

Eurex Exchange's T7

Eurex FIX Gateway

FIX 4.4 Manual

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Eurex Exchange's T7

Eurex Frankfurt AG

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1 List of abbreviations

Please find a list of all the abbreviations used in the document. The first time an abbreviation is introduced in the document it is written in brackets after the phrase.

Eurex ETI	Eurex Enhanced Trading Interface
Eurex RDI	Eurex Reference Data Interface
Eurex MDI	Eurex Market Data Interface
Eurex EMDI	Eurex Enhanced Market Data Interface
KRX	Korea Exchange
TAIFEX	Taiwan Future Exchange
GUI	Eurex Trader GUI

2 Introduction

The Eurex FIX Gateway is intended for participants that require a standard FIX connection to the exchange and supports many types of markets.

This document describes the FIX 4.4 version of the interface. The interface is a point-to-point service based on the technology and industry standards TCP/IP, FIX and FIX Session Protocol. The session and application event models and messages are based on version 4.4 of the FIX Protocol respectively.

The Eurex FIX Gateway provides the following trading functions of Eurex Exchange's T7:

- Order management
- Execution notifications
- Risk control event notifications
- Creation of a strategy
- Request for quote
- Cross request

Additionally the Eurex FIX Gateway enables participants to subscribe to private trading data in broadcast form:

- Trade notifications at a business unit level
- Drop Copy for standard (not lean) orders at business unit level

To access Eurex Exchange's T7 via the Eurex FIX Gateway, FIX sessions need to be ordered by the Eurex participant for its business units.

Note: The Eurex FIX Gateway does not provide any reference data. Participants are asked to retrieve reference data via the Eurex RDI or via file provided on the Common Report Engine.

2.1 Purpose

The purpose of this document is to provide an overview of the Eurex FIX Gateway for Eurex Exchange's T7. The focus of the description is to capture Eurex specific behaviour, highlight where it deviates from the recommended FIX Protocol standard and keep the amount of the FIX specification which needs to be included in this document to a minimum.

Following a FIX Protocol Limited (FPL) recommendation to use standard fields from higher versions as the primary solution before using user-defined fields, Deutsche Börse applies the following design rules for support of functionality currently not provided in the corresponding FIX version:

- Fields reserved for internal use (Tag numbers 10000 - 19999) are not used.
- Standard fields of FIX 4.4, which only became part of the standard message in a higher version, are used.
- FIX fields of higher versions are only added to standard messages, if no standard field for the required functionality is available in FIX 4.4.

2.2 Intended Readership

The main target group is technical staff within the Exchange's participants. Throughout this document the term "participant" stands for an Eurex participant (see **chapter 3.1** for details).

3 Service Description

The Eurex FIX Gateway supports two types of sessions:

- **Trading sessions** that support order management, strategy creation, request for quote, cross request and risk control events.
- **Back-office sessions** that receive trade confirmations for the business unit. Clearing business units receive trade confirmations from its trading business units and from its non-clearing members. Back-office sessions can be configured to receive additionally drop copy information for standard (not lean) orders as well as risk control events at the business unit level. The clearing members don't receive drop copy order information from its non-clearing members.

The entry of Trade Entry Service (TES) trades via Trading sessions and the reception of Trade Entry Service (TES) trades via Back-office sessions is not supported.

The FIX messages are denoted in the following way:

- Message name (Message type)

The FIX fields are denoted in the following way:

- Field name (FIX tag)

The FIX repeating groups and components are denoted in the following way:

- <Repeating group name> or <Component block name>

3.1 Party Identification

The **participant** is an entity accessing the Eurex Exchange's T7. The Eurex concept of a member remains in place, and will be represented by a "participant" within the Eurex Exchange's T7. When trades are sent to the clearing system, the participant will be replaced by its corresponding member-ID.

A participant may have several **business units** as independent entities taking part in trading at the exchange. Business units are identified by a business unit ID. A business unit belongs to a participant.

A **user** is a person, such as a trader or an exchange market supervisor that interacts with the Eurex Exchange's T7. Users are identified by a user ID. A user belongs to one business unit. A user is a trader or administrator that logs on to the system to enter commands on the trading system.

Users can be assigned to a specific **trader group**, along with the head trader and supervisor roles:

- A user with a user level of **head trader** may modify or cancel orders of any user belonging to the same trader group.
- A user with a user level of **supervisor** may modify or cancel orders of any user belonging to the same business unit.

In FIX 4.4, the parties of an order or trade are identified in the <Parties> component block.

Party	Description	Party Attributes	FIX 4.4 (Party role enumeration)
Participant	The participant is an entity accessing Eurex Exchange's T7.	**Participant Short Name**	Executing Firm = 1
Business Unit	Indicates the name of a company or a part of a company that is set up as an independent entity taking part in trading at the exchange.	**Business Unit ID**	Executing Unit = 59
User	A business unit can have multiple users. A user can be a trading user and/or an administrator.	**User ID**	Username (553)
Owning User	User who owns the transaction.	**Owning User ID** **Owning User Short Name**	Executing Trader = 12 Executing Trader = 12. PartySubIDType: Person = 2
Entering User	User who initiates/submits the order/quote transaction; could be the head trader or supervisor or a market supervision user.	**Entering User ID**	Entering Trader = 36
Entering Entity	Identifies the entity that entered the transaction; might be market supervision, the participant or the clearing member.	**Entering Entity ID**	Entering Firm = 7
Clearing Member	Clearing member identification.	**Clearing Member Short Name**	Clearing Firm = 4
Clearing House	Post trade facility.	**Clearing House Short Name**	Clearing Organization = 21
Take-up Member	Indicates the name of a member institution to which a give-up is designated.	**Take-up Member Short Name**	Take-Up Trading Firm = 96
KRX Member	Partner identification at the Korea Exchange is required for orders in KRX products.	**KRX Member ID**	Order Originating Firm = 13
KRX Beneficiary	Mandatory final KRX beneficiary account required for orders in KRX products.	**KRX Beneficiary Account**	Beneficiary = 32
TAIFEX Member	Partner identification at the Taiwan Exchange is required for orders in TAIFEX products.	**TAIFEX Member ID**	Order Originating Firm = 13
TAIFEX Beneficiary	Mandatory final Taiwan beneficiary account required for orders in TAIFEX products.	**TAIFEX Beneficiary Account**	Beneficiary = 32
Executing System	Executing system information.	**Executing System ID**	Executing System = 16

3.2 Security Identification

For identification of a tradeable instrument on Eurex via the Eurex FIX Gateway, the market identifier (MIC Code) must be entered into field *ExDestination (100)* in all messages. It will be echoed on the *ExecutionReport (8)* in field *ExDestination (100)*.

Market Identification (MIC)	Description	Relevant FIX Tags
XEUR	Eurex Deutschland	ExDestination (100), UExDestination (30100), MarketID(1301)
XEEE	European Energy Exchange	ExDestination (100), UExDestination (30100), MarketID(1301)

Both the Eurex product identifier and instrument identifier must be provided on the order. Both single and multi leg instruments are uniquely identified by the corresponding instrument ID.

Additionally it is mandatory to specify the instrument type in all order requests and quote and cross requests.

ID	Description	Relevant FIX Tags
Product Identifier	The product identifier uniquely identifies a Eurex product.	Symbol (55)
Instrument Identifier	The instrument identifier uniquely identifies an instrument in the core system.	SecurityID (48)
Instrument Source Identifier	The instrument source identifier defines class or source of the instrument identifier.	SecurityIDSource (22)
Instrument Type	Specifies the instrument type 1 = Simple Instrument 2 = Standard Option Strategy 3 = Non-Standard Option Strategy 4 = Volatility Strategy 5 = Futures Spread 6 = Inter Product Spread 7 = Standard Future Strategy 8 = Pack and Bundle 9 = Strip	ProductComplex (1227)

3.3 Creation of a Strategy

The *Security Definition Request (c)* message can be used to request the creation of a specified complex instrument on Eurex.

The Eurex product identifier *(Symbol (55))*, and the signature <InstrmtLegGrp>, which provides the description of the legs, their ratios and side, are mandatory attributes of the request.

The *(SecuritySubType(762))* tag must be present in case of a futures spread, option combination or strategy definition.

Only after a specific complex instrument has been requested and created, is it possible to enter orders for this instrument. The successful creation of a complex instrument, or the rejection, is confirmed by the

Security Definition (d) message. When a new strategy is requested, the instrument identifier *(SecurityID (48))* and the signature of the complex instrument are returned.

Complex instrument definitions created by users are always temporary and are deleted during end of day processing if their order book is empty.

Note: The signature which is returned by the Eurex Exchange's T7 may differ from the signature which was sent in the *Security Definition Request (c)*, e.g. in order to match a pre-defined strategy template.

3.4 Order ID Policy

The standard FIX policy regarding usage of Client Order IDs is supported by the Eurex FIX Gateway.

Order related messages must include a unique customer defined identifier, the Client Order ID, in the *ClOrdID (11)* field.

ClOrdIDs with 20 characters or less are accepted. Characters in ASCII range 32-126 are allowed.

A ClOrdID may only be used once per business day and trading session. Additionally the Eurex FIX Gateway enforces the uniqueness of ClOrdID values among currently live orders.

The Client Order ID needs to change on every modification and cancellation request; the original scope is specified by the *OrigClOrdID (41)*. In this way the customer is able to find and track individual requests by their Client Order ID. This FIX concept is called message chaining and intended for order handling through a single interface and session.

Orders entered through the FIX Gateway can be modified through sessions of other interfaces, i.e. Eurex Trader and Admin GUI or Eurex Enhanced Trading Interface (Eurex ETI). Eurex ETI supports message chaining but does not enforce it. It is recommended to avoid using message chaining in both the FIX Gateway and Eurex ETI in order to receive order updates conducted through Eurex ETI also on the FIX Gateway. This can be done by setting *ClOrdID (11) = OrigClOrdID (41)* in Eurex ETI which is not permitted in the FIX Gateway. The Eurex Trader and Admin GUI does not change the Client Order ID of an order by using the same approach.

Note: The FIX Gateway will ignore trailing spaces in the field ClOrdID when a client order ID is checked for uniqueness among currently live orders. A newly entered ClOrdID is considered duplicate by the FIX Gateway, if it only differs in the number of trailing spaces from the ClOrdID of a live order. In this case the FIX Gateway will send a Business Message Reject (j) message denoted by *BusinessRejectReason (380) = 0 (Other)* and *Text (58) = "ClOrdID is not unique."*.

Example: If a live order exists with the *ClOrdID (11) = "Test"*, any request with *ClOrdID (11) = "Test "* will be rejected.

Note that this has no impact on the OrigClOrdID, which still must provide the correct number of trailing spaces to identify the corresponding order.

3.5 Order Management

A FIX session can only modify or cancel own orders (i.e. orders previously submitted succesfully on the same FIX session).

3.5.1 Order Types

The following Eurex order types are supported via the Eurex FIX Gateway:

Order Type	Description	Relevant FIX Tags
Market	Market orders are not visible in the order book for any market participant and have no specific price limit, but are matched to the best available contra-side bid or offer.	OrdType (40) = 1
Limit	Limit orders include a specified price limit, and may not be executed at a price worse than that limit.	OrdType (40) = 2 Price (44)
Stop (Market)	Stop orders are orders that create market orders when the specified trigger price is reached. Similar to market orders, stop orders are not visible in the order book for any market participant.	OrdType (40) = 3 StopPx (99)
Stop (Limit)	Stop limit orders create limit orders when the specified trigger price is reached. Similar to market orders, stop orders are not visible in the order book for any market participant.	OrdType (40) = 4 Price (44) StopPx (99)
One-cancels-the-other	A combination of a limit order and a stop (market) order, expressed as a single order. Traders will specify a limit price and a trigger price as part of one order.	OrdType (40) = 2 Price (44) TriggerType (1100) = 4 (Price Movement) TriggerPrice (1102)
Closing auction only	Closing auction only orders may be entered during the entire trading day, but are only active during the closing auction phase.	TradingSessionSubID (625) = 4
Good-for-day (Day)	All orders are assumed to be day orders unless otherwise specified. The validity of a day order ends at the close of that day's trading period.	TimeInForce (59) = 0
Good-till-date (GTD)	Order carries a specified date up to one year from entry on which the order is automatically canceled.	TimeInForce (59) = 6 ExpireDate (432)
Good-till-canceled (GTC)	Order remains valid until it is executed, canceled, or if the contract expires.	TimeInForce (59) = 1
Immediate or Cancel (IOC)	An IOC order is to be filled immediately, either completely or to the extent possible; the portion that cannot be filled immediately is canceled.	TimeInForce (59) = 3
Book or Cancel	An order, which is placed as resting liquidity in the order book to ensure passive execution. If immediate (and hence aggressive) execution is possible, the order is rejected without entry into the order book.	ExecInst (18) = "6"
Persistent	A persistent order is an order that survives a trading interruption or system failure. Persistent orders are always written to disk to prevent them from being lost during an emergency and remain in the book until their validity expires.	absence of ExecInst (18) or ExecInst (18) = "H" or "H 6"
Non-persistent	Non-persistent orders are automatically canceled in case of a trading interruption or exchange system failure and are only valid good-for-day.	ExecInst (18) = "Q" or "Q 6"

3.5.2 Price Validity Checks

There are two different price validations for orders, both considering the most recent best bid and best ask price.

3.5.2.1 Price Reasonability Check

When entering or replacing an order, the user may opt for a check ensuring that the entered price does not differ significantly from the market. The field *PriceValidityCheckType (28710)* provides the following options:

- Valid value "0" = None
- Valid value "1" = Optional
- Valid value "2" = Mandatory

The "optional" differs from the "mandatory" Price Reasonability Check in the following way: If the best bid and best ask prices are not available or if their spread is not reasonable, an additional reference price (the last traded price or the theoretical price) is taken into account. If the additional reference price is also not available, the incoming order or quote is

- accepted without performing a price validation in case the submitting user chooses "optional", or
- rejected in case the submitting user chooses "mandatory".

3.5.2.2 Extended Price Range Validation

In case no Price Reasonability Check was performed, the Extended Price Validity Check is applied which ensures that no erroneous price crosses through the market.

3.5.3 Cancellation

The FIX session may only cancel orders that have been entered previously via the same session.

Cancelling an order will remove the remainder of a live order from the Eurex trading system's order book. The participant must use the *OrigClOrdID (41)* to identify the order to cancel. The Eurex FIX Gateway will respond with an *ExecutionReport (8)* or *OrderCanceReject (9)* message for confirmation or rejection respectively.

