFeaturePrice? Concession?, Total Takedown?, Net Money SettlCurrAmt?,SettlCurrency?,SettlCurrF xRate?,SettlCurrFxRateCalc?,HandInst?, MaxFloor?,PositionEffect?,MaxShow?,T ext?, EncodedTextGroup?, FutSettDate2?, OrderQty2?,LastForwardPoints2?,MultiL egReportingType?,CancellationRights?, MoneyLaunderingStatus?,RegistID?,Desi gnation?,¶ TransBkdTime?,ExecValuationPoint?,Ex ecPriceType?,ExecPriceAdjustment?, Pr iorityIndicator?, PriceImprovement?, ContractDetailsList?, LegList? %ExecReportCustom;" >¶ <!ELEMENT ExecutionReport</pre> (%ExecReportContent;)>¶ <!ATTLIST ExecutionReport FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶

Deleted: <!ENTITY %

Value CDATA #FIXED '8' > **Deleted:** April 30, 2003

Use of the Execution Report for Multileg Instruments:

The Execution Report has been expanded to include an optional repeating group of instruments legs. The instrument leg repeating group will not be used to track order status (LeavesQty, CumQty, etc.). The instrument leg repeating group can be used to report:

- Each leg of a multileg instrument this provides a method for data enrichment for productized multileg instruments that can be identified on orders using only the Instrument block.
- The user supplied per leg information for Party block, PositionEffect, CoveredUncovered
- To report the price specified by the user on the order.
- Reporting of last sales price per leg, settlement type, and settlement date.

The multileg repeat group cannot be used to report the following:

- fill quantity per leg
- order status per leg

There are three different ways strategies can be traded on markets.

- As a product identified by an Instrument block in which all legs of a multileg instrument are traded atomically
 in the ratio quantities specified for leg where contraparties to the trade are also apportioned per the ratio
 quantities defined per leg. (Note this method applies to strategies that are or will be productized in the
 securities definition table)
- As a product identified by an Instrument block in which all legs of a multileg instrument are traded, but they are
 traded against individual legs likely resulting in contraparty trading quantities not corresponding to the ratio
 quantities. (Note this method applies to strategies that are or will be productized in the securities definition
 table)
- 3. As individual legs (legging in). (Note this method applies to strategies that are **not** and will **not** be productized in the securities definition table)

Multileg Instruments that are traded atomically and contraparties to the trade being assigned by ratio quantity can be reported by strategy by setting the MultilegReportType (442) field to 3. The OrdQty, LeavesQty, CumQty, AvgPx apply to the overall strategy. Quantities of each individual leg are calculated by multiplying the quantity field for the strategy quantity * the LegRatioQty.

Multileg Instruments that are not traded atomically (because they execute against orders and quotes for individual leg securities or they are traded on an open outcry environment by leg) can:

- Report fills by overall strategy and legs in a single Execution report, where instrument identification is in the Instrument Block and the leg instrument identification is in the Instrument Leg Block. The MultilegReportType field is 3. The OrdQty, LeavesQty, CumQty, AvgPx always apply to the strategy. Reporting must be done within the context of the strategy (ie: fills and partial fills are reported within the ratio quantities defined by the legs) even though contraparties have traded against individual legs and perhaps not within the ratio quantities defined by the legs. The LegRefID and ContraLegRefID are used to associate specific contra trade quantities against a leg with a specific contra party; or
- Counterparties can choose to send a summary Execution Report for the overall multileg instrument (MultilegReportType of 3) once the multileg order has been filled or partially filled, and then separately report details of each leg in separate Execution Reports. (MultilegReportType of 2). The OrdQty, LeavesQty, CumQty, AvgPx always apply to the strategy. Reporting must be done within the context of the strategy (ie: fills and partial fills are reported within the ratio quantities defined by the legs) even though contraparties have traded against individual legs and perhaps not within the ratio quantities defined by the legs.

- The summary Execution Report is within the context of the strategy. Instrument identification is in the Instrument Block. This summary report does not contain leg information nor contraparty information. For ExecTypes = Pending New and New only the summary execution report should be sent.
- The separate Execution Report for each leg is within the context of a single leg of the strategy. Leg instrument identification is in the Instrument Leg Block. These reports contain the contraparty information for each leg.
- The ExecType of each separate leg report should be the same as the ExecType stated in the summary Execution Report; or
- Counterparties can choose to report fills by leg (without a summary Execution Report for the overall strategy).
 The MultilegReportType field is 2. Reporting should be done within the context of the strategy (ie: fills and partial fills are reported within the ratio quantities defined by the legs) even though contraparties have traded against individual legs and perhaps not within the ratio quantities defined by the legs.
- The Execution Report for each leg is within the context of a single leg of the strategy. Leg instrument
 identification is in the Instrument Leg Block. These reports contain the contraparty information for each leg.
 The OrdQty, LeavesQty, CumQty, AvgPx always apply to the strategy. Because a summary Execcution Report
 is not being sent, ExecType = Pending New and New will also have to be reported by leg.
- If reporting of leg fills is not done within the context of the strategy, leg instrument identification and details should be promoted to the Instrument Block. Also, the OrdQty, LeavesQty, CumQty, AvgPx then apply to the individual leg. The MultilegReportType remains 2. ... Always refer to the customs and practices of specific marketplaces to determine whether a specific marketplace permits reporting fills that are not within the context of the strategy and under what conditions such reporting is may be allowed.

Don't Know Trade (DK) -

The Don't Know Trade (DK) message notifies a trading partner that an electronically received execution has been rejected. This message can be thought of as an execution reject message.

This message has special utility when dealing with one-way execution reporting. If the initial Order Acknowledgment message (LastQty=0 and OrdStatus=New) does not match an existing order this message can be used to notify the broker of a potential problem order.

Note that the decision to DK an execution lies with the institution. Some of the mismatches listed in the DKReason field may be acceptable and will not require a DK messages to be generated.

The Don't Know Trade (DK) format is as follows:

Don't Know Trade (DK)

_	Don't Know Trace (DK)				
Tag	Field Name	Req'd	Comments		
	Standard Header	Y	MsgType = Q		
37	OrderID	Y	Broker Order ID as identified on problem execution		
198	SecondaryOrderID	N			
17	ExecID	Y	Execution ID of problem execution		
127	DKReason	Y			
compo	onent block <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
711	NoUnderlyings	N	Number of underlyings		
→	component block	N	Must be provided if Number of underlyings > 0		
<u>555</u>	NoLegs	<u>N</u>	Number of Legs		
<u></u> →	component block <instrumentleg></instrumentleg>	<u>N</u>	Must be provided if NoLegs > 0		
54	Side	Y			
compo	component block <orderqtydata></orderqtydata>		Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
32	LastQty	N	Required if specified on the ExecutionRpt		
31	LastPx	N	Required if specified on the ExecutionRpt		
58	Text	N			
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.		
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.		
	Standard Trailer	Y			

FIXML Definition for this message - see http://www.fixprotocol.org for details

Refer to FIXML element DKTrd

Deleted: <!ENTITY %

DK_TradeCustom "">¶

<!ENTITY % DK_TradeContent
"OrderID,ExecID,DK_Reason,Instrument
Side,OrderQtyData,LastQty?,LastPx?,Te
xt?,EncodedTextGroup?
%DK_TradeCustom;">¶

<!ELEMENT DK_Trade
(%DK_TradeContent;)>¶

<!ATTLIST DK_Trade FIXTag
CDATA #FIXED '35*¶

DataType CDATA #FIXED 'String'¶

Value CDATA #FIXED 'Q'>

Order Cancel/Replace Request (a.k.a. Order Modification Request) -

The order cancel/replace request is used to change the parameters of an existing order.

Do not use this message to cancel the remaining quantity of an outstanding order, use the Order Cancel Request message for this purpose.

Cancel/Replace will be used to change any valid attribute of an open order (i.e. reduce/increase quantity, change limit price, change instructions, etc.), Subject to agreement between counterparties, it can be used to re-open a filled order by increasing OrderQty.

An immediate response to this message is required. It is recommended that an ExecutionRpt with ExecType=Pending Replace be sent unless the Order Cancel/Replace Request can be immediately accepted (ExecutionRpt with ExecType=Replace) or rejected (Order Cancel Reject message).

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 Cancel Reject message. The Cancel Reject message should provide the ClOrdID and OrigClOrdID values which were specified on the Cancel/Replace Request message for identification.

Note that while it is necessary for the ClOrdID to change and be unique, the broker's OrderID field does not necessarily have to change as a result of the Cancel/Replace request.

The protocol supports the chaining of multiple cancel/replace requests, though trading counterparties may not support this functionality. Care should be taken if the order sender wishes to send a cancel/replace request when there is one or more cancel/replaces which have not been accepted or rejected – in general:

- The order sender should chain client order ids on an 'optimistic' basis, i.e. set the OrigClOrdID to the last non rejected ClOrdID sent
- The order receiver should chain client order ids on a 'pessimistic' basis, i.e. set the OrigClOrdID on
 execution reports that convey the receipt or successful application of a cancel/replace and Order Cancel
 Reject messages to be the last 'accepted' ClOrdID (See "Order State Change Matrices" for
 examples of this)

In the event that the order sender wants to chain order cancel/replaces rapidly then they should ensure that each replace request contains the full details of the order as they would now like it to be. For example if an attempt is made to change the limit price and then an immediate request to change the quantity is issued then if the desired behaviour is that both the limit price and quantity should be changed then the second request should include the revised limit price (in case the first replace request is rejected).

All of the application-level fields in the original order should be retransmitted with the original values in the Order Cancel/Replace Request, except the fields that are being changed. Any field may be changed with this message except those in the <Instrument> component block and limited changes to the Side field (noted below), however, buy-side firms should note that sell-side firms may further restrict which fields they allow to change; hence bilateral agreement is required. For example, some sell-side firms may not allow fields such as Side, SettlDate, etc. to change. Sell-side firms should validate the Order Cancel/Replace Request to ensure that the client is not requesting a change for a field that the sell-side cannot change; in this case the sell-side should send a Cancel Reject message with CxlRejReason = 2 (Broker/Exchange Option).

When modifying ExecInst values in a replacement order, it is necessary to re-declare all ExecInst in the replacement order. ExecInst values will not be carried forward from the original order to the replacement unless re-declared.

The format of the Order Cancel/Replace Request message is:

Order Cancel/Replace Request (a.k.a. Order Modification Request)

Tag	Field 1	•	Req'd	Comments
rug		urd Header	Y	MsgType = G
37	OrderI		N	Unique identifier of most recent order as assigned by sell-side
3/	Orden	D	1N	(broker, exchange, ECN).
compo	onent blo	ock <parties></parties>	N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
229	Trade0	OriginationDate	N	
75	Tradel	Date	N	
41	OrigC	lOrdID	Y	ClOrdID of the previous non rejected order (NOT the initial order of the day) when canceling or replacing an order.
11	ClOrd	ID	Y	Unique identifier of <i>replacement</i> order as assigned by institution or by the intermediary with closest association with the investor Note that this identifier will be used in ClOrdID field of the Cancel Reject message if the replacement request is rejected.
526	Secon	daryClOrdID	N	
583	ClOrd	LinkID	N	
66	ListID		N	Required for List Orders
586	OrigO	rdModTime	N	TransactTime of the last state change that occurred to the original order
1	Account		N	
660	AcctIDSource		N	
581	Accou	ntType	N	
589	DayBo	ookingInst	N	
590	Bookii	ngUnit	N	
591	Preallo	ocMethod	N	
70	AllocID		N	Used to assign an overall allocation id to the block of preallocations
78	NoAll	ocs	N	Number of repeating groups for pre-trade allocation
→	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	661	AllocAcctIDSource	N	
→	736	AllocSettlCurrency	N	
→	467	Individual Alloc ID	N	
→	→ component block <nestedparties></nestedparties>		N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Used for NestedPartyRole=Clearing Firm
	10 200	2		26 FIX 4.4 with Errota 20020619 Volume 4

→	80	AllocQty	N	
63	SettlT	ype	N	
64 SettlDate		N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.	
544	CashN	I argin	N	
635	Clearin	ngFeeIndicator	N	
21	Handl	Inst	N	
18	ExecI	nst	N	Can contain multiple instructions, space delimited. Replacement order must be created with new parameters (i.e. original order values will not be brought forward to replacement order unless redefined within this message).
110	MinQt	ty	N	
111	MaxFl	loor	N	
100	ExDes	stination	N	
386	NoTra	dingSessions	N	Specifies the number of repeating TradingSessionIDs
→	336	TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625	TradingSessionSubID	N	
compo	onent blo	ock <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Must match original order
compo	onent blo	ock <financingdetails></financingdetails>	N	Insert here the set of "FinancingDetails" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
ı	1			Must match original order
711	NoUn	derlyings	N	Number of underlyings
→		onent block erlyingInstrument>	N	Must be provided if Number of underlyings > 0
54	Side		Y	Should match original order's side, however, if bilaterally agreed to the following groups could potentially be interchanged:
				Buy and Buy Minus
				Sell, Sell Plus, Sell Short, and Sell Short Exempt
				Cross, Cross Short, and Cross Short Exempt
60	Transa	actTime	Y	Time this order request was initiated/released by the trader or trading system.
854	QtyTy	ре	N	

component block <orderqtydata></orderqtydata>		Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
			Note: OrderQty value should be the "Total Intended Order Quantity" (including the amount already executed for this chain of orders)
40	OrdType	Y	
423	PriceType	N	
44	Price	N	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	N	Required for OrdType = "Stop" or OrdType = "Stop limit".
compo <sprea< td=""><td>onent block adOrBenchmarkCurveData></td><td>N</td><td>Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</td></sprea<>	onent block adOrBenchmarkCurveData>	N	Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent block <yielddata></yielddata>	N	Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent block <peginstructions></peginstructions>	N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
<disci< td=""><td>nent block retionInstructions></td><td>N</td><td>Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</td></disci<>	nent block retionInstructions>	N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
376	ComplianceID	N	
377	SolicitedFlag	N	
15	Currency	N	Must match original order.
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Can specify the time at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order

component block <commissiondata></commissiondata>		N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
528	OrderCapacity	N	
529	OrderRestrictions	N	
582	CustOrderCapacity	N	
121	ForexReq	N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
120	SettlCurrency	N	Required if ForexReq = Y.
775	BookingType	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.
192	OrderQty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.
640	Price2	N	Can be used with OrdType = "Forex - Swap" to specify the price for the future portion of a F/X swap.
77	PositionEffect	N	For use in derivatives omnibus accounting
203	CoveredOrUncovered	N	For use with derivatives, such as options
210	MaxShow	N	
114	LocateReqd	N	Required for short sell orders
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdCxIRplcReq

OrderModificationRequestCustom "">¶ <!ENTITY % Order Modification Request Content"OrderID?, PartiesList?, TradeOrigination Date?,OrigClOrdID,ClOrdID, Secondar yClOrdID?, ClOrdLinkID?, ListID?, OrigOrdModTime?,
Account?,AccountType?,DayBookingInst ?,BookingUnit?, PreallocMethod?, OrdAllocGroupList?,Settlement?,CashMa rgin?, ClearingFeeIndicator?, HandInst, ExecInstList?, MinQty?, MaxFlo or?,ExDestination?,TrdSessionList?, Instrument,¶ Side, TransactTime, QtyType?, OrderQtyData,OrdType,PriceType?,Price ?,StopPx?,SpreadOrBenchmarkCurveDat YieldData?,PegDifference?,DiscretionIns t?,DiscretionOffset?,ComplianceID?,¶ SolicitedFlag?, Currency?, OrderDuration? , EffectiveTime?,¶ GTBookingInst?,CommissionData?,Orde rCapacity?,OrderRestrictions?, CustOrd erCapacity?,¶ ForexReqOrder?,Text?,EncodedTextGro up?,FutSettDate2?,OrderQty2?, Price2?, PositionEffect?,CoveredOrUncovered?,M axShow?,LocateReqd?,¶ CancellationRights?,MoneyLaunderingSt atus?,RegistID?,Designation?,¶ AccruedInterestRate?,AccruedInterestAm t?,NetMoney? %OrderModificationRequestCustom;" >¶ ¶
<!ELEMENT OrderModificationRequest (%OrderModificationRequestContent;)>¶ <!ATTLIST OrderModificationRequest

Deleted: <!ENTITY %

FIXTag CDATA #FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'G' >

Order Cancel Request -

The order cancel request message requests the cancelation of <u>all</u> of the remaining quantity of an existing order. Note that the Order Cancel/Replace Request should be used to partially cancel (reduce) an 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 replacement orders.

An immediate response to this message is required. It is recommended that an ExecutionRpt with ExecType=Pending Cancel be sent unless the Order Cancel Request can be immediately accepted (ExecutionRpt with ExecType=Canceled) or rejected (Order Cancel Reject message).

The format of the cancel request message is:

Order Cancel Request

Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = F
41	OrigClOrdID	Y	ClOrdID of the previous non-rejected order (NOT the initial order of the day) when canceling or replacing an order.
37	OrderID	N	Unique identifier of most recent order as assigned by sell-side (broker, exchange, ECN).
11	ClOrdID	Y	Unique ID of cancel request as assigned by the institution.
526	SecondaryClOrdID	N	
583	ClOrdLinkID	N	
66	ListID	N	Required for List Orders
586	OrigOrdModTime	N	
1	Account	N	
660	AcctIDSource	N	
581	AccountType	N	
component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <instrument></instrument>		Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <financingdetails></financingdetails>		N	Insert here the set of "FinancingDetails" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
			Must match original order
711	NoUnderlyings	N	Number of underlyings
→	component block <underlyinginstrument></underlyinginstrument>	N	Must be provided if Number of underlyings > 0
54	Side	Y	

60	TransactTime	Y	Time this order request was initiated/released by the trader or trading system.
component block <orderqtydata></orderqtydata>		Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES" Note: OrderQty = CumQty + LeavesQty (see exceptions
			above)
376	ComplianceID	N	
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdCxlReq

Deleted: <!ENTITY %
OrderCancelRequestCustom "">¶
<!ENTITY %
OrderCancelRequestContent
"OrigClOrdID,OrderID?,ClOrdID,Second
aryClOrdID?, ClOrdLinkID?,
ListID?, OrigOrdModTime?,
AccountType?,
PartiesList?,Instrument,Side,TransactTim
e,OrderQtyData,ComplianceID?,Text?,En
codedTextGroup?
%OrderCancelRequestCustom;">¶
<!ELEMENT OrderCancelRequest
(%OrderCancelRequestContent;)>¶
<!ATTLIST OrderCancelRequest
FIXTag CDATA #FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'F'>

Order Cancel Reject -

The order cancel reject message is issued by the broker upon receipt of a cancel request or cancel/replace request message which cannot be honored. Requests to change price or decrease quantity are executed only when an outstanding quantity exists. Filled orders cannot be changed (i.e quantity reduced or price change. However, the broker/sellside may support increasing the order quantity on a currently filled order).

When rejecting a Cancel/Replace Request (or Cancel Request), the Cancel Reject message should provide the ClOrdID which was specified on the Cancel/Replace Request (or Cancel Request) message for identification, and the OrigClOrdId should be that of the last accepted order (except in the case of CxlRejReason = "Unknown Order".

When rejecting an Order Mass Cancel Request, the ClOrdID should be set to the ClOrdID value of the Order Mass Cancel Request. OrigClOrdID is not specified for a rejected Order Mass Cancel Requests

The execution message responds to accepted cancel request and cancel/replace request messages.

The order cancel reject message format is as follows:

Order Cancel Reject

		Oraci	Cantel Reject
Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = 9
37	OrderID	Y	If CxlRejReason="Unknown order", specify "NONE".
198	SecondaryOrderID	N	Can be used to provide order id used by exchange or executing system.
526	SecondaryClOrdID	N	
11	ClOrdID	Y	Unique order id assigned by institution or by the intermediary with closest association with the investor, to the cancel request or to the <i>replacement</i> order.
583	ClOrdLinkID	N	
41	OrigClOrdID	Y	ClOrdID which could not be canceled/replaced. ClOrdID of the previous accepted order (NOT the initial order of the day) when canceling or replacing an order.
39	OrdStatus	Y	OrdStatus value after this cancel reject is applied. If CxlRejReason = "Unknown Order", specify Rejected.
636	WorkingIndicator	N	For optional use with OrdStatus = 0 (New)
586	OrigOrdModTime	N	
66	ListID	N	Required for rejects against orders which were submitted as part of a list.
1	Account	N	
660	AcctIDSource	N	
581	AccountType	N	
229	TradeOriginationDate	N	
75	TradeDate	N	
60	TransactTime	N	

434	CxlRejResponseTo	Y	
102	CxlRejReason	N	
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdCxlRej

Deleted: <!ENTITY %
OrderCancelRejectCustom "">¶
<!ENTITY % OrderCancelRejectContent
"OrderID,SecondaryOrderID?,Secondary
ClOrdID?,ClOrdID, ClOrdLinkID?,
OrigClOrdID, OrdStatus,
WorkingIndicator?,
OrigOrdModTime?,
ListID?,Account?ype?,
TradeOriginationDate?,
TradeOriginationDate?,
TransactTime?,CxlRejResponseTo,CxlRe
jReason?,Text?,¶
EncodedTextGroup?
%OrderCancelRejectCustom;">¶
<!ELEMENT OrderCancelReject
(%OrderCancelRejectContent;)>¶
<!ATTLIST OrderCancelReject FIXTag
CDATA #FIXED '35"¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED '9'>

Order Status Request -

The order status request message is used by the institution to generate an order status message back from the broker.

(See "Order State Change Matrices" for examples of usage of this message, including how to respond to a status request for an unknown order.)

The format of the order status request message is:

Order Status Request

Tag	Field Name	Reg'd	Comments
	Standard Header	Y	MsgType = H
37	OrderID	N	The state of the s
11	ClOrdID	Y	The ClOrdID of the order whose status is being requested.
526	SecondaryClOrdID	N	3 1
583	ClOrdLinkID	N	
component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
790	OrdStatusReqID	N	Optional, can be used to uniquely identify a specific Order Status Request message. Echoed back on Execution Report if provided.
1	Account	N	
660	AcctIDSource	N	
component block <instrument></instrument>		Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <financingdetails></financingdetails>		N	Insert here the set of "FinancingDetails" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
			Must match original order
711	NoUnderlyings	N	Number of underlyings
→	component block <underlyinginstrument></underlyinginstrument>	N	Must be provided if Number of underlyings > 0
54	Side	Y	
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdStatReq

Deleted: < !ENTITY %OrderStatusRequestCustom "">¶ <!ENTITY % Order Status Request Content"OrderID?,ClOrdID, SecondaryClOrdID?,¶ ClOrdLinkID?, PartiesList?, Account?, Instrument, Side %OrderStatusRequestCustom;" >¶ <!ELEMENT OrderStatusRequest (%OrderStatusRequestContent;)>¶ <!ATTLIST OrderStatusRequest FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'H' >

Order Mass Cancel Request

The order mass cancel request message requests the cancelation of <u>all</u> of the remaining quantity of a group of orders matching criteria specified within the request. NOTE: This message can only be used to cancel order messages (reduce the full quantity).

