FINANCIAL INFORMATION
EXCHANGE PROTOCOL
(FIX)

Version 4.3 with Errata 20020920

VOLUME 7 – FIX USAGE BY PRODUCT

Includes Errata adjustments as of September 20, 2002

Errata Purpose:

This document includes a list of minor adjustments to the FIX 4.3 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 4.3 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 rule were kept to an absolute minimum using the "required to make the intended functionality implementable" rationale.** All of the items specified in this document will be incorporated in the next release of the FIX Protocol. The list of items has been reviewed and approved by the FIX Technical Committee and Steering Committees. Implementers of FIX version 4.3 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 4.3 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.

August 24, 2001September 20, 2002

Contents – Volume 7

PRODUCT: COLLECTIVE INVESTMENT VEHICLES (CIV)

Overview and Scope

This Appendix summarises how FIX messages can be used to support order initiation / confirmation and to issue settlement / Registration Instructions for open-ended Collective Investment Vehicles ("CIVs") – known variously as Mutual Funds, Unit Trusts, Managed Investments. Open Ended Investment Companies (OEICs), Undertaking for Collective Investment in Transferable Securities (UCITs) etc.

Note that the FIX messages for CIV do not address Exchange Traded Funds, closed funds such as Investment Trusts or other scenarios where CIVs are traded as if they were equities.

Market environment

Units in funds are typically sold to Retail Investors on the recommendation of an Intermediary advisor (whose firm may not be authorised to hold client assets or settle transactions), or purchased at the Investors' initiative via a broker or funds supermarket (which may outsource settlement to a third party) or purchased by the Investor directly from the fund manager (who again may outsource fund administration to a third party).

Retail intermediaries (eg. Intermediary advisors) who don't hold client funds or settle transactions are rewarded by commission from the fund manager out of charges collected from the Investor. Commission and charges may be paid at the time of investment ("front-end load funds") and/or during the life of the investment ("no-load funds"). The latter may be called "renewal" or "trail" commission, and is typically paid directly to the intermediary at the end of each period.

Intermediaries such as brokers and funds supermarkets may charge their own commission etc. directly to the Investor and instruct the fund manager not to deduct commission from the sum invested.

Institutional Investors typically purchase funds directly from the fund manager and no commission is payable.

In some regulatory environments the fund manager is responsible for making compliance and money laundering checks before a CIV order is executed, hence for new investors full details must be supplied with the order.

In some markets Hubs, Exchanges or Funds Supermarkets provide messaging, clearing and settlement services between Intermediaries/brokers, Fund managers etc.

FIX messages may be used between any of the participants. The fund manager may also use FIX messages to buy and sell fund assets with other participants in the relevant market(s) (eg. Equities):
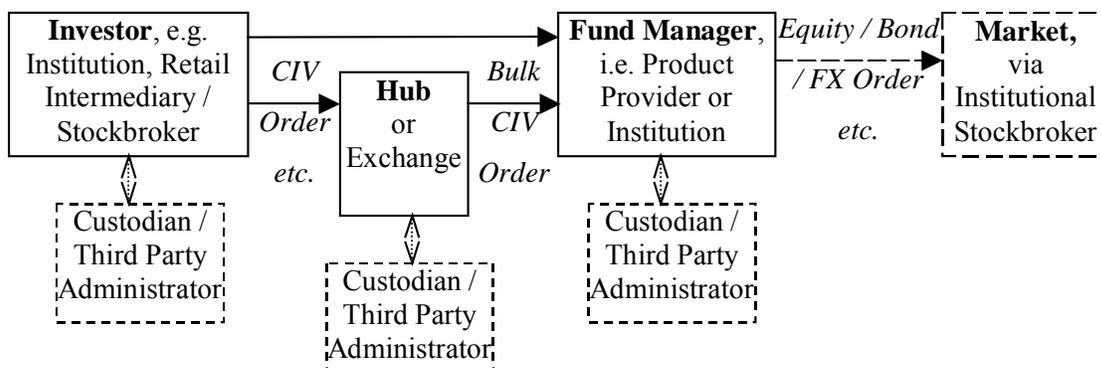
Note that in a CIV scenario brokers, intermediaries etc. may be on the "buy side" and institutions may be on the "sell" side, i.e. a reversal of the situation in equity/fixed interest/FX transactions.

CIV Security Type Identification

A Collective Investment Vehicle security type is designated by a CFICode field (ISO 10962 standards-based) value which starts with "EU". Note that if the Product field is specified, the value should be set to "Equity" to correspond with the "E" in the CFICode "EU" prefixed value, as presently defined. **See "Volume 6 – Appendix 6D" for CFICode details.**

Types of CIV FIX Messages

The FIX messages specifically supporting CIV trades are:

- "New Order – Single" – used to specify the buy or sell of a CIV fund. The message includes the ability to specify percentage of a holding to be sold, compliance/money laundering status commission instructions. The New Order – Single comprises the major details:
    - Intermediary & Client Identification Information
    - Commission
    - Order Quantity
    - Registration and Reconciliation details
- "New Order – List" – used for an Investor to initiate exchanges or switches between CIV funds, or by a broker or Hub to place a bulk buy or sell order for several funds. New order List comprises one or more "New Order – Singles"
- Order Cancel Request – used for an Investor, Broker or Hub to request cancellation of an outstanding order
- Order Cancel Reject – used for a fund manager to reject Cancellation of an order
- Order Status Request – used for an Investor, Broker or Hub to request the status of an order
- "Settlement" – used to transmit Investors' payment details to the fund manager where the Intermediary does not settle trades
- "Registration Instructions" and "Registration response" – used to transmit Investors' registration details to the Fund manager, allow compliance checks and opening of the correct type of account. This may be sent before or after corresponding New Order messages. The Registration Instructions message type comprises the major details:
    - RegistrationID
    - OrderLink Fields
    - Registration Classification
    - Member Registration
    - Distribution Details
- "Execution Report" – used to transmit details of Unit price basis, charges, commission etc. to the Investor and Intermediary

Allocation messages are not required for CIV trading with Fund managers, but other FIX messages are unchanged and can be used as required, e.g. Market Data, Security Status Request, Quote, Order Status, Order Cancel / Replace, Don't Know, Business Reject etc.

(See *CIV Examples 1 – 7* below for examples of the use of these message types.)

Order Quantities

Income on units may be credited as additional units on the Investor's account with the Fund manager, leading to uncertainty about the exact number of units when a holding is to be sold. Similarly when an exchange or switch is requested the cash value of investments realised and to be re-invested is not known. Hence it can be more convenient for Unit quantities to be expressed as a percentage of total holding, e.g. sell 50% or 100% of the existing holding, and reinvest 50% of the cash proceeds in Fund A, 25% in Fund B and 25% in Fund C.

"Percentage" amounts are indicated in the OrderPercent field.

Where an order is for investment of a money amount (CashOrderQty) or percentage (OrderPercent) the Intermediary may request that the resultant quantity is rounded up or down to a specific fraction or multiple of units by setting RoundingDirection and RoundingModulus.

(See *CIV Example 13* below for an example of the use of OrderPercent & Rounding to specify order quantity.)

Intermediary identification

Where messages are sent to or from a Fund manager via a Hub or Funds Supermarket on behalf of the Intermediary the IntroBroker field may be used to identify the Intermediary who is interfacing with the Investor.

This information is used by the Fund manager used to validate the Investor / Intermediary relationship on his records and to credit Commission to the correct Intermediary.

Investor details

If an Intermediary places a CIV Order for a new Investor (to the Fund manager) then the Registration instructions message can be used to transmit the details as required by the Fund manager:

- RegistAcctType – identifying which of the fund manager's account types should be opened
- TaxExemptType – identifying which of the (nationally defined) tax-exempt accounts or "plans" is required
- OwnershipType – indicates relationship between owners where there is more than one, e.g. tenants in common (i.e. equal interests), joint tenants with rights of survivorship.
- RegistDtls & RegistEmail – name and address into which purchases for this Investor should be registered, plus e-mail address where applicable.
- InvestorCountryOfResidence – identifying the country of residence of the investor, e.g. for compliance and/or tax purposes
- OwnerType – identifying whether the registered investor is an individual, corporation, nominee/street name, trustee etc. (This information may be required for regulatory purposes and/or to indicate which format of Registration name and address information is required)
- InvestorID and InvestorIDSource – containing identifiers issued by official organisations such as tax authorities, company registrar, regulators or national numbering agencies, together with an identifier for the source of the identifier
- MailingDtls – the name and address to which general correspondence should be sent (if different from the Registration address), semi-annual reports, marketing literature.
- MailingInst – e.g. instructions indicating what the mailing address is to be used for, whether marketing literature is acceptable etc.

(See *CIV Examples 15-16* below for examples of the use of registration instruction for new investors, accounts etc.)

Having received this information the Fund manager responds with a Registration Instructions Response– which in addition to the RegistID of the Registration request should also contain the Account and/or ClientIDs allocated to the Investor.

(See *CIV Examples 3, 4 & 6* below for examples of the use of Registration instruction response message.)

Investor identification

A Fund manager may allocate an Account id and/or Client id to each Investor – depending on the architecture of his account database. These can be returned on the Registration status or Execution report message or by some other means (e.g. printed confirm or contract note), and should be quoted on subsequent New Order etc. messages.

(See *CIV Examples 8-10* below for examples of the use of identification fields for new and existing investors, accounts etc.)

New Investor -> New Order -> Registration instruction

Registration instruction messages can be sent before, after or both before and after a related New Order:

- before the New Order, e.g. to give details of a new investor / account (with name & address etc.). The RegistID specified on this Registration message must also be quoted on the subsequent New Order.

- after the New Order e.g. to give distribution payment details or to override previous Registration instructions for that specific New Order. This message should quote ClOrdID from the New Order (and Account and ClientID if available), but not the RegistID.

The Fund manager will respond to each Registration instruction with one or more Registration status messages, indicating whether the details are:

- Accepted – where possible including the Account and ClientID if these have been allocated by the Fund manager

- Rejected – in which case the RegistRejReasonCode and RegistRejReasonText fields should be populated to indicate the reason for rejection

- Held – e.g. pending receipt of the New Order or for later batch or manual processing, following which an "accepted" or "rejected" Registration status message will be sent

Note that the Designation field is available on the New Order message to provide supplementary registration information.

(See *CIV Examples 6 & 14-16* for examples of registration instructions and the designation field.)

Fund & Unit Identification

Many Funds offer several classes of units, e.g. front-end, back-end or no-load; income or accumulation units etc. In some tax regimes Fund managers are required to differentiate between units purchased before and after the most recent distribution. In markets where ticker symbols are allocated to unit types these are

entered in the Symbol field; where tickers are not available an alternative identification such as ISIN is entered in the (mandatory) Symbol field and also the (optional) SecurityID field, with the code type in the SecurityIDSource field.

The Issuer and SecurityDesc fields may also be used to further confirm the Fund and Unit type required.

Note that the Fund managers or regulators may impose restrictions on the Funds in an order, e.g. they must be available to the type of Investor, Account or Tax Exemption, or (for an exchange/switch) they may all have to be issued by the same Fund manager.

Order details - single

Order details for a CIV Order typically include:

- Side – "buy" (sometimes known as create, although creation may not actually be involved) or "sell" (sometimes known as redeem or cancel, although cancellation may not actually be involved)

- OrdType – Previous Fund Valuation Point (Historic pricing) or Next Fund Valuation Point – (Forward pricing)

- Order quantity expressed as one of:

    o   OrderQty – number of units,

    o   CashOrdQty– cash amount to be invested, or

    o   OrderPercent – percentage of existing holding (for a sell) or percentage of available cash amount to be invested (for an exchange / switch)

- RoundDirection & RoundModulus – for cash amount or percentage, allows the investor or intermediary to request rounding up or down to the nearest 5, 10, 100 etc. or fractional units

- Currency & ForexReqd – e.g. for an off-shore fund settled in domestic currency

- Designation – supplementary registration information specific to this Order

Order details - list

A CIV "New Order – List" would typically be issued:

- by a retail intermediary to initiate an "exchange" or "switch" between funds on behalf of a single Investor

- by a broker, funds supermarket or hub/exchange to initiate "bulk buy" or "bulk sell" order of funds held for the account of several investors

For an exchange/switch:

- the ListNoOrds and ListSeqNo fields determine the order in which the deals are to be executed

- the ListExecInstType determines how the Order quantities and Settlement amount are to be calculated (i.e. sell-driven, buy-driven with additional cash available, buy-driven without additional cash)

For a bulk buy / bulk sell the Designation field can be used to supply supplementary registration information for each order line, to maintain segregation between the holdings for individual clients.

(See *CIV Examples 13 & 14* below for an example of the use of New Order – List.)

Commission Instructions

The Intermediary can indicate specific commission requirements using:

- Commission & CommType – e.g. a specific commission rate or a waiver of the standard commission rate for the fund, the saving on standard commission being credited as for additional units or as a cash discount

- CommCurrency – to specify that commission on an overseas or offshore fund should be paid in domestic currency

- FundBasedRenewalWaived – to indicate whether or not the Intermediary accepts renewal/trail commission

Compliance

Depending on terms of business and the regulatory environment either or both of the Intermediary and Fund manager may be required to support money laundering status checking and/or right-to-cancel. The New Order message supports these with:

- MoneyLaundering – indicating whether or not checks are required and have already been carried out by the Intermediary

- CancellationRights - indicating whether or not a "right-to-cancel" applies

Settlement instructions

For CIV Orders retail settlement instructions may be transmitted using Settlement instruction features including:

- SettlInstMode – indicating that settlement instructions relate to a specific (retail) Order

- SettlInstSource –indicating the Investor as the source of settlement instructions

- PaymentMethod & SettCurrency – indicating cheque, bank transfer, payment card, cash account at depository etc.

- CardHolderName, CardNumber, CardStartDate, CardExpDate, CardIssNo, PaymentDate and PaymentRemitterID – details required for cash settlement by payment card

- SettlBrkrCode, SettlDepositoryCode – for cash settlement via central depositories

- CashSettleAgentName, CashSettlAgentCode, CashSettlAgentAcctNum, CashSettlAgentAcctName - for cash settlement by bank transfer

- PaymentRef – cross-reference or narrative information for bank transfers etc. to appear on bank statements, SWIFT MT950's etc. to assist reconciliation

Distribution instructions

The Registration instruction message can also carry Distribution instructions, including:

- NoDistribDetls & DistribSeqNo – the number of beneficiaries

- DistribPercent –the split of each distribution (by value) between several beneficiaries

- DistribPaymentMethod & CashDistribCurr – payment method and currency for a specific beneficiary

- CashDistribAgentName, AgentCode, AgentAcctName and AgentAcctNum – bank and account details for a specific beneficiary

- CashDistribPayRef - cross-reference or narrative information for bank statements

(See *CIV Examples 15 & 16* below for examples of the use of distribution instructions.)

Unit Prices

Fund managers calculate a net asset value for each fund – typically at a fixed time each day, the "valuation point". They then quote either a single Unit price ("single pricing") or separate buying and selling prices ("dual pricing") – depending on the fund's constitution and regulatory environment.

Valuation point

The unit price applicable to a CIV trade depends on when the Order was received by the fund manager relative to a Valuation point, whether the Fund is normally dealt on a Historic or Forward basis, and possibly also on recent volatility on underlying fund assets and any specific instructions from the Investor.

Some of this information is indicated by fields on the New Order:

- TransactTime – the time at which the Investor placed the CIV Order directly, or at which Intermediary placed the Order on behalf of the Investor

- OrdType – whether Investor requires a Forward or (where available) a Historic price

Other times establishing the relevant valuation point are shown on the Execution Report:

- OrderBookedTime – the time at which the Fund manager provisionally accepted the order for execution (having completed any preliminaries, e.g. setting up an account, money laundering checks)

- ExecValuationPoint - the fund valuation point with respect to which a order was priced by the fund manager (may be before or after the OrderBookedTime).

Single pricing

The Unit price for single-priced funds is determined from the net asset value, based on the mid-price of the underlying assets of the fund, divided by the applicable number of units. For these funds ExecPriceType on the Execution Report should be set to "S" = Single.

The manager's Initial charge (if any) is then charged out separately. In addition a Dilution levy may be charged on large buy or sell transactions, e.g. to compensate for the difference between the mid- and buy/sell- price of the underlying investments. These charges can be notified on the Execution Report in the Contract amounts repeat group.

Dual pricing

For dual priced funds the manager calculates:
- Creation price – based on the "buy" price of the underlying assets (net of transaction taxes etc.)
- Cancellation price – based on the "sell" price of the underlying assets (net of transaction taxes etc.)

If the net cash flow is <u>into the fund</u> new units will be created:
- Offer or Buy price – will be no higher than the Creation price plus the manager's Initial charge
- Bid, Sell or Redemption price – will be the Offer price minus the manager's Dealing spread

If the net cash flow is <u>out of the fund</u> existing units will be cancelled:
- Bid, Sell or Redemption price – will be no lower than the Cancellation price

- Offer or Buy price – will be the Bid price plus the manager's Dealing spread, up to a limit of the Creation price plus the manager's Initial charge

The manager may sell to buyers units he has re-purchased from sellers (rather than cancelling and re-creating units), thus profiting from the Dealing spread.

