BRAINTRADE
WIR MACHEN DEN KURS

FAGSE BT-FIX Gateway

Rules of Engagement

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Related Documents

FIX

[1] FIX protocol limited: FIX Documentation Version 4.4 with Errata 20030618, Volumes 1-7 - as of June 18, 2003
[2] FIX protocol limited: FIX Documentation Version 4.2 with Errata 20010501 - as of May 1, 2001
[5] FIX protocol limited: Exchanges / ECN Working Group Recommended Best Practices Phase 1 - as of January 25, 2007

Useful Web Pages

www.xontro.de

www.deutsche-boerse.com

www.fixprotocol.org

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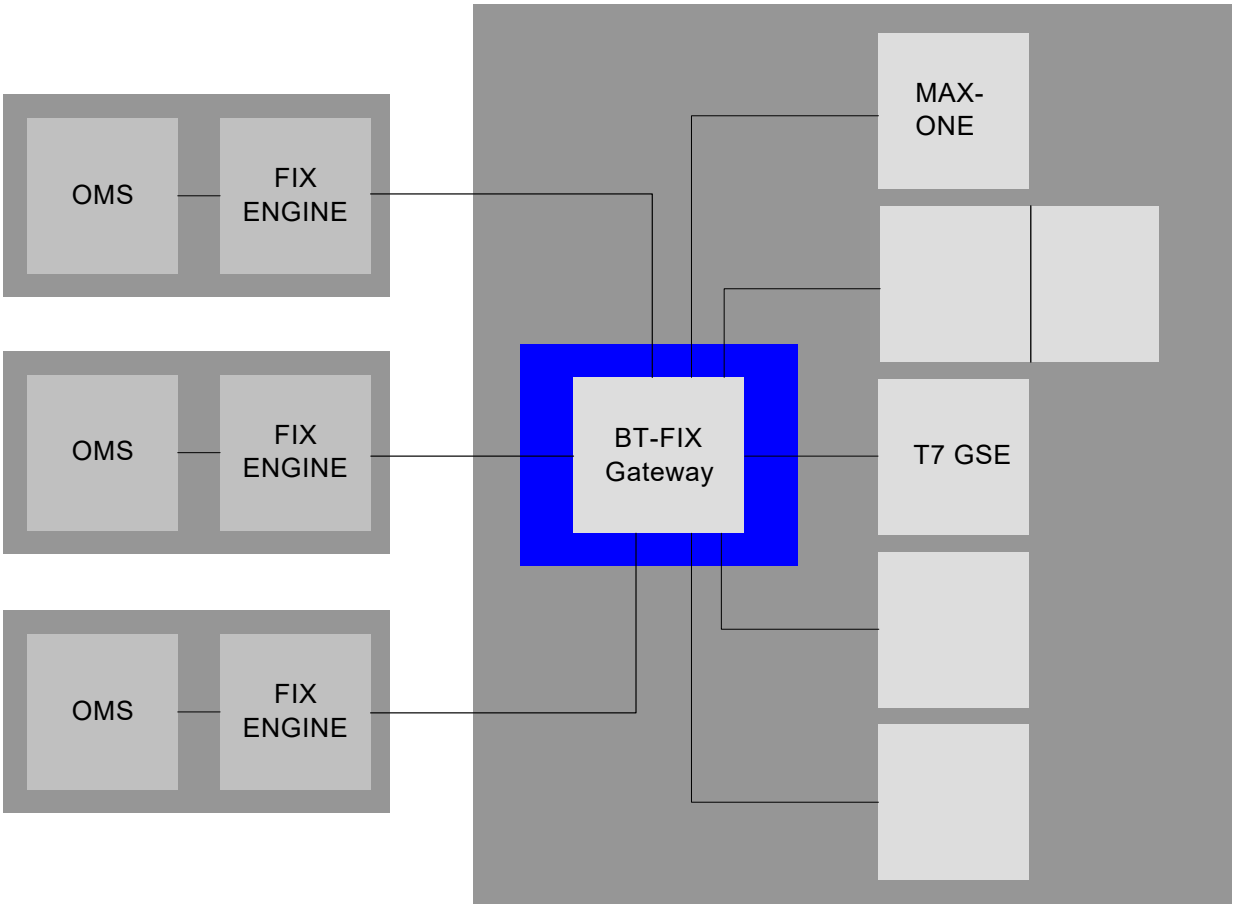
1 Introduction

This document describes all modifications, restrictions and extensions of the FIX protocol versions 4.2 and 4.4 implemented by the **FAGSE BT-FIX Gateway** product which controls the FIX order routing interface to

- the T7 GSE (German Stock Exchanges) and MAX-ONE
- the trade processing in the T7 GSE trade system

Requirements, assumptions, message layouts and most of the common message flows will be discussed. All customers planning to use the new FIX interface for routing orders to the trading systems mentioned should thoroughly read the whole document.

The following figure explains the interaction between the systems involved.



1.1 Abbreviations and Definitions

Item	Description
FAGSE	Name of the product providing access to the trading systems, acronym for "**F**IX **A**ccess to **G**erman **S**tock **E**xchanges". The product consists of two components: the BT-FIX Gateway and the BT-FIX Connector
FIX	The **F**inancial **I**nformation e**X**change protocol – created and enhanced over time by banks, brokers, stock exchanges and service providers – is an open standard for transmitting information. Usage of the FIX protocol substantially simplifies the exchange of information between different applications
MAX-ONE	The trading system of the Munich stock exchange
OMS	Acronym for **O**rder **M**anagement **S**ystem
RoE	Acronym for **R**ules **o**f **E**ngagement. A contract describing all the rules of a specific variant of the FIX protocol used by the parties signing the contract to exchange information. Usually the following details will be stipulated: network connections, partner identification, encryption of messages, supported message types, message layouts, handling of duplicate messages, etc.
TCP/IP	**T**ransmission **C**ontrol **P**rotocol / **Inter**net **P**rotocol (TCP/IP). FIX Versions 4.x rely on TCP/IP as communications protocol
OMS	Order Management System (customer)
T7 GSE	Trading system T7 German Stock Exchanges (replaces the term XONTRO)

2 Assumptions

2.1 Supported FIX Protocol Versions

Only FIX protocol versions V4.2 and V4.4 are supported. Some of the message layouts described contain substantial extensions of the standard message layouts defined by the fix protocol version under consideration. There is a standard procedure for extending message layouts: Additional tags as well as additional values for a specific tag will be adopted – if possible – from one of the newer FIX protocol versions up to and including V5.0 SP2[1]. If this is not possible, user-defined, registered tags will be used.