An order mass cancel request is assigned a ClOrdID and is treated as a separate entity. The order mass cancel request is acknowledged using an Order Mass Cancel Report. The Order Mass Cancel Report will contain the ClOrdID that was specified on the Order Mass Cancel Request. The ClOrdID assigned to the cancel request must be unique amongst the ClOrdID assigned to regular orders, replacement orders, cancel requests, and order mass cancel requests.

An immediate response to this message is required. It is recommended that an ExecutionRpt with ExecType=Pending Cancel be sent unless the Order Mass Cancel Request can be immediately accepted (ExecutionRpt with ExecType=Canceled) or rejected (Order Cancel Reject message).

Specifying order cancellation criteria is specified using the MassCancelRequestType field:

Field Value	Description	Explanation
1	Cancel orders for a security	Cancel orders that match the security identification block, all fields required to uniquely qualify the security should be specified.
2	Cancel orders for an Underlying security	Cancel orders that match the underlying security identification block, all fields required to uniquely identify the underlying security should be populated
3	Cancel orders for a Product	Cancel orders for a specific type of Product (high-level security classification), Only Product should be specified
4	Cancel orders for a CFICode	Cancel orders for a specific type of CFICode (security classification), Only CFICode should be specified
5	Cancel orders for a SecurityType	Cancel orders for a specific type of security, Only SecurityType should be specified
6	Cancel orders for a trading session	Cancel orders for a specific trading session, TradingSessionID must be specified.
7	Cancel all orders	Cancel all orders for the firm identified using this FIX connection

Example uses of MassCancelRequestType with Qualifiers:

Cancel for a Symbol

Cancel for an underlying

Cancel orders on one side of a market for a symbol

Cancel orders for a specific option series

Cancel all orders

Cancel all orders on one side of a market

Cancel all money market orders

Cancel all common stock orders

Cancel all orders for a trading session

Cancel all orders for a trading session on one side of a market

The format of the Order Mass Cancel Request message is:

Order Mass Cancel Request

		Order Mass Cancer Reducst				
Tag	Field Name	Req'd	Comments			
	Standard Header	Y	MsgType = q (lowercase Q)			
11	ClOrdID	Y	Unique ID of Order Mass Cancel Request as assigned by the institution.			
526	SecondaryClOrdID	N				
530	MassCancelRequestType	Y	Specifies the type of cancellation requested			
336	TradingSessionID	N	Trading Session in which orders are to be canceled			
625	TradingSessionSubID	N				
component block <instrument></instrument>		N	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"			
component block <underlyinginstrument></underlyinginstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"			
54	Side	N	Optional qualifier used to indicate the side of the market for which orders are to be canceled. Absence of this field indicates that orders are to be canceled regardless of side.			
60	TransactTime	Y	Time this order request was initiated/released by the trader or trading system.			
58	Text	N				
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.			
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.			
	Standard Trailer	Y				

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdMassCxIReq

Deleted: <!ENTITY %
OrderMassCancelReqCustom """>¶
<!ENTITY %
OrderMassCancelReqContent
"ClOrdID, SecondaryClOrdID?,
MassCancelRequestType,TradingSession
ID?, TradingSessionSubID?,
Instrument,UnderlyingInstrument
,Side?,TransactTime,Text?,EncodedText
Group? %OrderMassCancelReqCustom;"
>¶
<!ATTLLST OrderMassCancelReq
(%OrderMassCancelReq
(%OrderMassCancelReq
FIXTag CDATA #FIXED '35"¶
DataType CDATA #FIXED '35"¶
Value CDATA #FIXED 'q' >

Order Mass Cancel Report

The Order Mass Cancel Report is used to acknowledge an Order Mass Cancel Request. Note that each affected order that is canceled is acknowledged with a separate Execution Report or Order Cancel Reject message.

Order Mass Cancel Report

	Order Mass Cancel Report				
Tag	Field I	Field Name Reg'd Comments		Comments	
	Standard Header		Y	$MsgType = r ext{ (lowercase R)}$	
11	ClOrd	ID	N	ClOrdID provided on the Order Mass Cancel Request.	
526	Secon	daryClOrdID	N		
37	Orderl	D	Y	Unique Identifier for the Order Mass Cancel Request assigned by the recipient of the Order Mass Cancel Request	
198	Secon	daryOrderID	N	Secondary Order ID assigned by the recipient of the Order Mass Cancel Request	
530	MassC	CancelRequestType	Y	Order Mass Cancel Request Type accepted by the system	
531	MassC	CancelResponse	Y	Indicates the action taken by the counterparty order handling system as a result of the Cancel Request	
				0 – Indicates Order Mass Cancel Request was rejected.	
532	MassC	CancelRejectReason	N	Indicates why Order Mass Cancel Request was rejected	
				Required if MassCancelResponse = 0	
533	533 TotalAffectedOrders		N	Optional field used to indicate the total number of orders affected by the Order Mass Cancel Request	
534 NoAffectedOrders		N	Optional field used to indicate the number of order identifiers for orders affected by the Order Mass Cancel Request. Must be followed with OrigClOrdID as the next field		
→	41	OrigClOrdID	N	Required if NoAffectedOrders > 0	
				Indicates the client order id of an order affected by the Orde Mass Cancel Request.	
→	535	AffectedOrderID	N	Contains the OrderID assigned by the counterparty of an affected order. Not required as part of the repeating group.	
→	536	AffectedSecondaryOrder ID	N	Contains the SecondaryOrderID assigned by the counterparty of an affected order. Not required as part of the repeating group	
336	Tradin	gSessionID	N	Trading Session in which orders are to be canceled	
625	Tradin	gSessionSubID	N		
component block <instrument></instrument>		nt block <instrument></instrument>		Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
component block <underlyinginstrument></underlyinginstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
54	Side		N	Side of the market specified on the Order Mass Cancel Request	
60					

58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	355 EncodedText N		Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdMassCxlRpt

Deleted: <!ENTITY % OrderMassCancelReportCustom "">¶ <!ENTITY % Order Mass Cancel Report Content"ClOrdID?, SecondaryClOrdID?, OrderID?,SecondaryOrderID?,MassCanc elRequestType,MassCancelResponse,¶
MassCancelRejectReason?,TotalAffected Orders?,AffectedOrdersList?,¶ TradingSessionID?,TradingSessionSubID ?, Instrument, Underlying Instrument ,Side?,TransactTime,Text?,¶ EncodedTextGroup? %OrderMassCancelReportCustom;" >¶ <!ELEMENT OrderMassCancelReport (%OrderMassCancelReportContent;)>¶ <!ATTLIST OrderMassCancelReport FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'r' >

Order Mass Status Request

The order mass status request message requests the status for orders matching criteria specified within the request.

A mass status request is assigned a ClOrdID and is treated as a separate entity.

ExecutionReports with ExecType="Order Status" are returned for all orders matching the criteria provided on the request.

Specifying order selection criteria is specified using the MassStatusReqType field:

Field Value	Description	Explanation
1	Status for all orders for a security	Return status on orders that match the security identification block, all fields required to uniquely qualify the security should be specified.
2	Status for all orders for an Underlying security	Return status on orders that match the underlying security identification block, all fields required to uniquely identify the underlying security should be populated
3	Status for all orders for a Product	Return status on orders for a specific type of Product (high-level security classification), Only Product should be specified
4	Status for all orders for a CFICode	Return status on orders for a specific type of CFICode (security classification), Only CFICode should be specified
5	Status for all orders for a SecurityType	Return status on orders for a specific type of security, Only SecurityType should be specified
6	Status for all orders for a trading session	Return status on orders for a specific trading session, TradingSessionID must be specified.
7	Status for all orders	Return status on all orders for the firm identified using this FIX connection
8	Status for order belonging to a PartyID	Status all orders belonging to a PartyID
9	Status for all orders for an Account	Status for orders for an account.

Example uses of MassStatusReqType with Qualifiers:

- Status for a Symbol
- Status for an underlying
- Status orders on one side of a market for a symbol
- Status orders for a specific option series
- Status all orders
- Status all orders on one side of a market
- Status all money market orders
- Status all common stock orders
- Status all orders for a trading session
- Status all orders for a trading session on one side of a market
- Status all orders for a trading session for an underlying on one side of a market
- Status all orders belonging to a PartyID.

• Status all orders belonging to an Account

The format of the Order Mass Status Request message is:

Order Mass Status Request

Tag	Field Name	Req'd	Comments	
	Standard Header	Y	MsgType = AF	
584	MassStatusReqID	Y	Unique ID of mass status request as assigned by the institution.	
585	MassStatusReqType	Y	Specifies the scope of the mass status request	
component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
1	Account	N	Account	
660	AcctIDSource	N		
336	TradingSessionID	N	Trading Session	
625	TradingSessionSubID	N		
compo	nent block <instrument></instrument>	N	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
component block <underlyinginstrument></underlyinginstrument>		N	Insert here the set of "UnderlyingInstrument" (underlying symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
54	Side	N	Optional qualifier used to indicate the side of the market for which orders will be returned.	
	Standard Trailer	Y		

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element OrdMassStatReq

Deleted: <!ENTITY %
OrderMassStatusReqCustom "">¶
<!ENTITY %
OrderMassStatusReqContent
"MassStatusReqID,MassStatusReqType,
PartiesList?,Account?,TradingSessionID?,TradingSessionSubID?,Instrument?,Und
erlyingInstrument?,Side?,
%OrderMassStatusReqCustom;">¶
¶
<!ELEMENT OrderMassStatusReq
(%OrderMassStatusReq Content;)>¶
<!ATTLIST OrderMassStatusReq
FIXTag CDATA #FIXED '35"¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'AF'>

Order State Change Matrices

(formerly known as "Appendix D")

The following matrices are included to clarify the sequence of messages and the status of orders involved in the submission and processing of new orders, executions, cancel requests, cancel/replace requests and order status requests. The matrices have been arranged in groups as follows:

A Vanilla

Ref	Description	Old Reference(4.3 Errata)
A.1.a	Filled order	1
A.1.b	Part-filled day order, done for day	2

B Cancel

Ref	Description	Old Reference (4.3 Errata)
B.1.a	Cancel request issued for a zero-filled order	3
B.1.b	Cancel request issued for a part-filled order – executions occur whilst cancel request is active	4
B.1.c	Cancel request issued for an order that becomes filled before cancel request can be accepted	5
B.1.d	Cancel request issued for an order that has not yet been acknowledged	6
B.1.e	Cancel request issued for an order that has not yet been acknowledged – the acknowledgment and the cancel request 'cross'	7
B.1.f	Cancel request issued for an unknown order	7a

C Cancel/Replace quantity changes

C.1 Replace to increase quantity

Ref	Description	Old Reference (4.3 Errata)
C.1.a	Zero-filled order, cancel/replace request issued to increase order qty	8
C.1.b	Part-filled order, followed by cancel/replace request to increase order qty, execution occurs whilst order is pending replace	9
C.1.c	Filled order, followed by cancel/replace request to increase order quantity	10

C.2 Replace not for quantity change

Ref	Description	Old Reference (4.3 Errata)
C.2.a	Cancel/replace request (not for quantity change) is rejected as a	11

Deleted: April 30, 2003

fill has occurred	

C.3 Replace to decrease quantity

Ref	Description	Old Reference (4.3 Errata)
C.3.a	Cancel/replace request sent whilst execution is being reported – the requested order qty exceeds the cum qty. Order is replaced then filled	12
C.3.b	Cancel/replace request sent whilst execution is being reported – the requested order qty equals the cum qty – order qty is amended to cum qty	13
C.3.c	Cancel/replace request sent whilst execution is being reported – the requested order qty is below cum qty – order qty is amended to cum qty	14

D Cancel/Replace sequencing and chaining

D.1 Sequencing

Ref	Description	Old Reference (4.3 Errata)
D.1.a	One cancel/replace request is issued which is accepted – another one is issued which is also accepted	15
D.1.b	One cancel/replace request is issued which is rejected before order becomes pending replace – then another one is issued which is accepted	16
D.1.c	One cancel/replace request is issued which is rejected after it is in pending replace – then another one is issued which is accepted	17

D.2 Chaining

Ref	Description	Old Reference (4.3 Errata)
D.2.a	One cancel/replace request is issued followed immediately by another – broker processes sequentially	18
D.2.b	One cancel/replace request is issued followed immediately by another – broker processes pending replaces before replaces	19
D.2.c	One cancel/replace request is issued followed immediately by another – both are rejected	20
D.2.d	One cancel/replace request is issued followed immediately by another – broker rejects the second as order is pending replace	21

E Unsolicited/Reinstatement

Ref	Description	Old Reference (4.3 Errata)
E.1.a	Telephoned order	22
E.1.b	Unsolicited cancel of a part-filled order	23

E.1.c	Unsolicited replacement of a part-filled order	24
E.1.d	Unsolicited reduction of order quantity by sell side (e.g. for US ECNs to communicate Nasdaq SelectNet declines)	25
E.1.e	Unsolicited cancel of 'cancel if not best' order	

F Order Reject

Ref	Description	Old Reference (4.3 Errata)
F.1.a	Order rejected due to duplicate ClOrdID	26
F.1.b	Poss resend and duplicate ClOrdID	27
F.1.c	Order rejected because the order has already been verbally submitted	28

G Status

Ref	Description	Old Reference (4.3 Errata)
G.1.a	Order status request rejected for unknown order	29
G.1.b	Transmitting a CMS-style "Nothing Done" in response to a status request	30
G.1.c	Order sent, immediately followed by a status request. Subsequent status requests sent during life of order	31

H GT

Ref	Description	Old Reference (4.3 Errata)
H.1.a	GTC order partially filled, restated (renewed) and partially filled the following day	32
H.1.b	GTC order with partial fill, a 2:1 stock split then a partial fill and fill the following day	33
H.1.c	GTC order partially filled, restated(renewed) and canceled the following day	34
H.1.d	GTC order partially filled, restated(renewed) followed by replace request to increase quantity	35

I TimeInForce

Ref	Description	Old Reference (4.3 Errata)
I.1.a	Fill or Kill order cannot be filled	36
I.1.b	Immediate or Cancel order that cannot be immediately hit	37

J Execution Cancels/Corrects

Ref	Description	Old Reference (4.3 Errata)
J.1.a	Filled order, followed by correction and cancellation of executions	38
J.1.b	A canceled order followed by a busted execution and a new execution	39
J.1.c	GTC order partially filled, restated (renewed) and partially filled the following day, with corrections of quantity on both executions	40
J.1.d	Part-filled order Done for day followed by trade correction and bust	41

K Trading Halt

Ref		Description	Old Reference (4.3 Errata)
K.1.a	ì	Trading Halt – Reinstate	43
K.1.b	,	Trading Halt – Cancel	44

L Miscellaneous

Ref	Description	Old Reference (4.3 Errata)
L.1.a	Transmitting a guarantee of execution prior to execution (Stopped/Guarantee)	42
L.1.b	Use of CashOrderQty	

The Table below shows which state transitions have been illustrated by the matrices in this Appendix (marked with an asterisk). The row represents the current value of OrdStatus and the column represents the next value as reported back to the buy-side via an execution report or order cancel reject message. Next to each OrdStatus value is its precedence – this is used when the order exists in a number of states simultaneously to determine the value that should be reported back. Note that absence of a scenario should not necessarily be interpreted as meaning that the state transition is not allowed:

OrdStatus (precedence value)	New (2)	Partially Filled (4)	Filled (8)	Done For Day (10)	Pending Cancel (12)	Pending Replace (11)	Canceled (5)	Rejected (2)	Stopped (7)
Pending New (2)	*							*	
New (2)	*	*	*	*	*	*		*	*
Partially Filled (4)		*	*	*	*	*	*		
Filled (8)		*	*			*			
Done for Day (10)		*							
Pending Cancel (12)	*	*	*		*		*		
Pending Replace (11)	*	*	*			*	*		
Canceled (5)									
Rejected (2)									
Stopped (7)		*							

How to read the Order State Change Matrices:

- The 'Execution Report' message is referred to simply as 'Execution'
- The 'Order Cancel/Replace Request' and 'Order Cancel Request' messages are referred to as 'Replace Request' and 'Cancel Request' respectively
- The shaded rows represent messages sent from buy-side to the sell-side
- In general where two lines of a matrix share the same time, this means either
 - that there are two possible paths (e.g. a request is accepted or rejected) in this case the first row
 of the two possible paths is the reject case which is italicized. The non-italicized row is the path
 that is continued by the remainder of the matrix
 - that two messages are being sent at the same time but in different directions such that the
 messages cross on the connection (e.g. a cancel request is sent at the same time as the sell-side is
 sending an execution) in this case both lines have bold text
- For scenarios involving cancel requests or cancel/replace requests 'X' refers to the original order, 'Y' refers to the cancel/replacing order. A similar convention is used for corrections or cancels to executions

A Vanilla

A.1.a - Filled order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sales
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by trader/exchange
3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000	Execution of 2000
4		Execution(X)	Trade	Partially Filled	10000	3000	7000	1000	Execution of 1000
5		Execution(X)	Trade	Filled	10000	10000	0	7000	Execution of 7000

A.1.b - Part-filled day order, done for day

	io i uni juicu	uny orner, non	e joi unj						·
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Qty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000	Execution of 2000
4		Execution(X)	Trade	Partially Filled	10000	3000	7000	1000	Execution of 1000
5		Execution(X)	Done for Day	Done for Day	10000	3000	0	0	Assuming day order. See other examples w

B Cancel

B.1.a - Cancel request issued for a zero-filled order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
2		Execution(X)	New	New	10000	0	10000	0	
3	Cancel Request(Y,X)				10000				
4		Cancel Reject (Y,X)		New					If rejected by salesperson
4		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	0	10000	0	Aknowledge the cancel request
5		Cancel Reject (Y,X)		New					If rejected by trader/exchange
5		Execution (Y,X)	Cancele d	Canceled	10000	0	0	0	Confirm that order has been canceled

B.1.b - Cancel request issued for a part-filled order - executions occur whilst cancel request is active

Time	Message	Message Sent	Exec	OrdStatus	Order	Cum	Leaves	Last	Comment
Time	Received (ClOrdID, OrigClOrdID)	(ClOrdID, OrigClOrdID)	Type	Orastatus	Oty	Oty	Otv Otv	<u>Otv</u>	<u>Commun.</u>
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000	Execution for 2000
4	Cancel Request(Y,X)				10000				
4		Execution(X)	Trade	Partially Filled	10000	5000	5000	3000	Execution for 3000. This execution pass on the connection
5		Cancel Reject (Y,X)		Partially Filled					If request is rejected
5		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	5000	5000	0	'Pending cancel' order status takes prec filled' order status
6		Execution(X)	Trade	Pending Cancel	10000	6000	4000	1000	Execution for 1000 whilst order is pend cancel' order status takes precedence over status.
7		Cancel Reject (Y,X)		Partially Filled					If request is rejected
7		Execution (Y,X)	Cancele d	Canceled	10000	6000	0	0	'Canceled' order status takes precedence order status

B.1.c - Cancel request issued for an order that becomes filled before cancel request can be accepted

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000	Execution for 2000
4	Cancel Request(Y,X)				10000				
4		Execution(X)	Trade	Partially Filled	10000	5000	5000	3000	Execution for 3000. This execution pass on the connection
5		Cancel Reject (Y,X)		Partially Filled					If request is rejected
5		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	5000	5000	0	'Pending cancel' order status takes prec filled' order status
6		Execution(X)	Trade	Pending Cancel	10000	10000	0	5000	Execution for 5000 whilst order is pen cancel' order status takes precedence over '
7		Cancel Reject		Filled					Cancel request rejected – CxIRejectReason

B.1.d - Cancel request issued for an order that has not yet been acknowledged

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Oty	Comment
1	New Order(X)				10000				
2	Cancel Request(Y,X)				10000				Order sender immediately wishes to cancel
3		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	0	10000	0	OrigClOrd set to X even though X has not
4		Execution (X)	New	New	10000	0	10000	0	Order accepted before cancel request is pro
5		Execution (Y,X)	Cancele d	Canceled	10000	0	0	0	Order canceled.
6	New Order(A)				5000				
7	Cancel Request(B,A)				5000				Order sender immediately wishes to cancel
8		Execution (B,A)	Pending Cancel	Pending Cancel	5000	0	5000	0	OrigClOrd set to A even though A has not
9		Execution (B,A)	Cancele d	Canceled	5000	0	0	0	Order canceled before it is accepted. Note even though A has not yet been accepted

B.l.e - Cancel request issued for an order that has not yet been acknowledged - the acknowledgment and the cancel request 'c

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	Leaves Otv	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2	Cancel Request(Y,X)				10000				Order sender immediately wishes to cano
2		Execution (X)	New	New	10000	0	10000	0	This message crosses the Cancel request
3		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	0	10000	0	
4		Execution (Y,X)	Cancele d	Canceled	10000	0	0	0	Order canceled.

B.1.f - Cancel request issued for an unknown order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Oty	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	Cancel Request(Y,X)				10000				
2		Cancel Reject (Y,X)		Rejected					Cancel request rejected with reject reason OrdStatus is "Rejected" and OrderID is "N(

NOTE: It is important to note that rejecting a cancel request for an unknown OrigClOrdID does not cause the sell-side to consume th Cancel Request.