The Initial charge covers any commission paid to Intermediaries as well as advertising, administration, dealing costs etc. It can be a money amount or percentage and may be waived on large investments, e.g. by institutional investors. Where the Initial charge is waived for a private investor an Exit charge (money amount or percentage) may be levied if an investment is sold within the first few years. (This is sometimes known as a Deferred contingent sales charge.) These charges can be notified on the Execution Report in the Contract amounts repeat group.

The manager may offer an improved buying price by discounting the initial charge or reducing his dealing spread – the improved price is expressed as "Creation price plus" an amount or percentage, or "Offer price minus" an amount or percentage.

ExecPriceType and (where applicable) ExecPriceAdjustment on the Execution Report indicate how the actual buying or selling price was calculated from the fund valuation price(s).

Execution Reports

The Fund manager should send Execution Report messages to confirm receipt (OrdStatus="New") and execution (OrdStatus= "Filled" and/or "Calculated") of CIV Orders, plus other Order Status from the list below as agreed between the parties – individual Execution Reports being sent for each line of an New Order – List.

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CIV-specific use of OrdStatus:

CIV orders to be executed by the fund manager do not use the TimeInForce field and only the following OrdStatus values are expected to be used:

*** This OrdStatus table lists CIV-specific values ***

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. (Where supported by the receving broker, intermediary, fund manager etc.)
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. (Where supported by receiving broker, intermediary, fund manager etc.)
8	Calculated	Order has been filled, settlement details, currency, commission, contract amounts etc. have been calculated and reported in this execution message
7	Filled	Order has been filled, execution valuation point, shares/unit quantity and price have been calculated and and reported in this execution message

4	Canceled	Canceled order without executions (where supported by receiving broker, intermediary, fund manager etc.).
2	New	Outstanding order which has not been executed. The OrderBookedTime field will be completed. For Forward priced orders or funds the order will be executed at the next Valuation Point. (This status may not be sent if the order can be executed immediately on a Historic pricing basis)
2	Rejected	Order has been rejected by broker, intermediary or fund manager (for CIV orders). 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 broker's system but not yet accepted for execution. An execution message with this status will only be sent in response to a Status Request message. (Where supported by receiving broker, intermediary or fund manager etc.)

The CIV Fields included for each value of OrdStatus in Execution Report are listed below:

OrdStatus	CIV Fields included on Execution Report
Rejected	
Pending Cancel	ClOrdID, ListID & TransactTime – Intermediary's Order (and List) references and time of submission
Canceled	Other fields may be populated if available
Pending Replace	
Pending New	ClOrdID, ListID & TransactTime – Intermediary's Order (and List) references and time of submission
	All fields populated on the CIV Order (apart from Order fields not available in Execution Report)
New	Same as for "Pending New" plus:
	TranBkdTime – time at which the Fund manager accepted the CIV Order onto his books
	OrderId – order reference assigned by Fund manager (to each line in a New Order - List)
Filled	Same as for "New" plus:
	ExecID & DealTime – Fund manager's reference & Valuation point at which the Fund manager priced the CIV Order
	LastQty, LastPx & ExecPriceType – Unit quantity, price & basis of calculation

of the price (e.g. Bid, Offer / Offer minus, Creation / Creation plus etc.)

Calculated   As for "Filled" plus:

ContAmt, Type & Curr – type, currency and value of various contract amounts (Initial, Commission, Discount Exit, Dilution etc.)

(See *CIV Examples 1 – 7* below for examples of the use of Execution Report messages.)

CIV EXAMPLES

The following examples illustrate how FIX messages can be used to process CIV fund orders and provide settlement and registration instructions to the fund manager.

NOTE that in the examples:

- "Buyside" refers to an institution or private investor investing in a CIV fund via broker, intermediary – or a hub and/or exchange transmitting messages to/from other buyside parties

- "Sellside" refers to a CIV fund manager or intermediary – or a hub and/or exchange transmitting messages to/from other sellside parties

CIV Example 1. **Single order for a CIV fund for a known investor/nominee, to be dealt on a "historic" basis**

A typical flow for an order for a CIV fund dealt on Historic price for an investor or nominee known to the fund manager – is as follows:

BUYSIDE			SELLSIDE
			Fund Valuation Point
	→	New Order-Single (IntroBroker, ClOrdID, Account & ClientID specified)	
	←	Execution Report (ExecType = "F") [Trade] (IntroBroker, ClOrdID, Account & ClientID echoed)	
			Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated] (IntroBroker, ClOrdID, Account & ClientID echoed)	

CIV Example 2. **Single order for a CIV fund for a known investor/nominee, to be dealt on a "forward" basis**

A typical flow for an order for a CIV fund for an investor/nominee known to the fund manager that wishes to deal on a Forward price basis – is as follows:

BUYSIDE			SELLSIDE
	→	New Order-Single (IntroBroker, ClOrdID, Account & ClientID specified) (OrdType="M") [Forward]	
	←	Execution Report (ExecType = "0" [New] (IntroBroker, ClOrdID, Account & ClientID echoed)	
			Fund Valuation Point
	←	Execution Report (ExecType = "F") [Trade] (IntroBroker, ClOrdID, Account & ClientID echoed)	
			Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated] (IntroBroker, ClOrdID, Account & ClientID specified)	

CIV Example 3. **Single order for a CIV fund for an investor/nominee not known to the fund manager - registration and settlement instructions after trade**

A typical flow for an order for a CIV fund for an investor/nominee not known to the fund manager where the fund manager does not require settlement or registration instructions in advance – is as follows:

BUYSIDE			SELLSIDE
	→	New Order – Single (IntroBroker & ClOrdID specified, Account, ClientID & RegistID not specified)	
	←	Execution Report (ExecType = "0" [New] (IntroBroker & ClOrdID echoed)	
			Fund Valuation Point
	←	Execution Report (ExecType = "F") [Trade] (IntroBroker & ClOrdID echoed)	
			Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated] (IntroBroker & ClOrdID echoed)	
	←	Registration Instruction Response (RegistStatus = "N") [Reminder] (IntroBroker & ClOrdID echoed)	

BUYSIDE			SELLSIDE
	→	Settlement Instruction (SettInstTransType = "N") [New] (SettlInstMode="4") [Specific Order] (IntroBroker & ClOrdID specified)	
	→	Registration Instruction (RegistTransType = "0") [New] (IntroBroker, ClOrdID & RegistID specified)	
			Validate Registration Instruction
	←	Registration Instruction Response (RegistStatus = "A") [Accepted] (IntroBroker, ClOrdID & RegistID echoed, Account and/or ClientID returned)	

CIV Example 4. **Single order for a CIV fund for an investor/nominee not known to the fund manager - registration and settlement instructions required before trade**

A typical flow for an order for a CIV fund for an investor/nominee not known to the fund manager where the fund manager requires settlement and registration instructions in advance – is as follows:

BUYSIDE			SELLSIDE
	→	Registration Instruction (RegistTransType = "0") [New] (RegistID, IntroBroker & ClOrdID specified)	
	←	Registration Instruction Response (RegistStatus = "H") [Held] (IntroBroker, ClOrdID & RegistID echoed, Account and/or ClientID not returned)	
			Validate Registration Instruction
	←	Registration Instruction Response (RegistStatus = "A") [Accepted]	
	→	New Order – Single (IntroBroker & ClOrdID specified, Account, ClientID & RegistID not specified)	
	←	Execution Report (ExecType = "A" [Pending New]	
	→	Settlement Instruction (SettInstTransType = "A") [New] (SettlInstMode="4") [Specific Order] (IntroBroker & ClOrdID specified)	
			Validate Settlement Instruction
	←	Execution Report (ExecType = "0") [New]	

BUYSIDE			SELLSIDE
			Fund Valuation Point
	←	Execution Report (ExecType = "F") [Trade]	
			Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated]	

CIV Example 5. Single order for a CIV fund for a known investor/nominee – order modified before execution

A possible flow for an order for a CIV fund for an investor/nominee known to the fund manager, on which the CashOrdQty is modified before execution – is as follows:

BUYSIDE			SELLSIDE

	→	New Order-Single
		    (IntroBroker, ClOrdID, Account & ClientID specified)
		    CashOrdQty = "6,000"	

	←	Execution Report (ExecType = "0" [New] (IntroBroker, ClOrdID, Account & ClientID echoed)	

	→	Order Cancel/Replace Request
		    (IntroBroker, ClOrdID, Account & ClientID specified)
		    CashOrdQty = "7,000"	

	←	Execution Report (ExecType = "5" [Replaced] (IntroBroker, ClOrdID, Account & ClientID echoed)	
			Fund Valuation Point
	←	Execution Report (ExecType = "F") [Trade] (IntroBroker, ClOrdID, Account & ClientID echoed)	
			Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated] (IntroBroker, ClOrdID, Account & ClientID specified)	

CIV Example 6. **Single order for a CIV fund for a new investor/nominee to the fund manager - registration and settlement instructions rejected, then modified & accepted**

A possible flow for an order for a CIV fund for an investor/nominee not already known to the fund manager where settlement and registration instructions are supplied, rejected and then corrected after the trade – is as follows:

BUYSIDE			SELLSIDE
	→	New Order – Single (IntroBroker & ClOrdID specified, Account, ClientID & RegistID not specified)	
			Fund Valuation Point Commission/ Fee Calc
	←	Execution Report (ExecType = "B") [Calculated] (IntroBroker & ClOrdID echoed)	
	→	Settlement Instruction (SettInstTransType = "N") [New] (SettlInstMode="4") [Specific Order] (IntroBroker & ClOrdID specified)	
	→	Registration Instruction (RegistTransType = "0") [New] (IntroBroker, ClOrdID & RegistID specified)	
			Validate Registration Instruction
	←	Registration Instruction Response (RegistStatus = "H") [Held] (IntroBroker, ClOrdID & RegistID echoed, Account and/or ClientID not returned)	
	←	Registration Instruction Response (RegistStatus = "R") [Rejected] (IntroBroker, ClOrdID & RegistID echoed, Account and/or ClientID not returned)	
	→	Registration Instruction (RegistTransType = "2") [Replace] (IntroBroker, ClOrdID & RegistID specified)	
			Validate Registration Instruction
	←	Registration Instruction Response (RegistStatus = "A") [Accepted] (IntroBroker, ClOrdID echoed, Account and/or ClientID returned)	
	→	Settlement Instruction (SettInstTransType = "R") [Replace] (SettlInstMode="4") [Specific Order] (IntroBroker & ClOrdID specified)	

CIV Example 7. **Exchange/switch order between several CIV funds from a single fund manager or via a funds supermarket**

A typical flow for an order for a CIV fund for an investor wishing to switch funds between funds from a single fund manager or via a funds supermarket that covers all funds – is as follows:

BUYSIDE			SELLSIDE
	→	New Order-List 　(ListId & ListExecInstType specified, e.g. 　　ListExecInstType="3" [Exch/switch - Sell Driven] 　For each component of exchange/switch: 　(IntroBroker, ClOrdID, ClientID, Account, 　Symbol/SecurityId, OrderPercent, Side)	
	← ← ←	For each component of exchange/switch: Execution Report (ExecType = "0" [New] 　(IntroBroker, ClOrdID, Account & ClientID echoed)	
			Fund Valuation Point
	← ← ←	For each component of exchange/switch: Execution Report (ExecType = "F" [Trade] 　(IntroBroker, ClOrdID, Account & ClientID echoed)	
			Commission/ Fee Calc
	← ← ←	For each component of exchange/switch: Execution Report (ExecType = "B" [Calculated] 　(IntroBroker, ClOrdID, Account & ClientID echoed)	

Identifier examples – existing investor & account

CIV Example 8. Order for CIV fund by new or existing investor, routed via a client money/asset holding broker or funds supermarket to fund manager

Typical usage of fields on Order and/or Post-Trade messages would be as follows:

Tag		Field Name	Contents
453		NoPartyIDs	2
→	448	PartyID	An identifier for the broker or funds supermarket which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
→	448	PartyID	An identifier for the broker or funds supermarket's nominee/custodian company which is recognized by the fund manager

Tag		Field Name	Contents
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	An optional sub-identifier for the broker or funds supermarket's nominee/custodian company which is recognized by the fund manager
11		ClOrdID	Assigned by broker or funds supermarket

CIV Example 9. Order for CIV fund by an institutional investor, routed via a broker to a fund manager – possibly via a hub/exchange

Typical usage of fields on Order and/or Post-Trade messages would be as follows:

Tag		Field Name	Contents
453		NoPartyIDs	3
→	448	PartyID	An identifier for the broker closest to the investing institution which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
→	448	PartyID	An identifier for hub/exchange (where used) which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	1 ["Executing Firm"]
→	448	PartyID	An identifier for the investing institution which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	An optional sub-identifier for the investor which is recognized by the fund manager
11		ClOrdID	Assigned by investing institution

Identifier examples – new investor and/or account

CIV Example 10. Order for CIV fund by new investor via non-client money/asset holding intermediary to fund manager

Typical usage of fields on Order and/or Post-Trade messages would be as follows:

Tag		Field Name	Contents
453		NoPartyIDs	2
→	448	PartyID	An identifier for the broker closest to the investor which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
→	448	PartyID	Not present on the "New Order" message, only on Execution Report(s). An identifier for the investor which is assigned by the fund manager, e.g. after processing a Registration Instruction.
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	Not present on the "New Order" message, only on Execution Report(s). An optional sub-identifier for the investor which is assigned by the fund manager, e.g. after processing a Registration Instruction.
11		ClOrdID	Assigned by intermediary
493		RegistAcctType	An identifier for the type of account required which is recognised by the fund manager
495		TaxAdvantageType	An identifier for the type of tax advantaged account required
492		PaymentMethod	Entered by intermediary (together with Investor's bank/card details) to show how investor will settle cash with the fund manager

CIV Example 11. **Order for CIV fund by new investor, routed via non-client money/asset holding intermediary via a non-aggregating hub/exchange to fund manager**

Typical usage of fields on Order and/or Post-Trade messages would be as follows:

Tag		Field Name	Contents
453		NoPartyIDs	3
→	448	PartyID	An identifier for the broker closest to the investor which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
→	448	PartyID	An identifier for hub/exchange (where used) which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field

Tag		Field Name	Contents
→	452	PartyRole	1 ["Executing Firm"]
→	448	PartyID	Not present on the "New Order" message, only on Execution Report(s). An identifier for the investor which is assigned by the fund manager, e.g. after processing a Registration Instruction.
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	Not present on the "New Order" message, only on Execution Report(s). An optional sub-identifier for the investor which is assigned by the fund manager, e.g. after processing a Registration Instruction.
11		ClOrdID	Assigned by broker

CIV Example 12. **Order for CIV fund by new investor routed via intermediary to a funds supermarket – which places bulk/net orders to the fund manager**

Typical usage of fields on Order and/or Post-Trade messages between intermediary and funds supermarket would be as follows:

Tag		Field Name	Contents
11		ClOrdID	Assigned by intermediary
453		NoPartyIDs	2
→	448	PartyID	An identifier for the intermediary closest to the investor which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
→	448	PartyID	Not present on the "New Order" message, only on Execution Report(s). An identifier for the investor which is assigned by the funds supermarket, e.g. after processing a Registration Instruction.
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	Not present on the "New Order" message, only on Execution Report(s). An optional sub-identifier for the investor which is assigned by the funds supermarket, e.g. after processing a Registration Instruction.

Typical usage of fields on Order and/or Post-Trade messages between funds supermarket and fund manager for bulk/net orders would be as follows:

Tag	Field Name		Contents
11	ClOrdID		Assigned by fund supermarket
453	NoPartyIDs		2
→	448	PartyID	An identifier for funds supermarket which is recognized by the fund manager
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	1 ["Executing Firm"]
→	448	PartyID	An identifier for the funds supermarket's nominee/custodian company which is recognized by the fund manager.
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	An optional sub-identifier for the funds supermarket's nominee/custodian company which is recognized by the fund manager.

Quantity example

CIV Example 13. **Exchange/switch order quantities – OrderPercent, Rounding, Sell Driven**

Typical use of OrderPercent and Rounding fields on Order and Execution Report messages to and from fund manager or funds supermarket would be as follows:

Investor's holdings before exchange/switch New Order – List are:

Symbol/SecurityId	Quantity held
Fund A	5281
Fund B	2296
Fund C	1833

Exchange/switch order details on the New Order – List are:

Symbol/SecurityId	Side	OrderQty	CashOrderQty	OrderPercent
Fund A	Sell	1281		
Fund B	Sell		£2,000	
Fund C	Sell			100%
Fund X	Buy			20%

Fund Y	Buy			30%
Fund Z	Buy			50%

with : RoundingDirection = 1 [Down]

RoundingModulus = 1

After the Fund Valuation Point the quantities and cash amounts (assuming no commissions, initial or exit charges) are reported on "calculated" Execution Reports are as follows:

Symbol/SecurityId	Side	Price (AvePx)	CumQty	Cash value
Fund A	Sell	£5.21	1281	£6,674
Fund B	Sell	£7.28	274	£1,995
Fund C	Sell	£3.27	1833	£5,994
Fund X	Buy	£8.72	336	-£2,930
Fund Y	Buy	£15.00	293	-£4,395
Fund Z	Buy	£1.00	7331	-£7,331

Settlement amount (ContAmtValue) = £6.72 (credit, i.e. excess cash will be paid to Investor)

CIV Example 14. **CIV Bulk order – purchase of funds for multiple investors into a designated nominee**

Typical use of New Order – List by a broker for purchase of funds for multiple investors into a designated nominee would be to specify ListExecInstType="1" [Immediate], with other fields as follows:

Tag	Field Name		Contents
11	ClOrdID		Assigned by broker to identify each component within New Order - List. *As required for each componen.t*
→	448	PartyID	An identifier for the funds supermarket's nominee/custodian company which is recognized by the fund manager. *Same for each component of order.*
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field, e.g. the Fund manager
→	452	PartyRole	9 ["Fund manager Client ID"]
→	523	PartySubID	An optional sub-identifier for the funds supermarket's nominee/custodian company which is recognized by the fund manager.