Participants can also submit Order Mass Action Request in order to delete all active orders in a given product. The Order Mass Action Request can be further restricted to a defined trader and/or a defined instrument. The user may delete only part of their orders for one instrument by entering the additional filter criteria side and price.

3.5.4 Modification

The FIX session may only modify orders that have been entered previously via the same session.

The following order attributes cannot be modified:

- *Security identification: Symbol (55), SecurityID (48), ProductComplex (1227)*
- *Side (54)*

- *TradingSessionSubID (625)*
- *ExecInst (18)*

The following restrictions apply to the modification of the field *OrdType (40)*:

- A Market Order *(OrdType (40) = 1)* may only be modified to a Limit Order *(OrdType (40) = 2)*.
- A Limit Order *(OrdType (40) = 2)* may only be modified to a Market Order *(OrdType (40) = 1)*.
- A Stop (Market) Order *(OrdType (40) = 3)* may only be modified to a Stop (Limit) Order *(OrdType (40) = 4)*.
- A Stop (Limit) Order *(OrdType (40) = 4)* may only be modified to a Stop (Market) Order *(OrdType (40) = 3)*.
- A One-cancels-the-other Order cannot be modified to a Market, Limit or Stop Order.

An order that is modified will lose its time priority, i.e. it will get a new priority timestamp, if

- *Price (44)* is modified in any way, or
- *OrderQty (38)* is increased, or
- *OrdType (40)* is changed, or
- *ExecType (150)* is "L = Triggered by system".

The participant must use the *OrigClOrdID (41)* to identify the order to modify.

The Eurex FIX Gateway will respond with an *ExecutionReport (8)* or *OrderCancelReject (9)* message for confirmation or rejection respectively.

The *ExecutionReport (8)* will contain ExecRestatementReason (378) = 181 (ownerschip changed) if the order ownership was changed. This will be the case if the submitter (Entering Trader) of the modify request is different from the original owner of the order.

Orders that have been completely filled may not be modified anymore.

Note: Modifications of the total order quantity to a quantity less than or equal to the cumulated executed order quantity will be interpreted as a cancel request.

3.5.5 Account Structure

The mandatory field *TradingCapacity (1815)* specifies the relationship between the market participant and the order.

Business Type	Description	Relevant FIX Tags
Agency	Market Participant is trading on behalf of its customer.	TradingCapacity (1815) = 1
Proprietary	Market Participant is trading for its own account.	TradingCapacity (1815) = 5
Market Making	Market Participant is acting as a Market Maker.	TradingCapacity (1815) = 6

The entry of a Eurex account type and number is supported via the *Account (1)* field designating the account type to be used for the order when submitted to clearing. There are three types of accounts:

- Agent account (A1, A2, A3, A4, A5, A6, A7, A8, A9, G1 and G2): The account codes G1 and G2 are actually designations that the trade is going to be sent to another member, usually when a

participant uses one member to perform the execution and another to do the clearing.

- Proprietary accounts (P1, P2).
- Market Maker accounts (M1, M2).

Every order entered into the Eurex trading system can be associated with one of these account type and number combinations.

Note: In case neither PartyID with *(452) PartyRole = 38 (Flexible account identifier)* nor *Account (1)* / *LegAccount (28715)* is entered by the market participant, the clearing account information will be derived from the field *TradingCapacity (1815)*.

3.5.6 Text Fields

The Eurex Exchange's T7 supports three free-format text fields for trader-specific comments to an order.

The mapping of the Eurex text fields to the FIX tags is as follows:

Text Field	Valid Characters (hex)	Relevant FIX Tags
Free Text Field 1	\x20,\x22-\x7B,\x7D,\x7E	Text (58)
Free Text Field 2	\x20,\x22-\x7B,\x7D,\x7E	FreeText2 (25008)
Free Text Field 3	\x20,\x22-\x7B,\x7D,\x7E	FreeText3 (25009)

3.5.7 ExecutionReport (8) "Unknown Order State"

An *ExecutionReport (8)* with *ExecRestatementReason (378) = 100 (Unknown Order State)* will be generated when the order status in the Eurex FIX Gateway is unknown. For example:
- if no response from the back end is received within a certain time (when the back end response is received by the Eurex FIX Gateway afterwards an additional *ExecutionReport (8)* will be sent.) or
- in some recovery situations (e.g. several modify requests with PossDup='Y' for the same order).

In these cases members are requested to check the order state in an alternative way (e.g. via GUI).

The different scenarios and their usage of the fields *OrdStatus (39)*, *ExecType (150)* and *ExecRestatementReason (378)* in the ExecutionReport messages sent by the Eurex FIX Gateway are as follows:

Scenario	OrdStatus (39)	ExecType (150)	ExecRestatementReason (378)
Submission of an Order - Order status is unknown	A = Pending New	A = Pending New	100 = Unknown Order State
Cancellation of an Order - Order status is unknown	6 = Pending Cancel	6 = Pending Cancel	100 = Unknown Order State
Modification of an Order - Order status is unknown	E = Pending Replace	E = Pending Replace	100 = Unknown Order State

3.5.8 Order Status and Execution Reports

The *ExecutionReport (8)* message is used to communicate events that affect an order. The field *ExecType (150)* specifies the type of event.

The field *OrdStatus (39)* specifies the new status of the order. The different scenarios and their usage of the *OrdStatus (39)* and *ExecType (150)* are as follows:

Scenario	OrdStatus (39)	ExecType (150)
Successful submission of an order	0 = New	0 = New
Rejected submission of an order	8 = Rejected	8 = Rejected
Successful submission of a closing auction only order outside the closing auction	9 = Suspended	0 = New
Partial fill	1 = Partially filled	F = Trade
Complete fill	2 = Filled	F = Trade
Successful cancellation of an order	4 = Canceled	4 = Canceled
Rejected cancellation of an order	8 = Rejected	Not applicable
Successful modification of an order	0 = New 1 = Partially filled 2 = Filled	5 = Replaced
Successful modification of a closing auction only order outside the closing auction	9 = Suspended	5 = Replaced
Rejected modification of an order	8 = Rejected	Not applicable
Triggered Stop Order	0 = New	L = Triggered by system
Triggered One-cancels-the-other order	0 = New	L = Triggered by system
Activated closing auction only order	0 = New 1 = Partially filled	D = Restated
Inactivated closing auction only order	9 = Suspended	9 = Suspended
Cancellation during instrument freeze state	6 = Pending Cancel	6 = Pending Cancel
Unsolicited modification triggered by third party	0 = New 1 = Partially filled 2 = Filled	5 = Replaced
Unsolicited cancellation triggered by third party	4 = Canceled	4 = Canceled
Order book replay: Transmission of all active orders	0 = New 1 = Partially filled	D = Restated
Order book replay: Transmission of inactivated closing auction orders	9 = Suspended	D = Restated
Unknown Order State	A = Pending New 6 = Pending Cancel E = Pending Replace	A = Pending New 6 = Pending Cancel E = Pending Replace

3.5.9 Order Book Restatement

During the start-of-day phase and after a market reset event (an exchange system failure), all active orders of a session will be transmitted to the market participant via the respective session.

During Order Book Restatement *ExecutionReport (8)* messages for each restated order of the corresponding session are provided and finally a *TradingSessionStatus (h)* message indicates the end of the restatement per product; see **chapter 3.5.11**.

The reason for the restatement is communicated in field *ExecRestatementReason (378)* in message *ExecutionReport (8)*.

Each end of restatement message initiates the start of trading for a product.

ExecRestatementReason (378) will have the value "001 = Order Book Restatement".

Note: In case an ETI session associated to a FIX session is cancelled by the member all orders which were entered via this session and are still valid will be deleted without any further notification to the customer. Therefore these orders will not be restated.

3.5.10 Mass Cancellation Notification

Mass cancellation notification is not provided on a single order level. The owning session will be informed about the scope of the cancellation by a summary record. The summary record will also provide the entering party involved and the reason for the mass cancellation.

Unsolicited order mass cancellation is communicated by the Eurex FIX Gateway via the *OrderMassActionReport (UBZ)* message.

Orders that couldn't be canceled due to an incompatible instrument state are provided with their Exchange Order ID (*NotAffectedOrderID (1371)* and optionally with their *NotAffOrigClOrdID (1372)* in the <NotAffectedOrdersGrp>).

The following unsolicited mass cancellation events may occur:

Mass Cancellation Event	Persistent Orders	Non-persistent Orders
Product Halt	No	Yes
Strategy Cancellation	Yes	Yes
Volatility Interruption Product Level	No	Yes
Volatility Interruption Instrument Level	No	Yes
Product Holiday	No	No
Instrument Suspension	No	No
Product temporarily not tradeable	No	Yes

The reason for the mass cancellation event is communicated in field *MassActionReason (28721)* in message *OrderMassActionReport (UBZ)*.

3.5.11 Trading Session Events

The *TradingSessionStatus (h)* message is used by the Eurex FIX Gateway for all session related events.

Trading session events might imply mass cancellation events, where no explicit mass cancellation notifications are provided; for details see the following table:

Event	TradSesEvent *(1368)*	Persistent Orders	Non-persistent Orders
Market Reset	Market reset *(102)*	No	Yes
End of Restatement	End of restatement *(103)*	No	Yes
Service Resumed	Service resumed *(105)*	No	Yes
End of Service	No more messages *(200)*	No	Yes
Session Disconnect	Message processing suspended *(202)*	No	Yes

The "Market Reset" event informs the participant that the matching engine has been restarted.

The "End of Restatement" event implies that all non-persistent orders of the session in a product have been canceled; in this case no individual cancellation notifications are provided on individual order level.

The "Service Resumed" event informs the participant that the matcher has started accepting transactions after a slow partition event. All non-persistent orders of the session in a product have been canceled.

The "End of Service" event informs the participant about the end of message transmission.

The "Session Disconnect" event informs the participant about the disconnect of the ETI session.

3.6 Trade Notifications

Customers will use drop copy sessions for receipt of trade confirmations for the business unit.

The scope for all *Trade Capture Report (AE)* messages will be the business unit; all trade information the business unit is authorized to see will be provided within one stream; for clearing business units this feature includes the provision of all trade information for all of its non-clearing business units.

After a Back-office FIX session logon, the transmission of all trades of the current business day is triggered.

Newly generated trades and trade reversals on the Eurex Exchange's T7 will automatically be transmitted via the Back-office FIX session.

Note: *TradeCaptureReports (AE)* are only sent for on-exchange trades. Trade Entry Service (TES) trades or adjustments/reversals done in the clearing system will not be delivered.

3.6.1 Trade Reconciliation

There are several identifiers that can be used to associate an *ExecutionReport (8)* with *TradeCaptureReports (AE)* and public trades on the market data interface.

Every **match event** with one or more executions (match steps) in a simple or complex instrument results in only one *ExecutionReport (8)* or a *QuoteExecutionReport (U8)* message for each order or quote respectively. A *Trade Capture Report (AE)* will then be sent to confirm each trade at each price level. For complex instruments, there is a *TradeCaptureReport (AE)* for each leg execution of the instrument.

Every **match step** occurring in the exchange has an identifier that is provided in the field *TrdMatchID (880)* in the *ExecutionReport (8)* as well as in the *TradeCaptureReport (AE)*. This identifier allows participants to link trade capture reports and the corresponding execution report. The same identifier is placed into the field *MDEntryID (278)* of the market data incremental feed in the Eurex Enhanced Market Data Interface (EMDI) and Eurex Enhanced Order Book Interface (EOBI) so that the trade can also be tracked to the market data feed.

The *TradeID (1003)* field in the *TradeCaptureReport (AE)* uniquely identifies all order leg allocations referring to the same matching event, simple instrument and price. The *TradeID (1003)* is equivalent to the trade identifier in Eurex Clearing.

The field *SideTradeID (1506)*, which is unique for a product and business day, in the *TradeCaptureReport (AE)* provides the private identifier of an order match event, which can easily be reconciled with the corresponding *ExecutionReport (8)* for orders in the following way:

- For order match events in simple instruments, the *ExecutionReport (8)* message provides the order execution ID on each price level, *ExecID (17)*.
- For order match events in complex instruments the *ExecutionReport (8)* message provides the order execution ID on each price level and additionally the order leg execution ID, *LegExecID (1893)*.

Match Reporting	Execution Report (8)	Trade Capture Report (AE)
Trade event on instrument level: public trade volume reporting	TrdMatchID (880)	TrdMatchID (880)
Identifier for all leg allocations referring to the same simple instrument		TradeID (1003), OrigTradeID (1126)
Private execution identifier in Order in a simple instrument	SecondaryExecID (527)	SideTradeID (1506)
Private execution identifier in for an order in a complex instrument	LegExecID (1893)	SideTradeID (1506)
Client Order Identifier	ClOrdID (11)[1]	ClOrdID (11)[2]

Note: For trade cancellations a new *TradeID (1003)* is generated by the Eurex Exchange's T7; the *OrigTradeID (1126)* provides the link to the canceled trade. The original trade identifier is provided in field *OrigTradeID (1126)*.

3.6.2 Best Practices for Order Management

All order response information in the Eurex FIX Gateway is sent out immediately after the order has been processed by the core matching process.

All order response information in the Eurex FIX Gateway is preliminary; this includes *ExecutionReports (8)* sent out for persistent and non-persistent orders.

Note: Market data on the Eurex Exchange's T7 is based on order execution information. The Eurex MDI, Eurex EMDI and Eurex EOBI interfaces provide trade price messages on the basis of this preliminary information.

For these reasons, a participant application always needs to confirm the preliminary execution information with the corresponding legally binding *Trade Capture Report (AE)*.

Please find detailed information regarding trade reconciliation in **chapter 3.6.1**.

Trade Capture Reports (AE) are not delivered via Trading FIX sessions. For the reception of the legally binding *Trade Capture Reports (AE)* a Back-office FIX session is required. Back-office FIX sessions can be ordered in the Eurex Member Section.

[1] The client order id entered by the order submitter is provided. For reconciliation of orders with trades the Eurex System Order ID should be used: OrderID (37).

[2] The Client Order ID of the Eurex Enhanced Trading Interface (ETI) is provided. For reconciliation of orders with trades the Eurex System Order ID should be used instead: OrderID (37).

3.7 Cross Request

A cross trade is a trade where a participant trades against an own order in the order book. In a pre-arranged trade, orders from at least two participants are executed against each other as previously negotiated. Cross and pre-arranged trades may not knowingly be entered into the Eurex Exchange's T7 by a participant, unless the participant precedes the cross or pre-arranged trade with a cross request.