C Cancel/Replace quantity changes

C.1 Replace to increase quantity

C.1.a - Zero-filled order, cancel/replace request issued to increase order qty

	.a – zero-juiea	orner, curices	replace re	quesi issueu	io increu	se oruer	qıy		
<u>Time</u>	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3	Replace Request(Y,X)				11000				Request to increase order qty to 11000
4		Cancel Reject (Y,X)		New					If request is rejected by salesperson
4		Execution (Y,X)	Pending Replace	Pending Replace	10000	0	10000	0	Acknowledge the Replace request
5		Cancel Reject (Y,X)		New					If rejected by trader/exchange
5		Execution (Y,X)	Replace	New	11000	0	11000	0	Confirm order has been replaced
6		Execution (Y)	Trade	Partially Filled	11000	1000	10000	1000	Execution for 1000. Use Y as the new ClOr
7		Execution (Y)	Trade	Partially Filled	11000	3000	8000	2000	Execution for 2000

C.1.b - Part-filled order, followed by cancel/replace request to increase order qty, execution occurs whilst order is pending repl

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				12000				Request increase in order quantity to 12000
5		Cancel Reject (Y,X)		Partially Filled					If request is rejected
5		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	'Pending replace' order status takes prec filled' order status
6		Execution(X)	Trade	Pending Replace	10000	1100	8900	100	Execution for 100 before cancel/replace req
7		Cancel Reject (Y,X)		Partially Filled					If request is rejected
7		Execution (Y,X)	Replace	Partially Filled	12000	1100	10900	0	Confirm replace has been accepted
8		Execution(Y)	Trade	Filled	12000	12000	0	10900	Execution for 10900

C.1.c - Filled order, followed by cancel/replace request to increase order quantity

<u>Time</u>	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Filled	10000	10000	0	10000	Execution for 10000
4	Replace Request(Y,X)				12000				Request increase in order quantity to 12000
5		Cancel Reject (Y,X)		Filled					If request is rejected
5		Execution (Y,X)	Pending Replace	Pending Replace	10000	10000	0	0	'Pending replace' order status takes prec filled' order status
6		Cancel Reject (Y,X)		Filled					If request is rejected
6		Execution (Y,X)	Replace	Partially Filled	12000	10000	2000	0	. Confirm order has been replaced
7		Execution(Y)	Trade	Filled	12000	12000	0	2000	Execution for 2000

C.2 Replace not for quantity change

C.2.a - Cancel/replace request (not for quantity change) is rejected as a fill has occurred

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	<u>Order</u> <u>Qty</u>	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				10000				Assume in this scenario that client does qty (e.g. client wants to amend limit price
4		Execution (X)	Trade	Filled	10000	10000	0	9000	Execution for 9000 – the replace requexecution report pass each other on the c
5		Cancel Reject (Y,X)		Filled					CxlRejectReason = 0 (too late to cancel)

C.3 Replace to decrease quantity

C.3.a - Cancel/replace request sent whilst execution is being reported - the requested order qty exceeds the cum qty. Order is re

	l Cuncerty	l	The million		Jeing rep	oneu – i	ne requesi	eu oruer	qiy exceeas ine cum qiy. Oraer is ri
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request a decrease order quantity to 800
4		Execution(X)	Trade	Partially Filled	10000	1500	8500	500	Execution for 500 sent. Replace reque report pass each other on the connection
5		Cancel Reject (Y,X)		Partially Filled					If request is rejected by salesperson
5		Execution (Y,X)	Pending Replace	Pending Replace	10000	1500	8500	0	'Pending replace' order status takes prec filled' order status
6		Execution(X)	Trade	Pending Replace	10000	1600	8400	100	Execution for 100 occurs before cancel/repl
7		Cancel Reject (Y,X)		Partially Filled					If request is rejected by trader/exchange
7		Execution (Y,X)	Replace	Partially Filled	8000	1600	6400	0	Replace is accepted as requested order qty
8		Execution (Y)	Trade	Filled	8000	8000	0	6400	Execution for 6400.

C.3.b - Cancel/replace request sent whilst execution is being reported - the requested order qty equals the cum qty - order qty

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Oty	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3	Replace Request(Y,X)				7000				Client wishes to amend order qty to 7000
3		Execution(X)	Trade	Partially Filled	10000	7000	3000	7000	Execution for 7000 - the replace messa report pass each other on the connection
4		Execution (Y,X)	Replace	Filled	7000	7000	0	0	The replace request is interpreted as requi order to be canceled – the 'filled' order s over 'canceled'.

C.3.c - Cancel/replace request sent whilst execution is being reported - the requested order qty is below cum qty - order qty is t

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, excl
2		Execution(X)	New	New	10000	0	10000	0	
3	Replace Request(Y,X)				7000				Client wishes to amend order qty to 7000
3		Execution(X)	Trade	Partially Filled	10000	8000	2000	8000	Execution for 8000 - the replace messa report pass each other on the connection
4		Execution (Y,X)	Replace	Filled	8000	8000	0	0	The replace request is interpreted as requi order to be canceled – the 'filled' order s over 'canceled'.

D Cancel/Replace sequencing and chaining

D.1 Sequencing

D.1.a - One cancel/replace request is issued which is accepted - another one is issued which is also accepted

D.1	.u - One cance	wreplace requi	esi is issue	u waten is at	серіси –	unoiner	one is issi	icu wnic	n is also acceptea
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	'Pending replace' order status takes prec filled' order status
6		Execution(X)	Trade	Pending Replace	10000	1500	8500	500	Execution for 500
7		Execution (Y,X)	Replace	Partially Filled	8000	1500	6500	0	
8		Execution (Y)	Trade	Partially Filled	8000	3500	4500	2000	Execution for 2000
9	Replace Request(Z,Y)				6000				Request decrease in order quantity to 6000,
10		Execution (Z,Y)	Pending Replace	Pending Replace	8000	3500	4500	0	
11		Execution(Y)	Trade	Pending Replace	8000	4000	4000	500	Execution for 500
12		Execution (Z,Y)	Replace	Partially Filled	6000	4000	2000	0	
13		Execution(Z)	Trade	Filled	6000	6000	0	2000	Execution for 2000

D.1.b - One cancel/replace request is issued which is rejected before order becomes pending replace - then another one is issued.

	1	in top the end of the		,	,	1	Permana	replace - then unother one is issu	
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5		Cancel Reject (Y,X)		Partially Filled					Request is rejected
6		Execution(X)	Trade	Partially Filled	10000	1500	8500	500	Execution for 500
7		Execution(X)	Trade	Partially Filled	10000	3500	6500	2000	Execution for 2000
8	Replace Request(Z,X)				6000				Request decrease in order quantity to 600 Note that OrigClOrdID = X , as this is ClOrdID
9		Execution (Z,X)	Pending Replace	Pending Replace	10000	3500	6500	0	Note that OrigClOrdID = X
10		Execution (Z,X)	Replace	Partially Filled	6000	3500	2500	0	Note that OrigClOrdID = X
11		Execution(Z)	Trade	Partially Filled	6000	5000	1000	1500	Execution for 1500

D.1.c - One cancel/replace request is issued which is rejected after it is in pending replace - then another one is issued which is

	1	I	is rejected ujter it is in pending replace				I		
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	
6		Execution(X)	Trade	Pending Replace	10000	1500	8500	500	Execution for 500. 'Pending replace' order over 'partially filled' order status
7		Cancel Reject (Y,X)		Partially Filled					Request is rejected (e.g. by trader/exchange
8		Execution(X)	Trade	Partially Filled	10000	3500	6500	2000	Execution for 2000
9	Replace Request(Z,X)				6000				Request decrease in order quantity to 600 Note that OrigClOrdID = X as this is ClOrdID
10		Execution (Z,X)	Pending Replace	Pending Replace	10000	3500	6500	0	
11		Cancel Reject (Z,X)		Partially Filled					If request is rejected (e.g. by trader/exchanţ
11		Execution (Z,X)	Replace	Partially Filled	6000	3500	2500	0	
12		Execution(Z)	Trade	Partially Filled	6000	5000	1000	1500	Execution for 1500

D.2 Chaining

D.2.a - One cancel/replace request is issued followed immediately by another - broker processes sequentially

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	Last Qty	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5	Replace Request(Z,Y)				7000				Request decrease in order quantity to 700 Note OrigClOrdID set to last non rejected 'optimistic' basis)
6		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	Broker processes Replace (Y,X) first
7		Execution (Y,X)	Replace	Partially Filled	8000	1000	7000	0	Broker processes Replace (Y,X) first
8		Execution (Z,Y)	Pending Replace	Pending Replace	8000	1000	7000	0	Broker then processes Replace (Z,Y). No last accepted ClOrdID i.e. Y
9		Execution (Z,Y)	Replace	Partially Filled	7000	1000	6000	0	Broker then processes Replace (Z,Y)
10		Execution(Z)	Trade	Filled	7000	7000	0	6000	Execution for 6000

D.2.b - One cancel/replace request is issued followed immediately by another - broker processes pending replaces before replaces

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5	Replace Request(Z,Y)				7000				Request decrease in order quantity to 700 Note OrigClOrdID set to last non rejected 0
6		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	Broker processes Replace (Y,X) first
7		Execution (Z,X)	Pending Replace	Pending Replace	8000	1000	7000	0	Broker then processes Replace (Z,Y). No last accepted ClOrdID i.e. X
8		Execution (Y,X)	Replace	Pending Replace	8000	1000	7000	0	Broker processes Replace (Y,X) first Note accepted ClOrdID i.e. X. OrdStatus of 1 precedence over Partially Filled
9		Execution (Z,Y)	Replace	Partially Filled	7000	1000	6000	0	Broker then processes Replace (Z,Y) Note accepted ClOrdID i.e. Y
10		Execution(Z)	Trade	Filled	7000	7000	0	6000	Execution for 6000

D.2.c - One cancel/replace request is issued followed immediately by another - both are rejected

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5	Replace Request(Z,Y)				7000				Request decrease in order quantity to 700 Note OrigCOrdID set to last non rejected C
6		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	Broker processes Replace (Y,X) first
7		Cancel Reject (Y,X)		Partially Filled					Broker rejects first replace request Note (accepted ClOrdID i.e. X
8		Execution (Z,X)	Pending Replace	Pending Replace	10000	1000	9000	0	Broker then processes Replace (Z,Y). No last accepted ClOrdID i.e. X
9		Cancel Reject (Z,X)		Partially Filled					Broker then rejects second replace request to last accepted ClOrdID i.e. X
10		Execution(X)	Trade	Partially Filled	10000	7000	3000	6000	Execution for 6000

D.2.d - One cancel/replace request is issued followed immediately by another - broker rejects the second as order is pending re

			1	ĺ		,, ,,			is the second as order is pending re
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Replace Request(Y,X)				8000				Request decrease in order quantity to 8000,
5	Replace Request(Z,Y)				7000				Request decrease in order quantity to 70 Note OrigCOrdID set to last non rejected C
6		Execution (Y,X)	Pending Replace	Pending Replace	10000	1000	9000	0	
7		Cancel Reject (Z,X)		Pending Replace					Rejected because broker does not suppo cancel replace request whilst order CxlRejReason = 'Order already in pend replace status' OrigClOrdID set to last acce
8		Execution (Y,X)	Replace	Partially Filled	8000	1000	7000	0	
9		Execution (Y)	Trade	Partially Filled	8000	3000	5000	2000	Execution for 2000

This matrix illustrates the case where the broker/order receiver does not support multiple outstanding order cancel or order cancel/replace requests

E Unsolicited/Reinstatement

E.1.a – Telephoned order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Qty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1									Order for 10000 phoned to broker
2		Execution	New	New	10000	0	0	0	Confirm that the broker has accepted the c does not need to capture a ClOrdID
3		Execution	Trade	Partially Filled	10000	2000	8000	2000	Execution of 2000
4		Execution	Trade	Partially Filled	10000	3000	7000	1000	Execution of 1000
5		Execution	Trade	Filled	10000	10000	0	7000	Execution of 7000

E.1.b - Unsolicited cancel of a part-filled order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Qty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4									Broker verbally agrees to cancel order
5		Execution(X)	Cancele d	Canceled	10000	1000	0	0	Broker signifies that order has ExecRestatementReason = Verbal change

This scenario might occur if the buy-side has not implemented order cancel requests or alternatively there is an electronic communication problem at the point that the request.

E.1.c - Unsolicited replacement of a part-filled order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3									Broker verbally agrees to increase order qua
4		Execution(X)	Restated	New	11000	0	11000	0	Broker signifies that order h: ExecRestatementReason = Verbal
5		Execution(X)	Trade	Partially Filled	11000	1000	10000	1000	Execution for 1000
6									Broker verbally agrees to increase order qui
7		Execution(X)	Restated	Partially Filled	12000	1000	11000	0	Broker signifies that order h: ExecRestatementReason = Verbal change

This scenario might occur if the buy-side has not implemented order cancel/replace requests or alternatively there is an electronic communication problem at the point t cancel replace request

E.1.d - Unsolicited reduction of order quantity by sell side (e.g. for US ECNs to communicate Nasdaq SelectNet declines)

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Oty	Cum Oty	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Restated	New	9000	0	9000	0	ExecRestatementReason="Partial Decline c
4		Execution(X)	Trade	Filled	9000	9000	0	9000	

E.1.e - Unsolicited cancel of a 'cancel if not best' order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Price	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000	56				ExecInst = Z (Cancel if Not Best
2		Execution(X)	Rejected	Rejected	10000	56	0	0	0	If order is rejected by sell-side (t (e.g. if the order book is at 56.1-5
2		Execution(X)	New	New	10000	56	0	10000	0	Order accepted as order book wa order. Order book is now 56.0-56
3		Execution(X)	Canceled	Canceled	10000	56	0	0	0	Order book moves to 56.1-57.0. bid/offer so is canceled with E ="Canceled, Not Best"

F Order Reject

F.1.a- Order rejected due to duplicate ClOrdID

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	New Order(X)				15000				Order submitted with the same order id .
5		Execution(X)	Rejected	Partially Filled	10000	1000	9000	0	OrdRejReason = duplicate order. Note cororder for 15000 with a status on the first or partially filled)

F.1.b - Poss resend and duplicate ClOrdID

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3	New Order(X)				10000				PossResend=Y
4		Execution(X)	Order Status	New	10000	0	10000		Because order X has already been recei current state of the order. Last Qty not requ Order Status
5	New Order(X)				20000				PossResend=N or not set
6		Execution(X)	Rejected	New	10000	0	10000		OrdRejReason = duplicate order. Note consecond order for 20000 with a status on the
7	New Order(Y)				15000				PossResend=Y
8		Execution(Y)	New	New	15000	0	15000	0	Because order Y has not been received be new order.

F.1.c - Order rejected because the order has already been verbally submitted

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				Order for 10000 sent electronically
2									Order passed verbally as there is comm order does not arrive. The verbally pass executed
3		Execution(X)	Rejected	Rejected	10000	0	0	0	Order finally arrives and is detected as a order and is therefore rejected. OrdRejRa verbal order

Note that the sell-side may employ a number of mechanisms to detect that the electronic order is potentially a duplicate of a verbally passed order, e.g.:

- Checking the possdup flag on the order message header
- Checking the incoming order details against other orders from the same client (e.g. side, quantity)
- Looking at the transact time on the order as a guide to 'staleness'

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G Status

G.1.a - Order status request rejected for unknown order

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	Order Qty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4	Status Request (Y)								
5		Execution(Y)	Order Status	Rejected	0	0	0		OrdRejReason = unknown order LastQty not required when ExecType=Ords

G.1.b - Transmitting a CMS-style "Nothing Done" in response to a status request

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3	Status Request(X)								
4		Execution(X)	Order Status	New	10000	0	10000	0	Text="Nothing Done"

G.1.c - Order sent, immediately followed by a status request. Subsequent status requests sent during life of order

1	ma Massaga Massaga Sant)	l status req			1	1	landing tige of oraci
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2	Status Request								
3		Execution(X)	Order Status	Pending New	10000	0	10000		Sent in response to status request. Last(ExecType=Order Status
4		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected
4		Execution(X)	New	New	10000	0	10000	0	
5	Status Request (X)								
6		Execution(X)	Order Status	New	10000	0	10000		Sent in response to status request.
7		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000	Execution for 2000
8	Status Request (X)								
9		Execution(X)	Order Status	Partially Filled	10000	2000	8000		Sent in response to status request
10		Execution(X)	Trade	Filled	10000	10000	0	8000	Execution for 8000
11	Status Request (X)								
12		Execution(X)	Order Status	Filled	10000	10000	0		Sent in response to status request
13	Replace Request(Y,X)				12000				Request to increase order qty
14		Execution (Y,X)	Pending Replace	Pending Replace	10000	10000	0	0	
15		Execution (Y,X)	Replace	Partially Filled	12000	10000	2000	0	
16	Status Request (X)								
17		Execution (Y,X)	Order Status	Partially Filled	12000	10000	2000		Sent in response to status request. Note ref back of execution report to status request

18	Status Request (Y)							
19		Execution(Y)	Order Status	Partially Filled	12000	10000	2000	Sent in response to status request

H GT

H.1.a - GTC order partially filled, restated (renewed) and partially filled the following day

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Day Order Oty	Dav Cum Otv	Comment
Day 1,1	New Order(X)				10000						
Day 1,2		Execution(X)	New	New	10000	0	10000	0			
Day 1,3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000			Execution for 2000
Day 1,4		Execution(X)	Done for Day	Done for Day	10000	2000	8000	0			Optional at end of trading
Day 2,1		Execution(X)	Restated	Partially Filled	10000	2000	8000	0	8000	0	ExecRestatementReason renewal/restatement (no sent the following mornii
Day 2,2		Execution(X)	Trade	Partially Filled	10000	3000	7000	1000	8000	1000	Execution for 1000

H.1.b - GTC order with partial fill, a 2:1 stock split then a partial fill and fill the following day

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Oty	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Day Order Oty	Day Cum Oty	Comment
Day 1,1	New Order(X)				10000						
Day 1,2		Execution(X)	New	New	10000	0	10000	0			
Day 1,3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000			Execution for 2000 @ 50
Day 1,4		Execution(X)	Done for Day	Done for Day	10000	2000	8000	0			Optional at end of trading
Day 2,1		Execution(X)	Restated	Partially Filled	20000	4000	16000	0	16000	0	Sent the following material ExecRestatementReason action. AvgPx=25, DayA
Day 2,2		Execution(X)	Trade	Partially Filled	20000	9000	11000	5000	16000	5000	Execution for 5000
Day 2,3		Execution(X)	Trade	Filled	20000	20000	0	11000	16000	16000	Execution for 11000

H.1.c - GTC order partially filled, restated(renewed) and canceled the following day

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	<u>Dav</u> <u>Order</u> <u>Otv</u>	Dav Cum Otv	Comment
Day 1,1	New Order(X)				10000						
Day 1,2		Execution(X)	New	New	10000	0	10000	0			
Day 1,3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000			Execution for 2000
Day 1,4		Execution(X)	Done for Day	Done for Day	10000	2000	8000	0			Optional at end of trading
Day 2,1		Execution(X)	Restated	Partially Filled	10000	2000	8000	0	8000	0	ExecRestatementReason renewal/restatement (no sent the following mornii
Day 2,2	Cancel Request (Y,X)				10000						
Day 2,3		Cancel Reject (Y,X)		Partially Filled							If rejected by salesperson
Day 2,3		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	2000	8000	0	8000	0	
Day 2,4		Cancel Reject (Y,X)		Partially Filled							If rejected by trader/exch
Day 2,4		Execution (Y,X)	Canceled	Canceled	10000	2000	0	0	8000	0	

H.1.d - GTC order partially filled, restated(renewed) followed by replace request to increase quantity

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	Last Otv	Dav Order Otv	Dav Cum Otv	Comment
Day 1,1	New Order(X)				10000						
Day 1,2		Execution(X)	New	New	10000	0	10000	0			
Day 1,3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000			Execution for 2000
Day 1,4		Execution(X)	Done for Day	Done for Day	10000	2000	8000	0			Optional at end of trading
Day 2,1		Execution(X)	Restated	Partially Filled	10000	2000	8000	0	8000	0	ExecRestatementReason renewal/restatement (no sent the following mornit
Day 2,2	Replace Request(Y,X)				15000						Increasing qty
Day 2,3		Cancel Reject (Y,X)		Partially Filled							If rejected by salesperson
Day 2,3		Execution (Y,X)	Pending Replace	Pending Replace	10000	2000	8000	0	8000	0	
Day 2,4		Execution (X)	Trade	Pending Replace	10000	3000	7000	1000	8000	1000	Execution for 1000
Day 2,5		Cancel Reject (Y,X)		Partially Filled							If rejected by trader/exch
Day 2,5		Execution (Y,X)	Replace	Partially Filled	15000	3000	12000	0	13000	1000	

I TimeInForce

I.1.a - Fill or Kill order cannot be filled

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				Order is FOK
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Canceled	Canceled	10000	0	0	0	If order cannot be immediately filled

I.1.b - Immediate or Cancel order that cannot be immediately hit

<u>Time</u>	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	<u>OrdStatus</u>	<u>Order</u> <u>Qty</u>	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>Last</u> <u>Qty</u>	Comment
1	New Order(X)				10000				Order is IOC
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	1000	Execution for 1000
4		Execution(X)	Canceled	Canceled	10000	1000	0	0	If order cannot be immediately hit

J Execution Cancels/Corrects

J.1.a - Filled order, followed by correction and cancellation of executions

	1 1 111011 0711	er, jouoweu vy			inon oj c		1					
Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Qty	<u>Leaves</u> <u>Qty</u>	<u>AvgPx</u>	<u>Last</u> <u>Qty</u>	<u>Last</u> <u>Px</u>	ExecId (ExecRe fID)	Comment
1	New Order(X)				10000							
2		Execution(X)	Rejected	Rejected	10000	0	0		0		A	If order is (broker, exc.
2		Execution(X)	New	New	10000	0	10000	0	0		В	
3		Execution(X)	Trade	Partially Filled	10000	1000	9000	100	1000	100	C	Execution fc
4		Execution(X)	Trade	Filled	10000	10000	0	109	9000	110	D	Execution fc
5		Execution(X)	Trade Cancel	Partially Filled	10000	9000	1000	110	0	0	E ©	Cancel exec
6		Execution(X)	Trade Correct	Partially Filled	10000	9000	1000	100	9000	100	F (D)	Correct price to 100.
7		Execution(X)	Trade	Filled	10000	10000	0	102	1000	120	G	Execution fc
8		Execution(X)	Trade Correct	Filled	10000	10000	0	120	9000	120	H(F)	Correct price to 120
9	Replace Request (Y,X)				12000							Request to in
10		Execution (Y,X)	Pending Replace	Pending Replace	10000	10000	0	120	0	0	I	
11		Execution (Y,X)	Replace	Partially Filled	12000	10000	2000	120	0	0	J	
12		Execution(Y)	Trade Correct	Partially Filled	12000	10500	1500	120	9500	120	K(H)	Correct exe to 9500 @ 1

J.1.b - A canceled order followed by a busted execution and a new execution

<u>Time</u>	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	ExecID (ExecRefID)	Comment
1	New Order(X)				10000					
2		Execution(X)	New	New	10000	0	10000	0	A	
3		Execution(X)	Trade	Partially Filled	10000	5000	5000	5000	В	LastPx=50
4	Cancel Request(Y,X)				10000					
5		Execution (Y,X)	Pending Cancel	Pending Cancel	10000	5000	5000	0	С	
6		Execution (Y,X)	Canceled	Canceled	10000	5000	0	0	D	
7		Execution(X)	Trade Cancel	Canceled	10000	0	0	0	E(B)	Cancel of the execution. 'Canc precedence over 'New'
8		Execution(X)	Trade	Canceled	10000	4000	0	4000	F	Fill for 4000. LastPx=51

J.1.c - GTC order partially filled, restated (renewed) and partially filled the following day, with corrections of quantity on both