Tag	Field Name		Contents
→	448	PartyID	An identifier for the intermediary closest to the investor which is recognized by the fund manager *Same for each component of order.*
→	447	PartyIDSource	Indicates source of Party identifier used in preceding field
→	452	PartyRole	6 ["Introducing Firm"]
55/ 48	Symbol/SecurityId etc.		Identifier(s) for fund. *As required for each component.*
54/ 38/ 152	Side/OrderQty/CashOrderQty		Buy/sell & quantity. *As required for each component.*
513	RegistID		Assigned by broker to identify Registration Instruction for nominee company – if required. *Same for each component of order.*
494	Designation		Specific registration ("sub-account") for each component. *As required for each component.*

plus other New Order – List fields as required.

CIV Example 15. **Registration Instruction – Joint Investors**

Typical use of the Registration instruction Joint Investors, e.g. husband & wife, with cash distribution split equally between them would be:

Tag	Field Name		Value
517	OwnershipType		J ["Joint Investors"]
413	NoRegistDtls		2
→	509	RegistDtls	John Smith Esq, 1 Acacia Avenue, Newtown, Countyshire
→	511	RegistEmail	johnsmith99@isp.com
→	522	OwnerType	1 ["Individual Investor"]
→	509	RegistDtls	Mrs Naomi Smith, 1 Acacia Avenue, Newtown, Countyshire
→	511	RegistEmail	Naomismith32@isp.com
→	522	OwnerType	1 ["Individual Investor"]
510	NoDistribInsts		2
→	477	DistribPaymentMethod	8 ["Direct Credit"]
→	512	DistribPercentage	50

Tag		Field Name	Value
→	478	CashDistribCurr	GBP
→	498	CashDistribAgentName	Anytown Bank
→	499	CashDistribAgentCode	20-01-00
→	500	CashDistribAgentAcctNumber	23456789
→	501	CashDistribPayRef	Fund income
→	502	CashDistribAgentAcctName	Mr J & Mrs N Smith
→	477	DistribPaymentMethod	5 ["Cheque"]
→	512	DistribPercentage	50
→	478	CashDistribCurr	GBP
→	502	CashDistribAgentAcctName	Mrs Naomi Smith

CIV Example 16 **Registration Instruction – Tenants in Common,**

Possible use of the Registration instruction for Tenants in Common, e.g. a club of private investors that reinvest all their income could be:

Tag		Field Name	Contents
517		OwnershipType	T ["Tenants in Common"]
413		NoRegistDtls	4
→	509	RegistDtls	Frank Jones, 2 South Drive, Anyport, Southshire
→	511	RegistEmail	*fjones@myisp.net*
→	509	RegistDtls	Sally Smith, 192 West Road, Anyport, Southshire
→	511	RegistEmail	ssmith@hotmail.com
→	509	RegistDtls	James Jordan, 88 Lime Tree Avenue, Lower Anyport, Southshire
→	511	RegistEmail	jamesj@mymail.co.uk
→	509	RegistDtls	Anita Robinson, 2 South Drive, Anyport, Southshire
510		NoDistribInsts	1
477		DistribPaymentMethod	12 ["Reinvest in Fund"]

PRODUCT: DERIVATIVES (FUTURES & OPTIONS)

Use of CFICode to identify derivatives security

The CFICode (tag 461) is used to identify the type of instrument in FIX. The following is the recommended usage of the CFICode for futures and options. The CFICodes (ISO 10962) shall replace of SecurityType (tag 167) enumerations for futures – "FUT" and options – "OPT". The CFICode for options supports definition of Calls – "C" and Puts – "P" in the second position. The PutOrCall (tag 201) tag is replaced (made obsolete) in FIX 4.3 by the adoption of the CFICode (tag 461).

Single Leg Instruments

CFICode[461]	Description	FIX 4.2 Mapping Values	
		SecurityType[167]	PutOrCall[201]
OCXXXS	Standardized Call Option	OPT	1
OPXXXS	Standardized Put Option	OPT	0
FXXXS	Standardized Future	FUT	na
OCXFXS	Standardized Call Option on a Future	na[1]	1
OPXFXS	Standardized Put Option on a Future	na	0
FFICN	Nonstandard (flex) Financial Future on an index with cash delivery	FUT	na
FCEPN	Nonstandard (flex) Commodity Future on an extraction resource with physical delivery	FUT	na
FXXXN	Nonstandard (flex) future – contract type specified in symbology – not provided in CFICode	FUT	na
OCEFCN	Nonstandard (flex) call option on future with european style expiration and cash delivery	OPT	1
OPAFPN	Nonstandard (flex) put option on future with american style expiration and physical delivery	OPT	0
OPXSPN	Nonstandard (flex) put option on a stock with physical delivery (the expiration style is not specified – so is assumed to default to the market standard for flex options).	OPT	0
OCEICN	Nonstandard (flex) call option on an index with european style expiration and cash delivery	OPT	1

Multileg Instrument Specification

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[1] A security type enumeration for an Option on a Future does not currently exist.

The following use of SecurityType and CFICode are proposed for specifying multileg derivative instruments – such as options strategies or futures spreads.

SecurityType[167]	CFICode[461]	Description
~~MULTILEG~~MLEG	FMXXS	Multileg Instrument with futures contract legs CFICode refers to Future – Miscellaneous
~~MULTILEG~~MLEG	OMXXXN	Multileg Instrument with option contract legs CFICode refers to Option – Miscellaneous (This would include multileg instruments that include the underlying security).
~~MULTILEG~~MLEG	M	Multileg Instrument with legs made up of various types of securities (not primarily a futures or options multileg instrument that contains one or more derivative legs). CFICode refers to M-Miscellaneous

US Listed Options Order Capacity Values

The following are commonly used order capacity codes from the US listed options markets and how they map to FIX 4.3.

Common Listed Option Market Order Capacity Values	OrderCapacity (tag 528)	OrderRestrictions (tag 529)	Other
"B" any account of a broker/dealer, or any account in which a broker or dealer registered or required to be registered with the SEC pursuant to Section 15 under the Act has an interest. <u>This represents any account that is not otherwise an account that falls into any of the below mentioned categories</u>.	**Principal**		
"C" any account in which no member or non-member broker/dealer has an interest.	**Agency**		
"D" any account of a foreign broker/dealer.[2]	**Principal**	**6 - Foreign Entity**	
"F" any firm proprietary account which clears at the Options Clearing Corporation that is not a JBO account.	**Proprietary**		

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[2] A foreign broker/dealer is defined as any person or entity that is registered, authorized, or licensed by a foreign governmental agency or foreign regulatory organization (or is required to be registered, authorized, or licensed) to perform the function of a broker or dealer in securities, or both. For purposes of this definition, a broker or dealer may also be a bank.

Common Listed Option Market Order Capacity Values	OrderCapacity (tag 528)	OrderRestrictions (tag 529)	Other
"M" an account representing a CBOE market-maker.	**Proprietary**	**5-Acting As a specialist or market maker in the security**	
"N" Any options account of a market-maker or specialist of another options exchange ~~who is registered as a market-maker or specialist in the same class of options multiply listed at an away exchange.~~ Sometimes referred to as an order for a "MM or Specialist Away".	**Proprietary**	**5-Acting As a specialist or market maker in the security** **7 - External Market Participant**	
"Y" any options account of a Commodities Trader, Stock Futures Trader or Stock Specialist registered in the underlying security. ~~stock at the primary exchange for trading the stock.~~	**Proprietary**	**8 – Acting as a specialist in the security underlying of a derivative security**	

Proposed option order capacity codes and their FIX 4.3 equivalents

The following are additional codes that are proposed for the listed options markets and how they would map to FIX 4.3.

Proposed Listed Option Market Order Capacity Values	OrderCapacity (tag 528)	OrderRestrictions (tag 529)	Other
"I" Proposed Code used to designate a JBO account <u>which clears Customer at OCC</u>: any joint back office ("JBO") account of a broker/dealer that has a nominal ownership interest in a clearing broker/dealer and receives good faith margin treatment whereby such trade clears in the customer range at OCC. This ownership position allows the JBO clearing firm to finance securities transactions of the JBO participant on a good faith margin basis.	**Agency**		**AccountType (tag 581)=8 Joint Back Office**

Proposed Listed Option Market Order Capacity Values	OrderCapacity (tag 528)	OrderRestrictions (tag 529)	Other
"J" Proposed Code used to designate a JBO account <u>which clears Firm at OCC</u>: any joint back office ("JBO") account of a broker/dealer that has a nominal ownership interest in a clearing broker/dealer and receives good faith margin treatment whereby such trade clears in the firm range at OCC. This ownership position allows the JBO clearing firm to finance securities transactions of the JBO participant on a good faith margin basis.	**Proprietary**		**AccountType (tag 581)=8 Joint Back Office**
"K" Proposed Code used to designate a JBO account <u>which clears MM at OCC</u>: any joint back office ("JBO") account of a broker/dealer that has a nominal ownership interest in a clearing broker/dealer and receives good faith margin treatment whereby such trade clears in the market-maker range at OCC. This ownership position allows the JBO clearing firm to finance securities transactions of the JBO participant on a good faith margin basis.	**Proprietary**	5-Acting As a specialist or market maker in the security	**AccountType(tag 581)=8 Joint Back Office**
"A" Linkage - Principal acting as agent order ("P/A") order routed through Linkage. (i.e. an order for the principal account of an eligible MM that is authorized to represent customer orders reflecting the terms of related unexecuted customer orders for which the MM is acting as agent).	**Agency**	5-Acting As a specialist or market maker in the security **9 – External Interconnected Market**	
"P" Linkage – Principal order. (i.e. an order for the principal account of an eligible MM which is entered to trade at the NBBO at another exchange and is not a P/A order).	**Principal**	5-Acting As a specialist or market maker in the security **9 – External Interconnected Market**	

Proposed Listed Option Market Order Capacity Values	OrderCapacity (tag 528)	OrderRestrictions (tag 529)	Other
"S"Linkage – Principal satisfaction order (i.e. an order for the principal account of an eligible market maker sent through the Linkage to satisfy the liability arising from a trade through that was initiated by that market-maker).	**Riskless Principal**	5-Acting As a specialist or market maker in the security **9 – External Interconnected Market**	
"Z" Proposed Code used to designate orders as defined under Filing SR-CBOE-00-62: any non-CBOE member or non-broker/dealer account which typically clears at OCC as customer, but is prohibited from entering orders on RAES (i.e. futures traders, spouses of members, MM's away who are non B/Ds, etc).	**Agency**	**A – Riskless Arbitrage**	

CustomerOrderCapacity(tag 582) Mappings for Futures CTICode

CustOrderCapacity (tag 582)	Description
1	Member trading for their own account
2	Clearing Firm trading for its proprietary account
3	Member trading for another member
4	All other

Negative Prices permitted for futures and options strategies

The AvgPx(tag #6), LastPx(Tag #31), Price(tag #44), StopPx(tag #99), AllocAvgPx(tag #153), DayAvgPx(tag# 426), LegLastPx(tag# 637), UnderlyingLastPx(tag# 651) fields can be negative to support pricing of futures and options strategies, that due to theoretical pricing can result in "buying" a strategy for a negative price (receiving a credit for the strategy) or "selling" a strategy for a price(receiving a debit for the strategy).

Derivatives Markets Order State Transition

Derivatives markets are encouraged to adopt the following order state transition and order state reporting practices.
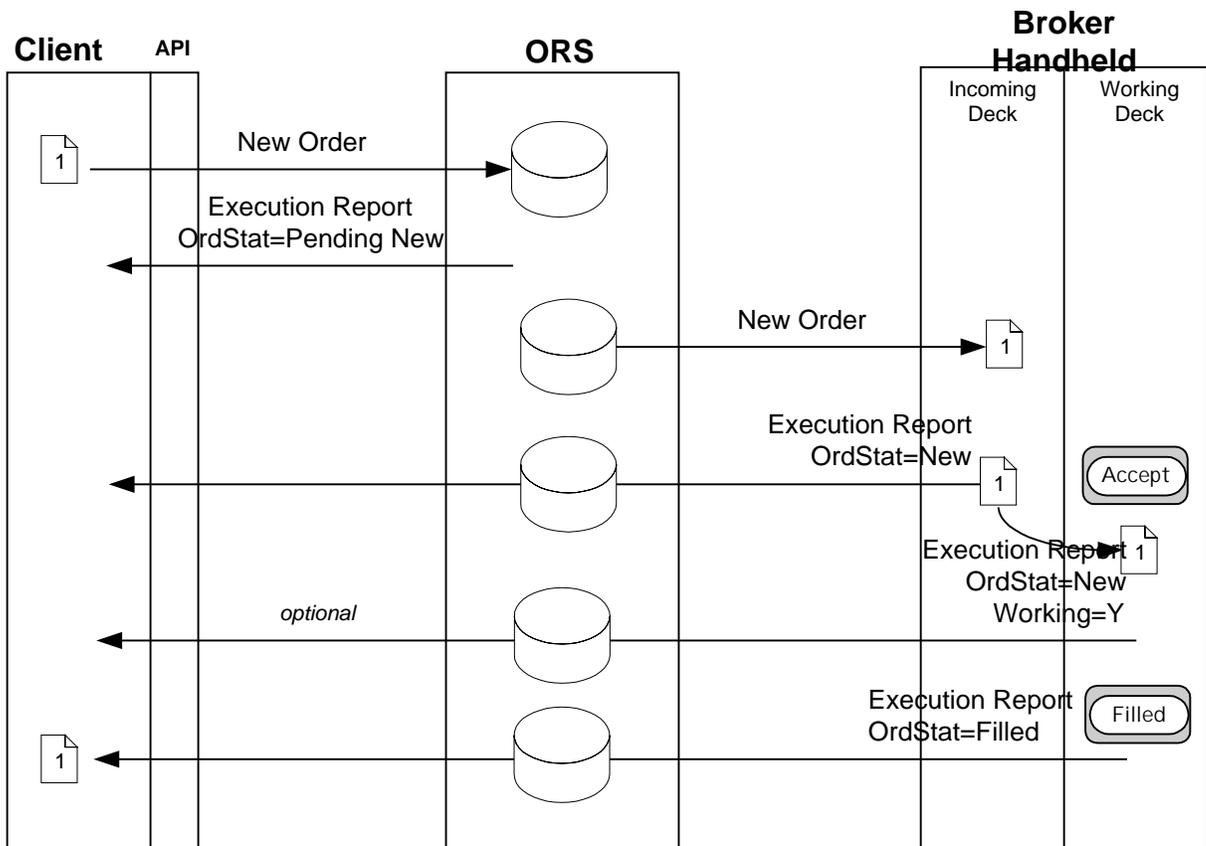
NOTES:

- The broker is not required to move the order from the incoming deck to the working deck before filling the Order. Therefore, the "Working=Y" might not be received by the client. The Execution Report can be sent by the broker handheld from either the Incoming Deck or the Working Deck.

- The Order can take one or more Fills before the Order is completed, or the Order might only be partially completed by the end of the day.

Party Roles used for Derivatives Markets

Role	Description	Futures		Options	
		Order	Execution	Order	Execution
ExecutingFirm	Firm that is executing the trade. Account[1] will be associated with this firm if present. Carries resultant positions of trades at the clearing house – unless GiveupClearingFirm is specified.	Reqd	Reqd	Reqd	Reqd
InitiatingTrader	If this role exists then this PartyID is the trader acronym that is reported to clearing. The Initiating Trader is associated with the ExecutingFirm. For market makers (specialists), the PartySubID for the InitiatingTrader is used for optional joint account identification	Opt	Cond	Opt	Cond
ClientID	Identification of the customer of the order – also known as the correspondent firm in CMS systems. Replaces ClientID[109]	n/a	n/a	Opt	Cond
ExecutingTrader	The trader or broker that actually executes a trade. If no InitiatingTrader role exists on the trade – then the ExecutingTrader is assumed to be associated with the ExecutingFirm For market makers (specialists), the PartySubID for PartyRole=ExecutingTrader can be used for optional joint account identification.	Opt	Reqd	Opt	Cond
OrderOriginator	ID of the party entering the trade into the system (data entry, userid, buy side trader, etc.). Replaces TraderID[466].	Opt	Cond	Opt	Cond

GiveupClearingFirm	Firm that carries the position that results from a trade against the order. This is the firm to which the trade is given up. The PartySubID will be the account associated with this GiveupClearingFirm. Will be used for CMTA for US listed options.	Opt	Cond	Opt	Cond
CorrespondentClearingFirm	ClearingFirm that is going to carry the position on their books at another clearing house (exchanges). The resultant position does not reside with the market where it is traded – but instead is sent to an alternative market. The PartySubID will be the account associated with the CorrespondentClearingFirm	Opt	Cond	Opt	Cond
ExecutingSystem	System Identifier where execution took place. For instance in some markets there are multiple execution locations – such as an electronic book or automatic execution system. Replaces NYSE ExecutionInformation[9433]	n/a	Cond	n/a	Cond

MAPPING FIX 4.2 to FIX 4.3 Usage for Options Markets

FIX	FIX	Options	
4.2	4.3	Order	Execution
ExecutingBroker[76]	PartyID PartyRole=ExecutingFirm	Reqd	Reqd
Account[1]	Account[1]	Opt	Cond
ClearingFirm[439]	PartyID PartyRole=GiveupClearingFirm	Opt	Cond
ClearingAccount[440]	PartySubID of PartyRole=GiveupClearingFirm	Opt	Cond
Market Maker Sub	PartySubID of	Opt	Cond

account information (Market Maker Acronym)	PartyRole=ExecutingTrader or PartyRole= InitiatingTrader		
Optional data reported on clearing report	PartySubID of PartyRole=ExecutingFirm	Opt	Cond

General Usage Information – US Futures Markets

There are three business scenarios involving give-ups and allocations within a single firm and across multiple firms in the futures industry.