A trader sends the Eurex FIX Gateway message *CrossRequest (U100)* which is published via the Eurex Market Data Interface (MDI) to all other participants, to alert them of the intention to trade with an own order or pre-arranged trade.

The cross request contains the security identification (product and instrument id combination) and the *OrderQty (38)*, which is mandatory for regulatory reasons. Optionally the *Side (54)* can be specified by the entering user. In case no side is specified, the quantity is valid for both sides by default.

3.8 Self Match Prevention

The Self Match Prevention (SMP) functionality allows participants to prevent an execution of an incoming order against a book order or quote side from the same business unit in the same instrument (crossing). Exchange Participants can specify an individual Self Match Prevention ID in the field *MatchInstCrossID (28744)* which is contained in the component <MtchgInst> (Matching Instructions).

The *ExecutionReport (8)* will contain the field *Crossed (28745)* with the valid value *1 (Cross rejected)* if the order was deleted or modified due to SMP.

3.9 Request for Quote

The request for quote functionality is used by a trader for asking market makers to enter a quote in a specified instrument. This functionality is supported in the Eurex FIX Gateway by the standard FIX message *Quote Request (R)*. All requests for quote are published via the market data interface to all other participants.

Every *Quote Request (R)* message contains the security identification (product and instrument identifier combination). *Side (54)* and *OrderQty (38)* are optional attributes.

A *Quote Request (R)* message might be rejected with an error message indicating a previous request for quote has already recently been sent.

Note: A *Quote Request (R)* message is validated against the available quantities at the best price and the corresponding bid/ask spread in the market. A *Mass Quote Acknowledgement (b)* message confirms the quote request or might indicate that the quote has been rejected.

3.10 Risk Control Event Notifications

The FIX Gateway supports the dissemination of Risk control event notifications on both the Trading and Back-office sessions.

The following notifications are available:

- Limit Breach Event
- Stop Button Event
- Legal Notification

3.11 Mass Deletion Request

The *Mass Deletion Request (UCA)* will allow deletion of multiple orders. Orders may be filtered by Product identifier (Symbol) or Product identifier (Symbol) and Security identifier (SecurityID).
Note: The ProductComplex will not be allowed on this request as no filtering by instrument type will be supported. It is not possible - for example - to restrict a mass cancellation operation to "Standard Option Strategies".

The user may delete orders owned by a different trader. In this case the owning trader must be provided by the appropriate target occurrence/field TargetPartyRole "executing trader".

The user may delete only part of their orders for one instrument by entering the additional filter criteria side and price. For the buy side the orders will be deleted starting from the highest price until the price specified in the filter, for the sell side starting from the lowest price.

The request will be answered by a User Order Mass Action Response (UCAR) message having MassActionResponse set to "Completed" , if successful. The message then has two different layouts depending on whether any orders were affected or not ("No hits message"). A rejected request will be answered by a User Order Mass Action Response (UCAR) message having MassActionResponse set to "Rejected" and providing an error code/explaining text in ReturnCode/ReturnCodeText respectively.

3.12 Drop Copy for Order Information (Business Unit Level)

Drop copy functionality for standard (not lean) orders of a business unit of the current business day is provided as an optional feature of the Back-office FIX session.

When the client chooses the drop copy feature for a Back-office FIX session in the Eurex Member Section, the order-information of the current business day for all standard (not lean) orders of the member is provided on a stream basis:

- After a Back-office session logon, the transmission of all active orders for the current business day can be requested via *ResendRequest (2)*.
- Newly generated messages for standard (not lean) orders on the back end will automatically be transmitted via the Back-office FIX session.
- All drop copy information for standard (not lean) orders will be sent via FIX messages (*ExecutionReport (8)*, *UserOrderMassActionReport (UBZ)*).

Note: Orders entered or modified via the Eurex FIX Gateway will provide the *ClOrdID (11)* in the ExecutionReport (8) message of the Drop Copy functionality for standard (not lean) orders. *OrigClOrdID (41)* will not be provided.

For orders immediately triggered after being entered or modified the value of the stop price is not available. The *ExecutionReports (8)* with *ExecType (150) = 0 (New)* and *5 (Replaced*) will contain in this case *StopPx (99) = -1*.

3.13 Variance Futures

Participants enter, modify and delete orders in variance futures using the same messages and fields as other simple instruments in Eurex Exchange's T7 (New Order Single, Order Cancel/Replace Request, Order Cancel Request). The only difference for variance futures is that the entered Price (44) is understood as Volatility and the entered quantity (OrderQty (38)) is understood as Vega Notional. An Execution Report is published as normal. Once traded, T7 provides a preliminary Trade Capture report (TradeReportType (856) is 1 = Alleged) that includes also a preliminary calculated clearing price

(ClearingTradePrice (1596)) and calculated clearing quantity (ClearingTradeQty(28736)). Once the final conversion parameters are approved at the end of the trading day, a final Trade Capture report (TradeReportType 5 = No/Was (Replaced)) is published that provides the final calculated clearing price and clearing quantity.

4 Connectivity and Session Parameters

4.1 Session Concept

As per the FIX Protocol standard, a FIX session is defined as a bi-directional stream of ordered messages between two parties within a contiguous sequence number.

A participant may have multiple FIX sessions. A FIX session will be initiated by the participant, and maintained between the participant and the Eurex FIX Gateway over the course of a trading day.

The FIX Gateway will support two types of FIX sessions: Trading and Back-office FIX Sessions.

Trading FIX Sessions are used for order management. Each session will receive information for all of its own orders. Several traders may share a single session, but every session can only be instantiated once.

Back-office FIX Sessions are used for receipt of trade confirmations at a business unit level. Clearing business units receive trade confirmations from its trading business units and from its Non-Clearing Members.

Every Back-office session may only be instantiated once.

4.2 Backward Compatibility

Backward compatibility on the FIX Gateway should be feasible if all of the following applies to a legacy client connecting to a FIX Gateway with a newer version:

- existing message definitions did not change or were only amended by optional fields.
- the FIX Engine on the customer side is capable of dropping/logging unknown new messages and unknown new fields on both session and application levels.
- new functionality is not used by customers.
- optional removed fields are not used by customers.

Under this definition Eurex T7 release 4.0 is backward compatible with Eurex T7 release 3.0.

4.3 Session Identification and Authentication

For each FIX session, a unique identifier, the *SenderCompID (49)* and a *Password (554)* is assigned by Eurex on registration. A participant may have multiple FIX sessions (connections to the FIX Gateway). For each business unit a separate FIX session is required.

For security reasons a *Password (554)* must be specified on the *Logon (A)* message. The initial password assigned by Eurex for each FIX session should be changed during the first logon by specifying *NewPassword (925)* in the *Logon (A)* message.

When changing the password, the following password validation rules have to be applied:

- Minimum password length 8
- Minimum required alphanumeric characters 1
- Minimum required uppercase characters 1
- Minimum required lowercase characters 1
- Miminum required special characters 1

In exceptional circumstances, a password may need to be reset. Clients are able to perform a password reset via the Eurex Member Section.

All messages sent to the FIX Gateway should contain the assigned unique identifier of the FIX session in the field *SenderCompID (49)* and "EUREX" in the *TargetCompID (56)* field.

All messages sent by the FIX Gateway to the client will contain "EUREX" in the *SenderCompID (49)* field and the assigned unique identifier of the FIX session in the *TargetCompID (56)* field.

The FIX Gateway has a two-step logon procedure, with a *Logon (A)* message (Session Logon) followed by one or multiple *User Request (BE)* messages (Trader Logons) at an application level:

Please find a detailed message flow in the appendix.

4.3.1 Network Authentication

The FIX Gateway will validate the subnet from where the FIX session is initiated during session logon. The FIX session logon (*Logon (A)* message) will be rejected by the FIX Gateway if the subnet cannot be authenticated. Participants are allowed to initiate/resume their FIX sessions from alternate locations, e.g., a backup site or disaster recovery location, Eurex Exchange´s T7 permits the setup of up to four IP subnet addresses for FIX session IDs via the Eurex Member Section.

4.3.2 Session Logon

The *Logon (A)* message authenticates a FIX session and establishes a connection to the FIX Gateway. This message must be the first one sent by the client. The FIX Gateway will validate the *SenderCompID (49)* and *Password (554)*. A successful logon will initiate a FIX session.

The Eurex FIX Gateway does not support encryption. *EncryptMethod (98)* must therefore be set to "0".

As an additional safeguard measure, the *TestMessageIndicator (464)* is used to indicate whether a FIX session to be initiated will be used for Simulation or Production purposes. The FIX Gateway will reject a *Logon (A)* message in the event that the *TestMessageIndicator (464)* value does not match the target environment.

In order to enhance operational support and error analysis on both the session and application level, information about the client's FIX engine (*FIXEngineName (1600), FIXEngineVersion (1601), FIXEngineVendor (1602)* as well as the used FIX application (*ApplicationSystemName (1603), ApplicationSystemVersion (1604), ApplicationSystemVendor (1605)*) must be provided by the client in the *Logon (A)* message. For more details, please refer to the detailed description of the *Logon (A)* message in **chapter 6.3.1**.

Note: The *Logon (A)* message is not used to log on and authenticate a trader on the Eurex trading system.

4.3.3 Trader Logon

The *User Request (BE)* message identifies and authenticates a qualified trader establishing access to the Eurex trading system. FIX sessions may be shared by several traders, with the exception of Back-office FIX sessions. Back-office FIX sessions do not require a trader logon.

The participant must provide the corresponding Eurex User ID of the trader in the *Username (553)* field, and the corresponding password in the *Password (554)* field.

A successful trader logon will grant the trader access to the Eurex trading system.

Note: A trader logon requires an active connection to the Eurex trading system (indicated by a *TradingSessionStatus (h)* message with *Trading TradSesEvent (1368)* = 203 "Message processing resumed" sent previously by the FIX Gateway). Order related messages will only be accepted by the trading system if a trader is logged on successfully. Otherwise these messages will be rejected (e.g. "User not

logged in") and have to be sent again by the customer using a new *MsgSeqNum (34)* and a new *ClOrdID (11)*. It is strongly recommended that order related messages should only be sent if a previous trader logon was positively confirmed.

4.3.4 IP Addresses and Ports

The FIX connection between a Eurex member's infrastructure and the Eurex FIX Gateway service is established via a TCP/IP connection. The service comprises of primary and secondary gateways, operated in the Eurex Simulation and Production environments. The respective gateways will use distinct target IP addresses and port numbers.

For each FIX session, two individual IP addresses and port numbers are assigned and communicated by Eurex. Primary IP address and port is for default usage. Secondary combination is reserved for emergency cases (e.g. line outage).

The client is free to define its own source addresses.

4.4 Failover

The Eurex FIX Gateway service features a redundant setup of all components to provide a high level of availability and fault tolerance, and to facilitate a client's implementation of failover in network- and application level failure scenarios. Its setup offers connectivity to both FIX Gateways and thus provides a client's application with the possibility to select which FIX Gateway it will connect to.

A FIX session may be initiated via all available connections, but every session may only be instantiated once. Each TCP/IP connection may only support one session instance.

Both participant ports on the primary and on the secondary FIX Gateway are open. Every FIX session may only be logged in once via one of the connections. Per default only the primary FIX Gateway is connected to the market back end. Therefore the first FIX session logon to the secondary FIX Gateway may take some seconds.

Eurex may delay high-frequent switching attempts between the two connections.

In case of a customer failover the Eurex ETI session will be disconnected and non-persistent orders will be deleted.

4.4.1 Network Failover

The minimal network configuration that enables a network failover comprises two connections via dedicated leased line and/or via the Internet. Each line is unchangeably assigned to one FIX Gateway, one to the primary, the other to the backup gateway.

After a successful FIX logon to the secondary FIX Gateway, the port of the primary FIX Gateway connection will remain open, but any further logon attempts to the primary FIX Gateway connection will lead to a disconnect of this session.

4.4.2 Application Failover

In the event of a FIX Gateway failure, active FIX sessions connected to this gateway will be disconnected and the corresponding port will be closed. There will be no automatic FIX session failover in case of a FIX Gateway failure.

4.4.3 Best Practice

In all failover scenarios described above, participants may resume a FIX session for the same *SenderCompID (49)* via connection to the secondary FIX Gateway. Participants should therefore implement a failover mechanism in their application, in order to be able to establish a FIX session over the alternative connection.

If a connection or a session logon fails or is not responded to immediately, a second attempt should only be made after a few seconds (30 seconds recommended).

Note: A failover will not cause a reset of sequence numbers on the FIX Gateway side, neither is a reset of sequence numbers required in the participant's application. After re-establishment of the FIX session via the alternative connection, the regular retransmission process of missed messages starts.

4.5 Message Throttling and Queuing

All messages will be processed by the FIX engine on the exchange side. Nevertheless participants should not send more than 50 application messages (production environment) per second, trading market and FIX session in order to prevent the Eurex FIX Gateway from queuing. In case of exceeding a rate of 50 messages per second, the FIX Gateway may queue the affected messages internally and forward them subsequently to the back end, maintaining the maximum back end throttle rate.

The general session parameter *MaxOrderRequestQueueTimeout* allows a client to define the maximum time period in milliseconds a single FIX message should be held in the FIX Gateway's intermediate buffer in case the throttle limit is exceeded, before it is rejected.

Default is a maximum value, which means that all requests will be queued until they can be routed to the trading system.

Session parameters can be maintained within the Eurex Member Section.

4.6 Mass Cancellation on Disconnect

The FIX Gateway does not cancel orders in the event of a FIX Session disconnection.

5 Session Layer

The Eurex FIX Gateway uses session level messages as specified by the FIX 4.4 Specification with Errata 20030618 Eurex specific extensions as described in this document.

Details regarding the message layout of administrative messages used can be found in **chapter 6**.

The Eurex FIX Gateway ignores the *OrigSendingTime (122)* in all message types.

The following message formats are based on the interface version number: EurexT7-7.0-1.

5.1 Logon

The *Logon (A)* message is the first message the participant needs to send after the TCP connection has been established. No encryption is supported by the FIX Gateway.

As the first message for the day the participant should send a *Logon (A)* message with sequence number 1.

A FIX session is identified by the field *SenderCompID (49)* and *TargetCompID (56)* in the message header.

SenderCompID (49), *Password (554)* and *BeginString (8)* are validated during the session logon. If validation fails, the FIX Gateway will send a *Logout (5)* message specifying the reason for the rejection followed by the termination of the TCP connection.

Note: If validation during session logon has failed, the sequence number will not be reset.

In the event of an intra-day restart the *Logon (A)* response message may provide a sequence number higher than expected by the participant. This would indicate that messages were missed. The participant should send a *Resend Request (2)* message to trigger retransmission of the missed messages, please refer to section 4.5 for more details.