FIXML will not be supported.

As only FIX versions 4.x are implemented, communications protocols are restricted to TCP/IP.

2.2 Clients and Order Management Systems

The FIX engine of a party/customer operating a connection is called a **Client** or a **FIX client**. FIX clients are identified by using a CompID. CompIDs will be specified and distributed by BrainTrade GmbH.

Due to reliability considerations a customer may decide to set up two FIX Clients. In this case FIX Clients may be organized as two independent instances or into a single cluster.

The customer's environment must support one of the failover variants listed below. All variants need exactly one SenderCompID at the customer's site.

1. The FIX engine is installed on several computers of a given cluster. The FIX engine supports the cluster's failover procedures. Sessions will be resumed automatically.
2. The FIX engine is installed on several independent computers. Failover procedures will have to be launched manually. The information needed for resuming the FIX message traffic (Sequence numbers, sent messages,..) are kept on a shared SAN storage subsystem. As soon as the failover procedure has ended, the active FIX engine may start a new session and resume the message exchange.
3. The FIX engine is installed on several independent computers. No shared storage subsystem is available. Failover procedures will be launched manually. The customer's FIX engine then must provide the following logon procedure for re-initiating the message exchange: The engine must assure that the logon request's sequence number definitely exceeds the sequence numbers of all preceding messages sent. Gaps of any size are allowed. The following resend request issued by the BT-FIX gateway must then be answered by a reset message with GapFillFlag set to “Y”. Thus the gap will be closed and standard message traffic may be resumed.
4. A second IP address is available for reconnection and FIX session logon in the event of a failover. Only one connection/IP address can be used at a time.

The BT-FIX Gateway also will be identified by using a CompID defined by BrainTrade GmbH.

A customer will be connected to the BT-FIX Gateway by one or two leased lines. The communications protocol will be TCP/IP[2].

[1] So Version 4.2 layouts may be enhanced by using 4.4 and/or 5.0 items, and version 4.4 layouts by using version 5.0 items. Please check: Appendix D: 4.2 Extensions and Appendix E: 4.4 Extensions.

[2] As of now it is not intended to support version 5.0, therefore FIXT will not be supported either.

Sessions will always be initiated by the Client.

Any Client must support FIX version 4.2 or version 4.4 and must additionally meet all requirements for the target version specified in this document.

An order management system may be operated by a customer or by a provider offering services to several customers. For an OMS run by a single customer, headquarters/branch relationships (also known as “Zentrale/Filiale” relationships as implemented by the “Systemanschluss Kreditinstitute” component) may be defined for a specific FIX connection.

The party running the connection, as well as the parties which intend to use the connection for order routing purposes, must have valid IDs (CBF Account Number also known as “Kassenvereinsnummer” or “KVNr”). Those IDs must be granted special rights to access the FIX interface, see chapter 2.3 Security.

2.3 Security

The BT-FIX Gateway will support TLS-encryption 1.3 at FIX message level.

Secure network connections (router to router) may be provided by using IPSec. An additional agreement between the party operating the FIX connection and the party running the BT-FIX Gateway is needed to set up the features needed.

The FIX Engines on either side will use the tags SenderCompID and TargetCompID for partner identification.

Every FIX Party operating a connection must ensure that only requests along with the agreed SenderCompID are sent.

Request with an invalid SenderCompID will be rejected.

Requests with an invalid SenderCompID sent after a successful login are valued as an attack. In this case, the session will be logged out. The party running the connection (customer, entering firm) must have a valid ID.
If further parties are to be entitled to use the fix connection for order routing purposes (as executing form/owner of an order), they must have valid IDs as well. Those IDs must be granted special rights to access the FIX interface.

For each FIX main branch account having been admitted resp. defined, a FAGSE session ID and a FAGSE session password may be applied for from the T7 member section (simulation & production). The logon information having been assigned have to be included within the logon message using the tags user name (tag 553) and password (tag 554).

The BT-FIX Gateway will support standard FIX retransmission procedures (duplicate and resend).

2.4 Target Trading Systems

The BT-FIX Gateway will cooperate with the following application systems:

- T7 GSE
- MAX-ONE

2.5 Financial Instruments

There are no limitations with reference to the instruments of a trading -system. Instruments will solely be identified by using the corresponding ISIN. Other ways of identifying financial instruments (e.g. WKN, mnemonic) will not be supported.
It is possible to use the mandatory tag 55 (Symbol), but any value provided will completely be ignored. Messages provided by the BT-FIX Gateway will always have tag 55 set to “[N/A]”.
Exceptions are the messages called realtime trade confirmation (UserMessage TradeCaptureReportSno). Tag 55 includes the ticker symbol (if available) or value “[N/A]”.