Scenario 1-Allocate entire trade to multiple accounts within the clearing firm.

All relevant account and allocation information is carried in the allocation block. The total quantity of the order continues to be denoted in the OrderQtyData block. The account field (tag 1) is left blank as the information is fully denoted in the allocation block as outlined in the New Order Single for Corn example in this section. Both the main party block and nested party block within the allocation block are not used to carry allocation information when allocating trades across multiple accounts within the executing firm.

Scenario 2-Giveup entire trade to a single account at another firm

All relevant giveup information is contained in the main party block using PartyID to identify clearing firm (PartyRole=4) and PartyID to identify the carrying firm (PartyRole=14). The clearing firm suspense account is carried in account (tag 1). The carrying firm account number is populated in the PartySubID in the party block iteration when PartyRole=14. See the example contained in the Corn Calendar Multileg Order record.

Scenario 3-Allocate entire trade to multiple accounts across multiple firms

All relevant account and giveup information is carried within the allocation block. The total quantity of the order continues to be denoted in the OrderQtyData block. The quantity to be giveup to the each firm is designated using the AllocQty (tag 80) in the allocation block. The appropriate account at the carrying firm is designated using the AllocAccount (tag 79) in the allocation block. The appropriate carrying firm is designated within the nested party block within the appropriate allocation block using the PartyRole=14.

Execution Time Bracket reporting for US Futures Markets

The TradingSessionSubID (tag 625) is to be used to report execution time bracket codes for the US listed futures markets on the Execution Report.

Example New Order – Single for Listed Futures Market

The following addresses sending a New Order - Single message into a futures market.

Tags that are not used in the futures and options industries have been omitted from the record. Tags that may be used based on the Exchange, execution medium and product have been included in the record and noted as not applicable ("n/a"). (Examples of such a tag is TradingSessionSubID which is used for floor based trades to carry the required time bracket designation and therefore is not applicable to screen based trading.)

The order created here is to buy 27 December 2001 Wheat at a price of 4.50. The order is being executed and cleared by firm 300. The order is also being allocated to multiple accounts within the executing firm, which is also the clearing firm as reflected in the allocation block. The order is also denoted as part of an average price group by placing a value in ClOrdLinkID field.

Tag	Example Value	Field Name	Rqd	Comments
		Standard Header	Y	MsgType = D
11	XXX123	ClOrdID	Y	
583	9876	ClOrdLinkID	N	The executions on this order will be average priced with executions on other orders with the same ClOrdLinkID.

component block <Parties>					
453		2	NoPartyIDs	N	
→	448	300	*PartyID*	N	Firm executing and clearing the trade
→	447	D	*PartyIDSource*	N	
→	452	4	*PartyRole*	N	Firm executing and clearing the trade
→	523	n/a	*PartySubID*	N	Not used when allocating trade across multiple accounts within the firm
→	448	Tim1234	*PartyID*	N	
→	447	D	*PartyIDSource*	N	
→	452	13	*PartyRole*	N	Order Originator-person who entered the order into a system, if appropriate. Generally, the user id of that person
→	523	n/a	*PartySubID*	N	
End </Parties>					

1		1111	Account	N	Not used when allocating trades across multiple account within the firm
581		1	AccountType	N	AKA Origin. Required for futures markets.
591		0	PreallocMethod	N	
78		3	NoAllocs	N	
→	79	123456	AllocAccount	N	
→	467	n/a	IndividualAllocID	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>					

→	80	2	AllocQty	N	
→	79	9876	AllocAccount	N	
→	467	n/a	IndividualAllocID	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>					

→	80	15	AllocQty	N	
→	79	546789	AllocAccount	N	
→	467	n/a	IndividualAllocID	N	

Component block <NestedParties>	

→		539	n/a	NoNestedPartyIDs	N	
→	→	524	n/a	*NestedPartyID*	N	
→	→	525	n/a	*NestedPartyIDSource*	N	
→	→	538	n/a	*NestedPartyRole*	N	
→	→	545	n/a	*NestedPartySubID*	N	
End </NestedParties>						

→	80	2	AllocQty	N	
~~63~~			~~SettlmntTyp~~	~~N~~	
~~64~~			~~FutSettDate~~	~~N~~	
635		C	ClearingFeeIndicator	N	
21		3	HandlInst	Y	Floor execution for futures markets should always be a 3
18		n/a	ExecInst	N	
110		n/a	MinQty	N	
111		n/a	MaxFloor	N	
100		XCBT	ExDestination	N	
386		n/a	NoTradingSessions	N	
→	336	n/a	*TradingSessionID*	N	
→	625	n/a	*TradingSessionSubID*	N	

Component block <Instrument>					
55		W	Symbol	***	ExDestination ticker symbol.
~~65~~			~~SymbolSfx~~	~~N~~	
48		n/a	SecurityID	N	
22		n/a	SecurityIDSource	N	
~~454~~			~~NoSecurityAltID~~	~~N~~	
→	~~455~~		~~*SecurityAltID*~~	~~N~~	
→	~~456~~		~~*SecurityAltIDSource*~~	~~N~~	
461		F	CFICode	N	
~~167~~			~~SecurityType~~	~~N~~	
200		200112	MaturityMonthYear	N	
541		n/a	MaturityDate	N	
~~470~~			~~CountryOfIssue~~	~~N~~	
~~471~~			~~StateOrProvinceOfIssue~~	~~N~~	

472		LocaleOfIssue	N	
202	n/a	StrikePrice	N	
206	n/a	OptAttribute	N	
231		ContractMultiplier	N	
207	n/a	SecurityExchange	N	
107	Wheat Future	SecurityDesc	N	
350	n/a	EncodedSecurityDescLen	N	
351	n/a	EncodedSecurityDesc	N	
End \</Instrument\>				

140		PrevClosePx	N	
54	1	Side	Y	
60	20010806-13:34:29	TransactTime	Y	

Component block \<OrderQtyData\>				
38	27	OrderQty	N	
152	n/a	CashOrderQty	N	
End \</OrderQtyData\>				

40	2	OrdType	Y	Limit order.
44	4.500	Price	N	Limit Price of 4.500
99	n/a	StopPx	N	
15		Currency	N	
376		ComplianceID	N	
377		SolicitedFlag	N	
117	n/a	QuoteID	N	
59	0	TimeInForce	N	
168	n/a	EffectiveTime	N	
432	n/a	ExpireDate	N	
126	n/a	ExpireTime	N	
582	4	CustOrderCapacity	N	Also know as Customer Type Indicator (CTI). Required for futures markets.
120		SettlCurrency	N	
58	n/a	Text	N	

354	n/a	EncodedTextLen	N	
355	n/a	EncodedText	N	
77	n/a	PositionEffect	N	
203	n/a	CoveredOrUncovered	N	
210	n/a	MaxShow	N	
388	n/a	DiscretionInst	N	
389	n/a	DiscretionOffset	N	
		Standard Trailer	Y	

Example New Order – Single for Listed Options Market

The following addresses sending a New Order - Single message into an options market.

Tags that are not used in the futures and options industries are not included in the example.

Tags with strike-through text are not currently used by the industries but may be used in the future.

Tags that have an example value of not applicable (n/a) are used in the industries. Herein, however, the value n/a was assigned for one of two reasons. First, specific futures and options markets may or may not utilize certain tags and, if utilized, their use and valid values would need to be addressed by participants in the particular market.

Second, the order created here is to buy 5 IBM September 2001 call options with a strike price of $100.00 at a price of $5.50. This and other assumptions concerning the order, such as it is not being allocated, result in some tag values being n/a.

Tag		*Example Value*	*Field Name*	*Rqd*	*Comments*
			Standard Header	Y	MsgType = D
11		XXX123	ClOrdID	Y	
583		n/a	ClOrdLinkID	N	

component block <Parties>						
453		5	NoPartyIDs	N		
→	448	PLC	*PartyID*	N	Trader badge	
→	447	C	*PartyIDSource*	N	As assigned by exchange or clearing house	
→	452	11	*PartyRole*	N	Order Origination Trader (if different from Executing Trader) optional	
→	523	n/a	*PartySubID*	N		
→	448	0690	*PartyID*	N	OCC Clearing Firm Number	
→	447	C	*PartyIDSource*	N	As assigned by exchange or clearing house	
→	452	13	*PartyRole*	N	Order Origination Firm (if different from Executing Firm) optional	

	523	n/a	*PartySubID*	N	
→	448	SMG	*PartyID*	N	Trader Badge
→	447	**C**	*PartyIDSource*	N	As assigned by exchange or clearing house
→	452	12	*PartyRole*	N	Executing Trader (required)
→	523	n/a	*PartySubID*	N	
→	448	0427	*PartyID*	N	OCC Clearing Firm Number
→	447	C	*PartyIDSource*	N	As assigned by exchange or clearing house
→	452	1	*PartyRole*	N	Executing Firm (required)
→	523	n/a	*PartySubID*	N	
→	448	323	*PartyID*	N	OCC Clearing Firm Number
→	447	C	*PartyIDSource*	N	As assigned by exchange or clearing house
→	452	14	*PartyRole*	N	Giveup Clearing Firm (CMTA) (optional if trade is being given up to another firm)
→	523	n/a	*PartySubID*	N	
End </Parties>					

1		AAA	Account	N	
581		n/a	AccountType	N	
591		n/a	PreallocMethod	N	
78		n/a	NoAllocs	N	
→	*79*	n/a	*AllocAccount*	N	
→	*467*	n/a	*IndividualAllocID*	N	
→	*80*	n/a	*AllocQty*	N	
~~63~~			~~SettlmntTyp~~	~~N~~	
~~64~~			~~FutSettDate~~	~~N~~	
21		2	HandlInst	Y	
18		n/a	ExecInst	N	
110		n/a	MinQty	N	
111		n/a	MaxFloor	N	
100		XCBO	ExDestination	N	
386		n/a	NoTradingSessions	N	
→	*336*	n/a	*TradingSessionID*	N	

→	625	n/a	*TradingSessionSubID*	N	
54		1	Side	Y	Buying the options.

Component block <Instrument>					
55		IBM	Symbol	***	ExDestination ticker symbol.
~~65~~			~~SymbolSfx~~	~~N~~	
48		n/a	SecurityID	N	
22		n/a	SecurityIDSource	N	
~~454~~			~~NoSecurityAltID~~	~~N~~	
→	~~455~~		*~~SecurityAltID~~*	~~N~~	
→	~~456~~		*~~SecurityAltIDSource~~*	~~N~~	
461		OC	CFICode	N	
~~167~~			~~SecurityType~~	~~N~~	
200		200109	MaturityMonthYear	N	
541		n/a	MaturityDate	N	
~~470~~			~~CountryOfIssue~~	~~N~~	
~~471~~			~~StateOrProvinceOfIssue~~	~~N~~	
~~472~~			~~LocaleOfIssue~~	~~N~~	
202		100.0	StrikePrice	N	
206		n/a	OptAttribute	N	
~~231~~			~~ContractMultiplier~~	~~N~~	
207		n/a	SecurityExchange	N	
107		n/a	SecurityDesc	N	
350		n/a	EncodedSecurityDescLen	N	
351		n/a	EncodedSecurityDesc	N	
End </Instrument>					

~~140~~	~~n/a~~	~~PrevClosePx~~	~~N~~	
60	20010806-13:34:29	TransactTime	Y	

Component block <OrderQtyData>				
38	5	OrderQty	N	
152	n/a	CashOrderQty	N	
End </OrderQtyData>				

40	2	OrdType	Y	Limit order
44	5.5	Price	N	Buy at price of 5.5
99	n/a	StopPx	N	
~~15~~	~~n/a~~	~~Currency~~	~~N~~	
~~376~~	~~n/a~~	~~ComplianceID~~	~~N~~	
~~377~~	~~n/a~~	~~SolicitedFlag~~	~~N~~	
117	n/a	QuoteID	N	
59	0	TimeInForce	N	
168	n/a	EffectiveTime	N	
432	n/a	ExpireDate	N	
126	n/a	ExpireTime	N	
528	A	OrderCapacity	N	
529	n/a	OrderRestrictions	N	
582	n/a	CustOrderCapacity	N	
~~120~~	~~n/a~~	~~SettlCurrency~~	~~N~~	
58	n/a	Text	N	
354	n/a	EncodedTextLen	N	
355	n/a	EncodedText	N	
77	n/a	OpenClose	N	
203	n/a	CoveredOrUncovered	N	
210	n/a	MaxShow	N	
388	n/a	DiscretionInst	N	
389	n/a	DiscretionOffset	N	
118	n/a	NetMoney	N	
		Standard Trailer	Y	

Example New Order - Multileg for Listed Futures Market (Spread Order)The following addresses sending a New Order – Multileg message into a futures market.

Tags that are not used in the futures and options industries are not included in the example.

Tags with strike-through text are not currently used by the industries but may be used in the future.

Tags that have an example value of not applicable (n/a) are used in the futures industry. Herein, however, the value n/a was assigned for one of two reasons. First, specific futures and options markets may or may not utilize certain tags and, if utilized, their use and valid values would need to be

addressed by participants in the particular market. (Examples of such tags are MultiLegRptTypeReq [563] and TradingSessionID [336].)

Second, the order created here is to buy 15 May 2002 - July 2002 Corn spreads at a price of –12. Some specifics concerning the order, such as it is not being allocated, result in some tag values being n/a.

The direction of the strategy is indicated by the Side (54) taken. When a strategy is pre-defined by a futures or options market and an inconsistency arises between:

the strategy indicated and the Side, LegSide (624), and/or LegRatioQty (623), or

the Side indicated and any LegSide indicated

the sell-side may either reject the order or accept the order. If the sell-side accepts the order it will be based on the strategy and Side indicated with any inconsistencies in LegSide and/or LegRatioQty being ignored.

The example also has any trade resulting from this order being given up to another firm. The firm being given up to will carry the trade on its books.

Tag		Example Value	Field Name	Rqd	Comments
			Standard Header	Y	MsgType = AB
11		1234567897	ClOrdID	Y	
583		n/a	ClOrdLinkID	N	

component block <Parties>					
453		3	NoPartyIDs	N	
→	448	560	*PartyID*	N	Firm executing and clearing the trade
→	447	D	*PartyIDSource*	N	
→	452	4	*PartyRole*	N	
→	523	n/a	*PartySubID*	N	
→	448	500	*PartyID*	N	Trade being given up to and carried by this firm
→	447	D	*PartyIDSource*	N	
→	452	14	*PartyRole*	N	
→	523	789567	*PartySubID*	N	Customer account number at carrying firm
→	448	Tim1234	*PartyID*	N	
→	447	D	*PartyIDSource*	N	

	452	13	*PartyRole*	N	
→	452	13	*PartyRole*	N	
→	523	n/a	*PartySubID*	N	
End </Parties>					

1		abcdef	Account	N	Account mnemomic as known by bookkeeping system. In case of giveup specifiied in party block, this account is at the executing firm.
581		1	AccountType	N	Also known as Origin. Required for futures markets.
591		n/a	PreallocMethod	N	
78		n/a	NoAllocs	N	
→	79	n/a	*AllocAccount*	N	
→	467	n/a	*IndividualAllocID*	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>					

→	80	n/a	*AllocQty*	N	
63			SettlmntTyp	N	
64			FutSettDate	N	
635		C	ClearingFeeIndicator	N	
21		3	HandlInst	Y	Floor executions for futures markets should always be "3".
18		n/a	ExecInst	N	
110		n/a	MinQty	N	
111		n/a	MaxFloor	N	
100		XCBT	ExDestination	N	
386		n/a	NoTradingSessions	N	
→	336	n/a	*TradingSessionID*	N	
→	625	n/a	*TradingSessionSubID*	N	

54	1	Side	Y	Buying the strategy.