Logon requests with *ResetSeqNumFlag (141)* set to "Y" will trigger a reset of sequence numbers at the participant side only. The FIX Gateway's sequence numbering will remain unchanged. Thus the customer is able to access all messages disseminated by the FIX Gateway including the transmission of all active orders at start of the business day.

Note: If a FIX session is successfully logged on subsequent *Logon (A)* messages will be discarded.

5.2 Sequence Number

All FIX messages are identified by a unique sequence number. The FIX Gateway will process messages in sequence per tradeable instrument.

Sequence numbers are reset by the FIX Gateway during down time after the end of each trading day. The same behaviour is expected for the FIX engine on the client side.

Sequence numbers sent by the client which are behind sequence expected will trigger a logout and TCP connection drop by the FIX Gateway.

Sequence numbers ahead of sequence will trigger a message recovery by the FIX Gateway via the *Resend Request (2)* message.

5.3 Heartbeat

The *HeartBtInt (108)* has to be specified by the participant during the FIX session logon.

A *Heartbeat (0)* message should be sent by the participant if no other message has been processed during the defined *HeartBtInt (108)* interval.

5.4 Test Request

A *Test Request (1)* message should be sent, if no in-sequence message has been received for more than the heartbeat interval. If no in-sequence message is received after that for more than the heartbeat interval, the TCP connection should be dropped.

5.5 Resend Request

A *Resend Request (2)* message initiates the retransmission of missed messages and can be used if a sequence number gap has been detected. A *Resend Request (2)* message needs to be processed even if it is ahead of sequence.

The *PossDupFlag (43)* field set to "Y" in the Message Header indicates that a FIX engine is repeating transmission of already sent content (including MsgSeqNum).

The Eurex FIX Gateway supports open or closed sequence range in a *Resend Request (2)* message (an open range is indicated by sequence number zero as the *EndSeqNo (16)*).

Note: No Gap Fill messages should be sent by the participant during the resend series for application messages. Application messages should always be re-transmitted since the Eurex FIX Gateway requires all missed application messages for the purpose of reconciliation with the Eurex trading system.

5.6 Reject

Session level rejects are used by the Eurex FIX Gateway to indicate violations of the session protocol, missing fields or invalid values.

5.7 Sequence Reset

Two types of *Sequence Reset (4)* messages are supported: Gap Fill mode and Reset mode.

5.7.1 Gap Fill mode

This type of *Sequence Reset (4)* message is the response to a *Resend Request (2)* message.

Gap Fill mode is indicated by *GapFillFlag (123)* field = "Y".

All gap fill messages should have *PossDupFlag (43)* = "Y" in the Message Header.

Note: The Eurex FIX Gateway will not disseminate Gap Fill messages. Gap Fill mode should only be used by the participant for administrative messages; see **chapter 5.5**.

5.7.2 Reset Mode

The Reset Mode of the *Sequence Reset (4)* message may be used by the participant in emergency scenarios where all means of automatic recovery are lost (e.g. in case of an unrecoverable application failure).

Reset Mode is indicated if *GapFillFlag (123)* = "N" or if the field is omitted.

After the Reset Mode has been triggered, the *Test Request (1)* message should be used by the participant to verify that the requested reset has been accepted by the FIX Gateway.

5.8 Logout

The *Logout (5)* message is used by the participant to gracefully close the FIX session. Messages need to be processed normally by the participant until the FIX Gateway sends the logout confirmation.

The Eurex FIX Gateway will send a *Trading Session Status (h)* message when all messages for a FIX session have been processed. The FIX Gateway will subsequently log out the FIX session.

Note: The FIX Gateway will also send a *Logout (5)* message if validation fails for a FIX session logon. The reason for the rejection is specified in *SessionStatus (1409)*. The *Logout (5)* message is followed by a drop of the TCP connection.

5.9 Recovery

When a participant reconnects after a FIX session disconnection during the same business day, two different scenarios can be identified as a reason for the outage: namely outage on the client side and outage on Eurex FIX Gateway side.

5.9.1 Outage on the client side

- After resuming the FIX session, the participant may have missed some messages from the FIX Gateway. In this case, the sequence number of the next message received from the FIX Gateway will be ahead of the last *MsgSeqNum (34)* stored on the participant side.
- The participant should send a *Resend Request (2)* message in order to trigger all missed messages during the outage.
- The FIX Gateway will return all potentially missed messages with *PossDupFlag (43)* = "Y" to indicate that a message may have been previously transmitted with the same *MsgSeqNum (34)*.

Note: Mass cancellation services on disconnect is not supported by the Eurex FIX Gateway. All open orders remain in the order book during an outage including non-persistent orders.

5.9.2 Outage on Eurex FIX Gateway side

In the unlikely event that the disconnection was due to an outage on the Eurex side, the participant should consider the following recovery mechanisms:

- After reconnection of the FIX session, the FIX Gateway may receive a sequence number higher than the one expected and sends a *Resend Request (2)* message to the participant.
- The participant should resend all potentially missed messages with *PossDupFlag (43)* = "Y", to indicate that a message may have been previously transmitted with the same *MsgSeqNum (34)*. The FIX Gateway will send responses to already processed messages with *possResend (97)* = "Y". After a forced failover pending order messages might be rejected. These messages can be submitted again by the participant using a new *MsgSeqNum (34)* and a new *ClOrdID (11)*.
- Note: No Gap Fill messages should be sent by the participant during the resend series for application messages. Application messages should always be re-transmitted since the Eurex FIX Gateway requires all missed application messages for the purpose of reconciliation with the Eurex trading system.

If a participant sends Gap Fill messages during the resend series for application messages the related orders might not be accessible any more via the FIX Gateway and related order specific information will not be forwarded to the FIX session. This also holds true in case of *Logon (A)* message with *ResetSeqNumFlag (141)* = "Y".

6 Message Formats

This chapter provides details on the administrative and application messages used by the Eurex FIX Gateway. The structure of the header and trailer as well as details on the components used in application messages are provided. Messages sent by clients not listed in this section are rejected by the server via a *Reject (3)* message or *Business Message Reject (j)* message.

6.1 Overview of Supported Message Types

6.1.1 Administrative Messages

Message	MsgType	Usage
Heartbeat	0	The Heartbeat message may be used by the client and the FIX Gateway to monitor the status of the communication link during periods of inactivity.
Test Request	1	The Test Request message is used to trigger a heartbeat message from the opposing application.
Resend Request	2	The Resend Request is used by the client and the FIX Gateway to initiate the retransmission of messages in a recovery scenario.
Reject	3	The Reject message is used by the FIX Gateway when a message is received but cannot be properly processed due to a session-level rule violation.
Sequence Reset	4	The Sequence Reset message has two modes: Gap Fill mode is used in response to a Resend Request when one or more messages must be skipped over. Reset mode specifies an arbitrarily higher new sequence number after an unrecoverable application failure.
Logout	5	The Logout message initiates or confirms the termination of a FIX session. It is also used by the FIX Gateway to reject the FIX session logon.
Logon	A	The Logon message allows the client to connect to the FIX Gateway. It is also used by the FIX Gateway to confirm the logon.

6.1.2 Application Messages: Strategy Creation

Message	Type	Sender	Description
Security Definition Request	c	Client	The Security Definition Request message is used to create a strategy on Eurex.
SecurityDefinition	d	FIX Gateway	The Security Definition message is used to accept or reject the security defined in a Security Definition message.

6.1.3 Application Messages: Order Management

Message	Type	Sender	Description
New Order Single	D	Client	The New Order Single message is used by the client to submit an order for single leg securities.
New Order Multileg	AB	Client	The New Order Multileg message is provided to submit orders for securities that are made up of multiple securities, known as "legs".
Order Cancel Request	F	Client	The Order Cancel Request is used to delete an existing order.
Order Cancel Replace Request	G	Client	The Order Cancel/Replace Request is used to modify an existing order.
Multileg Order Cancel Replace Request	AC	Client	The Multileg Order Cancel Replace request is used to modify a multileg order (previously submitted using the New Order - Multileg message).
Execution Report	8	FIX Gateway	The Execution Report message is used to: – confirm the receipt of an order – confirm changes to an existing order – transmit all active orders – relay fill information – reject orders
Order Cancel Reject	9	FIX Gateway	The Order Cancel Reject message indicates that an Order Cancel Request, Order Cancel Replace Request or Multileg Order Cancel Replace Request has been rejected.
Order Mass Action Request (User-defined)	UCA	Client	User order mass action request
Order Mass Action Response (User-defined)	UCAR	FIX Gateway	User order mass action response

6.1.4 Application Messages: Cross Request and Quote Request

Message	Type	Sender	Description
Quote Request	R	Client	The Quote Request message is used to request quotes from market makers. This message is commonly referred to as an Request For Quote (RFQ).
Mass Quote Acknowledgement	b	FIX Gateway	Mass Quote Acknowledgement is used as the application level response to a Quote Request.
Cross Request	U100	Client	The Cross Request message is used by a trader to announce a Cross Trade to the market. The request is used, if a trader intends to trade with himself via order-book by sending a buy and a sell order for the same instrument. It is also used for prearranged trades between two traders, where the trade should be reproduced via matching the orders in the order-book.

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Message	Type	Sender	Description
Cross Request Acknowledgement	U101	FIX Gateway	Cross Request Acknowledgement is used as the application level response to a Cross Request.

6.1.5 Application Messages: Trade Capture

Message	Type	Sender	Description
Trade Capture Report	AE	FIX Gateway	The Trade Capture Report message is used to report Eurex "on-book" trades and trade reversals.

6.1.6 Application Messages: Others

Message	Type	Sender	Description
User Request	BE	Client	Each trader needs to logon/logoff to/from Eurex via the User Request message.
User Response	BF	FIX Gateway	The User Response message is used to confirm or reject the trader logon/logoff.
User Notification	UCB	FIX Gateway	User Notification - UCB - The User Notification message is used to: - send information of an unsolicited trader logoff - send information of legal notifications
Business Message Reject	j	FIX Gateway	The Business Message Reject message indicates that an application message has been rejected.
Trading Session Status	h	FIX Gateway	The Trading Session Status message informs about session related events.
Order Mass Action Report (User-defined)	UBZ	FIX Gateway	This message informs about unsolicited mass cancellation events.
Party Risk Limits Update Report (User-defined)	UCR	FIX Gateway	User Party Risk Limits Update Report. This message communicates risk control events related to the Advanced Risk Protection functionality of Eurex in case of a risk limit breach or release.
Party Entitlements Update Report (User-defined)	UCZ	FIX Gateway	User Party Entitlements Update Report. This message communicates risk control events related to the manual stop or release of trading functionality. Events will be generated on the Clearing back end and passed to the user by the T7 back end.
Party Action Report (User-defined)	UDI	FIX Gateway	User Party Action Report. This message communicates risk control events of type halt-trading and re-instate. Events will be entered via the T7 Admin GUI.

6.2 Message Header and Trailer

6.2.1 Message Header

Tag	Field Name	Req'd	Description
8	BeginString	Y	Identifies beginning of new message and protocol version. **Value** / **Description**: FIX.4.4 / Version 4.4
9	BodyLength	Y	Message length, in bytes, forward to the CheckSum field.

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Tag	Field Name	Req'd	Description
35	MsgType	Y	Defines message type ALWAYS THIRD FIELD IN MESSAGE. (Always unencrypted) Note: A 'U' as the first character in the MsgType field (i.e. U, U2, etc) indicates that the message format is privately defined between the sender and receiver.

Value	Description
0	Heartbeat
1	Test Request
2	Resend Request
3	Reject
4	Sequence Reset
5	Logout
8	Execution Report
9	Order Cancel Reject
A	Logon
D	New Order Single Request
F	Order Cancel Request
G	Order Cancel/Replace Request
R	Quote Request
AB	New Order Multileg
AC	Multileg Order Cancel Replace
AE	Trade Capture Report
BE	User request
BF	User response
U100	Cross Request
U101	Cross Request Acknowledge
UBZ	User order mass action report
UCA	User order mass action request
UCB	User notification
UCR	User Party Risk Limits Update Report
UCZ	User Party Entitlements Update Report
UDI	User Party Action Report
UCAR	User order mass action response
b	Mass Quote Acknowledgement
c	Security Definition Request
d	Security Definition
h	Trading session status
j	Business Message Reject

... continued ...

Tag	Field Name	Req'd	Description
34	MsgSeqNum	Y	Message sequence number used by the participant for requests sent to the gateway.
43	PossDupFlag	N	Indicates possible retransmission of message with this sequence number. **Value** – **Description** N – Original transmission Y – Possible duplicate
49	SenderCompID	Y	Assigned identifier of the party sending the message. Will be "EUREX" for messages sent to client.
52	SendingTime	Y	Time of message transmission. This field will be ignored by the FIX Gateway.
56	TargetCompID	Y	Assigned identifier of the party receiving the message. Must be "EUREX" for messages sent by the client.
97	PossResend	N	Indicates that message may contain information that has been sent under another sequence number. **Value** – **Description** N – Original transmission Y – Possible Resend
122	OrigSendingTime	C	The FIX Gateway ignores the OrigSendingTime (122) in all message types. Required if PossDupFlag (43) = "Y".
369	LastMsgSeqNumProcessed	N	The last MsgSeqNum (34) value received by the FIX engine and processed by downstream application, such as trading engine or order routing system. Can be specified on every message sent. Useful for detecting a backlog with a counterparty.

6.2.2 Message Trailer

Tag	Field Name	Req'd	Description
10	CheckSum	Y	Three byte, simple checksum.

6.3 Administrative Messages

6.3.1 Session Logon

The Logon message allows the client to connect to the FIX Gateway. It is also used by the FIX Gateway to confirm the logon.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'A' = Logon
<**Message Body**>			
98	EncryptMethod	Y	Method of encryption. **Value** / **Description** 0 / None/other
108	HeartBtInt	Y	Heartbeat interval in seconds. The heartbeat interval must be greater than zero.
141	ResetSeqNumFlag	N	Indicates that the both sides of the FIX session should reset sequence numbers. **Value** / **Description** N / No Y / Yes, reset sequence numbers
383	MaxMessageSize	N	Maximum number of bytes supported for a single message. This field will be ignored by the FIX Gateway.
464	TestMessageIndicator	Y	Indicates that this FIX session will be sending and receiving "test" vs. "production" messages. **Value** / **Description** N / False (Production) Y / True (Simulation)
554	Password	N	Password. This field is required in the messages sent to the FIX Gateway.
789	NextExpectedMsgSeqNum	N	Next expected MsgSeqNum value to be received. This field will be ignored by the FIX Gateway.
925	NewPassword	N	New Password or passphrase.
1408	DefaultCstmApplVerID	N	Most recent version number of the Eurex FIX Gateway interface.
1600	FIXEngineName	N	Provides the name of the infrastructure component being used for session level communication. Normally this would be the FIX Engine or FIX Gateway product name. Fixed String(30). This field is required in the messages sent to the FIX Gateway.