2.6 Trading Systems Offering Multiple interfaces

Basically, access via FIX (*Systemanschluss Kreditinstitute*, system connection for banks) offer the same functionality. These funcionalities are divided into the following groups:

- Orderrouting
- OTC-entry
- Realtime trade confirmation

Example of a possible configuration for ID 1766:

- Orderrouting with FIX-access of central office 7066
- OTC- -entry with FIX central office 3766
- Delivery of realtime trade confirmations by FIX with central office 3766

The interfaces (T7 GUI, T7 GSE) are not affected.
It should be kept in mind that using one of those interfaces admitted may cause FIX messages to be generated and disseminated.

2.7 Implementation Of The MiFID II Requirements

Beginning with version 2.3.2 of this document, the requirements of the MiFID II rules and regs have been implemented. In connection with these requirements, we would particularly like you to focus on the areas listed below.

2.7.1 MiFID II Data Fields Provision

Entry fields bearing a direct connection with the MiFID II regulatory acts are specially marked along with their first mention within this document.

What follows is an example for such a flag: “(ESMA RTS24 Field 3)”.

In case lack of clarity is detected in connection with the usage of these tags, then the corresponding documentation of the competent regulatory authorities is referred to.

2.7.2 Shortcode Procedure

Shortcode data are used for the purpose of containment of the identification data of participating parties to be submitted towards the trading venues, according to MiFID II.

Within T7 GSE, the shortcode procedure is relevant only for the FIX order routing participants.

All contents (according to the MiFID II requirements) of the data fields <client identification code>, <investment decision maker>, and <execution within firm> are regarded as relevant for the safeguarded submission of the shortcode files. They may essentially be seen as personalized legitimation data.

The shortcode to longcode mapping (upload and report file) for the T7 trading system is to be processed via the existing DBAG portal (Common Upload Engine and Common Report Engine).

In future, the shortcode to longcode mapping (upload and report file) for the MAX-ONE trading system is to be processed via the existing Munich Stock Exchange portal (Secure FTP).

2.8 Order-Functionality

2.8.1 Order Identification

The BT-FIX Gateway will support the common FIX task “chaining” concept based on the usage of ClOrdID and OrigClOrdID respectively and will check for ClOrdID uniqueness. Uniqueness must be ensured across the entire life cycle of the corresponding order. New order single requests using an already existing ClOrdID, as well as Cancel or Cancel/Replace Requests providing an unknown ClOrdID as OrigClOrdID, will be rejected.

The BT-FIX Gateway provides a second method for cancelling/replacing orders: A Cancel/Cancel Replace Request may deliver the trading system's OrderID using tag 37 and may explicitly rule out the common addressing method by setting OrigClOrdID to “[N/A]”.

If both keys of an order are known, either method for accessing and manipulating orders may be used. It does not matter how an order was entered into the system or which access method was used last. Still the chain of tasks/requests will only reflect requests entered via the FIX interface.

Please note that identifying orders by OrderID relies on positive trading system responses (while on the contrary the “chaining” method does not).

No further methods for identifying orders will be supported. It should especially be kept in mind that Tag 526 is no valid key.

It is not intended to standardize methods for identifying orders across interfaces.

2.8.2 Recommendations

Customers who intend to make simultaneous, unrestricted use of all interfaces of the trading systems under consideration should set up their own scheme for identifying orders. Using the trading systems' order numbers is **no sensible approach.** The order management system will be responsible for any (order) key mapping. If an order management system uses the FIX interface, special care should be taken when handling one of the situations listed below:

- Modification of an order – the trading system's order number may change. The related FIX message sent by the BT-FIX Gateway to the order management system will only provide the new **(modified) order number**.
- Modification or cancellation (via the FIX interface) of an order entered via an interface other than FIX. The FIX Request must provide the trading system's order number (Tag 37), if it is immediately subsequent to the operation creating the order.
- Modification or cancellation of an order (via any interface other than FIX). The resulting FIX message(s) sent to an order management system will contain no OrigClOrdID information and will have ClOrdID set to the corresponding value of the last successfully processed FIX request related to this order. So an order management system must always be able to identify any order by its **OrderID or the ClOrdID of the last successfully processed request entered via the FIX interface.**

If an order management system changes interfaces at random when processing an order the common FIX “chaining” mechanism will be perturbed. Additionally the order management system must be prepared to switch procedures for order identification permanently.

Therefore one of the interfaces should be selected to support the order management system's standard procedures. The alternate usage of further interfaces should be restricted to emergency situations.

2.8.3 Particular Request Behavior

The Order Cancel Requests will need a second order type (Tag 5253).

2.9 Trade Functionality

2.9.1 Supported Messages

The following Trade Messages are supported:

- TradeCaptureReport Request: OTC- Functionality
- TradeCaptureReportAck Response to a TradeCaptureReport
- TradeCaptureReportSno Information to a Trade Confirmation (contract note)

The following FIX-Tags are used as identification criteria for supported messages:

- Functionality (OTC, SNO)

  6556 BusinessTransactionType
  487 TradeReportTransType
  856 TradeReportType

- Identification of a trade resp. report

  880 TrdMatchID
  6555 OrigTrdMatchID

- More identification criteria

  571 TradeReportID
  572 TradeReportRefID
  150 ExecType

Details can be found in chapter 7.5 Trade Functionality

2.9.2 Trade identification

Each message includes the field TradeReportID (tag 571) as unique identifier. In addition, messages with reference to a previous action include the field TradeReportRefID (tag 572).

There is no chaining mechanism for these fields on the BT-FIX Gateway. Furthermore, there is no examination implemented for checking the uniqueness of the concerning field TradeReportID. Also, there is no examination if a TradeReportRefID includes an existing TradeReportID having already been delivered.

The uniqueness resp. correctness of these fields in the request messages must be secured by the client.

Within a response message, the fields TradeReportID and TradeReportRefID (if available) are provided using the content of the request message.

For the TradeCaptureReportSno FAGSE will generate an unique TradeReportID.