Component block <Instrument>				
55	C:CAL	Symbol	***	ExDestination ticker symbol.
65		SymbolSfx	N	
48	n/a	SecurityID	N	
22	n/a	SecurityIDSource	N	
454		NoSecurityAltID	N	
→ 455		SecurityAltID	N	
→ 456		SecurityAltIDSource	N	
461	FM	CFICode	N	
167		SecurityType	N	
200	n/a	MaturityMonthYear	N	
541	n/a	MaturityDate	N	
470		CountryOfIssue	N	
471		StateOrProvinceOfIssue	N	
472		LocaleOfIssue	N	
202	n/a	StrikePrice	N	
206	n/a	OptAttribute	N	
231	n/a	ContractMultiplier	N	
207	n/a	SecurityExchange	N	
107	n/a	SecurityDesc	N	
350	n/a	EncodedSecurityDescLen	N	
351	n/a	EncodedSecurityDesc	N	
End </Instrument>				

140	n/a	PrevClosePx	N	
555	2	NoLegs	Y	

Component block <Instrument Leg>				
→ 600	C	LegSymbol	***	ExDestination ticker symbol.
→ 601		LegSymbolSfx	N	
→ 602	n/a	LegSecurityID	N	
→ 603	n/a	LegSecurityIDSource	N	
→ 604		NoLegSecurityAltID	N	

→	→	*605*		*LegSecurityAltID*	N	
→	→	*606*		*LegSecurityAltIDSource*	N	
→		608	F	LegCFICode	N	Commodity Future
→		609		LegSecurityType	N	
→		610	200205	LegMaturityMonthYear	N	May 2002 maturity.
→		611	n/a	LegMaturityDate	N	
→		596		LegCountryOfIssue	N	
→		597		LegStateOrProvinceOfIssue	N	
→		598		LegLocaleOfIssue	N	
→		612	n/a	LegStrikePrice	N	
→		613	n/a	LegOptAttribute	N	
→		614		LegContractMultiplier	N	
→		616	n/a	LegSecurityExchange	N	
→		620	Corn Future	LegSecurityDesc	N	
→		621	n/a	EncodedLegSecurityDescLen	N	
→		622	n/a	EncodedLegSecurityDesc	N	
→		623	1	LegRatioQty	N	Equal ratios.
→		624	1	LegSide	N	Buy leg.
→		564	n/a	LegPositionEffect	N	
→		565	n/a	LegCoveredOrUncovered	N	

Component block <NestedParties>						
→		539	n/a	NoNestedPartyIDs	N	
→	→	524	n/a	*NestedPartyID*	N	
→	→	525	n/a	*NestedPartyIDSource*	N	
→	→	538	n/a	*NestedPartyRole*	N	
→	→	545	n/a	*NestedPartySubID*	N	
End </NestedParties>						

→		654	n/a	LegRefID	N	
→		566	n/a	LegPrice	N	
→		587	n/a	LegSettlmntTyp	N	
→		588	n/a	LegFutSettDate	N	
→		600	C	LegSymbol	***	
→		601		LegSymbolSfx	N	

→	602	n/a	LegSecurityID	N	
→	603	n/a	LegSecurityIDSource	N	
→	~~604~~		~~NoLegSecurityAltID~~	~~N~~	
→ →	*605*		*~~LegSecurityAltID~~*	~~N~~	
→ →	*606*		*~~LegSecurityAltIDSource~~*	~~N~~	
→	608	F	LegCFICode	N	
→	610	200207	LegMaturityMonthYear	N	July 2002 maturity.
→	611	n/a	LegMaturityDate	N	
→	~~596~~		~~LegCountryOfIssue~~	~~N~~	
→	~~597~~		~~LegStateOrProvinceOfIssue~~	~~N~~	
→	~~598~~		~~LegLocaleOfIssue~~	~~N~~	
→	612	n/a	LegStrikePrice	N	
→	613	n/a	LegOptAttribute	N	
→	~~614~~	~~n/a~~	~~LegContractMultiplier~~	~~N~~	
→	616	n/a	LegSecurityExchange	N	
→	620	Corn Future	LegSecurityDesc	N	
→	621	n/a	EncodedLegSecurityDescLen	N	
→	622	n/a	EncodedLegSecurityDesc	N	
→	623	1	LegRatioQty	N	Equal ratios.
→	624	2	LegSide	N	Sell leg.
→	564	n/a	LegPositionEffect	N	
→	565	n/a	LegCoveredOrUncovered	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>					

→	654	n/a	LegRefID	N	
→	566	n/a	LegPrice	N	
→	~~587~~	~~n/a~~	~~LegSettlmntTyp~~	~~N~~	
→	~~588~~	~~n/a~~	~~LegFutSettDate~~	~~N~~	

		End </Instrument Leg>		

60	20010509-09:20:15	TransactTime	Y	

Component block <OrderQtyData>				
38	15	OrderQty	N	
152	n/a	CashOrderQty	N	
End </OrderQtyData>				

40	2	OrdType	Y	Limit order.
44	-12	Price	N	Buy strategy at negative 12.
99	n/a	StopPx	N	
15	n/a	Currency	N	
376	n/a	ComplianceID	N	
377	n/a	SolicitedFlag	N	
117	n/a	QuoteID	N	
59	0	TimeInForce	N	
168	n/a	EffectiveTime	N	
432	n/a	ExpireDate	N	
126	n/a	ExpireTime	N	
528		OrderCapacity	N	Used for options markets.
529		OrderRestrictions	N	Used for options markets.
582	4	CustOrderCapacity	N	Also know as Customer Type Indicator (CTI). Required for futures markets.
120	n/a	SettlCurrency	N	
58	n/a	Text	N	
354	n/a	EncodedTextLen	N	
355	n/a	EncodedText	N	
77	n/a	PositionEffect	N	
203	n/a	CoveredOrUncovered	N	
210	n/a	MaxShow	N	
388	n/a	DiscretionInst	N	
389	n/a	DiscretionOffset	N	
563	n/a	MultiLegRptTypeReq	N	

		Standard Trailer	Y	

Example New Order - Multileg for Listed Futures Market
(Butterfly Strategy)

The following addresses sending a New Order – Multileg message into a futures market.

Tags that are not used in the futures and options industries are not included in the example.

Tags with strike-through text are not currently used by the industries but may be used in the future.

Tags that have an example value of not applicable (n/a) are used in the industries. Herein, however, the value n/a was assigned for one of two reasons. First, specific futures and options markets may or may not utilize certain tags and, if utilized, their use and valid values would need to be addressed by participants in the particular market. (Examples of such tags are MultiLegRptTypeReq [563] and TradingSessionID [336].)

Second, the order created here is to buy 10 EuroDollar butterfly spreads at a price of -3.0, and is assumed that it will be productized by the sell-side on its electronic order matching system (ie: trade engine). This and other assumptions concerning the order, such as it is not being allocated, result in some tag values being n/a. (An example is the SecurityID [48] which the buy-side would not know until the sell-side has productized the butterfly.)

The direction of the strategy is indicated by the Side (54) taken. When a strategy is pre-defined by a futures market and an inconsistency arises between:

- the strategy indicated and the Side, LegSide (624), and/or LegRatioQty (623), or
- the Side indicated and any LegSide indicated

the sell-side may either reject the order or accept the order. If the sell-side accepts the order it will be based on the strategy and Side indicated with any inconsistencies in LegSide and/or LegRatioQty being ignored.

Tag	Example Value	Field Name	Rqd	Comments
		Standard Header	Y	MsgType = AB
11	05092001-NY-78955	ClOrdID	Y	
583	n/a	ClOrdLinkID	N	

component block <Parties>				
453	2	NoPartyIDs	N	

→	448	001	*PartyID*	N		
→	447	D	*PartyIDSource*	N		
→	452	4	*PartyRole*	N		
→	523	n/a	*PartySubID*	N		
→	448	4114Z9871272	*PartyID*	N		
→	447	D	*PartyIDSource*	N		
→	452	13	*PartyRole*	N		
→	523	n/a	*PartySubID*	N		
End </Parties>						

1	Z9871272	Account	N		
581	1	AccountType	N		
591	n/a	PreallocMethod	N		
78	n/a	NoAllocs	N		
→	*79*	n/a	*AllocAccount*	N	
→	*467*	n/a	*IndividualAllocID*	N	

Component block <NestedParties>						
→		539	n/a	NoNestedPartyIDs	N	
→	→	524	n/a	*NestedPartyID*	N	
→	→	525	n/a	*NestedPartyIDSource*	N	
→	→	538	n/a	*NestedPartyRole*	N	
→	→	545	n/a	*NestedPartySubID*	N	
End </NestedParties>						

→	*80*	n/a	*AllocQty*	N	
~~63~~			~~SettlmntTyp~~	~~N~~	
~~64~~			~~FutSettDate~~	~~N~~	
635		C	ClearingFeeIndicator	N	
21		1	HandlInst	Y	
18		n/a	ExecInst	N	
110		n/a	MinQty	N	
111		n/a	MaxFloor	N	
100		XCME	ExDestination	N	
386		n/a	NoTradingSessions	N	

→	*336*	n/a	*TradingSessionID*	N	
→	*625*	n/a	*TradingSessionSubID*	N	
54		1	Side	Y	

Component block <Instrument>				
55		GE:BF	Symbol	***	
~~65~~			~~SymbolSfx~~	~~N~~	
48		n/a	SecurityID	N	
22		n/a	SecurityIDSource	N	
~~454~~			~~NoSecurityAltID~~	~~N~~	
→	*455*		*SecurityAltID*	~~N~~	
→	*456*		*SecurityAltIDSource*	~~N~~	
461		FM	CFICode	N	
~~167~~			~~SecurityType~~	~~N~~	
200		n/a	MaturityMonthYear	N	
541		n/a	MaturityDate	N	
~~470~~			~~CountryOfIssue~~	~~N~~	
~~471~~			~~StateOrProvinceOfIssue~~	~~N~~	
~~472~~			~~LocaleOfIssue~~	~~N~~	
202		n/a	StrikePrice	N	
206		n/a	OptAttribute	N	
~~231~~			~~ContractMultiplier~~	~~N~~	
207		n/a	SecurityExchange	N	
107		n/a	SecurityDesc	N	
350		n/a	EncodedSecurityDescLen	N	
351		n/a	EncodedSecurityDesc	N	
End </Instrument>					

~~140~~			~~PrevClosePx~~	~~N~~	
555		3	NoLegs	Y	

Component block <Instrument Leg>					
→	600	GE	LegSymbol	***	
→	~~601~~		~~LegSymbolSfx~~	~~N~~	
→	602	CME005060001	LegSecurityID	N	

→	603	ISIN	LegSecurityIDSource	N	
→	604		NoLegSecurityAltID	N	
→ →	605		*LegSecurityAltID*	N	
→ →	606		*LegSecurityAltIDSource*	N	
→	608	F	LegCFICode	N	
→	609		LegSecurityType	N	
→	610	200109	LegMaturityMonthYear	N	
→	611	n/a	LegMaturityDate	N	
→	596		LegCountryOfIssue	N	
→	597		LegStateOrProvinceOfIssue	N	
→	598		LegLocaleOfIssue	N	
→	612	n/a	LegStrikePrice	N	
→	613	n/a	LegOptAttribute	N	
→	614		LegContractMultiplier	N	
→	616	n/a	LegSecurityExchange	N	
→	620	GEU1	LegSecurityDesc	N	
→	621	n/a	EncodedLegSecurityDescLen	N	
→	622	n/a	EncodedLegSecurityDesc	N	
→	623	1	LegRatioQty	N	
→	624	1	LegSide	N	
→	564	n/a	LegPositionEffect	N	
→	565	n/a	LegCoveredOrUncovered	N	

Component block <NestedParties>						
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>						

→	654	n/a	LegRefID	N	
→	566	n/a	LegPrice	N	
→	587		LegSettlmntTyp	N	
→	588		LegFutSettDate	N	

→	600	GE	LegSymbol	***	
→	~~601~~		~~LegSymbolSfx~~	~~N~~	
→	602	CME005060004	LegSecurityID	N	
→	603	ISIN	LegSecurityIDSource	N	
→	~~604~~		~~NoLegSecurityAltID~~	~~N~~	
→ →	~~*605*~~		~~*LegSecurityAltID*~~	~~N~~	
→ →	~~*606*~~		~~*LegSecurityAltIDSource*~~	~~N~~	
→	608	F	LegCFICode	N	
→	~~609~~		~~LegSecurityType~~	~~N~~	
→	610	200112	LegMaturityMonthYear	N	
→	611	n/a	LegMaturityDate	N	
→	~~596~~		~~LegCountryOfIssue~~	~~N~~	
→	~~597~~		~~LegStateOrProvinceOfIssue~~	~~N~~	
→	~~598~~		~~LegLocaleOfIssue~~	~~N~~	
→	612	n/a	LegStrikePrice	N	
→	613	n/a	LegOptAttribute	N	
→	~~614~~		~~LegContractMultiplier~~	~~N~~	
→	616	n/a	LegSecurityExchange	N	
→	620	GEZ1	LegSecurityDesc	N	
→	621	n/a	EncodedLegSecurityDescLen	N	
→	622	n/a	EncodedLegSecurityDesc	N	
→	623	2	LegRatioQty	N	
→	624	2	LegSide	N	
→	564	n/a	LegPositionEffect	N	
→	565	n/a	LegCoveredOrUncovered	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	
End </NestedParties>					

→	654	n/a	LegRefID	N	

→	566	n/a	LegPrice	N	
→	587		LegSettlmntTyp	N	
→	588		LegFutSettDate	N	
→	600	GE	LegSymbol	***	
→	601		LegSymbolSfx	N	
→	602	CME005060007	LegSecurityID	N	
→	603	ISIN	LegSecurityIDSource	N	
→	604		NoLegSecurityAltID	N	
→ →	605		*LegSecurityAltID*	N	
→ →	606		*LegSecurityAltIDSource*	N	
→	608	F	LegCFICode	N	
→	609		LegSecurityType	N	
→	610	200203	LegMaturityMonthYear	N	
→	611	n/a	LegMaturityDate	N	
→	596		LegCountryOfIssue	N	
→	597		LegStateOrProvinceOfIssue	N	
→	598		LegLocaleOfIssue	N	
→	612	n/a	LegStrikePrice	N	
→	613	n/a	LegOptAttribute	N	
→	614		LegContractMultiplier	N	
→	616	n/a	LegSecurityExchange	N	
→	620	GEH2	LegSecurityDesc	N	
→	621	n/a	EncodedLegSecurityDescLen	N	
→	622	n/a	EncodedLegSecurityDesc	N	
→	623	1	LegRatioQty	N	
→	624	1	LegSide	N	
→	564	n/a	LegPositionEffect	N	
→	565	n/a	LegCoveredOrUncovered	N	

Component block <NestedParties>					
→	539	n/a	NoNestedPartyIDs	N	
→ →	524	n/a	*NestedPartyID*	N	
→ →	525	n/a	*NestedPartyIDSource*	N	
→ →	538	n/a	*NestedPartyRole*	N	
→ →	545	n/a	*NestedPartySubID*	N	

			End </NestedParties>		

→	654	n/a	LegRefID	N	
→	566	n/a	LegPrice	N	
→	~~587~~		~~LegSettlmntTyp~~	~~N~~	
→	~~588~~		~~LegFutSettDate~~	~~N~~	
			End </Instrument Leg>		

	60	20010509-09:20:15	TransactTime	Y	

			Component block <OrderQtyData>		
	38	10	OrderQty	N	
	152	n/a	CashOrderQty	N	
			End </OrderQtyData>		

	40	2	OrdType	Y	
	44	-3.0	Price	N	
	99	n/a	StopPx	N	
	~~15~~		~~Currency~~	~~N~~	
	~~376~~		~~ComplianceID~~	~~N~~	
	~~377~~		~~SolicitedFlag~~	~~N~~	
	117	n/a	QuoteID	N	
	59	0	TimeInForce	N	
	168	n/a	EffectiveTime	N	
	432	n/a	ExpireDate	N	
	126	n/a	ExpireTime	N	
	528		OrderCapacity	N	
	529		OrderRestrictions	N	
	582	4	CustOrderCapacity	N	
	~~120~~	~~n/a~~	~~SettlCurrency~~	~~N~~	
	58	n/a	Text	N	
	354	n/a	EncodedTextLen	N	
	355	n/a	EncodedText	N	
	77	n/a	PositionEffect	N	
	203	n/a	CoveredOrUncovered	N	

Tag		Field Name		
210	n/a	MaxShow	N	
388	n/a	DiscretionInst	N	
389	n/a	DiscretionOffset	N	
563	n/a	MultiLegRptTypeReq	N	
		Standard Trailer	Y	

Example Multlileg Execution Report for Listed Futures Market

Multlileg Execution Report Example for Futures Markets

The following addresses receiving an Execution Report – Multileg message.

Tags that are not used in the futures and options industries are not included in the example.

Tags with strike-through text are not currently used by the industries but may be used in the future.

Tags that have an example value of not applicable (n/a) are used in the industries. Herein, however, the value n/a was assigned for one of two reasons. First, individual futures and options markets may or may not utilize certain tags and, if utilized, their use and valid values would need to be addressed by participants in the particular market.

The execution report references an order to buy 15 July 2001/September 2001 Corn Spreads. The order is a give-up trade being executed and cleared by firm 560 and carried on the books of firm 500. This is the first execution of the order and it is for a total of 5 spreads. The order was executed on the trading floor as atomically and is being reported to the customer atomically via this execution report. The order will also be cleared atomically.