Tag	Field Name	Req'd	Description
			. . . continued . . .
1601	FIXEngineVersion	N	Provides the version of the infrastructure component. It will not be returned in the logon response. Fixed String(30). This field is required in the messages sent to the FIX Gateway.
1602	FIXEngineVendor	N	Provides the name of the vendor providing the infrastructure component. It will not be returned in the logon response. Fixed String(30). This field is required in the messages sent to the FIX Gateway.
1603	ApplicationSystemName	N	Provides the name of the application system being used to generate FIX application messages. This will normally be a trading system, OMS, or EMS. It will not be returned in the logon response. Fixed String(30). This field is required in the messages sent to the FIX Gateway.
1604	ApplicationSystemVersion	N	Provides the version of the application system being used to initiate FIX application messages. It will not be returned in the logon response. Fixed String(30). This field is required in the messages sent to the FIX Gateway.
1605	ApplicationSystemVendor	N	Provides the vendor of the application system. It will not be returned in the logon response. Fixed String(30). This field is required in the messages sent to the FIX Gateway.
<**Standard Trailer**>			

6.3.2 Session Logout

The Logout message initiates or confirms the termination of a FIX session. It is also used by the FIX Gateway to reject the FIX session logon.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'5' = Logout
<**Message Body**>			
58	Text	N	Message text.
1409	SessionStatus	N	Session status. **Value** / **Description** 4 – Session logout complete 5 – Invalid user name or password
<**Standard Trailer**>			

6.3.3 Heartbeat

The Heartbeat message may be used by the client and the FIX Gateway to monitor the status of the communication link during periods of inactivity.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'0' = Heartbeat
<**Message Body**>			
112	TestReqID	C	Identifier included in Test Request message; required in the Heartbeat message if the heartbeat is a response to a Test Request.
<**Standard Trailer**>			

6.3.4 Test Request

The Test Request message is used to trigger a heartbeat message from the opposing application.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'1' = Test Request
<**Message Body**>			
112	TestReqID	Y	Identifier included in Test Request message; required in the Heartbeat message if the heartbeat is a response to a Test Request.
<**Standard Trailer**>			

6.3.5 Resend Request

The Resend Request is used by the client and the FIX Gateway to initiate the retransmission of messages in a recovery scenario.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'2' = Resend Request
<**Message Body**>			
7	BeginSeqNo	Y	Message sequence number of first message in range to be resent.
16	EndSeqNo	Y	Message sequence number of last message in range to be resent.
<**Standard Trailer**>			

6.3.6 Reject

The Reject message is used by the FIX Gateway when a message is received but cannot be properly processed due to a session-level rule violation.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'3' = Reject
<**Message Body**>			
45	RefSeqNum	Y	Reference message sequence number.
58	Text	N	First free-format text field for trader-specific or customer-related comments. Also used by the FIX Gateway to transport an error text.
371	RefTagID	N	The tag number of the FIX field being referenced.
372	RefMsgType	Y	The MsgType (35) of the FIX message being referenced.
373	SessionRejectReason	N	Error code.
25023	ReturnCode	N	Unique error or event identification number.
25024	ReturnCodeSource	N	Originating system component providing the return code.
<**Standard Trailer**>			

Value	Description
0	Invalid tag number
1	Required tag missing
2	Tag not defined for this message type
3	Undefined tag
4	Tag specified without value
5	Value is incorrect for this tag
6	Incorrect data format for value
9	CompID Problem
10	Sending time accuracy problem
11	Invalid msgtype
13	Tag appears more than once
14	Tag specified out of required order
15	Repeating group fields out of order
16	Incorrect NumInGroup count for repeating group
17	Non 'data' value includes field delimiter
99	Other

6.3.7 Sequence Reset

The Sequence Reset message has two modes: Gap Fill mode is used in response to a Resend Request when one or more messages must be skipped over. Reset mode specifies an arbitrarily higher new sequence number after an uncoverable application failure.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'4' = Sequence Reset
<**Message Body**>			
36	NewSeqNo	Y	New sequence number.
123	GapFillFlag	N	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent. **Value** – **Description** N – Sequence Reset, Ignore Msg Seq Num Y – Gap Fill Message, Msg Seq Num Field Valid
<**Standard Trailer**>			

6.4 Application Messages: Strategy Creation

6.4.1 Security Definition Request

The Security Definition Request message is used to create a strategy on Eurex.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'c' = Security Definition Request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
<Instrument>		Y	Security identification.
<InstrmtLegGrp>		Y	The group of instrument leg is used for the creation of a Eurex strategy.
320	SecurityReqID	Y	Unique ID of a Security Definition Request.
321	SecurityRequestType	Y	Type of security definition request. **Value** / **Description** 6 / Product
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
1301	MarketID	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
<**Standard Trailer**>			

6.4.2 Security Definition Response

The Security Definition message is used to accept or reject the security defined in a Security Definition message.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'd' = Security Definition
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
<Instrument>		Y	Security identification.
<InstrmtLegGrp>		Y	The group of instrument leg is used for the creation of a Eurex strategy.
<MarketSegmentGrp>		Y	The group of market segment provides security definition for the market segment that the security participates in.
58	Text	N	Error text.
320	SecurityReqID	Y	Unique ID of a Security Definition Request.
322	SecurityResponseID	Y	Identifier for the security definition message.
323	SecurityResponseType	Y	Type of security definition message response. **Value** / **Description** 2 / Accept security proposal with revisions as indicated in the message 5 / Reject security proposal
1607	SecurityRejectReason	N	Identifies the reason a security definition request is being rejected.
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** TRADING SYSTEM / Trading system
28614	NumberOfSecurities	Y	Number of strategies that have been created per session, product and business day.
<**Standard Trailer**>			

6.5 Application Messages: Order Management

6.5.1 New Order Single

The New Order Single message is used by the client to submit an order for single leg securities.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'D' = New Order Single Request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering trader>		Y	Entering User ID.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
<Instrument>		Y	Security identification.
<TrdgSesGrp>		N	The group of trading session is used to identify a closing auction only order.
<MtchgInst>		N	Matching Instructions for using the Self Match Prevention functionality.
1	Account	N	Eurex offers the following accounts to book trades and keep positions on: **Value** / **Description** A1 - A9 / Agent account one to nine G1 and G2 / Give-up account one and two M1 and M2 / Market Maker account one and two P1 and P2 / Proprietary account one and two
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).

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Tag	Field Name	Req'd	Description
18	ExecInst	N	Instructions for order management; all orders need to be defined as either persistent or non-persistent. An order may additionally be defined as a Book or Cancel Order unless it has been defined as Closing Auction Only with TradingSessionSubID (625). **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) 6 – Participate don't initiate (Book or cancel)
38	OrderQty	Y	Total Order Quantity.
40	OrdType	Y	Order type. **Value** / **Description** 1 – Market 2 – Limit 3 – Stop 4 – Stop limit
44	Price	C	Limit price. Required if OrdType (40) is Limit (2) or Stop Limit (4).
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
59	TimeInForce	N	Execution and trading restriction parameters supported by Eurex. **Value** / **Description** 0 – Day 1 – Good till Cancel 3 – Immediate or Cancel 6 – Good till Date
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.

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Tag	Field Name	Req'd	Description
77	PositionEffect	Y	Field is used for Eurex position management purposes and indicates whether the order is submitted to open or close a position. **Value** / **Description** O – Open C – Close
99	StopPx	C	Stop price. Required if OrdType (40) is Stop Limit (4). Also required if OrdType is Stop (3) and the order is not an OCO order.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
432	ExpireDate	C	Date of order expiry. Required if TimeInForce (59) = 6 .
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
1100	TriggerType	C	Defines when the trigger will hit, i.e. the action specified by the trigger instructions will come into effect. **Value** / **Description** 4 – Price movement
1102	TriggerPrice	C	The price at which the trigger should hit.
1815	TradingCapacity	Y	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.

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Tag	Field Name	Req'd	Description
28710	PriceValidityCheckType	Y	Indicator how price validity check should be performed by the exchange. **Value** / **Description** 0 – None 1 – Optional 2 – Mandatory
<**Standard Trailer**>			

6.5.2 New Order Multileg

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

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'AB' = New Order Multileg
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering trader>		Y	Entering User ID.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
<Instrument>		Y	Security identification.
<LegOrdGrp>		Y	The group of leg is used to specify clearing attributes for the legs of a Multileg Order.
<MtchgInst>		N	Matching Instructions for using the Self Match Prevention functionality.
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
18	ExecInst	N	Instructions for order management; all orders need to be defined as either persistent or non-persistent. An order may additionally be defined as a Book or Cancel Order unless it has been defined as Closing Auction Only with TradingSessionSubID (625). **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) 6 – Participate don't initiate (Book or cancel)
38	OrderQty	Y	Total Order Quantity.
40	OrdType	Y	Order type. **Value** / **Description** 2 – Limit

... continued ...

Tag	Field Name	Req'd	Description
44	Price	Y	Limit price.
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
59	TimeInForce	N	Execution and trading restriction parameters supported by Eurex. **Value** / **Description** 0 – Day 1 – Good till Cancel 3 – Immediate or Cancel 6 – Good till Date
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
432	ExpireDate	C	Date of order expiry. Required if TimeInForce (59) = 6 .
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
1815	TradingCapacity	Y	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.

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Tag	Field Name	Req'd	Description
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.
28710	PriceValidityCheckType	Y	Indicator how price validity check should be performed by the exchange. **Value** / **Description** 0 – None 1 – Optional 2 – Mandatory
<**Standard Trailer**>			

6.5.3 Order Cancel Request

The Order Cancel Request is used to delete an existing order.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'F' = Order Cancel Request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
<Instrument>		Y	Security identification.
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
37	OrderID	N	Exchange Order ID generated by Eurex System; it remains constant over the lifetime of an order.
38	OrderQty	Y	Total Order Quantity.
41	OrigClOrdID	Y	ClOrdID (11) of the last successfully processed task (request) referring to the specific order; used for client order ID chaining.
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
<**Standard Trailer**>			

6.5.4 Order Cancel/Replace Request

The Order Cancel Replace Request is used to modify an existing order.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'G' = Order Cancel/Replace Request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering trader>		Y	Entering User ID.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
<Instrument>		Y	Security identification.
<TrdgSesGrp>		N	The group of trading session is used to identify a closing auction only order.
<MtchgInst>		N	Matching Instructions for using the Self Match Prevention functionality.
1	Account	N	Eurex offers the following accounts to book trades and keep positions on: **Value** – **Description** A1 - A9 – Agent account one to nine G1 and G2 – Give-up account one and two M1 and M2 – Market Maker account one and two P1 and P2 – Proprietary account one and two
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).

... continued ...

Tag	Field Name	Req'd	Description
18	ExecInst	N	Instructions for order management; all orders need to be defined as either persistent or non-persistent. An order may additionally be defined as a Book or Cancel Order unless it has been defined as Closing Auction Only with TradingSessionSubID (625). **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) 6 – Participate don't initiate (Book or cancel)
38	OrderQty	Y	Total Order Quantity.
40	OrdType	Y	Order type. **Value** / **Description** 1 – Market 2 – Limit 3 – Stop 4 – Stop limit
41	OrigClOrdID	Y	ClOrdID (11) of the last successfully processed task (request) referring to the specific order; used for client order ID chaining.
44	Price	C	Limit price. Required if OrdType (40) is Limit (2) or Stop Limit (4).
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
59	TimeInForce	N	Execution and trading restriction parameters supported by Eurex. **Value** / **Description** 0 – Day 1 – Good till Cancel 3 – Immediate or Cancel 6 – Good till Date

... continued ...

Tag	Field Name	Req'd	Description
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.
77	PositionEffect	N	Field is used for Eurex position management purposes and indicates whether the order is submitted to open or close a position. **Value** / **Description** O – Open C – Close
99	StopPx	C	Stop price. Required if OrdType (40) is Stop Limit (4). Also required if OrdType is Stop (3) and the order is not an OCO order.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
432	ExpireDate	C	Date of order expiry. Required if TimeInForce (59) = 6 .
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
1100	TriggerType	C	Defines when the trigger will hit, i.e. the action specified by the trigger instructions will come into effect. **Value** / **Description** 4 – Price movement
1102	TriggerPrice	C	The price at which the trigger should hit.
1815	TradingCapacity	Y	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.

... continued ...

Tag	Field Name	Req'd	Description
28710	PriceValidityCheckType	Y	Indicator how price validity check should be performed by the exchange. **Value** / **Description** 0 – None 1 – Optional 2 – Mandatory
<**Standard Trailer**>			

6.5.5 Multileg Order Cancel/Replace Request

The Multileg Order Cancel Replace Request is used to modify a multileg order (previously submitted using the New Order Multileg messsage).

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'AC' = Multileg Order Cancel Replace
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering trader>		Y	Entering User ID.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
<Instrument>		Y	Security identification.
<LegOrdGrp>		Y	The group of leg is used to specify clearing attributes for the legs of a Multileg Order.
<MtchgInst>		N	Matching Instructions for using the Self Match Prevention functionality.
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
18	ExecInst	N	Instructions for order management; all orders need to be defined as either persistent or non-persistent. An order may additionally be defined as a Book or Cancel Order unless it has been defined as Closing Auction Only with TradingSessionSubID (625). **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) 6 – Participate don't initiate (Book or cancel)
38	OrderQty	Y	Total Order Quantity.
40	OrdType	Y	Order type. **Value** / **Description** 2 – Limit

... continued ...

Tag	Field Name	Req'd	Description
41	OrigClOrdID	Y	ClOrdID (11) of the last successfully processed task (request) referring to the specific order; used for client order ID chaining.
44	Price	Y	Limit price.
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
59	TimeInForce	N	Execution and trading restriction parameters supported by Eurex. **Value** / **Description** 0 – Day 1 – Good till Cancel 3 – Immediate or Cancel 6 – Good till Date
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
432	ExpireDate	C	Date of order expiry. Required if TimeInForce (59) = 6 .
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
1815	TradingCapacity	Y	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).

... continued ...