Keys for trade messages identification in the BT-FIX Gateway are only T7 GSE defined report- resp. trade-numbers. The T7 trade number is transmitted in the TrdMatchID field (field 880). The TrdMatchID

is unique only when combined with the LastMkt (trading venue), TransactTime (trade entry date), and SecurityID (ISIN or WKN) fields. Clearstream also uses this information to generate the SEME reference.

2.10 General Comments on Rejecting Requests

If the BT-FIX Gateway is incapable to transform an OMS Request into a message accepted by the target trading -system (because of faulty or inconsistent message content), it will always respond with a reject message at session level (MsgType 3).

Common examples are

- missing mandatory or conditionally mandatory tags
- invalid tags
- invalid tag values
- invalid combinations of tag values

If RoE requirements differ from standard FIX conventions, then the former will hold.

Errors detected by a trading -system will lead to reject messages of type Execution Report, Cancel Reject or Business Message Reject.

If a trading -system is unavailable, then the BT-FIX Gateway will generate a Business Message Reject message with ReasonCode set to 4 (“Application not available”).

Business Message Reject and **Reject** messages are described in chapter no: 6 Reject and Business Message Reject. They may be used for a negative response concerning **all kinds of** requests. Clients and OMS´s should be able to handle these responses.

2.11 Behaviour along with ResendRequest

In case a sequnce number (MsgSeqNum) gap has arisen within the requests sent by the OMS, then the BT-FIX Gateway asks for the missing sequence number(s) using a ResendRequest. The gap must then be filled immediately by the OMS.

In case more than 500 further requests are sent instead, without filling the gap, then an immediate automated Logout by the BT-FIX Gateway will occur. By this means, all requests having been after the gap will be discarded.

2.12 Production Launch

Potential customers must participate in a monitored simulation prior to being admitted to the production environment. The terms and conditions of the monitored simulation will be published by BrainTrade.

3 Characteristics

3.1 Incoming and Outgoing Messages

“Incoming message” (request) will indicate a message sent by the customer's order management. Those definitions will also be used for messages which do not pass every possible segment of the application chain.

Transmission of incoming messages:

OMS ➔ FIX engine (customer) ➔ BT-FIX Gateway ➔ trading -system

“Outgoing message” (response, broadcast) will be used to identify messages transmitted from the trading system to the customer’s order management -system.

Transmission of outgoing messages:

trading -system ➔ BT-FIX Gateway ➔ FIX engine (customer) ➔ OMS

3.2 Scenarios and Messages of Session Levels

3.2.1 Processing of FIX Requests

Scenario	Incoming Message	Outgoing Message
Technical Requests		
logon	Logon	Logon (positive) Logon + Logout (negative)
logout	Logout	Logout
General Rejections (possible for every request)		
session level reject	All Request Messages	Reject
General rejection through a trading system or BT-FIX Gateway	All Request Messages	Business Message Reject

3.2.2 System Generated Messages

Scenario	Incoming Message	Outgoing Message
System Shutdown		
logout	-	Logout
status message	-	News “End-of-Day Processing” “End-of-Day Cut-off”
Technical Messages		
checkup of the physical connection	-	Heartbeat
request of a heartbeats	-	Test Request
request of messages	-	Resend Request

3.3 Scenarios and Messages at Application Level

3.3.1 Processing of FIX Requests

Scenario	Incoming Message	Outgoing Message
Order Functionality		
New order	New Order Single	Execution Report
Order cancellation	Order Cancel	Execution Report (positive, preliminary) Order Cancel Reject (negative)
Order modification	Order Cancel/Replace	Execution Report (positive, preliminary) Order Cancel Reject (negative)
Trade Functionality		
New OTC trade	TradeCaptureReport	TradeCaptureReportAck
OTC trade cancellation	TradeCaptureReport	TradeCaptureReportAck

3.3.2 External Inputs / Messages Generated at System Level

Scenario	Incoming message	Outgoing message
Order Functionality		
New Order	-	Execution Report
Order cancellation	-	Execution Report (positive, preliminary) Order Cancel Reject (negative)
Order modification	-	Execution Report (positive, preliminary) Order Cancel Reject (negative)
Order execution	-	Execution Report
Trade-Functionality		
OTC Trade Information (Realtime contract note)	-	TradeCaptureReportSno
News		
Event messages	-	News

3.4 Differences Between FIX Versions 4.2 and 4.4

The RoE described in this document are established using the FIX Version 4.4 specification. The differences when using FIX version 4.2 – which will also be supported by the BT-FIX Gateway – will particularly affect order status concepts, parties' component block concepts, and some other message types not implemented by version 4.2, like User Request and User Response messages.

3.4.1 Order Routing

Execution reports produced for a FIX client running version 4.2 will provide ExecTransType (Tag 20). Their value will always be set to 0 ("New").

The party component block implemented for sessions running version 4.4 cannot be set up for version 4.2 sessions. A party component block will not be present; the repeating groups will be mapped to single tags, which will solely carry the PartyID information[3]:

<parties>	**Tag 4.2**	**field name**	**comments**
<entering firm>	6031	EnteringFirm	String(4), KVNr of the party operating the connection
<executing firm>	76	ExecBroker	String(4), KVNr of the owner of the order
<market maker>	9318	MktMkerID	String(4), KVNr of intermediary This tag will be ignored.
<session>	5177	Source	String, KVNr resp. MemberID of the originator from any other interface
<executing system>	7931	VenueID	String, possible values: "T7 GSE" "MAX-ONE"
<client identification code>	20003	PartyIDClientID	Char(20), Shortcode. (ESMA RTS24 Field 3) Special values: 1 = AGGR 2 = PNAL
	21103	PartyIDClientIDQualifier	Integer This tag will be ignored. The qualifier for the ClientID specifies if the Shortcode given in Tag 20003 represents a LEI or a natural person. 23 = LEI (Legal Entity Identifier) 24 = Nat. Person
	21303	PartyIDClientIDSource	Char Classification of Tag 20003. P = Shortcode The indication of Tag 21303 is not necessary.
<investment decision maker>	20122	PartyIDInvestmentDecisionMaker	Char(20), Shortcode or Algorithm. (ESMA RTS24 Field 4)
	21222	PartyIDInvestmentDecisionMakerQualifier	Integer The qualifier for the InvestmentDecisionMaker specifies if the PartyID in Tag 20122 represents an algorithm or the Shortcode for a natural person. 22 = Algorithm 24 = Shortcode for a nat. person In case Tag 21222 is missing, then a Shortcode representation is assumed.