Tag	*Example Values*	*Field Name*	*Rqd*	*Comments*
		Standard Header	Y	MsgType = 8
37	987654	OrderID	Y	
198	n/a	SecondaryOrderID	N	
526	n/a	SecondaryClOrdID	N	
527	n/a	SecondaryExecID	N	
11	123456789	ClOrdID	N	
41	n/a	OrigClOrdID	N	
583	n/a	ClOrdLinkID	N	

component block <Parties>				
453	3	NoPartyIDs	N	

→	448	560	*PartyID*	N	
→	447	D	*PartyIDSource*	N	
→	452	4	*PartyRole*	N	
→	523	n/a	*PartySubID*	N	
→	448	500	*PartyID*	N	
→	447	D	*PartyIDSource*	N	
→	452	14	*PartyRole*	N	
→	523	789567	*PartySubID*	N	
→	448	tim1234	*PartyID*	N	
→	447	D	*PartyIDSource*	N	
→	452	13	*PartyRole*	N	
→	523	n/a	*PartySubID*	N	
End </Parties>					

382		1	NoContraBrokers	N	
→	375	455	ContraBroker	N	
→	337	ABC	ContraTrader	N	
→	437	5	ContraTradeQty	N	
→	438	20010509-09:22:40	ContraTradeTime	N	
→	655	n/a	ContraLegRefID	N	
66		n/a	ListID	N	
548		n/a	CrossID	N	
551		n/a	OrigCrossID	N	
549		n/a	CrossType	N	
17		X6789	ExecID	Y	
19		n/a	ExecRefID	N	
150		F	ExecType	Y	
39		1	OrdStatus	Y	
636		Y	WorkingIndicator	N	
103		n/a	OrdRejReason	N	
378		n/a	ExecRestatementReason	N	
1		abcdef	Account	N	
581		1	AccountType	N	
591		n/a	PreallocMethod	N	
~~63~~			~~SettlmntTyp~~	~~N~~	

64		FutSettDate	N	
635	C	ClearingFeeIndicator	N	

Component block <Instrument>				
55	C:CAL	Symbol	***	
65		SymbolSfx	N	
48	n/a	SecurityID	N	
22	n/a	SecurityIDSource	N	
454		NoSecurityAltID	N	
→ 455		*SecurityAltID*	N	
→ 456		*SecurityAltIDSource*	N	
461	FM	CFICode	N	
167		SecurityType	N	
200	n/a	MaturityMonthYear	N	
541	n/a	MaturityDate	N	
470		CountryOfIssue	N	
471		StateOrProvinceOfIssue	N	
472		LocaleOfIssue	N	
202	n/a	StrikePrice	N	
206	n/a	OptAttribute	N	
231		ContractMultiplier	N	
207	n/a	SecurityExchange	N	
107	n/a	SecurityDesc	N	
350	n/a	EncodedSecurityDescLen	N	
351	n/a	EncodedSecurityDesc	N	
End </Instrument>				

54	1	Side	Y	
555	2	NoLegs	Y	Number of legs. Can be zero – must be provided even if zero

Component block <Instrument Leg>				
→ 600	C	LegSymbol	***	
→ 601		LegSymbolSfx	N	
→ 602	n/a	LegSecurityID	N	

		Tag		Field Name	Req'd	Comments
→		603	n/a	LegSecurityIDSource	N	
→		604		~~NoLegSecurityAltID~~	N	
→	→	*605*		*~~LegSecurityAltID~~*	N	
→	→	*606*		*~~LegSecurityAltIDSource~~*	N	
→		608	F	LegCFICode	N	
→		609		~~LegSecurityType~~	N	
→		610	200105	LegMaturityMonthYear	N	
→		611	n/a	LegMaturityDate	N	
→		596		~~LegCountryOfIssue~~	N	
→		597		~~LegStateOrProvinceOfIssue~~	N	
→		598		~~LegLocaleOfIssue~~	N	
→		612	n/a	LegStrikePrice	N	
→		613	n/a	LegOptAttribute	N	
→		614		~~LegContractMultiplier~~	N	
→		616	n/a	LegSecurityExchange	N	
→		620	Corn Future	LegSecurityDesc	N	
→		621	n/a	EncodedLegSecurityDescLen	N	
→		622	n/a	EncodedLegSecurityDesc	N	
→		623	1	LegRatioQty	N	
→		624	1	LegSide	N	
→		564	n/a	LegPositionEffect	N	Provide if the PositionEffect for the leg is different from that specified for the overall multileg security
→		565	n/a	LegCoveredOrUncovered	N	Provide if the CoveredOrUncovered for the leg is different from that specified for the overall multileg security.

Component block <NestedParties>						
→		539	n/a	NoNestedPartyIDs	N	
→	→	524	n/a	*NestedPartyID*	N	
→	→	525	n/a	*NestedPartyIDSource*	N	
→	→	538	n/a	*NestedPartyRole*	N	
→	→	545	n/a	*NestedPartySubID*	N	
End </NestedParties>						

→		654	n/a	LegRefID	N	

→	566	n/a	LegPrice		Provide only if a price was specified for the specific leg. Used for anchoring the overall multileg security price to a specific leg price.
→	637	n/a	LegLastPx		Used to report the execution price assigned to the leg of the multileg instrument
→	~~587~~		~~LegSettlmntTyp~~		
→	~~588~~		~~LegFutSettDate~~		~~Required when SettlmntTyp = 6 (Future) or SettlmntTyp = 8 (Sellers Option)~~
→	600	C	LegSymbol	***	
→	~~601~~		~~LegSymbolSfx~~	~~N~~	
→	602	n/a	LegSecurityID	N	
→	603	n/a	LegSecurityIDSource	N	
→	~~604~~		~~NoLegSecurityAltID~~	~~N~~	
→ →	*605*		*LegSecurityAltID*	~~N~~	
→ →	*606*		*LegSecurityAltIDSource*	~~N~~	
→	608	F	LegCFICode	N	
→	~~609~~		~~LegSecurityType~~	~~N~~	
→	610	200107	LegMaturityMonthYear	N	
→	611	n/a	LegMaturityDate	N	
→	~~596~~		~~LegCountryOfIssue~~	~~N~~	
→	~~597~~		~~LegStateOrProvinceOfIssue~~	~~N~~	
→	~~598~~		~~LegLocaleOfIssue~~	~~N~~	
→	612	n/a	LegStrikePrice	N	
→	613	n/a	LegOptAttribute	N	
→	~~614~~		~~LegContractMultiplier~~	~~N~~	
→	616	n/a	LegSecurityExchange	N	
→	620	Corn Future	LegSecurityDesc	N	
→	621	n/a	EncodedLegSecurityDescLen	N	
→	622	n/a	EncodedLegSecurityDesc	N	
→	623	1	LegRatioQty	N	
→	624	2	LegSide	N	
→	564	n/a	LegPositionEffect	N	Provide if the PositionEffect for the leg is different from that specified for the overall multileg security
→	565	n/a	LegCoveredOrUncovered	N	Provide if the CoveredOrUncovered for the leg is different from that specified forthe overall multileg security.

				Component block <NestedParties>		
→	539	n/a		NoNestedPartyIDs	N	
→	→	524	n/a	*NestedPartyID*	N	
→	→	525	n/a	*NestedPartyIDSource*	N	
→	→	538	n/a	*NestedPartyRole*	N	
→	→	545	n/a	*NestedPartySubID*	N	
				End </NestedParties>		

→	654	n/a	LegRefID	N	
→	566	n/a	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.
→	637	n/a	LegLastPx	N	Used to report the execution price assigned to the leg of the multileg instrument
→	~~587~~		~~LegSettlmntTyp~~		
→	~~588~~		~~LegFutSettDate~~		~~Required when SettlmntTyp = 6 (Future) or SettlmntTyp = 8 (Sellers Option)~~
			End </Instrument Leg>		

Component block <OrderQtyData>					
38	15		OrderQty	N	
152	n/a		CashOrderQty	N	
End </OrderQtyData>					

40	2		OrdType	N	
44	-12		Price	N	Required if specified on the order
99	n/a		StopPx	N	Required if specified on the order
388	n/a		DiscretionInst	N	Code to identify the price a DiscretionOffset is related to and should be mathematically added to. Required if DiscretionOffset is specified.
389	n/a		DiscretionOffset	N	Amount (signed) added to the "related to" price specified via DiscretionInst.
~~15~~			~~Currency~~	~~N~~	
~~376~~			~~ComplianceID~~	~~N~~	

377		SolicitedFlag	N	
59	0	TimeInForce	N	Absence of this field indicates Day order
168	n/a	EffectiveTime	N	Time specified on the order at which the order should be considered valid
432	n/a	ExpireDate	N	Conditionally required if TimeInForce = GTD and ExpireTime is not specified.
126	n/a	ExpireTime	N	Conditionally required if TimeInForce = GTD and ExpireDate is not specified.
18	n/a	ExecInst	N	Can contain multiple instructions, space delimited.
528	n/a	OrderCapacity	N	
529	n/a	OrderRestrictions	N	
582	4	CustOrderCapacity	N	
32	5	LastQty	N	
31	-12	LastPx	N	
30		LastMkt	N	
336	n/a	TradingSessionID	N	
625	n/a	TradingSessionSubID	N	Used for time bracket codes for floor trades in the futures markets.
151	10	LeavesQty	Y	
14	5	CumQty	Y	
6	n/a	AvgPx	Y	
424	n/a	DayOrderQty	N	For GT orders on days following the day of the first trade.
425	n/a	DayCumQty	N	For GT orders on days following the day of the first trade.
426	n/a	DayAvgPx	N	For GT orders on days following the day of the first trade.
75	20010509	TradeDate	N	Used when reporting other than current day trades. For futures markets, used to report current trade date as opposed to current calendar date at time of execution.
60	20010509-09:23:05	TransactTime	N	Time the transaction represented by this ExecutionReport occurred
118	n/a	NetMoney	N	
21	3	HandlInst	N	

110	n/a	MinQty	N	
111	n/a	MaxFloor	N	
77	n/a	PositionEffect	N	
210	n/a	MaxShow		
58	n/a	Text		
354	n/a	EncodedTextLen		Must be set if EncodedText field is specified and must immediately precede it.
355	n/a	EncodedText		Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
442	n/a	MultiLegReportingType	N	Default is a single security if not specified.
		Standard Trailer	Y	

PRODUCT: EQUITIES

Note that the FIX Protocol's genesis was with equities and the protocol has expanded and evolved to support other products. This section will be expanded with either new material or as equity-specific material which presently exists within other volumes is moved to this section.

PRODUCT: FIXED INCOME

> **FPL and the Fixed Income Working Group (FIWG) recognize and appreciate the efforts underway at the Bond Market Association (BMA) with regards to Fixed Income standards & protocols. This section will be updated to include additional input from the BMA in a future revision of the specification document.**

Example usage of BenchmarkCurve fields

Note: the following is a **subset** of possible value combinations.

Description/ Common Name	BenchmarkCurveCurrency	BenchmarkCurveName	BenchmarkCurvePoint
Curve	USD	Treasury	INTERPOLATED
5 Year	USD	Treasury	5Y
Old 5 Year	USD	Treasury	5Y-OLD
10 Year	USD	Treasury	10Y
Old 10 Year	USD	Treasury	10Y-OLD
30 Year	USD	Treasury	30Y
Old 30 Year	USD	Treasury	30Y-OLD
3 Month LIBOR	USD	LIBOR	3M
6 Month LIBOR	USD	LIBOR	6M
Canadian	CAD	Treasury	INTERPOLATED
UK Curve	GBP	Treasury	INTERPOLATED
ECU/EURO	EUR	Treasury	INTERPOLATED
US Swap	USD	SWAP	INTERPOLATED
Euro Swap	EUR	SWAP	INTERPOLATED
EDFS	EUR	FutureSWAP	INTERPOLATED
German Bund	DEM	Treasury	INTERPOLATED
US MuniAAA	USD	MuniAAA	10Y
US T point	USD	Treasury	2/2031 5 3/8 `(combination of maturity and coupon)`

Example usage of Stipulation fields

NoStipulations	StipulationType	StipulationValue	Description of the Stipulation
4	WALA	>=60	Weighted average loan age Less than or equal to 60 months
	TRDVAR	.0025	Trade variance .25%
	PSA	.25	Prepayment speed 25%
	GEOG	ORANGE OR CONTRACOSTA	Geographics Orange OR Contra Costa Counties

MBS PREPAYMENT SCHEDULES

SMM – Single Monthly Mortality
CPR – Constant Prepayment Rate
CPY – Constant Prepayment Yield
CPP – Constant Prepayment Penalty
ABS – Absolute Prepayment Speed
MPR – Monthly Prepayment Rate
PSA – % of BMA Prepayment Curve
PPC – % of Prospectus Prepayment Curve
MHP – % of Manufactured Housing Prepayment Curve
HEP – final CPR of Home Equity Prepayment Curve

Duration Swap Transaction

Occurs when fixed income traders buy one bond and sell another, each with different durations but, the overall portfolio durations remains the same.

Example: "I buy 1MM UST 6.25 '23 and sell duration weighted UST 12 8/13's.

In order NOT to have the duration of your portfolio change you would need to sell 1.75X's more UST 12 8/13 bonds for every purchase of UST 6.25 '23.

Example of Fixed Income:

Offering Message

Broker/Dealer to Institution – (Y=Required), ("-" =Not Applicable), (O=Optional), (C=Conditional)

Element		FIX 4.3	Notes
Standard header	Y	35=6♠	"Indication of Interest"

Element		FIX 4.3	Notes
IOI ID	Y	23=<ref>♠	
IOI trans type	Y	28=<c>♠	N=New C=Cancel R=Replace
IOI Ref ID	O	26=<ref>♠	
Side	Y	54=<n>♠	
Product	Y	460=<enum>♠	
Security type	O	167=<enum>♠	See list of new FI values
Security CUSIP, ISIN or SEDOL identifier	Y	22=<class>♠	
	Y	48=<id>♠	
	Y	55=FIXED♠	
Issuer	O	106=<issuer>♠	
Coupon rate	O	223=<pct>♠	
Issue date	O	225=<date>♠	Mandatory for new issues
Maturity date	O	541=<date>♠	
Coupon payment date	O	224=<date>♠	
Repurchase term	O	226=<n>♠	Number of business days before repurchase of a Repo
Repurchase rate	O	227=<pct>♠	Percent of par at which a Repo will be repaid.
Factor	O	228=<fraction>♠	Multiplier for deriving Current face from Original face for TIPS, ABS or MBS
Country	O	470=<cc>♠	
State or province	O	471=<ss>♠	Issuing state or province
Locale	O	472=<loc>♠	Issuing locale
Security description	O	107=<desc>♠	
Quantity type	O	465=<c>♠	
IOI shares	Y	27=<n>♠	
Contract multiplier	C	231=<n>♠	
Price type	O	423=<c>♠	

Element		FIX 4.3	Notes
Price	O	44=<amt>♠	

Element		FIX 4.3	Notes
Benchmark	O	219=<c>♠	Valid values: 1 = CURVE 2 = 5-YR 3 = OLD-5 4 = 10-YR 5 = OLD-10 6 = 30-YR 7 = OLD-30 8 = 3-MO-LIBOR 9 = 6-MO-LIBOR
BenchmarkCurveData Component Block	O	220=<currency>♠ 221=<curve name>♠ 222=<point>♠	An alternative to 219=
Note	O	58=<text>♠	

Standard trailer	Y		

Example of Fixed Income:

Quote Request

Institution to Broker/Dealer or ATS

(Y=Required), ("-" =Not Applicable), (O=Optional), (C=Conditional)

Element	Government	ABS / MBS	Municipals	Commercial	Repurchase	Corporates	FIX 4.3	Notes
Standard header			Y				35=R♠	"Quote Request" single or multiple
Quote request ID			Y				131=<ref>♠	
Number related symbols			Y				146=<n>♠	
Trade origination date	–	–	O	–	–	–	229=<date>♠	
PartyRole			O				452 <trader>	Value 13 = TraderID
Trading session ID			O				336=<id>♠	AUCTION or MYBID, etc. for an ATS
Order type			Y				40=<c>♠	
Number of legs			O				Pending=<n>♠	For Swaps
Side			C				54=<c>♠	Swap Buy or Swap Sell The fields bounded by wide vertical borders are stated once for the Buy and once for the Sell side of a Swap.
Product			Y				460=<enum>♠	
Security type			O				167=<enum>♠	See list of new FI values
Underlying Repo security type	–	–	–	–	Y	–	239=<isitc>♠	Required for Repurchase Agreements
Security CUSIP, ISIN or SEDOL identifier			O O Y				22=<class>♠ 48=<id>♠ 55=FIXED♠	Of the underlying security type for Repurchase Agreements

Column markers above table: 3 (Government), 4 (ABS / MBS)

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[3] US Government Bills, Notes, and Bonds, Agency and Supra National Bonds, Euro Sovereign Debt

[4] Asset-Backed Securities, Mortgage Backed Securities, Collateralized Mortgage Obligations

Field							Tag	Comments
Issuer	O						106=<issuer>♠	A subset of 106= 541= and 223= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS.
Coupon rate	O	–	O	–	O	O	223=<pct>♠	"
Issue date	O						225=<date>♠	Mandatory for new issues
Maturity date	O						541=<date>♠	
Coupon payment date	–	–	–	–	–	O	224=<date>♠	
Repurchase rate	–	–	–	–	O	–	227=<pct>♠	Percent of par at which a Repo will be repaid.
Factor	O TIPS	O	–	–	–	–	228=<fraction>♠	Multiplier for deriving Current face from Original face for TIPS, ABS or MBS
Country	O	O	O	O	O	O	470=<cc>♠	
State or province	–	–	O	–	–	–	471=<ss>♠	Issuing state or province
Locale	–	–	O	–	–	–	472=<loc>♠	Issuing locale
Security description	O						107=<desc>♠	107= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS and 106= 223= and 541= do not serve. ATS echoes back what was originally specified.
Stipulations Component Block	–	O	–	–	–	–	232=<n>♠	Required if any stipulations follow
Stipulation type	–	O	–	–	–	–	233=<c>♠	Stipulation attribute
Stipulation value	–	O	–	–	–	–	234=<exp>♠	Stipulation attribute value
Order quantity type	O	Y	O	O	O	O	465=<c>♠	
Quantity (or Original face if MBS or TIPS)	Y						38=<n>♠	Basis is specified in Contract multiplier 231=.
Contract multiplier	Y	O	Y	Y	C	Y	231=<n>♠	Factor used to derive Par value from Quantity. "C" depends on underlying security.