Tag	Field Name	Req'd	Description
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.
28710	PriceValidityCheckType	Y	Indicator how price validity check should be performed by the exchange. **Value** / **Description** 0 – None 1 – Optional 2 – Mandatory
<**Standard Trailer**>			

6.5.6 Execution Report

The Execution Report message is used to confirm the receipt of an order, confirm changes to an existing order, transmit all active orders, relay fill information, reject orders.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'8' = Execution Report
<**Message Body**>			
<Parties>		N	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering firm>		N	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
<entering trader>		N	Entering User ID.
<executing trader>		N	Owning User ID.
<executing unit>		N	Executing unit information.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<session ID>		N	Executing session; information provided in case of unsolicited events and for the Drop Copy service.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
<Instrument>		Y	Security identification.
<InstrmtLegExecGrp>		C	The Executed Order Leg Group contains the fill information for each leg of a Multileg Order.
<MtchgInst>		N	Matching Instructions for using the Self Match Prevention functionality.
1	Account	N	Eurex offers the following accounts to book trades and keep positions on: **Value** / **Description** A1 - A9 / Agent account one to nine G1 and G2 / Give-up account one and two M1 and M2 / Market Maker account one and two P1 and P2 / Proprietary account one and two
6	AvgPx	Y	Average Price information is not calculated; value of zero will be returned.

... continued ...

Tag	Field Name	Req'd	Description
11	ClOrdID	N	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
14	CumQty	Y	Cumulated executed quantity of an order.
17	ExecID	Y	Unique ID of the execution report message within the context of business day and session.
18	ExecInst	N	Instructions for order management; all orders need to be defined as either persistent or non-persistent. An order may additionally be defined as a Book or Cancel Order unless it has been defined as Closing Auction Only with TradingSessionSubID (625). **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) 6 – Participate don't initiate (Book or cancel)
31	LastPx	N	Price of this fill.
32	LastQty	N	Quantity executed in this fill.
37	OrderID	Y	Exchange Order ID generated by Eurex System; it remains constant over the lifetime of an order.
38	OrderQty	Y	Total Order Quantity.
39	OrdStatus	Y	Conveys the current status of an order. **Value** / **Description** 0 – New 1 – Partially filled 2 – Filled 4 – Canceled 6 – Pending cancel 8 – Rejected 9 – Suspended A – Pending new E – Pending replace

... continued ...

Tag	Field Name	Req'd	Description
40	OrdType	N	Order type. **Value** / **Description** 1 – Market 2 – Limit 3 – Stop 4 – Stop limit
41	OrigClOrdID	N	ClOrdID (11) of the last successfully processed task (request) referring to the specific order; used for client order ID chaining. Will not be delivered for drop copy for orders.
44	Price	C	Limit price. Required if OrdType (40) is Limit (2) or Stop Limit (4).
54	Side	Y	Side of order. **Value** / **Description** 1 – Buy 2 – Sell
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
59	TimeInForce	N	Execution and trading restriction parameters supported by Eurex. **Value** / **Description** 0 – Day 1 – Good till Cancel 3 – Immediate or Cancel 6 – Good till Date
77	PositionEffect	N	Field is used for Eurex position management purposes and indicates whether the order is submitted to open or close a position. **Value** / **Description** O – Open C – Close
99	StopPx	C	Stop price. Required if OrdType (40) is Stop Limit (4). Also required if OrdType is Stop (3) and the order is not an OCO order.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.

... continued ...

Tag	Field Name	Req'd	Description
150	ExecType	Y	The reason why this message was generated. **Value** / **Description** 0 – New 4 – Canceled 5 – Replace 6 – Pending cancel 8 – Rejected 9 – Suspended A – Pending new D – Restated E – Pending replace F – Trade L – Triggered by system
151	LeavesQty	Y	Remaining quantity of an order. If the order has been executed partially this field contains the non-executed quantity. A remaining size of 0 indicates that the order is fully matched or no longer active.
336	TradingSessionID	N	Identifier for trading session. **Value** / **Description** 1 – Day

... continued ...

Tag	Field Name	Req'd	Description
378	ExecRestatementReason	N	Code to further qualify the field ExecType (150) of the ExecutionReport (8) message.

Value	Description
1	GT Renewal / Restatement (no corporate action, order book restatement)
100	Unknown Order State
101	Order Added
102	Order Replaced
103	Order Canceled
105	Immediate or Cancel Order Canceled
135	Market Order Triggered
149	Closing Auction Only Order Activated
150	Closing Auction Only Order Inactivated
164	One-cancels-the-other Order Triggered
172	Stop Order Triggered
181	Ownership Changed
197	Order Cancellation Pending
199	Pending Cancellation Executed
212	Book Or Cancel Order Canceled

432	ExpireDate	C	Date of order expiry. Required if TimeInForce (59) = 6 .
527	SecondaryExecID	N	Private identifier of an order match event, which can be reconciled with the field SideTradeID (1506) in the TradeCaptureReport (AE).
625	TradingSessionSubID	C	This field marks orders for a special trading phase.

Value	Description
4	Closing or closing auction

851	LastLiquidityInd	C	Indicates whether the order added or removed liquidity. Required only for execution reports generated for fills.

Value	Description
1	AddLiquidity
2	RemovedLiquidity
5	Triggered Stop Order
6	Triggered One-cancels-the-other Order
7	Triggered Market Order

... continued ...

Tag	Field Name	Req'd	Description
880	TrdMatchID	N	Unique identifier for each price level (match step) of a match event (used for public trade reporting).
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
1100	TriggerType	C	Defines when the trigger will hit, i.e. the action specified by the trigger instructions will come into effect. **Value** / **Description** 4 – Price movement
1102	TriggerPrice	C	The price at which the trigger should hit.
1815	TradingCapacity	N	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
1823	Triggered	N	Indicates if an order has been previously triggered. **Value** / **Description** 0 – Not triggered (Default) 1 – Triggered
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.
25023	ReturnCode	N	Unique error or event identification number.
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** FIX GATEWAY – Fix Gateway TRADING SYSTEM – Trading system
25025	ReturnCodeText	N	Text explaining the return code.

... continued ...

Tag	Field Name	Req'd	Description
28710	PriceValidityCheckType	N	Indicator how price validity check should be performed by the exchange. **Value** / **Description** 0 – None 1 – Optional 2 – Mandatory
28745	Crossed	N	Indicator will be delivered in case of deletion or modification due to Self Match Prevention. **Value** / **Description** 1 – Cross rejected
30060	UTransactTime	N	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.5.7 Order Cancel Reject

The Order Cancel Reject message indicates that an Order Cancel Request, Order Cancel Replace Request or Multileg Order Cancel Replace Request has been rejected.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'9' = Order Cancel Reject
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<entering trader>		Y	Entering User ID.
<position account>		N	Flexible account identifier.
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
<order origination firm>		N	KRX or TAIFEX Member ID.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			
11	ClOrdID	Y	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
37	OrderID	Y	Exchange Order ID generated by Eurex System; it remains constant over the lifetime of an order.
39	OrdStatus	Y	Conveys the current status of an order. **Value** / **Description** 8 / Rejected
41	OrigClOrdID	Y	ClOrdID (11) of the last successfully processed task (request) referring to the specific order; used for client order ID chaining.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
102	CxlRejReason	Y	Code to identify reason for cancel rejection. **Value** / **Description** 0 / Too late to cancel 99 / Other

... continued ...

Tag	Field Name	Req'd	Description
434	CxlRejResponseTo	Y	Identifies the type of request that a Cancel Reject is in response to. **Value** / **Description** 1 – Order Cancel Request 2 – Order Cancel/Replace Request
25023	ReturnCode	Y	Unique error or event identification number.
25024	ReturnCodeSource	Y	Originating system component providing the return code. **Value** / **Description** FIX GATEWAY – Fix Gateway TRADING SYSTEM – Trading system
25025	ReturnCodeText	Y	Text explaining the return code.
30060	UTransactTime	N	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.6 Application Messages: Quote Request and Cross Request

6.6.1 Quote Request

The Quote Request message is used to request quotes from market makers. This message is commonly referred to as an Request For Quote (RFQ).

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'R' = Quote Request
<**Message Body**>			
131	QuoteReqID	Y	Unique identifier for quote request. Uniqueness will be completely within the user's responsibility.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
30100	UExDestination	Y	Market Identifier code of the trading market on Eurex according to ISO 10383.
<QuoteReqGrp>		Y	The group of quote request provides details of the quote request.
<**Standard Trailer**>			

6.6.2 Mass Quote Acknowledgement

The Mass Quote Acknowledgement is used as the application level response to a Quote Request.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'b' = Mass Quote Acknowledgement
<**Message Body**>			
58	Text	N	Error text.
131	QuoteReqID	Y	Unique identifier for quote request. Uniqueness will be completely within the user's responsibility.
297	QuoteStatus	Y	Identifies the status of the quote acknowledgement. **Value** / **Description** 0 – Accepted 5 – Rejected
25023	ReturnCode	N	Unique error or event identification number.

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Tag	Field Name	Req'd	Description
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** FIX GATEWAY – Fix Gateway TRADING SYSTEM – Trading system
30060	UTransactTime	Y	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.6.3 Cross Request

The Cross Request message is used by a trader to announce a Cross Trade to the market. The request is used, if a trader intends to trade with himself via order-book by sending a buy and a sell order for the same instrument. It is also used for prearranged trades between two traders, where the trade should be reproduced via matching the orders in the order-book.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'U100' = Cross Request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
<Instrument>		Y	Security identification.
38	OrderQty	Y	Total Order Quantity.
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
2404	ComplianceText	N	This field is used to provide additional compliance information (according to respective rules and regs, circulars and/or bilateral coordination between participant and Trading Surveillance).
25100	CrossReqID	Y	Unique identifier for cross request. Uniqueness will be completely within the user's responsibility.
<**Standard Trailer**>			

6.6.4 Cross Request Acknowledgement

Cross Request Acknowledgment is used as the application level response to a Cross Request.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'U101' = Cross Request Acknowledge
<**Message Body**>			
58	Text	N	Error text.
25023	ReturnCode	N	Unique error or event identification number.
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** FIX GATEWAY / Fix Gateway TRADING SYSTEM / Trading system
25100	CrossReqID	Y	Unique identifier for cross request. Uniqueness will be completely within the user's responsibility.
25101	CrossReqAckStatus	Y	Identifies the status of the cross request. **Value** / **Description** 0 / Accepted 1 / Rejected
30060	UTransactTime	Y	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.7 Application Messages: Trade Capture

The Client Order ID of the Eurex Enhanced Trading Interface (ETI) is provided. For reconciliation of orders with trades the Eurex System Order ID should be used instead: OrderID (37).

6.7.1 Trade Capture Report

The Trade Capture Report message is used to report Eurex "on-book" trades and trade reversals.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'AE' = Trade Capture Report
<**Message Body**>			
<Instrument>		Y	Security identification.
<TrdCapRptSideGrp>		Y	Side-specific information items of a trade capture report message.
552	NoSides	Y	Number of trade sides.
<side1>		Y	Side 1 information.
54	Side	Y	Side of trade. **Value** / **Description** 1 / Buy 2 / Sell
37	OrderID	N	Exchange Order ID generated by Eurex System; it remains constant over the lifetime of an order.
11	ClOrdID	N	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126). The Client Order ID of the Eurex Enhanced Trading Interface (ETI) is provided.
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
<clearing firm>		Y	Eurex Clearing member identification.
<clearing organization>		Y	Clearing House Short Name.
<executing firm>		Y	Executing firm information.
<executing trader>		Y	Eurex trader identification.
<executing unit>		Y	Executing unit information.
<order origination firm>		N	KRX or TAIFEX Member ID.
<position account>		N	Flexible account identifier.
<session ID>		N	Session ID.
<takeup firm>		N	Take-up trading firm information.
end <Parties>			

... continued ...

Tag	Field Name	Req'd	Description
1	Account	N	Eurex offers the following accounts to book trades and keep positions on: **Value** / **Description** A1 - A9 / Agent account one to nine G1 and G2 / Give-up account one and two M1 and M2 / Market Maker account one and two P1 and P2 / Proprietary account one and two
40	OrdType	N	Order type. **Value** / **Description** 1 / Market 2 / Limit 3 / Stop 4 / Stop limit
58	Text	N	First free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with KRX Member, KRX Beneficiary Account, TAIFEX Member and TAIFEX Beneficiary Account.
1009	SideLastQty	N	Fill quantity for the original Eurex strategy.
1057	AggressorIndicator	N	Indicates whether the order added or removed liquidity. **Value** / **Description** Y / Order initiator is aggressor N / Order initiator is passive
1115	OrderCategory	N	Indicates if the trade notification results from an order or quote. **Value** / **Description** 1 / Order 2 / Quote
1506	SideTradeID	Y	Private trade identifier of an order or quote match event.
1851	StrategyLinkID	C	Identifier that links all trades resulting from a match event of a strategy order.
1031	CustOrderHandlingInst	N	Rate identifier in accordance with the FIA guidelines (No validation).
25008	FreeText2	N	Second free-format text field for trader-specific or customer-related comments.
25009	FreeText3	N	Third free-format text field for trader-specific or customer-related comments. Should not be used in conjunction with TAIFEX Member and TAIFEX Beneficiary Account.

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Tag	Field Name	Req'd	Description
28585	SideLastPx	N	Fill price for the original Eurex strategy.
30044	UPrice	N	Limit price. Required if OrdType (40) is Limit (2) or Stop Limit (4).
30151	ULeavesQty	N	Remaining quantity of an order. If the order has been executed partially this field contains the non-executed quantity. A remaining size of 0 indicates that the order is fully matched or no longer active.
end <TrdCapRptSideGrp>			
31	LastPx	Y	Price of this fill.
32	LastQty	Y	Quantity executed in this fill.
75	TradeDate	Y	Business date.
77	PositionEffect	N	Field is used for Eurex position management purposes and indicates whether the order is submitted to open or close a position. **Value** – **Description** O – Open C – Close
442	MultiLegReportingType	N	This field indicates if the Trade Capture report results from a single leg or multi leg order. **Value** – **Description** 1 – Single Leg 2 – Individual leg of a multileg security
570	PreviouslyReported	Y	Indicates if the trade capture report was previously reported to the counterparty. **Value** – **Description** N – Not reported to counterparty Y – Previously reported to counterparty
571	TradeReportID	Y	Unique identifier of the trade capture report.
574	MatchType	N	The point in the matching process at which this trade was matched. **Value** – **Description** 3 – Confirmed Trade Report 4 – Auto Match Incoming 5 – Cross Auction 7 – Call Auction 11 – Auto Match Resting

... continued ...