[3] Names included in angle brackets will refer to the <parties> component block's occurrence names used in this document, not to FIX field names.

<parties>	Tag 4.2	field name	comments
	21422	PartyIDInvestmentDecisionMakerSource	Char Classification of Tag 20122. P = Shortcode or in conjunction with Tag 21222 also Algorithm The indication of Tag 21422 is not necessary.
<Execution within firm>	20012	PartyIDExecutingTrader	Char(20), Shortcode or Algorithm. (ESMA RTS24 Field 5) Special values: 3 = NORE
	21112	PartyIDExecutingTraderQualifier	The qualifier for the ExecutingTrader indicates if the PartyID in Tag 20012 represents an algorithm or the Shortcode for a natural person. 22 = Algorithm 24 = Shortcode for natural person In case 21112 is missing, then a Shortcode representation is assumed.
	21312	PartyIDExecutingTraderSource	Char Classification of Tag 20012. P = Shortcode or in conjunction with Tag 21112 also Algorithm The indication of Tag 21312 is not necessary.

3.4.2 Password Change

Password changes regarding a specific FAGSE session ID may be required, upon demand, within the T7 member section of the participant. As a result, a newly generated password will be provided for the FAGSE session ID having been selected. The last 4 digits of the FAGSE session ID correspond to the FIX main branch account number.

Therefore, a password modification via the FAGSE gateway will technically neither be necessary nor possible any longer.

3.4.3 Trade Messages

MsgTypes “AE” - TradeCaptureReport and “AR” - TradeCaptureReportAck are not defined in FIX Version 4.2. Using the same message structures, “AE” will be replaced by “UAE” and “AR” by “UAR”. Within the user-defined TradeCaptureReport message and TradeCaptureReportSno message, all Party-Repeating Groups will not be replaced – description above.

4 Message Layouts

4.1 FIX Header / Trailer

Legend **FIX Header / Trailer**

Sort sequence: Information items (Tag=Value<SOH>) within a FIX message usually can be defined in any order. Some FIX Header and Trailer structures, however, bear exceptions, as some tags cannot be defined in any sequence: The corresponding rows of the table below will be grey-shaded. The tags will be shown at their proper position within the table/message structure. The remaining (standard) tags are sorted ascending by tag number.

Column headers: RF will indicate if a tag is required with respect to the FIX protocol version, R will indicate if a tag is required with respect to the RoE. All other column headers are self-explanatory.

Content: Columns “R” and “RF” will indicate if a tag is Mandatory or Optional; “Comment” will contain the tag's FIX data type, admitted values (optional) and further explanatory remarks. All other content is self-explanatory. If cell values for “R” and “RF” are contradictory, the value presented by column “R” will be valid .

4.2 FIX Header <standard message header>

Incoming Messages

Tag	Field Name	RF	R	Comment
8	BeginString	M	M	String FIX version Valid values: FIX.4.4 FIX.4.2 Must always be the first field in the header structure
9	BodyLength	M	M	Length Message length Must always be the second field in the header structure
35	MsgType	M	M	String Message type Must conform to the RoE. Must always be the third field in the header structure
34	MsgSeqNum	M	M	SeqNum Message sequence number. Must be provided and maintained by the sending system. The number must be unique per session. Must start at “1”, gaps are not allowed. Intraday termination and restart of a session will not automatically reset MsgSeqNum
43	PossDupFlag	O	O	Boolean If a FIX engine repeats transmission of identical content (including MsgSeqNum) it will set PossDupFlag to “Y”
49	SenderCompID	M	M	String ID of the sending system Used for partner identification. Values will be defined by BrainTrade GmbH. If the party operating the connection owns multiple SenderCompIDs, only one of them may be active. SenderCompID values are identical for all computers
52	SendingTime	M	M	UTC Time stamp
56	TargetCompID	M	M	String ID of the receiving system Used for partner identification. Values will be defined by BrainTrade GmbH
97	PossResend	O	O	Boolean If a FIX engine repeats transmission of identical content (**not** including MsgSeqNum), it will set PossResendFlag to “Y”. The receiving application must examine the situation. This functionality is not fully supported: PossResends are only allowed for NewOrderSingle. If a Request has already been received using the same ClOrdID, then the same ExecutionReport resp. Reject will be transferred to the Client again. Otherwise the Request will not be processed, but replied to with a Reject.
122	OrigSendingTime	O	O	UTCTimestamp May be used when answering a resend request of the BT-FIX gateway Timestamp of the original message Included due to compatibility reasons This tag will be ignored.
369	LastMsgSeqNumProcessed	O	O	SeqNum Last MsgSeqNum processed by the sending system