<u>Time</u>	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Dav Order Otv	<u>Dav</u> <u>Cum</u> <u>Otv</u>	ExecID (ExecR efID)	Comment
Day 1,1	New Order(X)				10000							
Day 1,2		Execution(X)	New	New	10000	0	10000	0			A	
Day 1,3		Execution(X)	Trade	Partially Filled	10000	2000	8000	2000			В	Execution for 20
Day 1,4		Execution(X)	Done for Day	Done for Day	10000	2000	8000	0			С	Optional at end c
Day 2,1		Execution(X)	Restated	Partially Filled	10000	2000	8000	0	8000	0	D	ExecRestatemen renewal/restatem optionally sent th
Day 2,2		Execution(X)	Trade	Partially Filled	10000	3000	7000	1000	8000	1000	E	Execution for 10
Day 2,3		Execution(X)	Trade Correct	Partially Filled	10000	2500	7500	1500	8500	1000	F (B)	Correct quantity execution from 2
Day 2,4		Execution(X)	Trade Correct	Partially Filled	10000	2000	8000	500	8500	500	G(E)	Correct quantity from 1000 to 500

J.1.d - Part-filled order Done for day followed by trade correction and bust

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	Ord Status	Order Otv	Cum Oty	<u>Leaves</u> <u>Otv</u>	Last Oty	ExecID (ExecRefID)	Comment
1	New Order(X)				10000					
2		Execution(X)	New	New	10000	0	10000	0	A	
3		Execution(X)	Trade	Partially Filled	10000	5000	5000	5000	В	LastPx=50
4		Execution(X)	Done for Day	Done for day	10000	5000	0	0	С	Done for day message sent
5		Execution(X)	Trade Correct	Done for day	10000	4000	0	4000	D (B)	Correct quantity on execution t
6		Execution(X)	Trade Cancel	Done for day	10000	0	0	0	E (D)	Done for Day OrdStatus takes

K Trading Halt

K.1.a - Trading Halt - Reinstate

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	<u>Order</u> <u>Otv</u>	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				ExecInst set to reinstate on trading halt
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, excl
2		Execution(X)	New	New	10000	0	10000	0	
3									Trading halt established
4									Trading halt lifted
5		Execution(X)	Trade	Filled	10000	10000	0	10000	

K.1.b - Trading Halt - Cancel

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cum Oty	<u>Leaves</u> <u>Otv</u>	Last Otv	Comment
1	New Order(X)				10000				ExecInst set to cancel on trading halt
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3									Trading halt established
4		Execution	Canceled	Canceled	10000	0	0	0	Order canceled due to trading halt. Exe Canceled due to trading halt

L Miscellaneous

L.1.a- Transmitting a guarantee of execution prior to execution

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Otv	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)				10000				
2		Execution(X)	Rejected	Rejected	10000	0	0	0	If order is rejected by sell-side (broker, exci
2		Execution(X)	New	New	10000	0	10000	0	
3		Execution(X)	Stopped	Stopped	10000	0	10000	1000	Text="You are guaranteed to buy 1000 at This is similar to the concept of a 'protec' reporting a trade, so Exectype = Stopped
4		Execution(X)	Trade	Stopped	10000	1000	9000	1000	LastPx=50 * executed price is better than guaranteed

L.1.b- Use of CashOrderQty

Time	Message Received (ClOrdID, OrigClOrdID)	Message Sent (ClOrdID, OrigClOrdID)	Exec Type	OrdStatus	Order Oty	Cash Order Oty	Cum Otv	<u>Leaves</u> <u>Otv</u>	<u>Last</u> <u>Otv</u>	Last Px	<u>Last</u> <u>Otv</u>	Comment
1	New Order(X)					10000						Currency=EU invest 10,000
2		Execution(X)	Rejected	Rejected		10000	0	0			0	If order is rej
2		Execution(X)	New	New	500	10000	0	500			0	Assuming pr of 20 EUR at
3		Execution(X)	Trade	Partially Filled	500	10000	200	300	200	20.1	200	Execution of not have to price' of 20_
4		Execution(X)	Trade	Filled	500	10000	500	0	300	20.2	300	Execution of not have to price' of 20_

Order Handling and Instruction Semantics

London SETS Order Types Matrix

The table below presents the representation of the London Stock Exchange Trading System (SETS) order types in the FIX protocol:

LSE Order Type	OrdType	TimeInForce	ExpireTime	Price	Comment
At Best	1	3	n/a	No	
Fill or Kill - no limit price	1	4	n/a	No	
Fill or Kill - limit price	2	4	n/a	Yes	
Limit - day	2	n/a, 0	n/a	Yes	
Limit - good until	2	6	Good Till Date	Yes	
Execute and Eliminate	2	3	n/a	Yes	
Market Orders - day	1	n/a, 0	N/a	No	SETS Release 3.1 Only
Market Orders -good until	1	6	Good Till Date	No	SETS Release 3.1 Only

Asia/Pacific Regional Order Handling

The following table identifies how to represent via FIX the commonly used and understood order handling instructions within the Asia/Pacific region.

Asia/Pacific Dealer Instruction	OrdType	ExecInst	Other Fields
Careful Discretion	1 (Market)	4 (Over the Day)	
Market	1 (Market)	5 (Held)	
Trader Discretion	1 (Market)	1 (Not Held)	
Hong Kong SE – Regular Limit Order	2 (Limit)	b = Strict Limit (No Price Improvement)	Price = xxx
Hong Kong SE – Special Limit	2 (Limit)		TimeInForce = Immediate Or Cancel Price = xxx
HongKongSE – Enhanced Limit	2 (Limit)*	d = Peg to Limit Price	Price = xxx PegType = fixed PegOffsetType = tick PegOffsetValue = -1 (buy) 1(sell) PegOffsetLimitType = or worse

* note that strictly speaking this order type is both 'Limit' and 'Pegged' but set OrdType = limit

If only OrdType 2 (Limit) is used with no ExecInst specified, the order will be traded as Limit Or Better. Sell-side firms will trade the order with the best possible tick up to the Limit price in the Hong Kong Stock Exchange.

Japanese Exchange Price Conditions

The following table identifies how to represent via FIX the price conditions implemented by Japanese exchanges.

Japanese Exchange Price Condition	OrdType	ExecInst	PegOffsetVal ue	TimeInForce
Current price limit	P (Pegged)	P (Market Peg)		
Preferred price limit	P (Pegged)	P (Market Peg)	+1 (or -1)	
Market with Leftover Limit	K (Market with Leftover As Limit)			
Market Fill with Leftover Kill	1 (Market)			3 (Immediate or Cancel (IOC))

Euronext and Similar Exchange Price Conditions

The following table identifies how to represent via FIX the price conditions implemented by the Euronext and Similar exchanges.

Euronext and Similar Exchange Price Condition	OrdType
A tout prix (At All Price)	1 (Market)
Au prix du marche ()	J (Market with Leftover As Limit)

Handling Instructions (HandlInst) field

The following identifies the meaning and expected usage of the HandlInst (Handling Instructions) field. This field has been required on the New Order messages since the inception of FIX. Usage of this field may vary by market and by broker. Buy side and sell side firms should confirm their mutual understanding of the usage and implementation of HandlInst.

1 = Automated execution order, private, no Broker intervention	market	s systematically routed to the market place, usually to an exchange or ECN or maker, for execution. It is expected that no broker intervention is required to or forward the order into the market.
	Notes:	
	•	Private does not mean broker cannot see buy side order flow. In many markets, the Broker has the legal requirement to monitor customer order flow and be responsible for those orders.

	Buy side firm may be expected to supply the symbology required by the market.
	Broker may require certain optional fields, such as ExDestination and/or Currency.
	 Implies an immediate reject will be sent if order cannot be forwarded immediately into the market.
2 = Automated execution order, public, Broker intervention OK	Broker may stop order from flowing immediately into the market place. This would typically be done, if the broker can cross this order against another order to provide price improvement and / or liquidity.
	If Broker does not choose to stop this order, it will automatically flow into the market for execution.
3 = Manual order, best execution	Order is routed to appropriate sell side broker who then accepts responsibility for the order. This should operate as though the buy side firm called the order into their broker.
	Notes:
	Different than "not held".
	Does not imply "call first" (an ExecInst value).

Pegged Orders

The following are all pegging ExecInst values used when OrdType=P to specify the type of pegged order represented. Note that these fields cannot be combined; only one may be specified on a pegged order.

L = Last peg (last sale)

M = Mid-price peg (midprice of inside quote)

O = Opening peg

P = Market peg

R = Primary peg (primary market - buy at bid/sell at offer)

W = Peg to VWAP

a = Trailing Stop Peg

d = Peg to Limit Price

A pegged order acts like a limit order, except that the limit price is set relative to another price, such as the last sale price, midpoint price, opening price, bid, offer, or VWAP (Volume Weighted Average Price). A primary peg order is priced relative to the bid if buying, the offer if selling. A market peg order is priced relative to the offer if buying, the bid if selling.

Pegs can be fixed (that is they are calculated when the order is received) or floating, in which case they fluctuate according to movements in the reference price (using the PegMoveType field). The PegOffsetType field can be used to specify whether the desired offset is being expressed as a price, in basis points, in ticks or in price tiers/levels. For example a primary pegged buy order with PegOffsetValue = -0.01, PegMoveType = Fixed (1), and PegOffsetType = Price (0) will have a fixed price equal to the bid less 0.01. The same order with a PegOffsetType = Ticks (2) and a PegOffsetValue = -1 will have a fixed price equal to the bid less one tick. To specify that a buy order is to float on the third best price level set the PegOffsetType = Price Tier/Level (3), ExecInst = Primary Peg

(R), PegMoveType = Floating (0) and PegOffsetValue = -2 (i.e. 2 below the best bid). PegRoundingDirection can be used to specify, in the event that the calculated price is not a valid tick size, whether the price should be rounded aggressively or passively.

When calculating the peg price, the reference price can be obtained from more than one liquidity pool as specified by the PegScope field. For example a PegScope = national excluding local will use a refence price based on all liquidity pools except the one in which the order resides.

Prior FIX specifications defined ExecInst = Fixed Peg to Local best bid or offer at time of order (T). This must now be expressed as a pegged order with ExecInst = Primary Peg (R), PegMoveType = Fixed (1), and PegScope = Local (1).

In the absence of the PegOffsetValue field, or when PegOffsetValue = 0, the price of the pegged order follows the referenced quantity exactly. Note that the PegOffsetValue is always 'added' to the reference value.. PegMoveType will default to float if not specified.

Some systems allow pegged orders to be specified with a Price field. In such cases the OrdType should be specified as 'limit'. In this case, the Price field serves to put a limit on how far the pegged value can move. For instance, if the bid for a stock is 50, the offer is 50.10, the order is a primary peg to sell, PegOffsetValue = -0.02, and Price = 45, the order will be priced to sell at the offer + (-0.02) or 50.08. If the offer falls, the order's price will fall such that it is always 0.02 less than the offer. However, once the order's price hits 45 (the limit specified in the Price field) it can fall no further.

A pegged order with ExecInst = a (lower case A), a trailing stop peg, behaves differently. It requires PegOffsetValue, which must be positive when buying and negative when selling. A trailing stop peg represents a stop order whose price can fluctuate relative to the last sale price. Initially, the stop is placed at the last sale price + PegOffsetValue. The stop price will move like a last peg so that the stop price is the last sale price + PegOffsetValue, with one exception: if buying, the fluctuating stop price cannot increase, and if selling, the stop price cannot decrease. For example, a security trades at \$10.00, and a trailing stop peg order to sell with PegOffsetValue = -0.10 is placed. The pegged stop price will rest at \$9.90. The security rises in price to \$10.20, and the stop similarly rises to \$10.10. The security price falls to \$10.15, but the trailing stop holds its price at \$10.10. The security is price keeps falling, and when it reaches \$10.10, the stop order is triggered and the security is sold. Trailing stop pegs are incompatible with PegMoveType = Fixed (1).

Discretionary Pricing

The presence of DiscretionInst on an order indicates that the trader wishes to display one price but will accept trades at another price. For example, a sell order with OrdType = Limit (2), Price=50.00, DiscretionInst = Related to displayed price (0) and DiscretionOffsetValue = -0.25 means that the order should be displayed as an offer for 50.00, but will match any bid >= 49.75. Discretionary pricing can also be used when pegging an order - for example to indicate that a buy order is to be displayed as pegged to the bid minus 0.25, but can be matched by anything <= the offer, set OrdType = Pegged (P), ExecInst = Primary Peg (R), PegOffsetValue = -0.25, DiscretionInst = Related to market price (1) and DiscretionOffsetValue = 0.

Discretionary prices can be pegged to reference values in the same way as displayed prices (se above)

"Target Strategy" Orders

The presence of an ExecInst=e (lower case E), work to target strategy, indicates that the order is to be worked to try to achieve the specified target in the TargetStrategy field, typically by slicing the order into the market, either manually or via an algorithm . The start and end times during which the order is to be worked can be communicated using the EffectiveTime and ExpireTime fields respectively or through using TradingSessionIDs

For example, to indicate that the receiver of the order should try to work the order to achieve the volume weighted average price, set TargetStrategy = VWAP. A Participate order is one where the sender of the order wants the order to be worked such that the execution profile of the order is the specified percentage of the volume profile in the market. The target participation rate is communicated via the ParticipationRate field.

Where appropriate the performance versus the target can be communicated back to the originator of the order by use of the TargetStrategyPerformance field on the Execution Report. The use of this field will depend on the strategy. For a VWAP order this would be the VWAP price for the appropriate time period (taking into account any limit price on the order and excluding/including off order book trades as per the market convention). For Participate orders this field can be used to convey the actual % of volume in the appropriate time period that this executed volume represents. For Minimise Market Impact orders this may be utilised to give an estimate of the order's market impact in basis points, etc.

More complex parameters can be specified in the TargetStrategyParameters field.

"Reserve Quantity" Orders

<u>MaxFloor</u>: Traditionally used to indicate reserve quantity. To indicate a single level of reserve quantity, <u>MaxFloor</u> should be used.

<u>MaxShow</u>: Used when two levels of reserve quantities are needed, e.g. one level displayed to the world (MaxFloor) and another displayed to subscribers of their ECN (MaxShow.) I.e. MaxFloor <= MaxShow <= OrderOty.

• One may place an order for 100,000 shares (OrderQty), only want 1000 shares shown to NASDAQ at any one time (MaxFloor), but will allow other subscribers of that ECN to see 5000 shares (MaxShow).

Time In Force (TIF)

When TIF=0 (DAY) is used in conjunction with TradingSessionID, the Time In Force of DAY means the order is good for the duration of the specified session. This will accommodate trading platforms where the specified trading session may span more than a calendar day (i.e. specified session starts at 8 p.m. and ends next day at 2 p.m.).

Booking Instructions Specified at Time of Order

The following table identifies the effect of booking instructions provided on the order.

DayBookingInst	BookingUnit	Effect (end-result)
"auto"	"each partial"	Each partial can be booked as soon as the partial is reported to the client
"auto"	"whole order"	The order can be booked as soon as it is filled (or part-filled and Done For Day)
"auto"	"aggregation"	The order can be booked as soon as it is filled (or part-filled and Done For Day)
"speak first"	"each partial"	Do not book after reporting a fill without discussion
"speak first"	"whole order"	Do not book order when filled (or part-filled when Done For Day) but discuss
"speak first"	"aggregation"	Do not book the aggregate until verbally agreed

OrderCapacity and OrderRestrictions (formerly Rule80A) Usage by Market

The Rule80A field was deprecated in FIX 4.3 and replaced by the combination of a new OrderCapacity field and OrderRestrictions field. See Volume 6: "Appendix 6-E - Deprecated Features and Supported Approach"

The term Rule80A is a very US market-specific term. Other world markets need to convey similar information, however, often a subset of the US values. In addition the deprecated Rule80A field's values both "overloaded" the field with various combinations of order capacity and associated order restrictions, and the Rule80A field as structured (modeled after CMS and SEC Rule 11Ac1-1/4) made it both difficult to understand and difficult to convey the various order capacities. This section documents the market-specific usage of the OrderCapacity and OrderRestrictions fields.

United States Listed Equity Markets:

Rule80A's values and usage details are documented in SEC Rule11Ac1-1/4. Note the purpose behind the rule is to restrict prices from rising or falling too fast providing more stability in the market. See Investments by Sharpe, 6th edition p. 50. Indicates the order type upon which exchange Rule 80A is applied.

The following values are valid and applicable when using FIX to communicate with the New York Stock Exchange (NYSE) or other US listed equity exchanges per the SuperDOT Notification document. The values and usage details when used for US trading are documented in SEC Rule11Ac1-1/4.

With regards to OrderCapacity and OrderRestirctions field usage in the United States Listed Equity Markets, the following table provides a cross-reference of former Rule80A values to FIX supported values

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Ru	le80A Value	Ore (52	derCapacity (8)	OrderRestrictions (529) Note datatype: MultipleValueString		Side	Side (54)	
Α	Agency single order	Α	Agency					
В	Short exempt transaction (refer to A type)	A	Agency			6 or A	Sell short exempt or Cross short exempt	
C	Program Order, non-index arb, for Member firm/org	P	Principal	1 3	Program Trade			
					Non-Index Arbitrage			
D	Program Order, index arb, for Member firm/org	P	Principal	1 2	Program Trade			
					Index Arbitrage			
Е	Short Exempt Transaction for Principal (was incorrectly identified in the FIX spec as "Registered Equity Market Maker trades")	P	Principal			6 or A	Sell short exempt or Cross short exempt	

				1	1		T
F	Short exempt transaction (refer to W type)	W	Agent for Other Member			6 or A	Sell short exempt or Cross short exempt
Н	Short exempt transaction (refer to I type)	I	Individual			6 or A	Sell short exempt or Cross short exempt
Ι	Individual Investor, single order	I	Individual				
J	Program Order, index arb, for individual customer	I	Individual	1 2	Program Trade		
					Index Arbitrage		
K	Program Order, non-index arb, for individual customer	I	Individual	1 3	Program Trade		
					Non-Index Arbitrage		
L	Short exempt transaction for member competing market- maker affiliated with the firm clearing the trade (refer to P and O types)	P	Principal	4	Competing Market Maker	6 or A	Sell short exempt or Cross short exempt
M	Program Order, index arb, for other member	W	Agent for Other Member	1 2	Program Trade		
					Index Arbitrage		
N	Program Order, non-index arb, for other member	W	Agent for Other Member	1 3	Program Trade		
					Non-Index Arbitrage		
О	Proprietary transactions for competing market-maker that is affiliated with the clearing member (was incorrectly identified in the FIX spec as "Competing dealer trades")	P	Principal	4	Competing Market Maker		
P	Principal	P	Principal				
R	Transactions for the account of a non-member competing market maker (was incorrectly identified in the FIX spec as "Competing dealer trades")	A	Agency	4	Competing Market Maker		
S	Specialist trades	P	Principal	5	Acting as Market Maker or		

					Specialist in the security		
Т	Transactions for the account of an unaffiliated member's competing market maker (was incorrectly identified in the FIX spec as "Competing dealer trades")	W	Agent for Other Member	5	Acting as Market Maker or Specialist in the security		
U	Program Order, index arb, for other agency	A	Agency	12	Program Trade Index Arbitrage		
W	All other orders as agent for other member	W	Agent for Other Member				
X	Short exempt transaction for member competing market- maker not affiliated with the firm clearing the trade (refer to W and T types)	W	Agent for Other Member	4	Competing Market Maker	6 or A	Sell short exempt or Cross short exempt
Y	Program Order, non-index arb, for other agency	A	Agency	1 3	Program Trade Non-Index Arbitrage		
Z	Short exempt transaction for non-member competing market-maker (refer to A and R types)	A	Agency	4	Competing Market Maker	6 or A	Sell short exempt or Cross short exempt

Japanese Equity Markets:

OrderCapacity is used to specify whether order is Agency or Principal.

Valid values:

A = Agency single order

P = Principal

Other Markets:

All or a subset of the OrderCapacity and OrderRestrictions field values defined in the field reference may be applicable for other markets. Future markets will be included in this section as they are defined and brought forward to the FIX Technical Committee.

Example Usage of PartyRole="Investor ID"

Two fields, PartyID and PartyIDSource, facilitate the passing of exchange required ID's when PartyRole="Investor ID". At present, regulatory requirements require the exchange's Investor ID be provided when orders are placed in Taiwan, China (Shenzhen and Shanghai), and Korea. At present, India, Malaysia and Poland have regulatory requirements requiring the exchange's Investor ID be provided post-trade.

When placing an order on behalf of multiple distinct Investor ID values, then multiple orders will be sent at the same time with each representing a single Investor ID. For example, three funds/sub-accounts in Taiwan would result in three Investor ID values and thus would also result in three orders.

Note that the Investor ID value is not the same as the customer's AllocAccount field nor is there necessarily a one-to-one mapping between AllocAccount and Investor ID. In addition, in Korea one Investor ID value may represent multiple accounts. Thus, account pre-trade allocation (See Volume 5: "Example Usage of Allocations") can still take place in addition to PartyRole="Investor ID", PartyID, and PartyIDSource usage.

Format of the Party ID field (PartyRole="Investor ID")

Format of PartyID (Investor ID) value
Single digit to six digits
Eight digits
Seven digits
Fifteen digits
Nine digits

Note: All Investor ID values above should be provided in PartyID as numeric only (e.g. exclude alphanumeric characters such as dashes).

Example Representations of Orders

- DAUIII pic 1	Example Representations of Orders					
Symbol	Quantity	Side	OrdType	PartyIDSo ce	PartyID (Investor ID)	Comments
00660.KS	1000	Buy	Market	1	3452	Korean ID provided
00660.KS	3000	Buy	Market	1	232	Different Korean ID provided
2330.TW	3000	Sell	Market	2	90567878	QFII/FID given and Sell-side derives Trading Account based on QFII/FID and Buy-side Client ID
2330.TW	2000	Sell	Limit	3	9901234	Trading Account given
STAR.KL	1000	Sell	Market	4	45678956246 58667	MCD given for T+0, pre- or post-trade

KOREA

Buy 10,000 Hyundai Elec for 3 funds/sub-accounts sharing same ID

249 109000 1	ij anam Bicc i	01 0 141145/545	accounts since	mg sume 12	
Symbol	Quantity	Side	OrdType	PartyIDSourc	PartyID (Investor ID)
00660.KS	10,000	Buy	Market	1	3452

Buy 10,000 Hyundai Elec for 3 funds/sub-accounts sharing 2 ID's (sent as 2 orders)

	Day 10,000 Hydrau Elector & lands/sub accounts sharing 2 1D 5 (sent as 2 orders)						
Symbol	Quantity	Side	OrdType	PartyIDSourc	PartyID (Investor ID)	AllocAcc	AllocQty
00660.KS	4000	Buy	Market	1	3452	B56-78	4000
00660.KS	6000	Buy	Market	1	56	B56-48	2000
						C24-67	4000

Note: AllocAccount and AllocQty are optional and are not a substitute for PartyID (Investor ID) value (nor used to lookup PartyID (Investor ID)).