Tag	Field Name	Req'd	Description
748	TotNumTradeReports	C	Number of leg executions of the original strategy order.
830	TransferReason	Y	This field indicates the result of the price and quantity validation. **Value** / **Description** 1 – Owner 2 – Clearer
856	TradeReportType	Y	Identifies the type of trade notification. **Value** / **Description** 0 – Submit 1 – Alleged 5 – No/Was (Replaced) 7 – (Locked-In) Trade Break 11 – Alleged New 13 – Alleged No/Was
880	TrdMatchID	Y	Unique identifier for each price level (match step) of a match event (used for public trade reporting).
1003	TradeID	Y	Uniquely identifies all order leg allocations referring to the same matching event, simple instrument and price.
1126	OrigTradeID	C	In case of a trade reversal this field provides the original trade identifier.
1596	ClearingTradePrice	N	Clearing price.
1649	RelatedSymbol	C	Product identifier of the original Eurex strategy.
1650	RelatedSecurityID	C	Instrument identifier of the original Eurex strategy.
1815	TradingCapacity	Y	This field designates if the trader is acting in the capacity of agent, trading for its own account or acting as a market maker. **Value** / **Description** 1 – Customer (Agency) 5 – Principal (Proprietary) 6 – Market Maker
28586	OrderSide	N	Side of the order in the original Eurex strategy. **Value** / **Description** 1 – Buy 2 – Sell

... continued ...

Tag	Field Name	Req'd	Description
28587	RelatedProductComplex	N	Instrument type of the orginal Eurex strategy. **Value** / **Description** 2 – Standard Option Strategy 3 – Non-standard Option Strategy 4 – Volatility Strategy 5 – Futures Spread 6 – Inter Product Spread 7 – Standard Future Strategy 8 – Pack and Bundle 9 – Strip
28610	MatchSubType	N	Indicates the call auction type the trade originates from. **Value** / **Description** 2 – Opening or opening auction 4 – Closing or closing auction 6 – Intraday auction 8 – Circuit breaker auction
28736	ClearingTradeQty	N	Quantity used for clearing.
30060	UTransactTime	Y	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.8 Application Messages: Other

6.8.1 User Request

Each trader needs to logon/logoff to/from Eurex via the User Request message.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'BE' = User request
<**Message Body**>			
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
553	Username	Y	User ID.
554	Password	C	Password. This field is required in messages with UserRequestType (924) = 1 (Log on User).
923	UserRequestID	Y	Unique identifier for a User Request.
924	UserRequestType	Y	Indicates the action required by a User Request Message. **Value** – **Description** 1 – Log on user 2 – Log off user
<**Standard Trailer**>			

6.8.2 User Response

The User Response message is used to confirm or reject the trader logon/logoff.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'BF' = User response
<**Message Body**>			
100	ExDestination	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
553	Username	Y	User ID.
923	UserRequestID	Y	Unique identifier for a User Request.
926	UserStatus	Y	Indicates the status of a user. **Value** – **Description** 1 – Logged in 2 – Not logged in 6 – Other
927	UserStatusText	N	A text description associated with a user status.

... continued ...			
Tag	**Field Name**	**Req'd**	**Description**
<**Standard Trailer**>			

6.8.3 User Notification

The User Notification message is used to send information of an unsolicited trader logoff or send information of legal notifications.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UCB' = User notification
<**Message Body**>			
<UsernameGrp>		Y	List of users to which the notification is directed.
809	NoUsernames	Y	Number of usernames. Exactly one occurrence
553	Username	Y	User ID.
end <UsernameGrp>			
58	Text	N	Message text.
926	UserStatus	Y	Indicates the status of a user. **Value** / **Description** 2 – Not logged in 6 – Other 7 – Forced user logout by exchange 10 – User stopped 11 – User released
30100	UExDestination	N	Market Identifier code of the trading market on Eurex according to ISO 10383.
<**Standard Trailer**>			

6.8.4 Business Reject

The Business Message Reject message indicates that an application message has been rejected.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'j' = Business Message Reject
<**Message Body**>			
45	RefSeqNum	Y	Reference message sequence number.
58	Text	N	Return code text.
372	RefMsgType	Y	The MsgType (35) of the FIX message being referenced.
380	BusinessRejectReason	Y	Code to identify reason for a Business Message Reject message. **Value** / **Description** 0 – Other 1 – Unknown ID 3 – Unsupported message type 4 – Application not available 5 – Conditionally required field missing 6 – Not authorized
25023	ReturnCode	Y	Unique error or event identification number.
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** FIX GATEWAY – Fix Gateway
<**Standard Trailer**>			

6.8.5 Trading Session Status

The Trading Session Status message informs about session related events.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'h' = Trading session status
<**Message Body**>			
58	Text	N	Message text.
336	TradingSessionID	Y	Identifier for trading session. **Value** – **Description** 1 – Day
340	TradSesStatus	Y	State of the trading session. **Value** – **Description** 0 – Unknown 1 – Halted 2 – Open 3 – Closed
1300	MarketSegmentID	N	Product identifier.
1301	MarketID	N	Market Identifier Code of the trading market on Eurex according to ISO 10383.
1368	TradSesEvent	Y	Trading session event type. **Value** – **Description** 102 – Market reset 103 – End of restatement 105 – Service resumed 200 – No more messages for this trading venue 201 – Message transmission ended 202 – Message processing suspended 203 – Message processing resumed
25024	ReturnCodeSource	Y	Originating system component providing the return code. **Value** – **Description** FIX GATEWAY – Fix Gateway TRADING SYSTEM – Trading system

... continued ...

Tag	Field Name	Req'd	Description
30060	UTransactTime	N	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
30075	UTradeDate	N	Date of trading session in YYYYMMDD format.
<**Standard Trailer**>			

6.8.6 Order Mass Action Report

This message informs about unsolicited mass cancellation events.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UBZ' = User order mass action report
<**Message Body**>			
<Parties>		N	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering firm>		N	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
<entering trader>		N	Entering User ID.
<executing trader>		N	Eurex trader identification.
<session ID>		N	Executing session; information provided in case of unsolicited events and for the Drop Copy service.
end <Parties>			
<NotAffectedOrdersGrp>		N	The group of not affected orders informs where cancellation is pending due to an unsolicited mass cancellation event.
44	Price	N	Limit price.
48	SecurityID	N	Instrument identifier.
54	Side	N	Side of order. **Value** / **Description** 1 / Buy 2 / Sell
1300	MarketSegmentID	Y	Product identifier.
1369	MassActionReportID	Y	Transaction timestamp.

... continued ...

Tag	Field Name	Req'd	Description
28721	MassActionReason	Y	Reason for mass cancellation. **Value** / **Description** 0 – No special reason 1 – Stop Trading 2 – Emergency 3 – Market Maker Protection 6 – Session loss 7 – Duplicate Session Login 8 – Clearing Risk Control 105 – Product State Halt 106 – Product State Holiday 107 – Instrument Suspension 109 – Strategy Cancellation 110 – Circuit Breaker (Volatility Interrupt) 111 – Product temporarily not tradeable
30018	UExecInst	N	Cancellation scope for orders. Quotes are always canceled by mass cancellation events. **Value** / **Description** H – Reinstate on trading system failure (persistent) Q – Cancel on trading system failure (non-persistent) H Q – Persistent and non-persistent orders
30893	ULastFragment	Y	Indicates whether this message is the last in a sequence of messages. **Value** / **Description** N – Not last mesage Y – Last message
<**Standard Trailer**>			

6.8.7 Order Mass Action Request

The Mass Deletion Request (UCA) will allow the deletion of multiple orders based on different filter criteria.
For more details, please refer to **chapter 3.11 Mass Deletion Request.**

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UCA' = User order mass action request
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
<TargetParties>		N	Target party information.
1461	NoTargetPartyIDs	Y	Identifies the number of target parties identified in a mass action.
<executing trader>		N	Executing trader information.
end <TargetParties>			
<Instrument>		Y	Security identification.
11	ClOrdID	Y	ClOrdID handling will be completely within the responsability of the customer. The FGW will simply echo back the content.
44	Price	N	Limit price.
54	Side	N	Side of order. **Value** / **Description** 1 / Buy 2 / Sell
60	TransactTime	Y	Transaction time. This field will be ignored in all messages sent to the FIX Gateway.
376	ComplianceID	N	Numeric identifier for trading algorithms required by the German High-frequency Trading Act.
1373	MassActionType	Y	Specifies the type of action requested. **Value** / **Description** 3 / Cancel orders
1374	MassActionScope	Y	Specifies scope of Order Mass Action Request. **Value** / **Description** 1 / All orders for a security 9 / All orders for a market segment (or multiple segments)

... continued ...

Tag	Field Name	Req'd	Description
30100	UExDestination	Y	Market Identifier code of the trading market on Eurex according to ISO 10383.
<**Standard Trailer**>			

6.8.8 Order Mass Action Response

Response to a Mass Deletion Request (UCA).

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UCAR' = User order mass action response
<**Message Body**>			
<Parties>		N	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		N	Entering User ID.
end <Parties>			
<TargetParties>		N	Target party information.
1461	NoTargetPartyIDs	Y	Identifies the number of target parties identified in a mass action.
<executing trader>		N	Executing trader information.
end <TargetParties>			
<Instrument>		Y	Security identification.
<NotAffectedOrdersGrp>		N	The group of not affected orders informs where cancellation is pending due to an unsolicited mass cancellation event.
11	ClOrdID	N	Unique customer defined order request identifier (20 characters or less, ASCII range 32 - 126).
44	Price	N	Limit price.
54	Side	N	Side of order. **Value** / **Description** 1 / Buy 2 / Sell
1369	MassActionReportID	Y	Transaction timestamp.
1373	MassActionType	Y	Specifies the type of action requested. **Value** / **Description** 3 / Cancel orders
1374	MassActionScope	Y	Specifies scope of Order Mass Action Request. **Value** / **Description** 1 / All orders for a security 9 / All orders for a market segment (or multiple segments)

... continued ...

Tag	Field Name	Req'd	Description
1375	MassActionResponse	Y	Specifies the action taken by counterparty order management system as a result of the action type indicated in MassActionType of the Order Mass Action Request. **Value** / **Description** 0 – Rejected 1 – Accepted 2 – Completed
1376	MassActionRejectReason	N	Reason Order Mass Action Request was rejected. **Value** / **Description** 99 – Other
25023	ReturnCode	N	Unique error or event identification number.
25024	ReturnCodeSource	N	Originating system component providing the return code. **Value** / **Description** TRADING SYSTEM – Trading system
25025	ReturnCodeText	N	Text explaining the return code.
30100	UExDestination	N	Market Identifier code of the trading market on Eurex according to ISO 10383.
30893	ULastFragment	Y	Indicates whether this message is the last in a sequence of messages. **Value** / **Description** N – Not last mesage Y – Last message
<**Standard Trailer**>			

6.8.9 Party Risk Limits Update Report

User Party Risk Limits Update Report. This message communicates risk control events related to the Advanced Risk Protection functionality of Eurex in case of a risk limit breach or release.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UCR' = User Party Risk Limits Update Report
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<clearing firm>		N	Eurex Clearing member identification.
<entering firm>		Y	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
<executing system>		Y	Executing system information.
<executing unit>		Y	Executing unit information.
end <Parties>			
75	TradeDate	Y	Business date.
1301	MarketID	N	Market Identifier Code of the trading market on Eurex according to ISO 10383.
1324	ListUpdateAction	Y	Invocation or release of a control event. **Value** / **Description** A / Add (Invocation) D / Delete (Release)
1767	RiskLimitAction	N	Risk protection action. **Value** / **Description** 0 / Queue inbound 2 / Reject 4 / Warning
30060	UTransactTime	Y	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.8.10 Party Entitlements Update Report

User Party Entitlements Update Report. This message communicates risk control events related to the manual stop or release of trading functionality. Events will be generated on the Clearing back end and passed to the user by the T7 back end.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UCZ' = User Party Entitlements Update Report
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<clearing firm>		N	Eurex Clearing member identification.
<entering firm>		Y	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
<executing system>		Y	Executing system information.
<executing unit>		Y	Executing unit information.
end <Parties>			
75	TradeDate	Y	Business date.
1301	MarketID	N	Market Identifier Code of the trading market on Eurex according to ISO 10383.
1324	ListUpdateAction	Y	Invocation or release of a control event. **Value** / **Description** A – Add (Release) D – Delete (Invocation)
1672	PartyDetailStatus	Y	Member status. **Value** / **Description** 0 – Active 1 – Suspended
30060	UTransactTime	Y	Transaction timestamp which provides date and time in UTC, represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).
<**Standard Trailer**>			

6.8.11 Party Action Report

User Party Action Report. This message communicates risk control events of type halt-trading and re-instate. Events will be entered via the T7 Admin GUI.

Tag	Field Name	Req'd	Description
<**Standard Header**>			
35	MsgType	Y	'UDI' = User Party Action Report
<**Message Body**>			
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<executing unit>		Y	Executing unit information.
<executing trader>		N	Eurex trader identification.
end <Parties>			
<RequestingParties>		Y	Requesting Parties Information.
1657	NoRequestingPartyIDs	Y	Number of requesting party identifiers.
<executing trader>		N	Requesting executing trader information.
<executing system>		N	Source of request (always 2 = Eurex T7)
<entering firm>		Y	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
end <RequestingParties>			
60	TransactTime	N	Transaction time.
75	TradeDate	N	Business date.
1301	MarketID	N	Market Identifier Code of the trading market on Eurex according to ISO 10383.
2329	PartyActionType	Y	Party Action Type. **Value** / **Description** 1 / Halt Trading 2 / Reinstate
2331	PartyActionReportID	Y	Unique-ID.
2332	PartyActionResponse	Y	Constant value 1 ("Completed"). **Value** / **Description** 1 / Completed
<**Standard Trailer**>			

6.9 Components

6.9.1 <Instrument>

The <Instrument> component block comprises all fields required for security identification. For messages operating on product level - like the Order Mass Action Request - only Symbol(55) will be necessary, whereas messages operating on instrument level will also need SecurityID(48) and SecurityIDSource(22).

Tag	Field Name	Req'd	Description
<Instrument>			
55	Symbol	Y	Eurex assigned unique identifier for a Eurex product.
48	SecurityID	N	Instrument identifier. Required for order messages. Use "[N/A]" for Security Definition Requests (c).
22	SecurityIDSource	N	Identifies class or source of the SecurityID (48) value. Required if SecurityID is specified. **Value** / **Description** M – Marketplace-assigned identifier
1227	ProductComplex	N	This field qualifies an instrument type on Eurex. **Value** / **Description** 1 – Simple Instrument 2 – Standard Option Strategy 3 – Non-standard Option Strategy 4 – Volatility Strategy 5 – Futures Spread 6 – Inter Product Spread 7 – Standard Future Strategy 8 – Pack and Bundle 9 – Strip
762	SecuritySubType	N	Strategy type. Please refer to functional product and instrument files on the Eurex website www.eurexchange.com > Technology > T7 > System Documentation > Release 2.5 > Production.
end <Instrument>			

6.9.2 <Parties>

The <Parties> component block comprises all parties participating in a transaction. For each party a separate occurrence of the repeating group is set up.