Outgoing Messages

Tag	Field Name	RF	R	Comment
8	BeginString	M	M	String FIX version Valid values: FIX.4.4 FIX.4.2 Must always be the first field in the header structure
9	BodyLength	M	M	Length Message length Must always be the second field in the header structure
35	MsgType	M	M	String Message type Must conform to the RoE. Must always be the third field in the header structure
34	MsgSeqNum	M	M	SeqNum Message sequence number Must be provided and maintained by the sending system. The number must be unique per session. Must start at “1”, gaps are not allowed. Intraday termination and restart of a session will not automatically reset MsgSeqNum
43	PossDupFlag	O	O	Boolean If a FIX engine repeats transmission of identical content (including MsgSeqNum) it will set PossDupFlag to “Y”. Will always be set to “Y” when responding to a Resend Request
49	SenderCompID	M	M	String ID of the BT-FIX Gateway system Used for partner identification. Values will be defined by BrainTrade GmbH
52	SendingTime	M	M	UTC Time stamp
56	TargetCompID	M	M	String ID of the receiving system Used for partner identification. Values will be defined by BrainTrade GmbH
97	PossResend	O	O	Boolean If a FIX engine repeats transmission of identical content (**not** including MsgSeqNum), it will set PossResendFlag to “Y”. The receiving application must examine the situation
122	OrigSendingTime	O	O	UTCTimestamp May be used when answering a resend request of the BT-FIX gateway Timestamp of the original message

4.3 FIX Trailer <standard message trailer>

Tag	Field Name	RF	R	Comment
10	CheckSum	M	M	3 Bytes Checksum Must always be the last field in the trailer structure

5 FIX Messages of Session Levels

5.1 Explanation of the FIX Message Body

Column headers: RF will indicate if a tag is required resp. how a tag is handled with respect to the FIX protocol version, R will indicate if a tag is required resp. how a tag is handled with respect to the RoE. All other column headers are self-explanatory. 7M will detail tag handling for all target trading systems. All other column headers are self-explanatory.

7M (T**7** GSE/**M**AX-ONE/) will detail tag handling at trading resp. settlement-system level. This column will additionally allow “N” (Tag Not allowed). When discussing a Cancel/Replace Request, the values ch**A**ngeable or **U**nchanged (no modification possible) will also be used.

All other headers are self-explanatory.

Content: Columns “R” and “RF” will indicate if a tag is Mandatory or Conditionally mandatory. Cell content will only be set to “M” or “C”, if tag handling is identical across all trading systems. In this case column 7M will be left blank.

“Comment” will contain the tag's FIX data type, admitted values (optional) and further explanatory remarks.

Integer(5) means that the tag's value may have 5 significant digits (after leading zeroes have been removed), Float(10,3) means that tag's value may have a maximum of ten digits before the decimal point and three decimal places. Those are **not FIX data type definitions** but mere conventions of writing and valid only for this document.

5.2 Logon

Please note that a Logon request message will **always** be answered by a Logon response message issued by the FIX engine (possibly with simultaneous password change). If the Logon request is finally rejected, then an additional Logout response will be sent. [Further information on future password management will be announced in due course.]

Logon Request

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = "A" (MsgType)
98	EncryptMethod	M	M		Integer Method of encryption **Must be set to 0 = "none / other"**
108	HeartBtInt	M	M		Integer Heartbeat interval Will be checked against a BT-FIX Gateway configuration file value
141	ResetSeqNumFlag	O	O	OO	Boolean "Y" indicates that the both sides of the FIX session should reset sequence numbers
383	MaxMessageSize	O	O	OO	Length Maximum number of bytes supported for a single message
553	Username	O	M		FAGSE Session ID Password changes regarding the ID may be required, within the T7 member section. The last 4 digits of the FAGSE session ID correspond to the FIX main branch account number = <enteringFirm> Only integer values will be accepted
554	Password	O	M		String Password FAGSE Session Passwort from the T7 Member Section
789	NextExpectedMsgSeqNum	O	O	OO	SeqNum Next expected MsgSeqNum value to be received Reserved for future use This tag will be ignored.
<standard message trailer>		M	M		

Logon Response

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “A” (MsgType)
98	EncryptMethod	M	M		Integer Method of encryption Will be set to 0 = “none / other”
108	HeartBtInt	M	M		Integer Heartbeat interval
141	ResetSeqNumFlag	O	O	OO	Boolean “Y” indicates that the both sides of the FIX session should reset sequence numbers
383	MaxMessageSize	O	O	OO	Length Maximum number of bytes supported for a single message
553	Username	O	O	OO	String(10) UserID or username The tag will not be supplied at present
789	NextExpectedMsgSeqNum	O	O	OO	SeqNum Next expected MsgSeqNum value to be received Reserved for future use Will not be supplied
<standard message trailer>		M	M		

The following additional message will be sent. Please note that you cannot expect SessionStatus always to be supplied.

Logout Response

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “5” (MsgType)
58	Text		O	OO	String Error text
1409	SessionStatus		O	OO	Integer Error code Valid values: 5 = Invalid username or password 7 = Logons are not allowed at this time
<standard message trailer>		M	M		

5.3 Logout

Logout Request

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “5” (MsgType)
<standard message trailer>		M	M		

Logout Response

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “5” (MsgType)
58	Text		O	OO	String A text description for logout
<standard message trailer>		M	M		

5.4 System Shutdown

From the customer's point of view an incoming News message where status is set to 002 = "End of Business Day" indicates that a system shutdown has been initiated by the BT-FIX Gateway. No more incoming requests will be accepted, but outgoing messages waiting for delivery will still be transmitted. Trading -systems may also generate further messages, which will also be distributed. As soon as all trading systems have finished to do so, the BT-FIX Gateway will disseminate a News message where status is set to 003 = "End of Business Day Cutoff" and – after a short delay – a logout message for every active connection. Then all sessions/connections will be terminated unconditionally.