TAIWAN

Buy 12,000 TSMC for 3 funds/sub-accounts for 4000 each (sent as 3 orders)

Symbol	Quantity	Side	OrdType	PartyIDSourc	PartyID (Investor ID)
2330.TW	4000	Buy	Market	3	9903327
2330.TW	4000	Buy	Market	3	9925562
2330.TW	4000	Buy	Market	3	9903562

Additional Notes:

- Any change to the PartyID (Investor ID) post submission must be made through the allocation message $-\$ you cannot amend PartyID (Investor ID).
- If PartyIDSource and PartyID (Investor ID) provided are not valid for PartyRole="Investor ID", the sell-side will send an Execution Report with OrdRejReason of "Invalid Investor ID".
- These fields are not to be used to determine the routing of an order to an Exchange (value of PartyID is not a substitute for ExDestination).

CATEGORY: CROSS ORDERS

Background

FIX provides support for a cross order using Side[54]=Cross on a New Order Single Message. For many markets the New Order – Single does not provide enough information about the counterparties of a trade to meet regulatory and post-trade requirements. Markets that find the use of a New Order – Single Message with Side[54]=Cross adequate for cross trading – can continue to use this implementation. When additional information regarding the counterparty to the cross trade is required – the Cross Order message should be used.

The Japanese Exchange Working Group proposed the creation of a Cross Order message that would elaborate both counterparties involved in the cross for a security. Companion Cross Order Cancel Replace Requests and Cross Order Cancel Requests were also proposed.

Prioritization of a side of a cross order

Some markets permit one side or the other of the cross order to be prioritized for execution. A new field, CrossPrioritization[550] indicates which side of the cross order will be prioritized for execution. The definition of prioritization is left to the market. In some markets the prioritized side will be guaranteed execution. In other markets, prioritization means that the prioritized side will be applied to the market first.

Classification of cross trades

Four types of cross trades have been identified.

- Cross Trade that is executed completely or not. Both sides are treated in the same manner. This is
 equivalent to Fill or Kill type behavior, where the cross order meets the crossing criteria within the
 market and is executed or it is rejected.
- Cross Trade that is executed partially and the rest is canceled. One side is fully executed, the other side is
 partially executed with the remainder being canceled. This is equivalent to an Immediate or Cancel on the
 other side. Note: The CrossPrioritization[550] field is used to indicate which side should fully execute in
 this scenario.
- 3. Cross trade that is partially executed with the unfilled portions remaining active. One side of the cross is fully executed as denoted with the CrossPrioritization[550] field, but the unfilled portion remains active.
- 4. Cross trade is executed with existing orders with the same price. In the case other orders exist with the same price, the quantity of the Cross is executed against the existing orders and quotes, the remainder of the cross is executed against the other side of the cross. The two sides potentially have different quantities. The use of CrossPrioritization[550] field is used to indicate which side of the cross will be executed against the existing market.

Execution Reporting for cross orders

Execution reporting for cross orders is done by side. Execution Reports are sent using the ClOrdID[11], OrigClOrdID[41], OrderID[37] of the side of the cross order being reported. The CrossID[548] and the CrossType[549] fields are provided as optional fields on the Execution Report. The CrossID[548] must be provided on the Execution Reports for sides of Cross Orders.

Cross Order Handling Rules

If one side of the cross order is invalid then the entire cross order is rejected. Markets should not accept one side of the cross order without accepting the other side.

The CrossType[549] field defines the proper processing of cross orders once the cross order has been accepted.

The order state changes for each leg are reported independently using separate Execution Reports for each side.

Acknowledgement of a Cross Order

The following shows typical message flows for the acknowledgement of cross orders.

	Broker		Market
1	Sends Cross Order	→	Receives Cross Order and processes
2			OPTIONAL: Market conditionally accepts or fully rejects the order (This optional state change is assumed for all remaining examples and will not be elaborated to save space).
		+	Sends Execution Report Side 1 ClOrdID(1) OrdStatus=Pending New or OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
			If one side is rejected then the entire cross order is rejected.
		←	If the Cross Order contains two sides:
			Sends Execution Report Side 2 ClOrdID(2) OrdStatus=Pending New or OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3			Order is accepted or rejected by market
		+	Sends Execution Report Side 1 ClOrdID(1) OrdStatus=New or OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
			If one side is rejected then the entire cross order is rejected.
		←	If the Cross Order contains two sides:
			Sends Execution Report Side 2 ClOrdID(2) OrdStatus=New or OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.

Message Flow for cross order with CrossType=1 with only one side of the order provided

In the case where the broker is crossing the order and no further identification is required as part of the order – the cross order can contain one leg. The cross order is executed fully or canceled.

	Broker		Market
1	Sends Cross Order with one side only	>	Receives Cross Order and processes
2			Order Accepted or Rejected by Market
		+	Sends Execution Report for ClOrdID(1) OrdStatus=New or OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3			Order fully executed or is canceled by market
		←	Sends Execution Report for ClOrdID(1) OrdStatus=FILL or OrdStatus=CANCEL. The reason for the cancel should be specified in the Text[58] field.

Message Flow for cross order with CrossType=1 when both sides of the cross order provided

In this example two sides of the cross are explicitly provided on the cross order. The cross order is executed fully or canceled.

	Broker		Market
1	Sends Cross Order with both sides provided	→	Receives Cross Order and processes
2a			Order Accepted by Market
		+	Sends Execution Report for Side 1 ClOrdID(1) OrdStatus=New
		←	Sends Execution Report for Side 2 ClOrdID(2) OrdStatus=New
2b			Order Rejected by Market
		+	Sends Execution Report for Side 1 ClOrdID(1) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
		←	Sends Execution Report for Side 2 ClOrdID(2) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3a			Order is fully executed by market
		←	Sends Execution Report for ClOrdID(1) OrdStatus=FILLED
		←	Sends Execution Report for ClOrdID(2) OrdStatus=FILLED
3b			Order is canceled by market
		←	Sends Execution Report for ClOrdID(1) OrdStatus=FILLED or OrdStatus=CANCELED. The reason for the cancel should be specified in the Text[58] field.

			Sends Execution Report for ClOrdID(2) OrdStatus=FILLLED or OrdStatus=CANCELED. The reason for the cancel should be specified in the Text[58] field.
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Message Flow for cross order with CrossType=2

In the following example the cross order contains a buy and sell order. The buy side is prioritized and in the case of CrossType=2 will be fully executed. In the following example – the sell side is not fully executed – the balance being canceled.

	Broker		Market
1	Sends Cross Order with CrossType=2 and CrossPrioritization = Buy Side	→	Receives Cross Order and processes
2a			Order Accepted by Market
		←	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=New
		←	Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=New
2b			Order Rejected by Market
		+	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
		←	Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3			Buy Side of Cross Order is partially filled
		←	Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=PARTIALLY FILLED
4			Cross Order is partially crossed with FILLED status of Buy Side
		←	Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=FILLED
		←	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=PARTIALLY FILLED
5			Remaining quantity of Sell Side is canceled by the market automatically
		+	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=CANCELED. The reason for the cancel should be specified in the Text[58] field.

Message Flow for cross order with CrossType=3

In this scenario – the cross order is executed with the buy side prioritized. The buy side is fully executed. The remaining part of the Sell side remains active and is eventually filled or canceled.

	Broker		Market
1	Sends Cross Order with CrossType=3 and CrossPrioritization = Buy Side	→	Receives Cross Order and processes
2a			Order Accepted by Market
		+	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=New
		(Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=New
2b			Order Rejected by Market
		+	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
		+	Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3			Buy Side of Cross Order is partially filled
		+	Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=PARTIALLY FILLED
4			Cross Order is partially crossed with FILLED status of Buy Side
		+	Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=FILLED
		←	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=PARTIALLY FILLED
5a			Remaining quantity of Sell Side remains active and is later filled
		(Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=FILLED
5b			Remaining quantity of Sell Side that remains active is canceled by request
	Order Cancel Request submitted after cross order completes to cancel remaining unfilled portion of sell side	→	Order Cancel Replace is applied to the market.
		+	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus= Pending Cancel
		←	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=Canceled

Message Flow for cross order with CrossType=4

In the following example the buy order is prioritized. The buy side will trade against orders in the book at the same price. The sell side of the cross will trade with the remaining quantity of the buy side. The sell side will be filled at a lower quantity than the buy side that executed against existing orders. NOTE: It is possible for the sell side to be filled with no quantity – if sufficient sell orders exist in the book.

	sell side to be filled with no quantity	y — 11	sufficient sell orders exist in the book.
	Broker		Market
1	Sends Cross Order with CrossType=4 and CrossPrioritization = Buy Side	→	Receives Cross Order and processes
2a			Order Accepted by Market
		+	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=New
		←	Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=New
2b			Order Rejected by Market
		+	Sends Execution Report for Buy Side 1 ClOrdID(1) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
		+	Sends Execution Report for Sell Side 2 ClOrdID(2) OrdStatus=Rejected. The reason for the reject should be specified in the Text[58] field.
3			Buy side of theCross Order is partially crossed with sell orders in the book
		(Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=PARTIALLY FILLED
4			Cross Order is completed when remaining Buy Side quantity is filled against the Sell Side of the cross
		+	Sends Execution Report for Buy Side ClOrdID(1) OrdStatus=FILLED
		+	Sends Execution Report for Sell Side ClOrdID(2) OrdStatus=FILLED even though the filled quantity of the sell side < filled quantity on buy side.

Cross Order Messages

New Order - Cross

Used to submit a cross order into a market. The cross order contains two order sides (a buy and a sell). The cross order is identified by its CrossID.

New Order - Cross

				1	1001 - 61033
Tag	Field 1	Field Name			Comments
	Standard Header			Y	MsgType = s (lowercase S)
548	CrossID			Y	
549	CrossT	уре		Y	
550	CrossF	Prioritiza	ation	Y	
552	NoSid	es		Y	Must be 1 or 2
					1 or 2 if CrossType=1
					2 otherwise
→	54	Side		Y	
→	11	ClOrd	ID	Y	Unique identifier of the order as assigned by institution or by the intermediary with closest association with the investor.
→	526	Secon	daryClOrdID	N	
→	583	ClOrd	LinkID	N	
→	component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) field defined in "COMMON COMPONENTS O APPLICATION MESSAGES"	
→	229	TradeOriginationDate		N	
→	75	Trade	Date	N	
→	1	Accou	nt	N	
→	660	AcctIl	OSource	N	
→	581	Accou	ntType	N	
→	589	DayBo	ookingInst	N	
→	590	Booki	ngUnit	N	
→	591	Preall	ocMethod	N	
→	70	70 AllocID		N	Use to assign an identifier to the block of preallocations
→	78			N	Number of repeating groups for pre-trade allocation
→	→	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	→	661	AllocAcctIDSource	N	
→	→	736	AllocSettlCurrency	N	
→	→	467	IndividualAllocID	N	

→	→	component block <nestedparties></nestedparties>		N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
			T		Used for NestedPartyRole=Clearing Firm
→	→	80	AllocQty	N	
→	854	QtyTy.	pe	N	
→	·			Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	component block <commissiondata></commissiondata>		N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
→	528	Order	Capacity	N	
→	529	Order	Restrictions	N	
→	582	CustO	rderCapacity	N	
→	121	Forex	Req	N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
\rightarrow	120	SettlC	urrency	N	Required if ForexReq = Y.
→	775	Booki	ng Type	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
→	58	Text		N	
>	354			N	Must be set if EncodedText field is specified and must immediately precede it.
→	355	EncodedText		N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
→	77	Positio	onEffect	N	For use in derivatives omnibus accounting
→	203		edOrUncovered	N	For use with derivatives, such as options
→	544	Cash	Margin	N	
→	635	Cleari	ingFeeIndicator	N	
→	377	Solicit	tedFlag	N	
→	659	SideC	omplianceID	N	
compo	component block <instrument></instrument>			Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
711	NoUnd	derlying	5S	N	Number of underlyings
→				N	Insert here the set of "UnderlyingInstrument" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES. Required if NoUnderlyings > 0

99

<u>555</u>	NoLegs	<u>N</u>	Number of Legs
<u>→</u>	component block <instrumentleg></instrumentleg>		Insert here the set of "InstrumentLeg" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES
			Required if NoLegs > 0
63	SettlType	N	
64	SettlDate	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
21	HandlInst	N	
18	ExecInst	N	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, or W) must be specified.
110	MinQty	N	
111	MaxFloor	N	
100	ExDestination	N	
386	NoTradingSessions	N	Specifies the number of repeating TradingSessionIDs
→	336 TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625 TradingSessionSubID	N	
81	ProcessCode		Used to identify soft trades at order entry.
140) PrevClosePx		Useful for verifying security identification
114	LocateReqd	N	Required for short sell orders
60	TransactTime	Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
compo	component block <stipulations></stipulations>		Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
40	OrdType	Y	
423	PriceType	N	
44	Price	N	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	N	Required for OrdType = "Stop" or OrdType = "Stop limit".
component block <spreadorbenchmarkcurvedata></spreadorbenchmarkcurvedata>			Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	component block <yielddata></yielddata>		Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
15	Currency	N	
376	ComplianceID		

23	IOIid	N	Required for Previously Indicated Orders (OrdType=E)
117	QuoteID	N	Required for Previously Quoted Orders (OrdType=D)
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Can specify the time at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
210	MaxShow	N	
compo	onent block <peginstructions></peginstructions>	N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	onent block <discretioninstructions></discretioninstructions>	N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element NewOrdCrss

Deleted: <!ENTITY % CrossOrderCustom "">¶ <!ENTITY % CrossOrderContent "CrossID, CrossType, CrossPrioritization, SideList,Instrument,Settlement?,¶ CashMargin?, HandInst, ExecInst?, MinQt y?,MaxFloor?,ExDestination?,TrdSession List?,¶ ProcessCode?,PrevClosePx?,LocateReqd ?,TransactTime,StipulationsList?,OrdTyp e,PriceType?,Price?,¶
StopPx?,SpreadOrBenchmarkCurveData? ,YieldData?,Currency?,ComplianceID?,S olicitedFlag?,¶ IOI_ID?,QuoteID?,OrderDuration?,Effect iveTime?,GTBookingInst?,FutSettDate2? OrderQty2?,MaxShow?,PegDifference?, DiscretionInst?,DiscretionOffset?,Cancell ationRights?,¶ MoneyLaunderingStatus?,RegistID?,Desi gnation?, AccruedInterestRate?, AccruedIn terestAmt?,¶
NetMoney? %CrossOrderCustom;">¶ <!ELEMENT CrossOrder (%CrossOrderContent;)>¶ <!ATTLIST CrossOrder FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶ Value CDATA #FIXED 's' >

Cross Order Cancel/Replace Request (a.k.a. Cross Order Modification Request)

Used to modify a cross order previously submitted using the New Order - Cross message. See Order Cancel Replace Request for details concerning message usage.

Refer to the Order Cancel Replace Request (a.k.a. Order Modification Request) message for restrictions on what fields can be changed during a cancel replace.

The Cross Order-specific fields, CrossType (tag 549) and CrossPrioritization (tag 550), can not be modified using the Cross Order Cancel Replace Request.

Cross Order Cancel / Replace Request (a.k.a. Cross Order Modification Request)

	Cross Order Cancel / Replace Request (a.k.a. Cross Order Modification Request)					
Tag	Field 1	Name	Req'd	Comments		
	Standard Header		Y	MsgType = t (lowercase T)		
37	OrderI	D	N	Unique identifier of most recent order as assigned by sell-side (broker, exchange, ECN).		
548	CrossI	D	Y	CrossID for the replacement order		
551	OrigCı	rossID	Y	Must match the CrossID of the previous cross order. Same order chaining mechanism as ClOrdID/OrigClOrdID with single order Cancel/Replace.		
549	CrossT	Type	Y			
550	CrossF	Prioritization	Y			
552	NoSid	es	Y	Must be 1 or 2		
→	54	Side	Y			
→	41	OrigClOrdID	Y			
→	11	ClOrdID	Y	Unique identifier of the order as assigned by institution or by the intermediary with closest association with the investor.		
→	526	SecondaryClOrdID	N			
→	583	ClOrdLinkID	N			
→	586	OrigOrdModTime	N			
→				Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
→	229	TradeOriginationDate	N			
→	75	TradeDate	N			
→	1	Account	N			
→	660	AcctIDSource	N			
→	581	AccountType	N			
→	589	DayBookingInst	N			
→	590	BookingUnit	N			
→	591	PreallocMethod	N			
→	70	AllocID	N	Used to assign an identifier to the block of individual preallocations		

	5 0 N (#				
→	78	NoAllocs		N	Number of repeating groups for pre-trade allocation
→	>	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	→	661	AllocAcctIDSource	N	
→	→	736	AllocSettlCurrency	N	
→	→	467	IndividualAllocID	N	
→	→	component block <nestedparties></nestedparties>		N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
					Used for NestedPartyRole=Clearing Firm
→	→	80	AllocQty	N	
→	854	QtyT _J	ype	N	
→	component block <orderqtydata></orderqtydata>			Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	component block <commissiondata></commissiondata>		N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
→	528	OrderCapacity		N	
→	529	OrderRestrictions		N	
→	582	CustOrderCapacity		N	
→	121			N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
→	120	SettlCurrency		N	Required if ForexReq = Y.
→	775	Booking Type		N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
→	58	Text		N	
→	354	EncodedTextLen		N	Must be set if EncodedText field is specified and must immediately precede it.
→	355	EncodedText		N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
→	77	Positi	ionEffect	N	For use in derivatives omnibus accounting
→	203	Cover	redOrUncovered	N	For use with derivatives, such as options
→	544	Cash	Margin	N	
→	635	Clear	ringFeeIndicator	N	
→	377	Solici	itedFlag	N	
→	659	SideC	ComplianceID	N	

C	component	block <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
711	NoUnde	rlvinge	N	Number of underlyings
→	compone	ent block yingInstrument>	N	Insert here the set of "UnderlyingInstrument" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES. Required if NoUnderlyings > 0
<u>555</u>	NoLegs		N	Number of Legs
<u></u>	compone	ent block nentLeg>	<u>N</u>	Insert here the set of "InstrumentLeg" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES
				Required if NoLegs > 0
63	SettlTyp	e	N	
64	SettlDate	2	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
21	HandlIns	st	N	
18	ExecInst		N	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, or W) must be specified.
110	MinQty		N	
111	MaxFloo	or	N	
100	ExDestin	nation	N	
386	NoTradi	ngSessions	N	Specifies the number of repeating TradingSessionIDs
→	336	TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625	TradingSessionSubID	N	
81	ProcessC	Code	N	Used to identify soft trades at order entry.
140	PrevClos	sePx	N	Useful for verifying security identification
114	LocateR	eqd	N	Required for short sell orders
60	TransactTime		Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
component block <stipulations></stipulations>			N	Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
40	OrdType)	Y	
423	PriceTyp	oe	N	
44	Price		N	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		N	Required for OrdType = "Stop" or OrdType = "Stop limit".

component block <spreadorbenchmarkcurvedata></spreadorbenchmarkcurvedata>		N	Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
compo	component block <yielddata></yielddata>		Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
15	Currency	N	
376	ComplianceID	N	
23	IOIid	N	Required for Previously Indicated Orders (OrdType=E)
117	QuoteID	N	Required for Previously Quoted Orders (OrdType=D)
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Can specify the time at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
210	MaxShow	N	
compo	onent block <peginstructions></peginstructions>	N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
	component block <discretioninstructions></discretioninstructions>		Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element CrssOrdCxlRplcReq

CrossOrderModificationReqCustom "">¶ <!ENTITY % CrossOrderModificationReqContent "CrossID,OrigCrossID,CrossType,CrossP rioritization, SideList, Instrument,¶ Settlement, CashMargin?, HandInst, ExecI nst?,MinQty?,MaxFloor?,¶ ExDestination?, TrdSessionList?, Process Code?, PrevClosePx?, LocateReqd?, ¶ TransactTime,StipulationsList?,OrdType, PriceType?,Price?,StopPx?,¶ SpreadOrBenchmarkCurveData?, YieldDa ta?, Currency?, Compliance ID?, Solicited Fl ag?,IOI_ID?,QuoteID?,OrderDuration?, EffectiveTime?,GTBookingInst?,FutSett Date2?,OrderQty2?,¶ MaxShow?,PegDifference?,DiscretionIns t?,DiscretionOffset?,CancellationRights?,¶ MoneyLaunderingStatus?,RegistID?,Desi gnation?, AccruedInterestRate?,¶ AccruedInterestAmt?,NetMoney? %CrossOrderModificationRegCustom;" >¶ <!ELEMENT CrossOrderModificationReq (%CrossOrderModificationReqContent;) > <!ENTITY % CrossOrderModificationReqCustom "">¶ <!ENTITY % CrossOrder Modification Req Content"OrderID?,CrossID,OrigCrossID,CrossTy pe, Cross Prioritization, Cross Mod Side List, Instrument,Settlement,HandInst,ExecInst List?, MinQty?, MaxFloor?, ExDestination ?,TrdSessionList?,ProcessCode?,PrevClo sePx?,LocateReqd?,TransactTime,Stipula tionsList?,OrdType,PriceType?,Price?,St opPx?,SpreadOrBenchmarkCurveData?, YieldData?, Currency?, Compliance ID?, So $licitedFlag?, IOI_ID?, QuoteID?, OrderDur$ ation?, Effective Time?, GTBooking Inst?, MaxShow?,PegDifference?,DiscretionIns t?,DiscretionOffset?,CancellationRights?, MoneyLaunderingStatus?,RegistID?,Desi gnation?,AccruedInterestRate?,AccruedIn terestAmt?,NetMoney? %CrossOrderModificationReqCustom;" > ¶ <!ELEMENT CrossOrderModificationReq

(%CrossOrderModificationReqContent;)

<!ATTLIST CrossOrderModificationReq

FIXTag CDATA #FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 't' >

Deleted: <!ENTITY %

Cross Order Cancel Request

Used to fully cancel the remaining open quantity of a cross order.