6.9.2.1 Party Components used in Application Messages: Order Management

Tag	Field Name	Req'd	Description
<Parties>			
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
448	PartyID	Y	KRX or TAIFEX Beneficiary Account.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 32 / Beneficiary
<entering firm>		N	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
448	PartyID	Y	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 7 / Entering firm
<entering trader>		N	Entering User ID.
448	PartyID	Y	Entering User ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code

... continued ...

Tag	Field Name	Req'd	Description
452	PartyRole	Y	Party Role. **Value** / **Description** 36 / Entering trader
<executing trader>		N	Eurex trader identification.
448	PartyID	Y	Owning User ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 12 / Executing trader
<executing unit>		N	Executing unit information.
448	PartyID	Y	Business unit ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 59 / Executing unit
<order origination firm>		N	KRX or TAIFEX Member ID.
448	PartyID	Y	KRX or TAIFEX Beneficiary Member ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 13 / Order origination firm
<position account>		N	Flexible account identifier.
448	PartyID	Y	Party identifier/code. See PartyIDSource (447) and PartyRole (452).

... continued ...

Tag	Field Name	Req'd	Description
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 38 / Flexible account identifier
<location ID>		N	Location ID information. Origin country code to identify the region from which the transaction originates.
448	PartyID	Y	Party identifier/code. See PartyIDSource (447) and PartyRole (452).
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 75 / Location ID
<session ID>		N	Executing session; information provided in case of unsolicited events and for the Drop Copy service.
448	PartyID	Y	Party identifier/code. See PartyIDSource (447) and PartyRole (452).
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 55 / Session ID
<takeup firm>		N	Take-up trading firm information.
448	PartyID	Y	Take-Up Member Short Name.

... continued ...

Tag	Field Name	Req'd	Description
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** – **Description** D – Proprietary custom code
452	PartyRole	Y	Party Role. **Value** – **Description** 96 – Take-up (trading) firm
end <Parties>			

6.9.2.2 Party Components used in Application Messages: Trade Capture

Tag	Field Name	Req'd	Description
<Parties>			
453	NoPartyIDs	Y	Number of parties involved.
<beneficiary>		N	KRX or TAIFEX Beneficiary Account.
448	PartyID	Y	KRX or TAIFEX Beneficiary Account.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 32 / Beneficiary
<clearing firm>		Y	Eurex Clearing member identification.
448	PartyID	Y	Clearing Member Short Name.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 4 / Clearing firm
<clearing organization>		Y	Clearing House Short Name.
448	PartyID	Y	Clearing House Short Name.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 21 / Clearing organization
<executing firm>		Y	Executing firm information.
448	PartyID	Y	Participant Short Name.

... continued ...

Tag	Field Name	Req'd	Description
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 1 / Executing firm
<executing trader>		Y	Eurex trader identification.
448	PartyID	Y	Owning User ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 12 / Executing trader
802	NoPartySubIDs	N	No of PartySubIDs involved.
523	PartySubID	C	Owning User Short Name.
803	PartySubIDType	C	Type of PartySubID. **Value** / **Description** 2 / Person
<executing unit>		Y	Executing unit information.
448	PartyID	Y	Business unit ID.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description** D / Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description** 59 / Executing unit
<order origination firm>		N	KRX or TAIFEX Member ID.
448	PartyID	Y	KRX or TAIFEX Beneficiary Member ID.

... continued ...

Tag	Field Name	Req'd	Description
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description**: D – Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description**: 13 – Order origination firm
<position account>		N	Flexible account identifier.
448	PartyID	Y	Party identifier/code. See PartyIDSource (447) and PartyRole (452).
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description**: D – Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description**: 38 – Flexible account identifier
<takeup firm>		N	Take-up trading firm information.
448	PartyID	Y	Take-Up Member Short Name.
447	PartyIDSource	Y	Identifies class or source of the PartyID (448) value. Required if PartyID is specified. **Value** / **Description**: D – Proprietary custom code
452	PartyRole	Y	Party Role. **Value** / **Description**: 96 – Take-up (trading) firm
end <Parties>			

6.9.3 <TargetParties>

Tag	Field Name	Req'd	Description
<TargetParties>			
1461	NoTargetPartyIDs	Y	Identifies the number of target parties identified in a mass action.
<executing trader>		N	Executing trader information.
1462	TargetPartyID	Y	PartyID value within an target party repeating group.
1463	TargetPartyIDSource	Y	PartyIDSource value within an target party repeating group. Same values as PartyIDSource (447). **Value** – **Description** D – Proprietary custom code
1464	TargetPartyRole	Y	PartyRole value within an target party repeating group. Same values as PartyRole (452). **Value** – **Description** 12 – Executing trader
end <TargetParties>			

6.9.4 <RequestingParties>

Tag	Field Name	Req'd	Description
<RequestingParties>			
1657	NoRequestingPartyIDs	Y	Number of requesting party identifiers.
<executing trader>		N	Requesting executing trader information.
1658	RequestingPartyID	Y	Party identifier for the requesting party.
1659	RequestingPartyIDSource	Y	Identifies the source of the RequestingPartyID(1658) value. **Value** / **Description** D / Proprietary custom code
1660	RequestingPartyRole	Y	Identifies the type or role of the RequestingPartyID(1658) specified. **Value** / **Description** 12 / Executing trader
<executing system>		N	Source of request (always 2 = Eurex T7)
1658	RequestingPartyID	Y	Party identifier for the requesting party.
1659	RequestingPartyIDSource	Y	Identifies the source of the RequestingPartyID(1658) value. **Value** / **Description** D / Proprietary custom code
1660	RequestingPartyRole	Y	Identifies the type or role of the RequestingPartyID(1658) specified. **Value** / **Description** 16 / Executing system
<entering firm>		Y	Entering Entity ID. 1 = (Participant), 2 = (Market Supervision)
1658	RequestingPartyID	Y	Party identifier for the requesting party.
1659	RequestingPartyIDSource	Y	Identifies the source of the RequestingPartyID(1658) value. **Value** / **Description** D / Proprietary custom code
1660	RequestingPartyRole	Y	Identifies the type or role of the RequestingPartyID(1658) specified. **Value** / **Description** 7 / Entering firm
end <RequestingParties>			

6.9.5 <InstrmtLegGrp>

The Instrument Leg Group is used for the creation of a Eurex strategy.

Tag	Field Name	Req'd	Description
<InstrmtLegGrp>			
555	NoLegs	Y	Number of InstrumentLeg repeating group instances.
600	LegSymbol	Y	Product identifier of the leg security (only applicable for underlying leg). Use "[N/A]" for option legs.
602	LegSecurityID	Y	Instrument identifier of the leg security.
609	LegSecurityType	Y	Indicates type of leg. **Value** / **Description** 1 / Multileg Instrument 2 / Underlying Leg
623	LegRatioQty	Y	The ratio of quantity for this individual leg relative to the entire multileg security.
624	LegSide	Y	The side of the individual leg of a strategy. **Value** / **Description** 1 / Buy 2 / Sell
566	LegPrice	N	Strategy leg underlying price (only applicable for underlying leg).
end <InstrmtLegGrp>			

6.9.6 <LegOrdGrp>

The Order Leg Group is used to specify clearing attributes for the legs of a Multileg Order.

Tag	Field Name	Req'd	Description
<LegOrdGrp>			
555	NoLegs	Y	Number of InstrumentLeg repeating group instances.
564	LegPositionEffect	Y	Leg-specific field used for Eurex position management purposes and indicates whether the leg is submitted to open or close a position. **Value** / **Description** O – Open C – Close
28715	LegAccount	N	Leg-specific account to book trades and keep positions on: **Value** / **Description** A1 - A9 – Agent account one to nine G1 and G2 – Give-up account one and two M1 and M2 – Market Maker account one and two P1 and P2 – Proprietary account one and two
end <LegOrdGrp>			

6.9.7 <InstrmtLegExecGrp>

The Executed Order Leg Group contains the fill information for each leg of Multileg Order.

Tag	Field Name	Req'd	Description
<InstrmtLegExecGrp>			
555	NoLegs	Y	Number of InstrumentLeg repeating group instances.
600	LegSymbol	Y	Product identifier of the leg security (only applicable for underlying leg). Use "[N/A]" for option legs.
602	LegSecurityID	C	Instrument identifier of the leg security.
564	LegPositionEffect	C	Leg-specific field used for Eurex position management purposes and indicates whether the leg is submitted to open or close a position.
637	LegLastPx	C	Price of this leg fill.
1418	LegLastQty	C	Quantity executed in this leg fill.
1893	LegExecID	C	Private identifier of a leg match event, which can be reconciled with the field SideTradeID (1506) in the TradeCaptureReport (AE).
28715	LegAccount	C	Leg-specific account to book trades and keep positions on: **Value** / **Description** A1 - A9 / Agent account one to nine G1 and G2 / Give-up account one and two M1 and M2 / Market Maker account one and two P1 and P2 / Proprietary account one and two
end <InstrmtLegExecGrp>			

6.9.8 <TrdgSesGrp>

The Trading Session Group is used to identify a Closing Auction Only Order.

Tag	Field Name	Req'd	Description
<TrdgSesGrp>			
386	NoTradingSessions	N	Number of TradingSessionIDs (336) in repeating group.
336	TradingSessionID	C	Identifier for trading session. **Value** / **Description** 1 / Day
625	TradingSessionSubID	C	This field marks orders for a special trading phase. **Value** / **Description** 4 / Closing or closing auction
end <TrdgSesGrp>			

6.9.9 <MarketSegmentGrp>

The Market Segment Group provides security definition for the market segment that the security participates in.

Tag	Field Name	Req'd	Description
<MarketSegmentGrp>			
1310	NoMarketSegments	Y	Number of Market Segments on which a security may trade.
1301	MarketID	Y	Market Identifier Code of the trading market on Eurex according to ISO 10383.
1148	LowLimitPrice	Y	Allowable low limit price for the trading day. A key parameter in validating order price. Used as the lower band for validating order prices. Orders submitted with prices below the lower limit will be rejected
1149	HighLimitPrice	Y	Allowable high limit price for the trading day. A key parameter in validating order price. Used as the upper band for validating order prices. Orders submitted with prices above the upper limit will be rejected
1144	ImpliedMarketIndicator	Y	Indicates that an implied market should be created for either the legs of a multi-leg instrument (Implied-in) or for the multi-leg instrument based on the existence of the legs (Implied-out). Determination as to whether implied markets should be created is generally done at the level of the multi-leg instrument. Commonly used in listed derivatives. **Value** / **Description** 0 – Not implied 3 – Both Implied-in and Implied-out
1377	MultilegModel	Y	Specifies if a strategy is temporarily (user-defined) or permanently (predefined) available. **Value** / **Description** 0 – Predefined Multileg Security 1 – User-defined Multleg Security
end <MarketSegmentGrp>			

6.9.10 <QuoteReqGrp>

The Quote Request Group provides details of the quote request.

Tag	Field Name	Req'd	Description
<QuoteReqGrp>			
146	NoRelatedSym	Y	Specifies the number of repeating symbols specified.
<Instrument>		Y	Security identification.
54	Side	N	Side. Value: 1 = Buy; 2 = Sell
38	OrderQty	N	Total Order Quantity.
<Parties>		Y	Party Information.
453	NoPartyIDs	Y	Number of parties involved.
<entering trader>		Y	Entering User ID.
end <Parties>			
end <QuoteReqGrp>			

6.9.11 <NotAffectedOrdersGrp>

The Not Affected Orders Group informs of orders where cancellation is pending due to an unsolicited mass cancellation event.

Tag	Field Name	Req'd	Description
<NotAffectedOrdersGrp>			
1370	NoNotAffectedOrders	Y	Number of not affected orders in the repeating group of order ids.
1371	NotAffectedOrderID	Y	Exchange Order ID of an order whose cancellation is pending.
1372	NotAffOrigClOrdID	N	Original Client Order ID of an order whose cancellation is pending.
end <NotAffectedOrdersGrp>			

6.9.12 <UsernameGrp>

Tag	Field Name	Req'd	Description
<UsernameGrp>			
809	NoUsernames	Y	Number of usernames. Exactly one occurrence
553	Username	Y	User ID.
end <UsernameGrp>			

6.9.13 <MtchgInst>

Matching Instructions for using the Self Match Prevention functionality.

Tag	Field Name	Req'd	Description
<MtchgInst>			
1624	NoMatchInst	Y	Number of Instructions. Only one occurrence.
1625	MatchInst	Y	Matching Instruction for the order. Value: 2 — Description: Do not match
28744	MatchInstCrossID	Y	Numeric identifier. Contains the Self Match Prevention ID.
end <MtchgInst>			

7 Change Log

Change log of this document.

No.	Chapter, page	Date	Version
1	Changes: **Interface version changed** • EurexT7-6.0-1 **New fields added:** • Tag 1624 NoMatchInst • Tag 1625 MatchInst • Tag 28744 MatchInstCrossID • Tag 28745 Crossed **New repeating group <MtchgInst> added in:** • New Order Single (D) • Order Cancel/Replace Request (G) • New Order Multileg (AB) • Multileg Order Cancel/Replace Request (AC) • Execution Report (8) **New paragraphs added:** • 3.8 Self Match Prevention • 6.9.13 <MtchgInst> **Description of <entering firm> in <Parties> enhanced.** **Description of paragraph 2. Introduction enhanced.**	13 July 2015	2.0

... continued ...

No.	Chapter, page	Date	Version
2	Changes: **Interface version changed** • EurexT7-7.0-1 **New fields added in the messages UBZ, UCA and UCAR:** • Tag 44 Price • Tag 54 Side **New party <session ID> added in the message AE.** **New valid values added in the field (856) TradeReportType:** • 11 (Alleged New) • 13 (Alleged No/Was) **New valid value added in the field (926) UserStatus:** • 7 (Forced user logout by exchange) **Following paragraphs enhanced:** • 3.5.9 Order Book Restatement • 3.5.10 Mass Cancellation Notification • 3.6.2 Best Practices for Order Management • 3.11 Mass Deletion Request	15 August 2016	2.1