No.	**System Shutdown**		Message Flow		
			FE Customer	BT FIX Gateway	Trading System
1	News ("2", "End of Business Day")			←	
	Further client requests				
2	NewOrderSingle		→		
	Declined to requests after "End of Business Day"				
3	Business Message Reject (4)			←	
	Message from system				←
4	Execution Report ("Trade", "Partially filled")			←	
5	News ("3", "End of Business Day Cut-Off")			←	
6	Logout			←	
8	Session termination			←	

News Messages

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = "B" (MsgType)
33	LinesOfText		M		NumInGroup Identifies number of lines of text body Will be set to "1"
58	Text		M		String Message text End of Business Day "End of Day Processing – No more Input Messages" End of Business Day Cut-Off "End of Business Day Cutoff, System unavailable"
148	Headline		M		String System status "002" = End of Business Day "003" = End of Business Day Cut-Off
<standard message trailer>		M	M		

6 Reject and Business Message Reject

Only tags of the message body will be discussed. No party or instrument information will be present in either message.

Reject (MsgType = 3)

Tag	Field Name	RF	R	7M	Comment
45	RefSeqNum	M	M		SeqNum Sequence number of the request being rejected
58	Text	O	O	OO	String Error text
371	RefTagID	O	M		Integer Tag number of the FIX field being referenced
372	RefMsgType	O	M		String MsgType of the FIX message being referenced
373	SessionRejectReason	O	O	OO	Integer Reject reason
5555	ReturnCode		O	OO	Integer Return code
9803	TradingSystemID		O	OO	Integer Identifies the system generating the return code

If an appropriate FIX error code is provided in tag 373 (SessionRejectReason), tag 58 (Text) may be present or not. If no such code can be determined, Tags 5555 (ReturnCode), 9803 (TradingSystemID) and 58 (Text) will be present, but **tag 373 (SessionRejectReason) will be missing**. If field relationship has been evaluated, tag 371 (RefTagID) will contain the tag number of the tag which is missing or not allowed.

Business Message Reject (MsgType = j)

Tag	Field Name	RF	R	7M	Comment
45	RefSeqNum	O	M		String MsgType of the FIX message being referenced
58	Text	O	O	OO	String Error text
372	RefMsgType	M	M		Integer MsgType of the FIX message being referenced
380	BusinessRejectReason	M	M		Integer Reject reason
5555	ReturnCode		O	OO	String Return code
9803	TradingSystemID		O	OO	Integer Identifies the system generating the return code

If an appropriate FIX error code is provided in tag 380 (BusinessRejectReason), tag 58 (Text) may be present or not. If no such code can be determined, tags 5555 (ReturnCode), 9803 (TradingSystemID) and 58 (Text) will be present; **tag 380 (BusinessRejectReason) will, however, be set to "0"**.

7 FIX Messages at Application Levels

7.1 Explanation of the FIX Message Body

Sorting: The elements of <instrument> Component Blocks may be transferred in any order. Elements do not need any ascending or descending order rule. The same rule is valid for messages sent by the BT-FIX Gateway.

Repeating Groups contain fields with a fixed start position, and other ones at any position within the Repeating Group.

A Repeating Group always starts with the tag containing the number of groups, then the first tag of this group follows. Fields with a fixed position are highlighted in grey and are at the same position as in the Repeating Group. All other fields are sorted ascending by tags, but may be transferred without any sequence order. The same rule is valid for Repeating Groups generated by the BT-FIX-Gateway.

Column headers: 7M: These details (**M**andatory/**O**ptional/**C**onditional/**N**ot allowed) are listed for the trading systems T**7** GSE/**M**AX-ONE. RF will indicate if a tag is required resp. how a tag is handled with respect to the FIX protocol version, R will indicate if a tag is required resp. how a tag is handled with respect to the RoE. 7M will detail tag handling for all target trading resp. settlement-systems. When discussing a Cancel/Replace Request, the values ch**A**ngeable and **U**nchanged (no modification possible) will also be used. EnterOTC, DeleteOTC contain **M**andatory/**O**ptional/**C**onditional/**N**ot allowed/**I**gnore for the Requests: Enter order, deletion, OTC-routing and OTC-trades.
All other column headers are self-explanatory.

Content: Columns “R” and “RF” will indicate if a tag is Mandatory or Conditionally mandatory. Cell content will only be set to “M” or “C” if the tag handling is identical across all trading systems. In this case column 7M will be left blank. If the field is part of a repeating group or component block, then “M” means that the field within the superior structure is mandatory. The corresponding attribute concerning the message is then a part of the structure. When a tag within one target-system is mandatory in one system and optional in another one, then code “O” will be default .

All fields are marked with a “C’’ when depending from another field. Example: StopPx depends on OrdType. In this case StopPx is filled with Code “C”.

“Comment” will contain the tag's FIX data type, admitted values (optional) and further explanatory remarks.

Integer(5) means that the tag's value may have up to 5 significant digits (after leading zeroes have been removed), Float(10,3) means that tag's value may have a maximum of ten digits before the decimal point and three decimal places. Those are **not FIX data type definitions** but mere conventions of writing and valid only for this document.

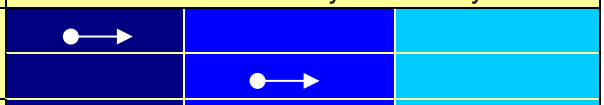
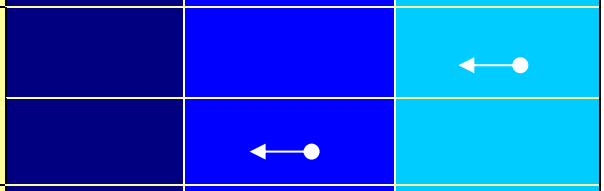
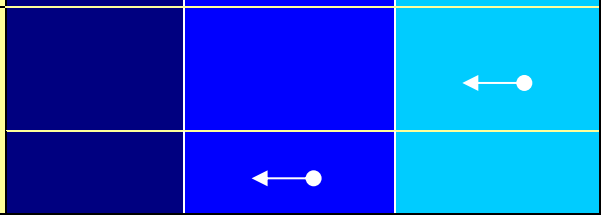
7.2 Order Functionality