Cross Order Cancel Request

	Cross Order Cancel Request						
Tag	Field 1	Name	Req'd	Comments			
	Standard Header		Y	MsgType = u (lowercase U)			
37	Orderl	D	N	Unique identifier of most recent order as assigned by sell-side (broker, exchange, ECN).			
548	CrossI	D	Y	CrossID for the replacement order			
551	OrigC	rossID	Y	Must match the CrossID of previous cross order. Same order chaining mechanism as ClOrdID/OrigClOrdID with single order Cancel/Replace.			
549	Cross	Гуре	Y				
550	CrossI	Prioritization	Y				
552	NoSid	es	Y	Must be 1 or 2			
→	54	Side	Y				
→	41	OrigClOrdID	Y				
→	11	ClOrdID	Y	Unique identifier of the order as assigned by institution or by the intermediary with closest association with the investor.			
→	526	SecondaryClOrdID	N				
→	583	ClOrdLinkID	N				
→	586	OrigOrdModTime	N				
→	<u> </u>			Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"			
→	229 TradeOriginationDate		N				
→	75	TradeDate	N				
→	component block <orderqtydata></orderqtydata>		Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"			
→	376	ComplianceID	N				
→	58	Text	N				
→	354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.			
→	355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.			
compo	component block <instrument></instrument>			Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"			
711	NoUn	derlyings	N	Number of underlyings			

→	component block <underlyinginstrument></underlyinginstrument>	N	Insert here the set of "UnderlyingInstrument" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES. Required if NoUnderlyings > 0
<u>555</u>	NoLegs component block <instrumentleg></instrumentleg>	<u>N</u> _ <u>N</u>	Number of Leg Insert here the set of "InstrumentLeg" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES Required if NoLegs > 0
60	TransactTime	Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
	Standard Trailer	Y	

Formatted

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element CrssOrdCxlReq

Deleted: <!ENTITY %
CrossOrderCancelReqCustom "">¶
<!ENTITY %
CrossOrderCancelReqContent
"CrossID,OrigCrossID,CrossType,CrossP
rioritization,CrossCxISideList,Instrument,¶
TransactTime
%CrossOrderCancelReqCustom;">¶
<!ELEMENT CrossOrderCancelReq
(%CrossOrderCancelReqContent;)>¶
<!ATTLIST CrossOrderCancelReq
FIXTag CDATA #FIXED '35¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'u'>

Cross Order Change Matrices

Cross Type 1

Scenario-1: Cancel (Before Exchange Crossing Session Time)

Time	Message Received	Message Sent	No	Cross ID	OrjgCr ossID		Buy			Sell		OrdStatus	
	Received		Sides	<u>112</u>	USSID	ClOrdI D	OrigCl OrdID	<u>Otv</u>	ClOr dID	OrigCl OrdID	Otv		
1	New Order - Cross		2	X		10		9000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3	Cross Order Cancel		2	Y	X	11	10	9000	21	20	9000		
4		Execution(Buy)		Y	X	11	10					Pending Cancel	
		Execution(Sell)		Y	X				21	20		Pending Cancel	
5		Execution(Buy)		Y	X	11	10					Canceled	
		Execution(Sell)		Y	X				21	20		Canceled	

Scenario-2: Replace (Before Exchange Crossing Session Time)

Time	Message Received	Message Sent	No		OrigCr ossID		Buy			Sell		OrdStatus	
	Keteiveu		Sides	<u>10</u>	USSID	ClOrdI D	OrigCl OrdID	<u>Otv</u>	ClOr dID	OrigCl OrdID	<u>Otv</u>		
1	New Order - Cross		2	X		10		9000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3	Cross Cancel/Replac e		2	Y	X	11	10	9000	21	20	9000		
4		Execution(Buy)		Y	X	11	10					Pending Replaced	
		Execution(Sell)		Y	X				21	20		Pending Replaced	
5		Execution(Buy)		Y	X	11	10					Replaced	
		Execution(Sell)		Y	X				21	20		Replaced	

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6	Cross Cancel/Replac		1	Z	Y	12	11	9000			9000		
7		Execution(Buy)		Z	Y	12	11					Pending Replaced	
8		Execution(Buy)		Z	Y	12	11					Replaced	
9													
10		Execution(Buy)		Z		12	11					Filled	
		Execution(Sell)		Z					21	20		Filled	

Scenario-3: In case that there are no orders in the book of the market, a New Order - Cross is submitted. (During market hour.

Time	Message Received	Message Sent	No	Cross	OrigCr		Buy			Sell		OrdStatus	
	Received		Sides	<u>ID</u>	ossID	ClOrdI D	OrjgCl OrdID	<u>Qty</u>	ClOr dID	OrjgCl OrdID	<u>Qty</u>		
1							Exchange	Session T	ime				
2	New Order - Cross		2	X		10		9000	20		9000		
3		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
4		Execution(Buy)		X		10						Filled	
		Execution(Sell)		X					20			Filled	

Scenario-4: In case that there are no orders in the book, a New Order - Cross is submitted. (During market hours)

Time	Message Received	Message Sent	No	Cross ID	OrigCr ossID		Buy			Sell		OrdStatus	
	Received		Sides	ш	OSSID	ClOrdI D	OrjgCl OrdID	<u>Qty</u>	ClOr dID	OrjgCl OrdID	<u>Qty</u>		
1													
2	New Order - Cross		2	X		10		9000	20		9000		
3		Execution(Buy)		X		10						Rejected	
		Execution(Sell)		X					20			Rejected	

Cross Type 2

Scenario-1: There are no orders in the book

Time	Message Received	Message Sent	No	Cross ID	OrigCr ossID		Buy			Sell		OrdStatus	
	Received		Sides	<u>110</u>	OSSID	ClOrdI D	OrigCl OrdID	<u>Otv</u>	ClOr dID	OrigCl OrdID	Otv		
1	New Order - Cross		2	X		10		9000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3		Execution(Buy)		X		10						Filled	
		Execution(Sell)		X					20			Filled	

Scenario-2: There is an order in the book

Time	Message Received	Message Sent	No	Cross ID	OrigCr ossID		Buy			Sell		<u>OrdStatus</u>	
	Received		Sides	<u>II</u>	USSID	ClOrdI D	OrigCl OrdID	<u>Otv</u>	CIO rdI D	OrigCl OrdID	<u>Otv</u>		
1	New Order - Cross		2	X		10		9000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3		Execution(Buy)		X		10		5000				Partial Filled	
								(LastSh ares)					
4		Execution(Buy)		X		10		4000				Filled	
								(LastSh ares)					
		Execution(Sell)		X					20		4000	Partial Filled	
											(LastSh ares)		
5		Execution(Sell)		X					20			Canceled	

Cross Type 3

Time	Message Received	Message Sent	No	Cross ID	OrjgCr ossID		Buy			Sell		OrdStatus	
	Keteweu		Sides	<u>10</u>	USSID	ClOrdI D	OrigCl OrdID	Otv	CIO rdI D	OrigCl OrdID	Otv		
1	New Order - Cross		2	X		10		9000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3		Execution(Buy)		X		10		5000				Partial Filled	
								(LastSh ares)					
4		Execution(Buy)		X		10		4000				Filled	
								(LastSh ares)					
		Execution(Sell)		X					20		4000	Partial Filled	
											(LastSh ares)		
5	Cross Cancel/Replace		1	Y	X				21	20	8000		
6		Execution(Sell)		Y	X				21	20		Pending Replace	
7		Execution(Sell)		Y	X				21	20		Replaced	
8	Cross Cancel/Replace		1	Z	Y				22	21	4000		
9		Cancel Reject		Z	Y				22	21			
10	Cross Cancel Request		1	W	Y				23	21	8000		
11		Execution(Sell)		W	Y				23	21		Pending Cancels	
12		Execution(Sell)		W	Y				23	21		Canceled	

Cross Type 4

Time	Message Received	Message Sent	No	<u>ID</u>	Orig		Buy			Sell		OrdStatus	
	Received		Sides	<u>ın</u>	Cross ID	ClOr dID	OrigCl OrdID	Otv	ClOrdI D	OrigCl OrdID	Otv		
1	New Order - Cross		2	X		10		14000	20		9000		
2		Execution(Buy)		X		10						New	
		Execution(Sell)		X					20			New	
3		Execution(Buy)		X		10		5000				Partial Filled	
								(LastSh ares)					
4		Execution(Buy)		X		10		9000				Filled	
								(LastSh ares)					
		Execution(Sell)		X					20		9000	Filled	
											(LastSh ares)		

CATEGORY: MULTILEG ORDERS (SWAPS, OPTION STRATEGIES, ETC)

Background

A multileg security is made up of multiple securities that are traded atomically. Swaps, option strategies, futures spreads, are a few examples of multileg securities. This requirement that all legs be traded in the quantities that they make up the multileg security is the important distinction between a multileg order and a list order.

Two generalized approaches to trading multileg securities are supported by FIX. The first approach involves a market maintaining multileg securities as separate products for which markets can be created. This "product approach" is often used in electronic trading systems. The second approach is to trade the multileg security as a group of separate securities – as is commonly done today in open outcry markets.

The multileg order can be traded using one of the following trading models using FIX. The first three models are variations on the multileg security as a separate tradeable product. The last models permits trading of multileg securities in environments where the multileg securities are not productized.

Predefined Multileg Security Model (FIX 4.2) (Model 1)

In this model a Security Definition Request for the security is sent to the counterparty that defines the multileg security and the legs. The counterparty accepts the security definition with an acknowledging Security Definition message. The initiating counterparty can then send a New Order – Single message that specifies just

the multileg	instrument	without	the	legs.

	Counterparty 1 – Interested in trading a multileg instrument		Counterparty 2 or Market
1	Sends Security Definition Request that defined Multileg Security	*	Receives Security Definition Request – determines if multileg security has already been defined. If so – return identification of the multileg security – otherwise create the multileg security and return its identification.
2a	Create the order	+	Reply with Security Definition for multileg security with identification identical to that of the request
2b	Create the order	+	Reply with Security Definition for multileg security with identification different from that of the request
2c	Exception Handling for failed Security Definition Request	+	Reply with Security Definition rejecting the security request
3	Send New Order - Multileg for security identification provide in Security Definition Request (The Instrument Leg component block is not provided)	→	Accepts order for processing
4a		←	If MultilegReportTypeRequest =0 or =1 or if market rules require reporting by multileg security:
			Send Execution Report for the overall multileg security (MultilegReportType=2)

4b	+	If MultliegReportTypeRequest =1 or =2 or if market rules require reporting by multileg security
		Send Execution Reports for each instrument leg defined previously for the multileg security (MultilegReportType=3)

Enhanced Predefined Security Model (Model 2)

In the enhanced model – the multileg security is still defined as a product using the Security Definition message. However, the instrument legs are elaborated on the order to provide clearing information per leg, such as LegPositionEffect, LegCoveredOrUncovered, and within <NestedParties> information such as ClearingFirm for the leg, etc.

	Counterparty 1 – Interested in trading a		Counterparty 2 or Market
1	multileg instrument Sends Security Definition Request that defined Multileg Security	→	Receives Security Definition Request – determines if multileg security has already been defined. If so – return identification of the multileg security – otherwise create the multileg security and return its identification.
2a	Create the order	+	Reply with Security Definition for multileg security with identification identical to that of the request
2b	Create the order	←	Reply with Security Definition for multileg security with identification different from that of the request
2c	Exception Handling for failed Security Definition Request	(Reply with Security Definition rejecting the security request
3	Send New Order - Multileg for security identification provide in Security Definition Request. Includes Leg Instrument Block	>	Accepts order for processing
4a		+	If MultilegReportTypeRequest =0 or =1 or if market rules require reporting by multileg security:
			Send Execution Report for the overall multileg security (MultilegReportType=2)
4b		+	If MultliegReportTypeRequest =1 or =2 or if market rules require reporting by multileg security
			Send Execution Reports for each instrument leg defined previously for the multileg security (MultilegReportType=3)

Product Definition Model using New Order - Multileg Message (Model 3)

In this approach the Multileg Security is defined using the New Order - Multileg message. However, the market or counterparty still creates or maintains a product definition for the multileg security upon receipt of the New Order - Multileg.

	Counterparty 1 – Interested in trading a multileg instrument		Counterparty 2 or Market
1	Send New Order - Multileg that includes the multileg security definition in the Leg	>	Accepts order for processing
	Instrument Block		A product is defined or identified for the multileg security.
			If the multileg security is not a valid product in the market – the order is rejected. The order is rejected using an Execution Report – indicating an invalid product was encountered.
2a		+	If MultilegReportTypeRequest =0 or =1 or if market rules require reporting by multileg security:
			Send Execution Report for the overall multileg security (MultilegReportType=2)
2b		+	If MultliegReportTypeRequest =1 or =2 or if market rules require reporting by multileg security
			Send Execution Reports for each instrument leg defined previously for the multileg security (MultilegReportType=3)

Single Message Model (Model 4)

No product definition is used (Likely will be used by open outcry markets that do not have a product definition service). The message flow is the same as model 3 – the difference being that the counterparty or market receiving the order does not create nor maintain product information for the multileg security – most likely the multileg security is simply distributed to the market.

	Counterparty 1 – Interested in trading a multileg instrument		Counterparty 2 or Market
1	Send New Order - Multileg that includes the multileg security definition in the Leg Instrument Block	→	Accepts order for processing The multileg security information is distributed to the market. No product definition takes place.
			If the multileg security is not a valid multileg strategy in the market – the order is rejected. The order is rejected using an Execution Report – indicating an invalid product was encountered.

2a	+	If MultilegReportTypeRequest =0 or =1 or if market rules require reporting by multileg security:
		Send Execution Report for the overall multileg security (MultilegReportType=2)
2b	+	If MultliegReportTypeRequest =1 or =2 or if market rules require reporting by multileg security
		Send Execution Reports for each instrument leg defined previously for the multileg security (MultilegReportType=3)

Messages Used for Multileg Trading

Order Entry

Use the New Order - Multileg (MsgType=AB) message to submit a multileg order to a market place.

Execution Reports for Multileg Orders

The Execution Report (MsgType=8) has been modified to report the order status of Multileg Orders.

Modification of a Multileg Order

Use the Multileg Order Cancel Replace Request (a.k.a MultilegOrder Modification Request) (MsgType=AC) to modify a Multileg Order.

Cancellation of a Multileg Order

Multileg orders are canceled using the Order Cancel Request (MsgType = F). The entire multileg order is cancelled by OrderID (tag #37) or ClOrdID (tag# 11). The ability to cancel one leg of a multileg order is not supported in FIX 4.3 and above.

New Order - Multileg

The New Order - Multileg is provided to submit orders for securities that are made up of multiple securities, known as legs.

The format for the new order message is as follows

New Order - Multileg

Tag	Field Name		Comments
	Standard Header	Y	MsgType = AB
11	11 ClOrdID		Unique identifier of the order as assigned by institution or by the intermediary with closest association with the investor.
526	SecondaryClOrdID		
583	ClOrdLinkID	N	
compo	component block <parties></parties>		Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
229	TradeOriginationDate	N	
75	TradeDate	N	
1	Account	N	

п				·
660	AcctII	Source	N	
581	Accou	AccountType		
589	DayBookingInst		N	
590	Bookii	ngUnit	N	
591	Preallo	ocMethod	N	
70	AllocI	D	N	Used to assign an identifier to the block of individual preallocations
78	NoAlle	ocs	N	Number of repeating groups for pre-trade allocation
→	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	661	AllocAcctIDSource	N	
→	736	AllocSettlCurrency	N	
→	467	Individual Alloc ID	N	
→	<pre>component block <nestedparties3></nestedparties3></pre>		<u>N</u>	Insert here the set of "NestedParties3" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	80 AllocQty		N	
63	SettlType		N	
64	SettlDate		N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
544	CashMargin		N	
635	Clearin	ngFeeIndicator	N	
21	Handl	Inst	N	
18	ExecInst		N	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, or W) must be specified.
110	MinQty		N	
111	MaxFloor		N	
100	0 ExDestination		N	
386	NoTradingSessions		N	Specifies the number of repeating TradingSessionIDs
→	336	TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625	TradingSessionSubID	N	
81	Proces	sCode	N	Used to identify soft trades at order entry.
54	Side		Y	Additional enumeration that indicates this is an order for a multileg order and that the sides are specified in the Instrument Leg component block.

					1
component block <instrument></instrument>				Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES" SecurityType[167] = "MLEG"
					CFICode should be set to the type of multileg product, such as "O" – options, "F" – Future or Swap.
711	NoUnd	derlying	şs	N	Number of underlyings
→		nent bl erlyingI	ock nstrument>	N	Must be provided if Number of underlyings > 0
140	PrevC	losePx		N	Useful for verifying security identification
555	NoLeg	(S		Y	Number of legs
					Can be zero (e.g. standardized multileg instrument such as an Option strategy) – must be provided even if zero
→	compo <instr< th=""><th>nent umentL</th><th>block jeg></th><th>N</th><th>Must be provided if Number of legs > 0</th></instr<>	nent umentL	block jeg>	N	Must be provided if Number of legs > 0
→	687	LegQt	ty.	N	
→	690	LegSu	<i>уарТуре</i>	N	
→	component block <legstipulations></legstipulations>		N		
→	670 NoLegAllocs		N		
→	→	→ 671 LegAllocAccount		N	
→	→	→ 672 LegIndividualAll ocID		N	
→	→ component block <nestedparties2></nestedparties2>		N	Insert here the set of "Nested Parties #2" (firm identification "second instance of nesting" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"	
→	→	673	LegAllocQty	N	
→	→	674	LegAllocAcctIDS ource	N	
→	→	675	LegSettlCurrency	N	
→	564 LegPositionEffect		N	Provide if the PositionEffect for the leg is different from that specified for the overall multileg security	
→	565 LegCoveredOrUncovered		N	Provide if the CoveredOrUncovered for the leg is different from that specified for the overall multileg security.	
→	→ component block <nestedparties></nestedparties>			N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Used for NestedPartyRole=Leg Clearing Firm/Account, Leg Account/Account Type	
→	654	LegR	RefID	N	Used to identify a specific leg.
→	566	LegP	rice	N	Provide only if a price is required for a specific leg. Used for anchoring the overall multileg security price to a specific leg price.

_			T	Refer to values for SettlType (63)
→	587	LegSettlType	N	
\rightarrow	588 LegSettlDate		N	Refer to values for SettlDate (64)
114	Locatel	Reqd	N	Required for short sell orders
60	Transac	etTime	Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
854	QtyTyp	oe .	N	
compo	onent blo	ck <orderqtydata></orderqtydata>	Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
40	OrdTyp	be	Y	
423	PriceTy	/pe	N	
44	Price		N	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		N	Required for OrdType = "Stop" or OrdType = "Stop limit".
15	Currency		N	
376	ComplianceID		N	
377	SolicitedFlag		N	
23	IOIid		N	Required for Previously Indicated Orders (OrdType=E)
117	QuoteID		N	Required for Previously Quoted Orders (OrdType=D)
59	TimeIn	Force	N	Absence of this field indicates Day order
168	EffectiveTime		N	Can specify the time at which the order should be considered valid
432	ExpireI	Date	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	Expire	Гіте	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBoo	kingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
compo	component block <commissiondata></commissiondata>		N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
528	OrderC	apacity	N	
529		estrictions	N	
582		derCapacity	N	
121	ForexR		N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
120	SettlCurrency		N	Required if ForexReq = Y.

775	BookingType	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
77	PositionEffect	N	For use in derivatives omnibus accounting
203	CoveredOrUncovered	N	For use with derivatives, such as options
210	MaxShow	N	
compo	onent block <peginstructions></peginstructions>	N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
component block <discretioninstructions></discretioninstructions>		N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy
849	ParticipationRate	N	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)
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
563	MultiLegRptTypeReq	N	Indicates the method of execution reporting requested by issuer of the order.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element NewOrdMleg

<!ENTITY % MultiLegOrderContent
"ClOrdID, SecondaryClOrdID?, ClOrdLinkID?, PartiesList?, Account?, AccountType?, DayBookingInst?, BookingUnit?, PreallocMethod?, MLAllocGroupList?, Settlement?, Cash Margin?, ClearingFeeIndicator?, HandInst, ExecInstList?,MinQty?,MaxFloor?,ExDe stination?, TrdSessionList?, ProcessCode?, Instrument,PrevClosePx?,LegList?,Locat eReqd?,TransactTime, QtyType?, $OrderQtyData, OrdType, PriceType?, \P$ Price?,StopPx?,Currency?,ComplianceID $?, IOI_ID?, QuoteID?, Order Duration?, \P$ EffectiveTime?,GTBookingInst?,Commis sionData?,OrderCapacity?,¶
OrderRestrictions?, CustOrderCapacity? For ex Req Order?, Text?, Encoded Text GroPositionEffect?,CoveredOrUncovered?,M axShow?,¶ PegDifference?,DiscretionInst?,Discretio $nOffset?, CancellationRights?, \P$ MoneyLaunderingStatus?,RegistID?,Desi gnation?,MultiLegRptTypeReq?, NetMoney? ¶
%MultiLegOrderCustom;" >¶ <!ELEMENT MultiLegOrder $(\%MultiLegOrderContent;) \ge \P$ <!ATTLIST MultiLegOrder FIXTag CDATA #FIXED '35'¶

DataType CDATA #FIXED 'String'¶ Value CDATA #FIXED 'AB' >

Deleted: <!ENTITY % MultiLegOrderCustom "">¶

Multileg Order Cancel Replace Request (a.k.a MultilegOrder Modification Request)

Used to modify a multileg order previously submitted using the New Order - Multileg message. See Order Cancel Replace Request for details concerning message usage.