BenchmarkCurveData Component Block	O O	O O	O O	O O	–	O O	218=<spread>♠	Same values as fields 218= and 219= in IOIs.
							220=< currency>♠	
	O O	O O	O O	O O		O O	221=<curve name>♠	
	O	O	O	O		O	222=<point>♠	
Price type	Y						423=<c>♠	Same values as 423= Price type. Applies to all price fields in the message.
Price	O						44=<price>♠	Quoted or target price
YieldType Yield	O						235=<type>♠ 236=<yield>♠	Target yield
Note	O						58=<text>♠	

Standard trailer	Y			

Example of Fixed Income

New Order – Single or List

Institution to Broker/Dealer or ATS

(Y=Required), ("-" =Not Applicable), (O=Optional), (C=Conditional)

Element	Government	ABS / MBS	Municipals	Commercial	Repurchase	Corporates	FIX 4.3	Notes
Standard header			Y				35=D♠ or 35=E♠	"New Order – Single" or "New Order – List"

Element	Government	ABS / MBS	Municipals	Commercial	Repurchase	Corporates	FIX 4.3	Notes
Client order ID			Y				11=<ref>♠	Required for executions against electronically submitted orders.
Trade origination date	–	–	O	–	–	–	229=<date>♠	
PartyRole			O				452 <trader>	Value 13 = TraderID
Transaction time			Y				60=<time>♠	Order creation timestamp
Order type			Y				40=<c>♠	
Handling instruction			Y				21=<c>♠	
Institution			O				PartyRole="Client ID", PartyID=<firm>♠	Use BIC when available.
Number of legs			O				Pending=<n>♠	For Swaps
Side			Y				54=<n>♠	If 6623= is used, supply '7' Undisclosed
Side			C				54=<c>♠	Swap Buy or Swap Sell The fields bounded by wide vertical borders are stated once for the Buy and once for the Sell side of a Swap.
Product			Y				460=<enum>♠	
Security type			O				167=<enum>♠	See list of new FI values
Underlying Repo security type	–	–	–	–	Y	–	239=<isitc>♠	Required for Repurchase Agreements

Security CUSIP,							22=\<class\>♠	Of the underlying security type for Repurchase Agreements
ISIN or SEDOL identifier			O				48=\<id\>♠	
			O					
			Y				55=FIXED♠	
Issuer			O				106=\<issuer\>♠	A subset of 106= 541= and 223= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS.
Coupon rate	O	–	O	–	O	O	223=\<pct\>♠	”
Issue date			O				225=\<date\>♠	Mandatory for new issues

continued   ...

Element	Government	ABS / MBS	Municipals	Commercial	Repurchase	Corporates	FIX 4.3	Notes
Maturity date	O						541=<date>♠	
Coupon payment date	–	–	–	–	–	O	224=<date>♠	
Repurchase term	–	–	–	–	O	–	226=<n>♠	Number of business days before repurchase of a Repo
Repurchase rate	–	–	–	–	O	–	227=<pct>♠	Percent of par at which a Repo will be repaid.
Factor	O TIPS	O	–	–	–	–	228=<fraction>♠	Multiplier for deriving Current face from Original face for TIPS, ABS or MBS
Country	O	O	O	O	O	O	470=<cc>♠	
State or province	–	–	O	–	–	–	471=<ss>♠	Issuing state or province
Locale	–	–	O	–	–	–	472=<loc>♠	Issuing locale
Security description	O						107=<desc>♠	107= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS and 106= 223= and 541= do not serve. ATS echoes back what was originally specified.
Settlement date	O						63=<c>♠ or 64=<date>♠	
Stipulations Component Block	–	O	–	–	–	–	232=<n>♠	Required if any stipulations follow
Stipulation type	–	O	–	–	–	–	233=<c>♠	Stipulation attribute
Stipulation value	–	O	–	–	–	–	234=<exp>♠	Stipulation attribute value
Order quantity type	O	Y	O	O	O	O	465=<c>	
Quantity (or Original face if MBS or TIPS)	Y						38=<n>♠	Basis is specified in Contract multiplier 231=.
Contract multiplier	Y	O	Y	Y	C	Y	231=<n>♠	Factor used to derive Par value from Quantity. "C" depends on underlying security.

Element	Government	ABS / MBS	Municipals	Commercial	Repurchase	Corporates	FIX 4.3	Notes
BenchmarkCurveData Component Block	O O	O O	O O	O O	–	O O	218=<spread>♠	Same values as fields 218= and 219= in IOIs.
							220=<curve currency>♠	
	O O O	O O O	O O O	O O O		O O O	221=<curve name>♠	
							222=<point>♠	
Price type	O						423=<c>♠	Same values as 423= Price type. Applies to all price fields in the message.
Price	O						44=<price>♠	Quoted or target price
YieldData Component Block	O						235=<type>♠	Target yield – informative only
							236=<yield>♠	
Account	O						1=<acct>♠	

Currency	O						15=<cur>♠	
Settlement currency	O						120=<cur>♠	
Number of allocations	O						78=<n>♠	
Allocation account	O						79=<acct>♠	
Allocation quantity (or Allocation Original face if MBS or TIPS)	O						80=<n>♠	
Part alloc ID	O						Pending=<string>♠	
Parties Component Block	O						448 =<string>♠	
Parties Component Block	O						523 =<string>♠	
Note	O						58=<text>♠	

Standard trailer	Y							

Example of Fixed Income

Execution Report

(Y=Required), ("-" =Not Applicable), (O=Optional), (C=Conditional)

The broker/dealer or ATS sends an Execution Report to the institution when an order is first received, on execution and then each time the order is modified. A normally filled order is reported twice – first with a state of "New" and later with a state of "Filled".

The **Pre** column below defines fields appropriate for pre-trade reports and **Post** for post-trade reports. **C** in the column means "conditional" with the condition stated in the **Notes** column.

Broker/dealer or ATS to Institution – Pre-trade and Post-trade

Element	Pre	Post	FIX 4.3	Notes
Standard header	Y	Y	35=8♠	"Execution Report"

Element	Pre	Post	FIX 4.3	Notes
Client order ID	C	C	11=<ref>♠	Required for executions against electronically submitted orders.
Original Client order ID	C	C	41=<ref>♠	Required if ClOrdID changed
Trade origination date	O	O	229=<date>♠	
PartyRole	–	C	452 <trader>	Required post-trade if the order was activated by a institutional trader through an ATS. Value 13=TraderID
Trade date	–	Y	75=<date>♠	Logical trading day
Trade date and time	–	Y	60=<time>♠	Execution timestamp
Broker's order reference	Y	Y	37=<ref>♠	When the report is from an ATS pre-trade, 37= contains "PRETRADE".
Secondary order reference	C	C	198=<ref>♠	An ATS or ECN supplies its reference here.
List id	C	C	66=<id>♠	Required for executions against orders which were submitted as part of a list.
Report type	Y	Y	20=<c>♠	
Execution type	Y	Y	150=<c>♠	
Order state	Y	Y	39=<c>♠	
Revision	Y	Y	17=<id>♠	
Order type	O	O	40=<c>♠	

Element	Pre	Post	FIX 4.3	Notes
PartyId formerly Institution	Y	Y	448=<firm>♠	Party ID tag, see Volume 6 Appendix 6-7 item #3
Last market – ECN or ATS	C	C	30=<ts>♠	Required if handled by an ECN or ATS.
Broker/dealer completing trade	–	C	76=<broker>♠	Required if filled.
Number of legs	O	O	Pendig=<n>♠	For Swaps
Side	C	C	54=<c>♠	Swap Buy or Swap Sell Pre-fill, the fields bounded by wide vertical borders are stated once for the Buy and once for the Sell side of a Swap. Post-fill, the two side of a Swap must be reported separately.

Element	Pre	Post	FIX 4.3	Notes
Product	Y	Y	460=<enum>♠	
Security type	O	O	167=<enum>♠	See list of new FI values
Underlying Repo security type	C	C	239=<isitc>♠	Required for Repurchase Agreements
Security CUSIP, ISIN or SEDOL identifier	O O Y	Y Y Y	22=<class>♠ 48=<id>♠ 55=FIXED♠	Of the underlying security type for Repurchase Agreements
Issuer	O	O	106=<issuer>♠	A subset of 106= 541= and 223= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS.
Coupon rate	O	O	223=<pct>♠	”
Issue date	O	O	225=<date>♠	Mandatory for new issues
Maturity date	O	O	541=<date>♠	
Coupon payment date	O	O	224=<date>♠	
Repurchase term	O	O	226=<n>♠	Number of business days before repurchase of a Repo
Repurchase rate	O	O	227 =<pct>♠	Percent of par at which a Repo will be repaid.
Factor	O	O	228=<fraction>♠	Multiplier for deriving Current face from Original face for TIPS, ABS or MBS
Country	O	O	470=<cc>♠	
State or province	O	O	471=<ss>♠	Issuing state or province

Locale	O	O	472=<loc>♠	Issuing locale
Security description	O	O	107=<desc>♠	107= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS and 106= 223= and 541= do not serve. ATS echoes back what was originally specified.
Settlement date		Y	63=<c>♠ or 64=<date>♠	
Stipulation Component Block	O	O	232=<n>♠	Required if any stipulations follow
Stipulation type	O	O	233=<c>♠	Stipulation attribute
Stipulation value	O	O	234=<exp>♠	Stipulation attribute value
Quantity type	C	C	465=<c>♠	
Quantity (or Original face if MBS or TIPS)	Y	Y	38=<n>♠	Number of bonds – not par value. Basis is specified in Contract multiplier 231=.
Contract multiplier	C	C	231=<n>♠	Factor used to derive Par value from Quantity if not "1"

Leaves quantity	Y	Y	151=<n>♠	All or none for FI.
Filled quantity	Y	Y	14=<n>♠	All or none for FI.
BenchmarkCurveData Component Block	O O O O O	O O O O O	218=<spread>♠ 220=<curve currency>♠ 221=<curve name>♠ 222=<point>♠	Same values as fields 218= and 219= in IOIs.
Price type	Y	Y	423=<c>♠	Same values as 423= Price type. Applies to all price fields in the message.
Price	O	O	44=<price>♠	Quoted or bid/offered price
[Average] price	Y	Y	6=<price>♠	Filled price – zero for an unfilled order.
YieldData Component Block	–	Y Y	235=<type>♠ 236=<yield>♠	

Principal amount	–	O	381=<prin>♠	
Accrued interest days	–	O	157=<days>♠	
Ex date	–	O	230=<date>♠	
Accrued interest percent	–	O	158=<pct>♠	
Accrued interest amount	–	O	159=<amt>♠	
Traded Flat Switch	O	O	258=<char	
BasisFeatureDate	O	O	259 =<date>	
BasisFeaturePrice	O	O	260 = <float>	
Concession	O	C	238=<amt>♠	
Total takedown	O	C	241=<amt>/<amt>♠	
Net trade amount	–	Y	118=<amt>♠	
Account	O	O	1=<acct>♠	
Currency	O	Y	15=<cur>♠	
Settlement currency	O	O	120=<cur>♠	
Note	O	O	58=<text>♠	

Standard trailer	Y	Y		

Example of Fixed Income

Allocation Report

An Allocation message in the FIX Protocol serves two purposes:

- An Institution may send an Allocation to its broker or ATS with instructions for allocating a previous order to subaccounts. Alternate ways to instruct allocation are through the original New Single Order and New Order List. If instructions arrive before execution, the broker or ATS stores them to be applied when the order is filled.

- Post-trade the broker or ATS first confirms the block trade to the ordering institution with an Execution Report then follows with an Allocation to indicate the trade's break down to subaccounts.

The **Inst** column below defines fields appropriate for instructions issued by the institution, and **Rpt** for reports from the broker or ATS. **C** in the column means "conditional" with the condition stated in the **Notes** column.

Instruction – Institution to Broker/dealer or ATS or

Report – Broker/dealer or ATS to Institution

(Y=Required), ("-" =Not Applicable), (O=Optional), (C=Conditional)

Element	Inst	Rpt	FIX 4.3	Notes
Standard header	Y	Y	35=J♠	"Allocation"

Element	Inst	Rpt	FIX 4.3	Notes
Allocation ID	Y	Y	70=<ref>♠	Instruction – generated by Institution. Report – reference echoed from institution's original Allocation ID or New Order
Allocation transaction type	Y	Y	71=<n>♠	
Ref Allocation ID	O	C	72=<ref>♠	Required for "Calculated"
Number of orders	Y	Y	73=<n>♠	
Client order ID	Y	Y	11=<ref>♠	Required for executions against electronically submitted orders.
Broker's order reference	O	O	37=<ref>♠	
Secondary order reference	C	C	198=<ref>♠	An ATS or ECN supplies its reference here.
List id	C	C	66=<id>♠	Required for executions against orders which were submitted as part of a list.
Trade origination date	O	O	229=<date>♠	
Trade date and time	–	Y	60=<time>♠	Allocation timestamp

Element	Inst	Rpt	FIX 4.3	Notes
Side	Y	Y	54=<n>♠	
Product	Y	Y	460=<enum>♠	
Security type	O	O	167=<enum>♠	See list of new FI values

Element	Inst	Rpt	FIX 4.3	Notes
Underlying Repo security type	C	C	239=<isitc>♠	Required for Repurchase Agreements
Security CUSIP,	O	Y	22=<class>♠	Of the underlying security type for Repurchase Agreements
ISIN or SEDOL identifier	O	Y	48=<id>♠	
	Y	Y	55=FIXED♠	
Issuer	O	O	106=<issuer>♠	A subset of 106= 541= and 223= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS.
Coupon rate	O	O	223=<pct>♠	"
Issue date	O	O	225=<date>♠	Mandatory for new issues
Maturity date	O	O	541=<date>♠	
Coupon payment date	O	O	224=<date>♠	
Repurchase term	O	O	226=<n>♠	Number of business days before repurchase of a Repo
Repurchase rate	O	O	227=<pct>♠	Percent of par at which a Repo will be repaid.
Factor	O	O	228=<fraction>♠	Multiplier for deriving Current face from Original face for TIPS, ABS or MBS
Country	O	O	470=<cc>♠	
State or province	O	O	471=<ss>♠	Issuing state or province
Locale	O	O	472=<loc>♠	Issuing locale
Security description	O	O	107=<desc>♠	107= may be substituted for CUSIP/ISIN/SEDOL when a general class of instruments is to be traded via an ATS and 106= 223= and 541= do not serve. ATS echoes back what was originally specified.
Settlement date	O	Y	63=<c>♠ or 64=<date>♠	

Quantity type	C	C	465=<c>♠	
Total quantity (or Original face if MBS or TIPS)	Y	Y	53=<n>♠	Number of bonds – not par value. Basis is specified in Contract multiplier 231=.
Contract multiplier	C	C	231=<n>♠	Factor used to derive Par value from Quantity if not "1"
Price type	Y	Y	423=<c>♠	Same values as 423= Price type. Applies to all price fields in the message.
Trade date	Y	Y	75=<date>♠	
[Average] price	Y	Y	6=<price>♠	Zero in an instruction for an unfilled order.
Gross trade amount	O	Y	381=<amt>♠	
Accrued interest percent	O	Y	158=<pct>♠	

Element	Inst	Rpt	FIX 4.3	Notes
Accrued interest amount	–	Y	159=<amt>♠	
Concession	O	C	238=<amt>♠	
Total takedown	O	C	241=<amt>/<amt>♠	
Net money	O	Y	118=<amt>♠	
Currency	O	Y	15=<cur>♠	
Number of allocations	Y	Y	78=<n>♠	
Allocated account	Y	Y	79=<acct>♠	
Allocation quantity Or Allocation Original face if MBS or TIPS	Y	Y	80=<n>♠	Number of bonds – not par value. Basis is specified in Contract multiplier 231=.
Part alloc ID	O	O	P=<string>♠	
Allocated accrued interest amount	O	Y	159=<amt>♠	
Allocated net money	O	Y	154=<amt>♠	
Settlement currency	O	O	120=<cur>♠	
Parties Component Block	O	O	448=<string>♠	
Parties Component Block	O	O	523=<string>♠	
Note	O	O	58=<text>♠	