The format of the Multileg Order Cancel/Replace Request message is:

Multileg Order Cancel/Replace Request (a.k.a Multileg Order Modification Request)

Tag	Field 1	•	Reg'd	Comments
	Standard Header		Y	MsgType = AC
37	OrderID		N	Unique identifier of most recent order as assigned by sell-side (broker, exchange, ECN).
41	OrigCl	lOrdID	Y	ClOrdID of the previous order (NOT the initial order of the day) when canceling or replacing an order.
11	ClOrdID		Y	Unique identifier of <i>replacement</i> order as assigned by institution or by the intermediary with closest association with the investor. Note that this identifier will be used in ClOrdID field of the Cancel Reject message if the replacement request is rejected.
526	Second	daryClOrdID	N	
583	ClOrd	LinkID	N	
586	OrigOrdModTime		N	
compo	component block <parties></parties>		N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
229	TradeOriginationDate		N	
75	TradeDate		N	
1	Accou	nt	N	
660	AcctII	Source	N	
581	Accou	ntType	N	
589	DayBo	ookingInst	N	
590	Bookii	ngUnit	N	
591	PreallocMethod		N	
70	AllocID		N	Used to assign an identifier to the block of individual preallocations
78	NoAlle	ocs	N	Number of repeating groups for pre-trade allocation
→	79	AllocAccount	N	Required if NoAllocs > 0. Must be first field in repeating group.
→	661	AllocAcctIDSource	N	
→	736	AllocSettlCurrency	N	
→	467	IndividualAllocID	N	

<u></u>	component block <nestedparties3></nestedparties3>			Insert here the set of "NestedParties3" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	80	AllocQty	N	
63	SettlTy	/pe	N	
64	SettlDa	ate	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
544	CashM	Iargin	N	
635	Clearin	ngFeeIndicator	N	
21	HandlI	nst	N	
18	ExecIn	ast	N	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, or W) must be specified.
110	MinQt	у	N	
111	MaxFl	oor	N	
100	ExDestination			
386	NoTradingSessions			Specifies the number of repeating TradingSessionIDs
→	336	TradingSessionID	N	Required if NoTradingSessions is > 0.
→	625	TradingSessionSubID	N	
81	ProcessCode			Used to identify soft trades at order entry.
54	54 Side			Additional enumeration that indicates this is an order for a multileg order and that the sides are specified in the Instrument Leg component block.
compor	nent blo	ock <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				SecurityType[167] = "MLEG"
				CFICode should be set to the type of multileg product, such as "O" – options, "F" – Future or Swap.
711	NoUnc	lerlyings	N	Number of underlyings
→		nent block erlyingInstrument>	N	Must be provided if Number of underlyings > 0
140	PrevCl	osePx	N	Useful for verifying security identification
555	NoLeg	S	Y	Number of legs
				Can be zero (e.g. standardized multileg instrument such as an Option strategy) – must be provided even if zero
	compo <instri< td=""><td>nent block umentLeg></td><td>N</td><td>Must be provided if Number of legs > 0</td></instri<>	nent block umentLeg>	N	Must be provided if Number of legs > 0
	687	LegQty	N	
	690 LegSwapType		N	

					т п
→		component block <legstipulations></legstipulations>			
→	670	NoLeg	gAllocs	N	
→	→	671	LegAllocAccount	N	
→	→	672	LegIndividualAll ocID	N	
→	→	compo	onent block	N	Insert here the set of "Nested Parties #2" (firm
		<nest< td=""><td>edParties2></td><td></td><td>identification "second instance of nesting" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</td></nest<>	edParties2>		identification "second instance of nesting" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	→	673	LegAllocQty	N	
→	→	674	LegAllocAcctIDS ource	N	
→	→	675	LegSettlCurrency	N	
→	564	LegPo	sitionEffect	N	Provide if the PositionEffect for the leg is different from that specified for the overall multileg security
→	565	LegCo	overedOrUncovered	N	Provide if the CoveredOrUncovered for the leg is different from that specified forthe overall multileg security.
→ component block <nestedparties></nestedparties>				N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Used for NestedPartyRole=Leg Clearing Firm/Account, Leg Account/Account Type	
→	654	654 LegRefID		N	Used to identify a specific leg.
→	566	566 LegPrice		N	Provide only if a price is required for a specific leg. Used for anchoring the overall multileg security price to a specific leg price.
→	587	LegSe	ttlType	N	Refer to values for SettlType (63)
→	588		ttlDate	N	Refer to values for SettlDate (64)
114	Locate	Reqd		N	Required for short sell orders
60	Transa	ctTime		Y	Time this order request was initiated/released by the trader, trading system, or intermediary.
854	QtyTy	pe		N	
component block <orderqtydata></orderqtydata>		Y	Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
40	OrdType			Y	
423	PriceType			N	
44	Price			N	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	ζ		N	Required for OrdType = "Stop" or OrdType = "Stop limit".
15	Curren	icy		N	

376	ComplianceID		
377	SolicitedFlag	N	
23	IOIid	N	Required for Previously Indicated Orders (OrdType=E)
117	QuoteID	N	Required for Previously Quoted Orders (OrdType=D)
59	TimeInForce	N	Absence of this field indicates Day order
168	EffectiveTime	N	Can specify the time at which the order should be considered valid
432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
compo	onent block <commissiondata></commissiondata>	N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
528	OrderCapacity	N	
529	OrderRestrictions	N	
582	CustOrderCapacity	N	
121	ForexReq	N	Indicates that broker is requested to execute a Forex accommodation trade in conjunction with the security trade.
120	SettlCurrency	N	Required if ForexReq = Y.
775	BookingType	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
77	PositionEffect	N	For use in derivatives omnibus accounting
203	CoveredOrUncovered	N	For use with derivatives, such as options
210	MaxShow	N	
component block <peginstructions></peginstructions>		N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
	component block <discretioninstructions></discretioninstructions>		Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
847	TargetStrategy	N	The target strategy of the order
848	TargetStrategyParameters	N	For further specification of the TargetStrategy

849	ParticipationRate	N	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)
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message for this Order.
494	Designation	N	Supplementary registration information for this Order
563	MultiLegRptTypeReq	N	Indicates the method of execution reporting requested by issuer of the order.
	Standard Trailer	Y	

FIXML Definition for this message - see http://www.fixprotocol.org for details

Refer to FIXML element MlegOrdCxlRplc

CATEGORY: LIST/PROGRAM/BASKET TRADING

Bid Request -

The BidRequest Message can be used in one of two ways depending on which market conventions are being followed.

In the "Non disclosed" convention (e.g. US/European model) the BidRequest message can be used to request a bid based on the sector, country, index and liquidity information contained within the message itself. In the "Non disclosed" convention the entry repeating group is used to define liquidity of the program. See "Program/Basket/List Trading" for an example.

In the "Disclosed" convention (e.g. Japanese model) the BidRequest message can be used to request bids based on the ListOrderDetail messages sent in advance of BidRequest message. In the "Disclosed" convention the list repeating group is used to define which ListOrderDetail messages a bid is being sort for and the directions of the required bids.

The pair of fields SideValue1 and SideValue2 are used to show the monetary total value in either direction (buy or sell) of the transaction without revealing whether it is the buy-side institution's intention to buy or sell.

The two repeating groups, NoEntries and NoBidComponents are mutually exclusive and a function of which bidding model is being used. If the "Non Disclosure" method is being used the portfolio of stocks being traded is described by a number of "bid descriptors" entries. If the "Disclosure" Method is being used the portfolio is fully disclosed, except for side, by a number of "list" entries enumerating the lists that list the stocks to be traded.

A BidRequest message with BidRequestTransType cancel may be used to indicate to sell side firms that they no longer need to store details of the BidRequest as they have either lost the bid or the List has been canceled.

The format for the Bid Request message is as follows:

Bid Request

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Deleted: <!ENTITY % MultiLegModificationReqCustom "">¶ <!ENTITY % MultiLegModificationReqContent"OrderID?,OrigClOrdID,ClOrdID, SecondaryClOrdID?.¶ ClOrdLinkID?, OrigOrdModTime?, PartiesList?.Account?.AccountType?. DayBookingInst?, BookingUnit?, PreallocMethod? MLAllocGroupList?,Settlement?,¶ CashMargin?.ClearingFeeIndicator? HandInst, ExecInstList?, MinQty?, MaxFlo or?,ExDestination?,¶ TrdSessionList?.ProcessCode?.Side.Instr ument,PrevClosePx?,LegList,LocateReqd TransactTime,QtyType?, OrderQtyData,OrdType,PriceType?,Price?,StopPx?,Currency?,ComplianceID?,¶ IOI ID?, QuoteID?, OrderDuration?, EffectiveTime? GTBookingInst?, CommissionData?, Orde rCapacity?,OrderRestrictions?, CustOrd erCapacity?, ¶ ForexReqOrder?, Text?, EncodedTextGro up?,PositionEffect?,CoveredOrUncovere d?,MaxShow?,PegDifference?,¶ DiscretionInst?, DiscretionOffset?, Cancell ationRights?,MoneyLaunderingStatus?,¶ RegistID?, Designation?, MultiLegRptTyp eReq?, NetMoney? %MultiLegModificationReqCustom;" >¶ <!ELEMENT MultiLegModificationReq</pre> (%MultiLegModificationReqContent;)>¶ <!ATTLIST MultiLegModificationReq FIXTag CDATA #FIXED '35'¶

DataType CDATA #FIXED 'String'¶

Value CDATA #FIXED 'AC' >

Tag	Field Name		Req'd	Comments
	Standa	ard Header	Y	MsgType = k (lowercase)
390	BidID		N	Required to relate the bid response
391	ClientBidID		Y	
374	BidRe	questTransType	Y	Identifies the Bid Request message transaction type
392	ListNa	me	N	
393	<u>TotNo</u>	RelatedSym,	Y	
394	BidTy	pe	Y	e.g. "Non Disclosed", "Disclosed", No Bidding Process
395	NumT	ickets	N	Total number of tickets/allocations assuming fully executed
15	Currer	ncy	N	Used to represent the currency of monetary amounts.
396	SideV	alue1	N	Expressed in Currency
397	SideV	alue2	N	Expressed in Currency
398	NoBid	Descriptors	N	Used if BidType="Non Disclosed"
→	399	BidDescriptorType	N	Required if NoBidDescriptors > 0. Must be first field in repeating group.
→	400	BidDescriptor	N	
→	401	SideValueInd	N	Refers to the SideValue1 or SideValue2. These are used as opposed to Buy or Sell so that the basket can be quoted either way as Buy or Sell.
→	404	LiquidityValue	N	Value between LiquidityPctLow and LiquidityPctHigh in Currency
→	441	LiquidityNumSecurities	N	Number of Securites between LiquidityPctLow and LiquidityPctHigh in Currency
→	402	LiquidityPctLow	N	Liquidity indicator or lower limit if LiquidityNumSecurities > 1
→	403	LiquidityPctHigh	N	Upper liquidity indicator if LiquidityNumSecurities > 1
→	405	EFPTrackingError	N	Eg Used in EFP (Exchange For Physical) trades 12%
→	406	FairValue	N	Used in EFP trades
→	407	OutsideIndexPct	N	Used in EFP trades
→	408	ValueOfFutures	N	Used in EFP trades
420	NoBid	Components	N	Used if BidType="Disclosed"
→	66	ListID	N	Required if NoBidComponents > 0. Must be first field in repeating group.
→	54 Side		N	When used in request for a "Disclosed" bid indicates that bid is required on assumption that SideValue1 is Buy or Sell. SideValue2 can be derived by inference.
→	336	TradingSessionID	N	Indicates off-exchange type activities for Detail.
→	625	TradingSessionSubID	N	
→	430	NetGrossInd	N	Indicates Net or Gross for selling Detail.
→	63	SettlType	N	

Deleted: TotalNumSecurities

>	64	SettlDate	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.	
→	1	Account	N		
→	660	AcctIDSource	N		
409	Liquid	lityIndType	N		
410	WtAv	erageLiquidity	N	Overall weighted average liquidity expressed as a % of average daily volume	
411	Excha	ngeForPhysical	N		
412	OutMa	ainCntryUIndex	N	% value of stocks outside main country in Currency	
413	Crossl	Percent	N	% of program that crosses in Currency	
414	ProgRptReqs		N		
415	ProgPeriodInterval		N	Time in minutes between each ListStatus report sent be SellSide. Zero means don't send status.	
416	IncTaxInd		N	Net/Gross	
121	Forex	Req	N	Is foreign exchange required	
417	NumB	idders	N	Indicates the total number of bidders on the list	
75	Tradel	Date	N		
418	BidTra	adeType	Y		
419	BasisF	УхТуре	Y		
443	Strike	Гіте	N	Used when BasisPxType = "C"	
58	Text		N		
354	EncodedTextLen		N	Must be set if EncodedText field is specified and must immediately precede it.	
355	Encod	edText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.	
	Stando	ard Trailer	Y		

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element BidReq

Deleted: <!ENTITY % $BidRequestCustom "">\P$ <!ENTITY % BidRequestContent
"BidID?,ClientBidID,BidRequestTransTy</pre> pe,ListName?,TotalNumSecurities,BidTy pe,¶
NumTickets?,Currency?,SideValue1?,Sid eValue2?,BidDescriptorList,BidCompone ntList?,¶ LiquidityIndType?,WtAverageLiquidity?, ExchangeForPhysical?, OutMainCntryUIndex?,¶ CrossPercent?,ProgRptReqs?,ProgPeriodI nterval?,IncTaxInd?,ForexReq?,NumBid ders?,¶ TradeDate?,TradeType,BasisPxType,Stri keTime?,Text?,EncodedTextGroup?¶ %BidRequestCustom;">¶
<!ELEMENT BidRequest (%BidRequestContent;)>¶ <!ATTLIST BidRequest FIXTag CDATA #FIXED '35'¶ DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'k' >

Bid Response -

The Bid Response message can be used in one of two ways depending on which market conventions are being followed.

In the "Non disclosed" convention the Bid Response message can be used to supply a bid based on the sector, country, index and liquidity information contained within the corresponding bid request message. **See** "Program/Basket/List Trading" for an example.

In the "Disclosed" convention the Bid Response message can be used to supply bids based on the List Order Detail messages sent in advance of the corresponding Bid Request message.

The format for the Bid Response message is as follows:

Bid Response

	Did itesponse					
Tag	Field N	^l ame	Req'd	Comments		
	Standa	rd Header	Y	MsgType = 1 (lowercase L)		
390	BidID		N			
391	ClientE	BidID	N			
420	NoBid	Components	Y	Number of bid repeating groups		
→	compoi <comn< th=""><th>nent block nissionData></th><th>Y</th><th>Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</th></comn<>	nent block nissionData>	Y	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"		
			3.7	First element of price. Required if NoBidComponents > 0.		
→	66	ListID	N			
→	421	Country	N	ISO Country Code		
→	54	Side	N	When used in response to a "Disclosed" request indicates whether SideValue1 is Buy or Sell. SideValue2 can be derived by inference.		
\rightarrow	44	Price	N	Second element of price		
→	423	PriceType	N			
→	406 FairValue		N	The difference between the value of a future and the value of the underlying equities after allowing for the discounted cash flows associated with the underlying stocks (E.g. Dividends etc).		
→	430	NetGrossInd	N	Net/Gross		
→	63	SettlType	N			
→	64 SettlDate		N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.		
→	336	TradingSessionID	N			
→	625	TradingSessionSubID	N			
→	58	Text	N			

→	354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
→	355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer		Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element BidRsp

Deleted: <IENTITY %
BidResponseCustom "">¶
<IENTITY % BidResponseContent
"BidID?,ClientBidID?,BidRespCompone
ntList %BidResponseCustom;">¶
<IELEMENT BidResponse
(%BidResponseContent;)>¶
<IATTLIST BidResponse FIXTag
CDATA #FIXED '35*¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'I'>

New Order - List -

The NewOrderList Message can be used in one of two ways depending on which market conventions are being followed.

In the "Non disclosed" convention the New Order - List message is sent after the bidding process has been completed, by telephone or electronically. The New Order - List message enumerates the stocks, quantities, direction for the trade and may contain pre-allocation information.

This message may also be used as the first message for the transmission of a program trade where the bidding process has been done by means other than FIX. In this scenario the messages may either be used as a staging process, in which case the broker will start execution once either a ListExecute is received or for immediate execution, in which case the orders will be executed on receipt.

In the "Disclosed" convention the New Order - List message is sent before the bidding process is started, by telephone or electronically. The New Order - List message enumerates the stocks and quantities from the bidding process, and may contain pre-allocation information. The direction of the trade is disclosed after the bidding process is completed.

Where multiple waves of a program trade are submitted by an institution or retail intermediaries, as a series of separate lists, to a broker ClOrdLinkID may be used to link the orders together.

See "Program/Basket/List Trading" for examples.

The New Order – List message type may also be used by institutions or retail intermediaries wishing to electronically submit multiple Collective Investment Vehicle orders to a broker or fund manager for execution.

See VOLUME 7 - "PRODUCT: COLLECTIVE INVESTMENT VEHICLES"

The format for the New Order - List message is as follows:

New Order - List

Tag	Field Name		Comments
	Standard Header	Y	MsgType = E
66	ListID	Y	Must be unique, by customer, for the day
390	BidID	N	Should refer to an earlier program if bidding took place.
391	ClientBidID		
414	ProgRptReqs	N	
394	BidType		e.g. Non Disclosed Model, Disclosed Model, No Bidding Process
415	ProgPeriodInterval	N	
480	CancellationRights	N	For CIV - Optional
481	MoneyLaunderingStatus	N	
513	RegistID	N	Reference to Registration Instructions message applicable to all Orders in this List.

433	ListExecInstType			N	Controls when execution should begin For CIV Orders
433				- 11	indicates order of execution
69	ListExecInst			N	Free-form text.
352	Encod	edListl	ExecInstLen	N	Must be set if EncodedListExecInst field is specified and must immediately precede it.
353	Encod	edListl	ExecInst	N	Encoded (non-ASCII characters) representation of the ListExecInst field in the encoded format specified via the MessageEncoding field.
765	Allow	ableOr	neSidednessPct	N	The maximum percentage that execution of one side of a program trade can exceed execution of the other.
766	Allow	ableOr	neSidednessValue	N	The maximum amount that execution of one side of a program trade can exceed execution of the other.
767	Allow	ableOr	neSidednessCurr	N	The currency that AllowableOneSidedness is expressed in if AllowableOneSidednessValue is used.
68	TotNo	Orders	;	Y	Used to support fragmentation. Sum of NoOrders across all messages with the same ListID.
893	LastFr	agmen	t	N	Indicates if this message is the last of a fragmented set of messages
73	NoOrders		Y	Number of orders in this message (number of repeating groups to follow)	
→	11	ClOr	dID	Y	Must be the first field in the repeating group.
→	526	Seco	ndaryClOrdID	N	
→	67	ListS	eqNo	Y	Order number within the list
→	583	ClOr	dLinkID	N	
→	160	Settl	InstMode	N	
→	сотро	nent b	lock <parties></parties>	N	Insert here the set of "Parties" (firm identification) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	229	Trad	eOriginationDate	N	
→	75	Trad	eDate	N	
→	1	Acco	unt	N	
→	660	Acct	DSource	N	
→	581	Acco	untType	N	
→	589	Dayl	BookingInst	N	
→	590	BookingUnit		N	
→	70 AllocID		N	Use to assign an ID to the block of individual preallocations	
→	591	Prea	llocMethod	N	
>	78	NoAl	llocs	N	Indicates number of pre-trade allocation accounts to follow
→	→	79	AllocAccount	N	Required if NoAllocs > 0. Must be the first field in the repeating group.

1	r		1		
→	→	661	AllocAcctIDSource	N	
→	→	736	AllocSettlCurrency	N	
→	→	467	IndividualAllocID	N	
→	→	-	oonent block tedParties>	N	Insert here the set of "Nested Parties" (firm identification "nested" within additional repeating group) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	→	80	AllocQty	N	
→	63	Settl	Гуре	N	
→	64	Settll	Date	N	Takes precedence over SettlType value and conditionally required/omitted for specific SettlType values.
→	544	Cash	Margin	N	
→	635	Clear	ringFeeIndicator	N	
→	21	Hana	llInst	N	
→	18	ExecInst		N	Can contain multiple instructions, space delimited. If OrdType=P, exactly one of the following values (ExecInst = L, R, M, P, O, T, or W) must be specified.
→	110	MinQ	Qty	N	
→	111 MaxFloor		N		
→	100			N	
→	386	NoTr	adingSessions	N	
→	→	336	TradingSessionID	N	First field in repeating group. Required if NoTradingSessions > 0.
→	→	625	TradingSessionSubID	N	
→	81	Proce	essCode	N	
→	compo	nent b	lock <instrument></instrument>	Y	Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
<u></u>	<u>711</u>	<u>NoU</u>	nderlyings	<u>N</u>	Number of Underlyings
<u></u>	<u></u>	component block <underlyinginstrument></underlyinginstrument>		<u>N</u>	Must be provided if Number of underlyings > 0
→	140	Prev	ClosePx	N	Useful for verifying security identification
→	54	Side		Y	Note: to indicate the side of SideValue1 or SideValue2, specify Side=Undisclosed and SideValueInd=either the SideValue1 or SideValue2 indicator.
→	401	Side	ValueInd	N	Refers to the SideValue1 or SideValue2. These are used as opposed to Buy or Sell so that the basket can be quoted either way as Buy or Sell.
→	114	Loca	teReqd	N	Required for short sell orders
→	60	Tran	sactTime	N	

→	component block <stipulations></stipulations>			Insert here the set of "Stipulations" (repeating group of Fixed Income stipulations) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	854	<i>OtyType</i>	N	
→	1 23 JF			Insert here the set of "OrderQtyData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	40	40 OrdType		
→	423	PriceType	N	
→	44	Price	N	
→	99	StopPx	N	
→			N	Insert here the set of "SpreadOrBenchmarkCurveData" (Fixed Income spread or benchmark curve) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	component block <yielddata></yielddata>		N	Insert here the set of "YieldData" (yield-related) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	15	15 Currency		
→	376	376 ComplianceID		
→	377	SolicitedFlag	N	
→	23	IOIid	N	Required for Previously Indicated Orders (OrdType=E)
→	117	QuoteID	N	Required for Previously Quoted Orders (OrdType=D)
→	59	TimeInForce	N	
→	168	EffectiveTime	N	
→	432	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
→	126	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
→	427	GTBookingInst	N	States whether executions are booked out or accumulated on a partially filled GT order
→	component block <commissiondata></commissiondata>		N	Insert here the set of "CommissionData" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	528	OrderCapacity	N	
→	529	OrderRestrictions	N	
→	582	CustOrderCapacity	N	
→	121	ForexReq	N	
→	120	SettlCurrency	N	

→	775	Booking Type	N	Method for booking out this order. Used when notifying a broker that an order to be settled by that broker is to be booked out as an OTC derivative (e.g. CFD or similar). Absence of this field implies regular booking.
→	58	Text	N	
→	354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
→	355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
→	193	SettlDate2	N	Can be used with OrdType = "Forex - Swap" to specify the "value date" for the future portion of a F/X swap.
→	192	OrderQty2	N	Can be used with OrdType = "Forex - Swap" to specify the order quantity for the future portion of a F/X swap.
→	640	Price2	N	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).
\rightarrow	77	PositionEffect	N	
→	203	CoveredOrUncovered	N	
→	210	MaxShow	N	
→	component block <peginstructions></peginstructions>		N	Insert here the set of "PegInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	compo <disci< th=""><th>nent block retionInstructions></th><th>N</th><th>Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"</th></disci<>	nent block retionInstructions>	N	Insert here the set of "DiscretionInstruction" fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
→	847	TargetStrategy	N	The target strategy of the order
→	848	TargetStrategyParameters	N	For further specification of the TargetStrategy
→	849	ParticipationRate	N	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)
→	494	Designation	N	Supplementary registration information for this Order within the List
	Standa	ırd Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element NewOrdList

Deleted: <!ENTITY %
NewOrderListCustom "">¶
<!ENTITY % NewOrderListContent
"ListID,BidID?,ClientBidID?,ProgRptRe
qs?,BidType,ProgPeriodInterval?,Cancell
ationRights?,¶
MoneyLaunderingStatus?,RegistID?,List
ExecInstType?,ListExecInst?,EncodedList
ExecInstGroup?,¶
TotNoOrders,OrderList
%NewOrderListCustom;">¶
<!ELEMENT NewOrderList
(%NewOrderListContent;)>¶
<!ATTLIST NewOrderList FIXTag
CDATA #FIXED '35*¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'E'>

List Strike Price -

The strike price message is used to exchange strike price information for principal trades. It can also be used to exchange reference prices for agency trades.

The format for the List Strike Price message is as follows:

List Strike Price

Tag	Field Name		Req'd	Comments
	Standa	rd Header	Y	MsgType = m (lowercase)
66	ListID		Y	
422	TotNo	Strikes	Y	Used to support fragmentation. Sum of NoStrikes across all messages with the same ListID.
893	LastFr	agment	N	Used to indicate if message is the last of a fragmented set of messages
428	NoStri	kes	Y	Number of strike price entries
→				Insert here the set of "Instrument" (symbology) fields defined in "COMMON COMPONENTS OF APPLICATION MESSAGES"
				Required if NoStrikes > 0. Must be first field in repeating group.
711	NoUnc	derlyings	N	Number of underlyings
→	component block <underlyinginstrument></underlyinginstrument>		N	Must be provided if Number of underlyings > 0
→	140	PrevClosePx	N	Useful for verifying security identification
→	11	ClOrdID	N	Can use client order identifier or the symbol and side to uniquely identify the stock in the list.
→	526	SecondaryClOrdID	N	
→	54	Side	N	
→	44	Price	Y	
→	15 Currency		N	
→	58 Text		N	
→	354 EncodedTextLen		N	Must be set if EncodedText field is specified and must immediately precede it.
→	355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standa	ard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element ListStrkPx

Deleted: <!ENTITY %
ListStrikePriceCustom "">¶
<!ENTITY % ListStrikePriceContent
"ListID,TotNoStrikes,StrikeList
%ListStrikePriceCustom;">¶
<!ELEMENT ListStrikePrice
(%ListStrikePriceContent;)>¶
<!ATTLIST ListStrikePrice FIXTag
CDATA #FIXED '35 "¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'm'>

List Status -

The list status message is issued as the response to a List Status Request message sent in an unsolicited fashion by the sell-side. It indicates the current state of the orders within the list as they exist at the broker's site. This message may also be used to respond to the List Cancel Request.

Orders within the list are statused at the summary level. Individual executions are not reported, rather, the current state of the order is reported.

The message contains repeating fields for each. The relative position of the repeating fields is important in this message, i.e. each instance of ClOrdID, CumQty, LeavesQty, CxlQty and AvgPx must be in the order shown below.

Description of ListOrderStatus field values:

- "InBiddingProcess": indicates that a list has been received and is being evalutated for pricing. It is envisaged that this status will only be used with the "Disclosed" List Order Trading model.
- "ReceivedForExecution": indicates that a list has been received and the sell side is awaiting the instruction
 to start working the trade. It is envisaged that this status will be used under both models.
- "Executing": indicates that a list has been received and the sell side is working it.
- "Canceling": indicates that a List Cancel Message has been received and the sell side is in the process of
 pulling any orders that were being worked. The status of individual order can be found out from the detail
 repeating group.
- "AllDone": indicates that a list has been executed as far as possible for the day. This would also apply if a list has been previously cancelled. The status of individual order can be determined from the detail repeating group.
- "Alert": used whenever any of the individual orders have a status that requires something to be done. For
 instance, an alert would be used when a buy-side firm has submitted a list that has individual stock reject
 that have not been addressed.
- "Rejected" used when a response cannot be generated. For example when the ListID is not recognised. The text field should include an explanation of why the Request's been rejected.

The list status message format is as follows:

List Status

Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = N
66	ListID	Y	
429	ListStatusType	Y	
82	NoRpts	Y	Total number of messages required to status complete list.
431	ListOrderStatus	Y	
83	RptSeq	Y	Sequence number of this report message.
444	ListStatusText	N	
445	EncodedListStatusTextLen	N	Must be set if EncodedListStatusText field is specified and must immediately precede it.

446	Encod	ledListStatusText	N	Encoded (non-ASCII characters) representation of the ListStatusText field in the encoded format specified via the MessageEncoding field.
60	Transa	actTime	N	
68	TotNo	Orders	Y	Used to support fragmentation. Sum of NoOrders across all messages with the same ListID.
893	LastFı	LastFragment		Indicates if the message is the last of a fragmented set of messages
73	NoOrd	ders	Y	Number of orders statused in this message, i.e. number of repeating groups to follow.
→	11	ClOrdID	Y	
→	526	SecondaryClOrdID	N	
→	14 CumQty		Y	
→	39 OrdStatus Y			
→	636	WorkingIndicator	N	For optional use with OrdStatus = 0 (New)
→	151	LeavesQty	Y	Quantity open for further execution. LeavesQty = OrderQty - CumQty.
→	84	CxlQty	Y	
→	6	AvgPx	Y	
→	103	OrdRejReason	N	Used if the order is rejected
→	58	Text	N	
→	354	354 EncodedTextLen N Must be set if EncodedText field is specified and must immediately precede it.		
→	355 EncodedText		N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Stando	ard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to ListStat

Deleted: <!ENTITY %
ListStatusCustom "">¶
<!ENTITY % ListStatusContent
"ListID,ListStatusType,NoRpts,ListOrder
Status,RptSeq,ListStatusText?,¶
EncodedListStatusTextGroup?,
TransactTime?,¶
TotNoOrders,StatusOrderList
%ListStatusCustom;" >¶
<!ELEMENT ListStatus
(%ListStatusContent;)>¶
<!ATTLIST ListStatus FIXTag CDATA
#FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'N' >

List Execute -

The List Execute message type is used by institutions to instruct the broker to begin execution of a previously submitted list. This message may or may not be used, as it may be mirroring a phone conversation.

The format for the list execute message is as follows:

List Execute

Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = L
66	ListID	Y	Must be unique, by customer, for the day
391	ClientBidID	N	Used with BidType=Disclosed to provide the sell side the ability to determine the direction of the trade to execute.
390	BidID	N	
60	TransactTime	Y	Time this order request was initiated/released by the trader or trading system.
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element ListExct

Deleted: <!ENTITY %
ListExecuteCustom "">¶
<!ENTITY % ListExecuteContent
"ListID,ClientBidID?,BidID?,TransactTime,Text?,EncodedTextGroup?
%ListExecuteCustom;">¶
<!ELEMENT ListExecute
(%ListExecuteContent;)>¶
<!ATTLIST ListExecute FIXTag
CDATA #FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'L'>

List Cancel Request -

The List Cancel Request message type is used by institutions wishing to cancel previously submitted lists either before or during execution.

After the list has been staged with the broker, it can be canceled via the submission of the List Cancel message. If the list has not yet been submitted for execution, the List Cancel message will instruct the broker not to execute it, if the list is being executed, the List Cancel message should trigger the broker's system to generate cancel requests for the remaining quantities of each order within the list. Individual orders within the list can be canceled via the Order Cancel Request message.

The List Status message type is used by the recipient of the List Cancel Request to communicate the status of the List Cancel Request.

The format for the list - cancel request message is as follows:

List Cancel Request

Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = K
66	ListID	Y	
60	TransactTime	Y	Time this order request was initiated/released by the trader or trading system.
229	TradeOriginationDate	N	
75	TradeDate	N	
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

<\ListCxlReq

Deleted: ENTITY %
ListCancelRequestCustom "">¶
<!ENTITY % ListCancelRequestContent
"ListID,TransactTime,Text?,EncodedTex
tGroup? %ListCancelRequestCustom;">¶
<!ELEMENT ListCancelRequest(%ListCancelRequest(%ListCancelRequest FIXTag
CPATA #FIXED '35'¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'K'>

List Status Request -

The list status request message type is used by institutions to instruct the broker to generate status messages for a list.

The format for the list - status request message is as follows:

List Status Request

			•
Tag	Field Name	Req'd	Comments
	Standard Header	Y	MsgType = M
66	ListID	Y	
58	Text	N	
354	EncodedTextLen	N	Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N	Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y	

FIXML Definition for this message – see http://www.fixprotocol.org for details

Refer to FIXML element ListStatReq

Deleted: <!ENTITY %
ListStatusRequestCustom "">¶
<!ENTITY % ListStatusRequestContent
"ListID,Text?,EncodedTextGroup?
%ListStatusRequestCustom;">¶
<!ELEMENT ListStatusRequest
(%ListStatusRequest Content;)>¶
<!ATTLIST ListStatusRequest FIXTag
CDATA #FIXED '35"¶
DataType CDATA #FIXED 'String'¶
Value CDATA #FIXED 'M'>

Fragmentation for List Order Messages

The messages used in program trading support fragmentation for the same reason and in the same way as some other FIX messages (e.g. Mass Quote). If there are too many entries within a repeating group to fit into one physical message, then the entries can be continued in another message by repeating all of the top level information and then specifying the number of entries in the continued message. A "Total Entries" field is provided to specify the total number of entries in a repeating group which is split over multiple messages. This permits, but does not require, a receiving application to react in a stateful manner where it can determine if it has received all entries in a repeating group before carrying out some action. However, the overall approach to fragmentation is to permit each message to be processed in a stateless manner as it is received. Each message should contain enough information to have the entries applied to a system without requiring the next message if fragmentation has occurred. Also, a continued message should not require any information from the previous message. The messages that support fragmentation and the repeating groups supporting it are listed in the table below.

Message	"Total Entries" field	Repeating group that may be fragmented
New Order - List	TotNoOrders	Orders repeating group following the NoOrders field in the message definition table
List Strike Price	TotNoStrikes	Strike price repeating group following the NoStrikes field in the message definition table
List Status	TotNoOrders	Status per order repeating group following the NoOrders field in the message definition table

Maximum message size for fragmentation purposes can be determined by using the optional MaxMessageSize field in the Logon message or by mutual agreement between counterparties.

Note: The TotNoOrders field has been added to the List Status message to support fragmentation in same way as other FIX messages. The NoRpts and RptSeq fields are preserved for backwards compatibility with previous versions of FIX which supported a stateful form of fragmentation.

Program/Basket/List Trading

Overview

A set of messages allow for the automation of program trading. While it is hoped that the message set is comprehensive enough, to automate the complete cycle, it is expected that not all messages will be used in all transactions. Although the message set may appear to be quite complex at first glance, most of the complexity arises from developing one message set that can be used to support two different business models for list trading. The two models, the "Disclosed" and "Non Disclosed" models, are described in the next two sections. The "Disclosed" model is commonly used in Japan while the "Non Disclosed" model is commonly used in Europe and America.

"Non Disclosed" model (e.g. US/European)

The buy-side details to the sell-side information about the sector, country and potential market impact of the stocks to be bought or sold. Using this information the sell-side firms bid for the trade. If successful the buy-side firm gives the sell-side firm a detailed list of the stocks to be traded and the sell-side firm executes the trades.

The important point in the "Non Disclosed" model is that the stocks in the list are not disclosed until a particular sell-side firm has won the portfolio.

"Disclosed" model (e.g. Japanese)

The buy-side details the exact stocks and sizes to be traded and the sell-side firm offers the buy-side firm a two-way price, to buy or to sell the indicated stocks. The buy-side firm then tells the successful sell-side firm to buy or sell on its behalf.

The important point in the "Disclosed" model is that all sell-side firms see all of the stocks and quantities in the portfolio during the bidding phase regardless of whether or not they win the business.

The New Order - List message can be used, with the side omitted as part of the bidding process, as is the practice in "Disclosed" model or once the bidding has been completed to exchange the list of stocks that make up the program to be traded. Pre-trade allocation is handled via a repeating group within the repeating order block.

Order modification and cancelation of a portfolio is a major change to the agreement between the buy-side and sell-side firms and as such this change should be conducted by telephone. If an automated route for dealing with amendment/cancelation is required then the existing messages can be used – List Cancel, Order Cancel/Replace Request.

The New Order - List message is based on the single order message and message flows for canceling a single stock line within a program trade should be those used to support order cancelation in the single order model (e.g. Order Cancel/Replace Request, etc). The ListID in those systems should be used to assist in identifying the order as part of a list trade. Similarly, the Order Status Request message can be used to request the status of a single order in a portfolio trade.

The List Strike Price Message details the prices that a principal trade is being executed at. In some transactions this appears to be generated by the sell side and checked by the buy-side, in others the reverse is true, and in other cases this information is not passed until the final execution reports

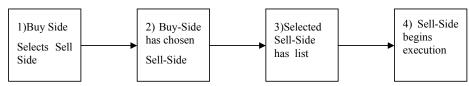
Pre-trade allocation is much more common place in the program trading community than it is in block trading. For the purposes of pre-trade allocation, a repeating group to specify AllocAccount and AllocQty has been added to the order message. It is assumed that participants will use either the FIX allocation messages and message flows for post trade allocation or their existing allocation systems. (e.g. in the event of a pre-allocation basket trade).

At any stage in the processing of a list message the buy-side may request the status of the list from the sell-side using the List Status Request message. The sell-side responds with a List Status Response message. The sell-side can also send the List Status Response message in an unsolicited fashion according to the requirements passed in the bidding phase or in the List message. The List Status Response message provides summary detail about each of the orders in the List. The sell-side should acknowledge any list request from the buy-side with a List Status Response message providing the current state.

Once the portfolio has been executed by the sell-side and a List Status Response message has been sent to the buy-side indicating "DONE" for each of the orders in the List, the list can be allocated. If pre-allocation information was provided with the original orders and the orders were fully executed then the allocation information is already known to the sell-side. If the pre-trade allocations are no longer appropriate post trade allocation may be preformed either using FIX Allocation messages or existing allocation systems.

Message Flow Diagrams

Overview of logical stages



The diagram above shows the logical stages involved in the execution of a program trade.

Transition	Description
1->2	This transition can occur in the following ways:
	Buy-side has preferred list which means the business will be directed to a specific Sell-Side
	Buy-Side provides details of the program to a number of sell-sides. This can be achieved using a mixture of telephone, fax, modem links, and FIX Bid messages.
2->3	Details of the program are transmitted to the chosen Sell-side using telephone, fax, modem links, or FIX New Order - List message.
3->4	This transition can occur in the following ways:
	Buy-Side and Sell-Side communicate by telephone to confirm content of the program and the Buy-Side instructs the Sell-Side to begin execution.
	Buy-Side sends a List Execute FIX message to instruct Sell-Side to begin execution
4	Once the list is being executed the FIX List status messages may be used to notify/request status of the list

Order Details sent via FIX (Bidding Outside of FIX)

Buy Side		New Order - List Message (1 broker)	→	Sell	Side
Institution	+	2) List Order Status (ACK)		Broker Do	ealer

"Disclosed" Bid and Program Trade

Buy Side		1) New Order - List Message (N brokers)	→	Sell Side
Institution	+	← 2) List Order Status (ACK) (1 per broker)		Broker Dealer
		3) Bid Request Message (N brokers)	→	
	+	4) Bid Response (1 per broker)		
		5) Cancel bid sent to (N − 1) brokers	→	

"Non Disclosed" Bid and Program Trade

Buy Side	1) Bid Request Message (N brokers)	→	Sell Side
Institution	← 2) Bid Response (1 per broker)		Broker Dealer
	Buy-side selects one Sell-side and sends order detail for ex	ecution	
	3a) Bid Request Cancel (N – 1 brokers)	→	
	3b) New Order - List Message (1 sell-side)		
	← 4) List Status Response (ACK)		

The following message flows can occur in any order relative to each other and some may occur many times.

Optional notification to begin execution (may occur zero or one times)

Buy Side		1) List Execute message (1 sell-side)	→	Sell	Side
Institution	←	2) List Order Status (Ack) Response		Broker	Dealer

Optional transfer of Principal Portfolio Trade prices from buy-side to sell-side (may occur zero or one times)

Buy Side		1) List Strike Price message	→	Sell	Side	
Institution	←	2) List Status message		Broker	Dealer	

Optional transfer of Principal Portfolio Trade prices from sell-side to buy-side (may occur zero or one times)

Buy Side	←	1) List Strike Price message		Sell Side	
Institution		2) List Status message	→	Broker Dealer	

Optional Execution Report status update (may occur zero or N times)

Buy Side	· (1) Execution Reports (if requested)	Sell	Side
Institution	•		Broker	Dealer

Optional List Status Request (may occur zero or N times)

Buy Side		1) List Status Request message	→	Sell	Side
Institution	←	2) List Status message		Broker 1	Dealer

Optional Sell-Side unsolicited Status update (may occur zero or N times)

Buy Side	+	2) List Status message	Sell	Side
Institution			Broker I	Dealer

Scenario 1 Bidding performed by Telephone and List provided via FIX

Message	Description	Purpose
	New Order - List Message from B/S to S/S	Details the list of stocks that an institution wishes to trade. Normally side is omitted and an indicator is set to show that this message is part of a bid
	List Status Response (Acknowledgement)	List status response indicates that the sell-side has received the New Order - List message. The status of each order in the list should indicate a status of <i>bid</i> or <i>rejected</i> . The former if the stock is recognised and the latter if the stock is not recognised.
may be omitted	List Execute Message	Details the specific bid that has been accepted. The specific bid indicates the direction of the list to be executed.

Required if previous provided	List Status Response	Details the status of each order in the list. The status should be <i>executing</i> for each order.
	Status updates may optionally follow	

Scenario 2 Fully Disclosed Program Trade – with bidding stage through FIX

	·			
Message	Description	Purpose		
	New Order - List Message from B/S to S/S	Details the list of stocks that an institution wishes to trade Normally side is omitted and an indicator is set to show that the message is part of a bid		
	List Status Response (Acknowledgement)	List status response indicates that the sell-side has received the New Order - List message. The status of each order in the list should indicate a status of <i>bid</i> or <i>rejected</i> . The former if the stock is recognised and the latter if the stock is not recognised.		
	Bid Request Message from B/S to S/S	Details the types of bids required, eg Side, Execution Type etc		
may be omitted	Bid Response Message	Details the bid response for a program		
may be omitted	List Execute Message	Details the specific bid that has been accepted. The specific bid indicates the direction of the list to be executed.		
Required if previous provided	List Status Response	Details the status of each order in the list. The status should be <i>executing</i> for each order.		
	Status updates may optionally follow			

Scenario 3 Non-Disclosed Program Trade – with bidding stage through FIX

Message	Description	Purpose
may be omitted done by phone	Bid Request from B/S to S/S	Details the liquidity information about the stocks that an institution wishes to trade. It does not identify the stocks in the program.
may be omitted done by phone	Bid Response Message from S/S to B/S	Details the bid response for a program
	List Message Detail Message from B/S to S/S	Details the list of stocks that an institution wishes to trade including the stock, quantity, and direction for each order.

Required if previous provided	List Status Response	Details the status of each order in the list. The status should be awaiting execution, executing or rejected for each order.
may be omitted done by phone	List Execute Message from B/S to S/S	Details the bid for a program
required if previous provided	List Status Response	Details the status of each order in the list. The status should be executing for each order.

Illustration of liquidity indicator fields usage

Normally details, by country and by sector, as number at <5%, no in 5-10%, no in 10-30% and number at > 30% eg 1 @ 70%, 1 @ 600% For example

Country	<5%	5 – 10%	10 - 30%	> 30%
DEM	1 Sec \$1000000	4 Sec \$2000000	7 Sec \$1500000	1 Sec @60%, \$3000000 1 Sec @300% \$8000000
ESP	4 Sec \$3000000	5 Sec \$3000000	3 Sec \$3500000	
UK	3 Sec \$4500000	6 Sec \$3600000	2 Sec \$5000000	1 Sec @450% \$9000000

Sector	<5%	5 – 10%	10 - 30%	> 30%
Industrials	2 Sec \$1500000	5	4	1 Sec @300%
				\$8000000
Pharmaceuticals	4 Sec	3	3	1 Sec @450%
				\$9000000
Hotels	2	7	5	1 Sec @60%, \$3000000

Illustration of liquidity indicator fields usage

The liquidity indicator fields are used to describe the shape of a basket trade in terms of the liquidity and classification of the stocks contained within the list. Thus a list that may be described by the following to tables.

List liquidity information by country.

% columns refer to percentage of average daily volume.

Country	<5%	5 – 10%	10 - 30%	> 30%
DEM	1 Security Value \$1000000	4 Security Value \$2000000	7 Security Value \$1500000	1 Security Value \$3M @ 60% 1 Security Value \$8M @300%
ESP	4 Security Value \$3000000	5 Security Value \$3000000	3 Security Value \$3500000	
UK	3 Security Value \$4500000	6 Security Value \$3600000	2 Security Value \$5000000	1 Security Value \$9M @ 450%

List liquidity information by Security Sector.

% columns refer to percentage of average daily volume.

Sector	<5%	5 – 10%	10 - 30%	> 30%
Industrials	2 Security Value	5 Security Value	4 Security Value	1 Security Value
	\$1500000	\$2600000	\$3000000	\$8M @300%
Pharmaceutical	4 Security Value	3 Security Value	3 Security Value	1 Security Value
	\$3000000	\$3000000	\$1500000	\$9M @450%
Hotels	2 Security Value	7 Security Value	5 Security Value	1 Security Value
	\$4000000	\$3000000	\$2500000	\$3M @60%

Would be represented by the following BidRequest Message.

Client	Bid	Total	Bid	Side	Repeating fields						
Bid	Request	Num	Туре	Value							
ID	Trans	Securities		1							
	Type										
					Bid	Bid	Side	Liquidity	Liquidity	Liqui	Liqui
					Descr-	Descr-	Value	Value	Num	dity	dity
					iptor	Iptor	Ind		Secu-	Pct	Pct
					Туре				rities	Low	High
1001	N	38	1	37100000	2	DEM	1	1000000	1	0.00	0.05
					2	DEM	1	2000000	4	0.05	0.10
					2	DEM	1	1500000	7	0.10	0.30
					2	DEM	1	3000000	1	0.60	*- NP
					2	DEM	1	8000000	1	3.00	*- NP
					2	ESP	1	3000000	4	0.00	0.05
					2	ESP	1	3000000	5	0.05	0.10
					2	ESP	1	3500000	3	0.10	0.30
					2	UK	1	4500000	3	0.00	0.05
					2	UK	1	3600000	6	0.05	0.10
					2	UK	1	2000000	2	0.10	0.30
					2	UK	1	9000000	1	4.50	*- NP
					1	Ind	1	1500000	2	0.00	0.05
					1	Ind	1	2600000	5	0.05	0.10
					1	Ind	1	3000000	4	0.10	0.30
					1	Ind	1	8000000	1	3.00	*- NP
					1	Pharm	1	3000000	4	0.00	0.05
					1	Pharm	1	3000000	3	0.05	0.10
					1	Pharm	1	1500000	3	0.10	0.30
					1	Parm	1	9000000	1	4.50	*- NP
					1	Hotels	1	4000000	2	0.00	0.05
					1	Hotels	1	3000000	7	0.05	0.10
					1	Hotels	1	2500000	5	0.10	0.30
					1	Hotels	1	3000000	1	0.60	*- NP

Notes

- *- NP field not present in repeating group as entry is describing a single stock at a specific liquidity
- Where the BidDescriptorType set to 1 the entry in the BidDescriptor field is free text, the sector names Pharmaceuticals and Industrials have been shorten to make every thing fit.