	Inst	Rpt		
Standard trailer	Y	Y		

Fixed Income Tags

219	Benchmark <deprecated>

New Fixed Income proposal

Pending	Quote status
Pending	Quote status reason
Pending	Number of legs
22	Security ID Source
30	Last Market (ATS Custom Values)
48	Security ID
54	Side
70	Part allocation ID
118	Net money
157	Accrued interest days
158	Accrued interest percent
159	Accrued interest amount
167	Security Type
218	Spread
220	Benchmark curve currency
221	Benchmark curve name
222	Benchmark curve point
223	Coupon Rate
224	*Coupon* payment date
225	Issue date
226	Repo term
227	Repo rate
228	Factor
229	Trade origination date
230	Ex date
231	Contract Multiplier
232	Number of stipulations
233	Stipulation type
234	Stipulation value
235	Yield type
236	Yield
238	Concession

239	Repo Collateral Security Type
240	Redemption Date
241	Total takedown
381	Gross Trade Amount
423	Price type
439	Replaced Parties Component Block
440	Replaced Parties Component Block
460	Product
461	CFI Code
464	Test message indicator
465	Quantity type (Value #8 = PAR)
452	Party Role Value 13=TraderID
470	Country
471	State or province
472	Locale – identifying Municipal Security issuers other than state or province, refer to: http:www.atmos.albany.edu/cgi/stagrep-cgi Reference the IATA code (see example below)
541	Maturity date
255	*Credit Rating*
631	*MidPx (Mass Quote:DataStreaming)*
632	*BidYield (Mass Quote:DataStreaming)*
633	*MidYield (Mass Quote:DataStreaming)*
634	*OfferYield (Mass Quote:DataStreaming)*
258	TradedFlatSwitch
259	BasisFeatureDate
260	BasisFeaturePrice
6609	*Open*

LocaleOfIssuer Example:

LocaleOfIssuer: Suffolk County N.Y. = IATA Code = SFQ

Bond Description: CUSIP: 864766DH0 Coupon: 4.875 Mat: 08-01-2003Issuer: Suffolk County State: NY Type: GO Non Callable Ratings: Aaa/AAA

YIELD TYPE VALUES

The following are valid values for Yield Type	
Mark	Mark To Market Yield – An adjustment in the valuation of a securities portfolio to reflect the current market values of the respective securities in the portfolio.
Book	Book Yield – The yield of a security calculated by using its book value instead of the current market price. This term is typically used in the US domestic market.
OpenAvg	Open Average Yield – The average yield of the respective securities in the portfolio.
Worst	Yield To Worst Convention – The lowest yield to all possible redemption date scenarios.
Call	Yield to Next Call – The yield of a bond to the next possible call date.
Maturity	Yield to Maturity – The yield of a bond to its maturity date.
Put	Yield to Next Put – The yield to the date at which the bond holder can next put the bond to the issuer.
Longest	Yield to Longest Average (Sinking Fund Bonds) – The yield assuming only mandatory sinks are taken. This results in a slower paydown of debt; the yield is then calculated to the final payment date.
Shortest	Yield to Shortest Average (Sinking Fund Bonds) – The yield assuming that all sinks (mandatory and voluntary) are taken. This results in a faster paydown of debt; the yield is then calculated to the final payment date.
Annual	Annual Yield – The annual interest or dividend income an investment earns, expressed as a percentage of the investment's total value.
TRUE	True Yield – The yield calculated with coupon dates moved from a weekend or holiday to the next valid settlement date.
Gross	True Gross Yield – Yield calculated using the price including accrued interest, where coupon dates are moved from holidays and weekends to the next trading day.
Change	Yield Change Since Close – The change in the yield since the previous day's closing yield.
SemiAnnual	Semi-annual Yield – The yield of a bond whose coupon payments are reinvested semi-annually
Proceeds	Proceeds Yield – The CD equivalent yield when the remaining time to maturity is less than two years.
Current	Current Yield – Annual interest on a bond divided by the market value. The actual income rate of return as opposed to the coupon rate expressed as a percentage.
Simple	Simple Yield – The yield of a bond assuming no reinvestment of coupon payments. (Act/360 day count)

NextRefund	Yield To Next Refund (Sinking Fund Bonds) – Yield assuming all bonds are redeemed at the next refund date at the redemption price.
Compound	Compound Yield – The yield of certain Japanese bonds based on its price. Certain Japanese bonds have irregular first or last coupons, and the yield is calculated compound for these irregular periods.
PrevClose	Previous Close Yield – The yield of a bond based on the closing price 1 day ago.
Close	Closing Yield – The yield of a bond based on the closing price.
LastMonth	Closing Yield Most Recent Month – The yield of a bond based on the closing price as of the most recent month's end.
LastQuarter	Closing Yield Most Recent Quarter – The yield of a bond based on the closing price as of the most recent quarter's end.
LastYear	Closing Yield Most Recent Year – The yield of a bond based on the closing price as of the most recent year's end.
GovtEquiv	Government Equivalent Yield – Ask yield based on semi-annual coupons compounding in all periods and actual/actual calendar.
LastClose	Most Recent Closing Yield – The last available yield stored in history, computed using price.
AvgLife	Yield To Average Life – The yield assuming that all sinks (mandatory and voluntary) are taken at par. This results in a faster paydown of debt; the yield is then calculated to the average life date.
Inflation	Yield with Inflation Assumption – Based on price, the return an investor would require on a normal bond that would make the real return equal to that of the inflation-indexed bond, assuming a constant inflation rate.
AvgMaturity	Yield To Average Maturity (?) – The yield achieved by substituting a bond's average maturity for the issue's final maturity date.
	[The following were added to Bloomberg's data based on information forwarded from SMPG.]
AtIssue	Yield At Issue (Municipals) – The yield the bond offered on the issue date.
InverseFloater	Inverse Floater Bond Yield – Inverse floater semi-annual bond equivalent rate.
Value 1/32	Yield Value Of 1/32 – The amount that the yield will change for a 1/32nd change in price.
LongAvgLife	Yield to Longest Average Life – The yield assuming only mandatory sinks are taken. This results in a lower paydown of debt; the yield is then calculated to the final payment date.
ShortAvgLife	Yield to Shortest Average Life – same as AVGLIFE above.
AfterTax	After Tax Yield (Municipals) – The yield on the bond net of any tax consequences from holding the bond. The discount on municipal securities can be subject to both capital gains taxes and ordinary income taxes. Calculated from dollar price.

TaxEquiv	Tax Equivalent Yield – The after tax yield grossed up by the maximum federal tax rate of 39.6%. For comparison to taxable yields.
Tender	Yield to Tender Date – The yield on a Municipal bond to its mandatory tender date.

ATS Custom Values for Tag 30

ATS	Value
TradeWeb	**30**
Bloomberg TradeBook	**31**
BondBook	**32**
MarketAxess	**33**
MuniCenter	**34**
BondClick	**35**
BondHub	**36**
LIMITrader	**37**
Visible Markets	**38**

Euro Sovereign and European Trading Recommendations:

Euro Sovereign Issuer Codes:

- o   ISO codes for non-US Governments (The other option is to use Country (421))
- o   CADES Caisse amort dette sociale CADES
- o   COECouncil of Europe
- o   DTA   Deutsche Ausgleichsbank
- o   EBRD   European Bank for Reconstruction and Development
- o   EIB European Investment Bank
- o   HESLAN   Hessen
- o   KFW   KFW Kreditanstalt fuer Wiederaufbau
- o   LANREN   Landwirtschaftliche Rentenbank
- o   NORWES   Nord-Rhein-Westfalen NRW
- o   SACHAN   Sachsen-Anhalt

Euro Sovereign SecurityType Values:

The list below expands the "SOV – Sovereign (non-US)" entry into the list of SecurityType enumerators to include specific security types for each of the principal European countries. The abbreviations are from Bloomberg.

*Credit / Sovereign issued in any ccy.

RATB	Austrian Treasury Bill
RAGB	Austrian Government Bond
AOBL	Austrian Bundesobligation (OBL)
RABSS	Austrian Bundesschatzscheine
AUST	Austrian Government International Bond*
RAGBS	RAGB Coupon Strip (Austrian)
RAGBR	RAGB Principal Strip (Austrian)
RAMTB	Austria Medium Term Bill
BGTB	Belgian Treasury Bill
BGB	Belgian Government Bond
BELG	Belgian Government International Bond
OLOS	Belgian Strip
OLOR	Belgian Principal Strip
DGTB	Danish Treasury Bill
DGB	Danish Government Bond
DENK	Danish Government International Bond* (DKK)
RFTB	Finnish Treasury Bill
RFGB	Finnish Government Bond
FINL	Finnish Government International Bond*
FNHF	Finnish Housing Bond
BTF	BTF - French Fixed-Rate Short Term Discount Treasury Bills
BTNS	BTAN - French Fixed-Rate Treasury Notes
FRTR	OAT - French Treasury Bonds
FRTRR	OAT - French Treasury Bonds Principal STRIPS
FRTRS	OAT - French Treasury Bonds Coupon STRIPS
CADES	Social Security Debt Repayment Fund (French)*

BUBILL	German Treasury Bill
DBSB	German Federal Treasury Bill (rarely used puttable & DM Ccy)
BKO	German Two Year Notes
FSDB	German Financing Treasury Notes (DM Ccy)
DBR	German Government Bond
DBRR	German Government Bond Principal STRIPS
DBRS	German Government Bond Coupon STRIPS
OBL	German Five Year Bonds
DBRUF	German Unity Fund DBR – S (only 2)
BKOUF	German Unity Fund – BKO (None)
DBP	German Federal Post -- BUNDESPOST
DBB	German Federal Railroad --BUNDESBAHN
THA	Treuhand Agency Bonds
TOBL	Treuhand Agency Obligations – All matured
ENTFND	German Retribution Fund – Only 2 sinking funds
GERP	European Recovery Program Special Funds (German only 2)
BUKASS	Bundeskassenscheine – 1 matured

GTB	Hellenic Republic Treasury Bill
GGB	Hellenic Republic Government Bond
GREECE	Hellenic Republic Government International Bond*
GGBSTP	Hellenic Republic Government Bond Coupon STRIPS
GGBRES	Hellenic Republic Government Bond Residual STRIPS

IRISH	Irish Government Bond
IRELND	Irish Government International Bond*

BOTS	Italian Treasury Bill
BTPS	Italian Government Bond
CCTS	Italian Treasury Certificate
ICTZ	Italian Zero Coupon Bonds
CTES	Italian Government Bonds Issued in EUR –Matured
CTOS	Italian Government Bonds with Put Option – All matured
ITALY	Italian International Bonds*
BTPSS	Italian Government Bond Coupon STRIPS
BTPSR	Italian Government Bond Residual STRIPS

LGB   Luxembourgeois Government Bond

NETHER   Dutch Government Bond

NETHRR Dutch Principal Strip

NETHRS Dutch Strip

DTB   Dutch Treasury Certificate

NBC   Dutch Bank Certificate – All matured

NGTB   Norwegian Treasury Bill

NGB   Norwegian Government Bond

NORWAY Norwegian Government International Bond* (NOK)

PORTB   Portuguese Treasury Bills

PGB   Portuguese Government Bond

PORTUG Portuguese Government International Bond*

SPGB   Spanish Government Bond

SPGBS   Spanish Government Bond Coupon Strips

SPGBR   Spanish Government Bond Principal Strips

SPAIN   Spanish Government International Bond*

SGLT   Spanish Letras del Tesoro

SWTB   Swedish Treasury Bill

SGB   Swedish Government Bond

SWED   Swedish Government International Bond* (SEK)

SGBS   Swedish Government Bond Coupon Strip

SGBR   Swedish Government Bond Residual Strip

SWISTB   Swiss Treasury Bill

SWISS   Swiss Government Bond

GENTB   Geneva Treasury Bill (CHF)

UKTB   United Kingdom GBP/EUR Treasury Bill

UKT   United Kingdom Gilt Bond

UKTS   United Kingdom Gilt Bond Coupon STRIPS

UKTR   United Kingdom Gilt Bond Residual STRIPS

UKIN   United Kingdom International Bond*

BOE   Bank of England EUR Bill

BOEN   Bank of England EUR Note

PRODUCT: FOREIGN EXCHANGE

Foreign Exchange (F/X) Trading

Notes:

- The forex Symbol is defined in "EBS" (Electronic Banking System) 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

- OrderQty represents the amount expressed in units of currency specified by the Currency field. Note OrderQty must be capable of representing large values with at least 2 decimal places.

- The value of the Currency field represents the denomination of the quantity field(s).

- The Rate (specified as a "Price" field) represents CCY2 divided by CCY1 (**NOT** CCY1 divided by CCY2)

- The "unknown quantity" can be calculated using the following rules:

  - If Currency field value = CCY1 then as: (OrderQty * Rate)

  - If Currency field value = CCY2 then as: (OrderQty / Rate)

Verbal representation	Side	OrderQty	Curr ency	Symbol (CCY1/CCY2)	Rate	Rate "Style"	"Resulting" Quantity
Sell 1,000,000 USD for JPY	Sell	1,000,000	USD	USD/JPY	105.92	Normal	105,920,000
				JPY/USD	0.009441088	Inverted	
Sell 50,000,000 JPY for USD	Sell	50,000,000	JPY	USD/JPY	105.92	Normal	472,054.38
				JPY/USD	0.009441088	Inverted	
Buy 50,000,000 JPY for USD	Buy	50,000,000	JPY	USD/JPY	105.92	Normal	472,054.38
				JPY/USD	0.009441088	Inverted	
Buy 1,000,000 USD for JPY	Buy	1,000,000	USD	USD/JPY	105.92	Normal	105,920,000
				JPY/USD	0.009441088	Inverted	
Sell 1,000,000 USD for CAD	Sell	1,000,000	USD	USD/CAD	1.437	Normal	1,437,000.00
				CAD/USD	0.695894224	Inverted	
Sell 50,000,000 CAD for USD	Sell	50,000,000	CAD	USD/CAD	1.437	Normal	34,794,711.20
				CAD/USD	0.695894224	Inverted	
Buy 50,000,000 CAD for USD	Buy	50,000,000	CAD	USD/CAD	1.437	Normal	34,794,711.20

				CAD/USD	0.695894224	Inverted	
Buy 1,000,000 USD for CAD	Buy	1,000,000	USD	USD/CAD	1.437	Normal	1,437,000.00
				CAD/USD	0.695894224	Inverted	
Sell 1,000,000 USD for GBP	Sell	1,000,000	USD	GBP/USD	1.6368	Normal	610,948.19
				USD/GBP	0.610948192	Inverted	
Sell 50,000,000 GBP for USD	Sell	50,000,000	GBP	GBP/USD	1.6368	Normal	81,840,000.00
				USD/GBP	0.610948192	Inverted	
Buy 50,000,000 GBP for USD	Buy	50,000,000	GBP	GBP/USD	1.6368	Normal	81,840,000.00
				USD/GBP	0.610948192	Inverted	
Buy 1,000,000 USD for GBP	Buy	1,000,000	USD	GBP/USD	1.6368	Normal	610,948.19
				USD/GBP	0.610948192	Inverted	
Sell 1,000,000 USD for EUR	Sell	1,000,000	USD	EUR/USD	1.001	Normal	999,001.00
				USD/EUR	0.999000999	Inverted	
Sell 50,000,000 EUR for USD	Sell	50,000,000	EUR	EUR/USD	1.001	Normal	50,050,000.00
				USD/EUR	0.999000999	Inverted	
Buy 50,000,000 EUR for USD	Buy	50,000,000	EUR	EUR/USD	1.001	Normal	50,050,000.00
				USD/EUR	0.999000999	Inverted	
Buy 1,000,000 USD for EUR	Buy	1,000,000	USD	EUR/USD	1.001	Normal	999,001.00
				USD/EUR	0.999000999	Inverted	
Sell 1,000,000 EUR for GBP	Sell	1,000,000	EUR	EUR/GBP	.6111	Normal	611,100.00
				GBP/EUR	1.636393389	Inverted	
Sell 50,000,000 GBP for EUR	Sell	50,000,000	GBP	EUR/GBP	.6111	Normal	81,819,669.45
				GBP/EUR	1.636393389	Inverted	
Buy 50,000,000 GBP for EUR	Buy	50,000,000	GBP	EUR/GBP	.6111	Normal	81,819,669.45
				GBP/EUR	1.636393389	Inverted	
Buy 1,000,000 EUR for GBP	Buy	1,000,000	EUR	EUR/GBP	.6111	Normal	611,100.00
				GBP/EUR	1.636393389	Inverted	
Sell 1,000,000 EUR for CHF	Sell	1,000,000	EUR	EUR/CHF	1.6125	Normal	1,612,500.00
				CHF/EUR	0.620155039	Inverted	
Sell 50,000,000 CHF for EUR	Sell	50,000,000	CHF	EUR/CHF	1.6125	Normal	31,007,751.94
				CHF/EUR	0.620155039	Inverted	
Buy 50,000,000 CHF for EUR	Buy	50,000,000	CHF	EUR/CHF	1.6125	Normal	31,007,751.94

				CHF/EUR	0.620155039	Inverted	
Buy 1,000,000 EUR for CHF	Buy	1,000,000	EUR	EUR/CHF	1.6125	Normal	1,612,500.00
				CHF/EUR	0.620155039	Inverted	