7.2.1 Order Entry

7.2.1.1 Operations – Orders

No.	**Successful Submission of an Order**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	New Order Single		→	→	
2	*Optionally: Preliminary confirmation with PendingReason (tag 5946)* Execution Report ("Pending New", "Pending New")			←	←
3	*Final confirmation positive* Execution Report ("New", "New")			←	←

No.	**Unsuccessful Submission of an Order**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	New Order Single		→	→	
2	*Optionally: Preliminary confirmation with PendingReason (tag 5946)* Execution Report ("Pending New", "Pending New")			←	←
3	*Final confirmation negative with error information (tags 5555, 9320, 9803)* Execution Report ("Rejected", "Rejected")			←	←

No.	**Submission of an Order Without Final Confirmation**		**Message Flow** FE Customer / BT FIX Gateway / Trading System
1	New Order Single		
2	*Optionally: Preliminary confirmation with PendingReason (tag 5946)* Execution Report (“Pending New”, “Pending New”)		
3	*End of day: Preliminary confirmation with PendingReason 4 = “order status unknown (end of day)”* Execution Report (“Pending New”, “Pending New”)		

7.2.1.2 NewOrderSingle Request

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “D” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 1 – 6 The value must correspond to the number of parties (repeating groups) provided
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	OO	The participant being in charge of the order If the repeating group is missing, “entering firm” will become the owner of the order
<market maker>		O	O	OO	The market maker Not relevant valid for T7 GSE and MAX-ONE. The content of this field is ignored
<intermediary>		O	O	NN	Not permitted
<client identification code>		O	O	OO	Identification of the customer
<investment decision maker>		O	O	OO	Trading member employee or algorithm being responsible for the investment decision.
<Execution within firm>		O	O	OO	Trading member employee or algorithm being responsible for the order execution.
end <parties>					
<instrument>		M	M		Financial instrument, given as ISIN
<trading sessions>		O	O	OO	Trading Session Information Only TradingSessionSubID will carry useful information Alternatively single tags 336 and 625 may be used This also holds for FIX 4.2 messages. Please note that FIX 4.4 definitions hold, which are not compliant with FIX 4.2
<OrderAttributes>		O	O	OO	Repeating Group for attributes of orders

Tag	Field Name	RF	R	7M	Comment
<ValueChecksGrp>		O	O	OO	Check flag for the market value permitted as a maximum for one order on the trading venue.
1	Account	O	O	OO	String(2) Consists of Account Type and Account Type Number Possible values: P1 – bank's own-account trading A1 – bank's customer (agent) business
11	ClOrdID	M	M		String(16) Unique key of an order related task (request) Will be provided by the sending system. As long as the corresponding order is active, no task (request) referring to it will be allowed to use the identical ClOrdID value. So uniqueness must be guaranteed across the entire life cycle of an order. Uniqueness will be verified by the BT-FIX Gateway
21	HandlInst	M / O	M / O		Char for "FIX 4.2" mandatory for "FIX 4.4" optional Instructions for order handling on Broker trading floor Valid values: 1 = Automated execution order, private, no Broker intervention 2 = Automated execution order, public, Broker intervention OK 3 = Manual order, best execution This tag will be ignored.
38	OrderQty	O	M		Qty, Float(15,4) Total quantity ordered
40	OrdType	M	M		Char Valid values MAX-ONE 1 = "Market" 2 = "Limit" 3 = "Stop" 4 = "Stop Limit" T7 GSE 1 = "Market" 2 = "Limit" 3 = "Stop" 4 = "Stop Limit"
44	Price	C	C		Price, Float(11,8) Order limit, must be present if Tag 40 (OrdType) is set to "2" or "4", must not be present otherwise
54	Side	M	M		Char Side of order Valid values: 1 = "Buy" 2 = "Sell"
58	Text	O	O	OO	String(24) Text

Tag	Field Name	RF	R	7M	Comment
59	TimeInForce	O	O	OO	Char Valid values: 0 = “Day” 6 = “Good till Date” Default: “0”
60	TransactTime	M	M		UTC Timestamp Provided by the sending system or the owner of the order. This tag will be ignored.
99	StopPx	C	C		Price, Float(19,8) Stop Limit, must be present if tag 40 (OrdType) is set to “3” or “4”, must not be present otherwise
100	ExDestination	O	M		Target exchange MIC Code
110	MinQty	O	O	NN	Qty, Float(15,4) Minimum quantity to be executed. Not permitted
432	ExpireDate	C	C		LocalMktDate Order expiration date Must be present if Tag 59 is set to “6”, must not be present otherwise
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number User defined key of the order (Order number) May be defined by the sending system or the owner of the order. Will not be validated by the BT-FIX Gateway. However, the rules of the respective trading system will be valid. The uniqueness is not checked by the system.
1094	PegPriceType		O	NN	Integer Not permitted
1138	DisplayQty		O	NN	Qty, Float Not permitted
1724	OrderOrigination	O	O	OO	Integer Flag for DEA (Direct Electronic Access). (ESMA RTS 24, Field 2) 5 = DEA (Direct Electronic Access) Missing Tag means „no DEA“
1815	TradingCapacity	O	O	NNOON	Integer Trading function. (ESMA RTS 24, Field 7) 1 = AOTC (trading for customer) 5 = DEAL (trading for his own account) 6 = DEAL (trading as Market Maker) 9 = MTCH (matching of corresponding customer orders) Missing tag means „1=AOTC“ wenn Tag1 Account = „A1“ oder „5=DEAL“ wenn Tag1 Account = „P1“
5076	FundReinvestIncome		O	NN	Char Not permitted
5078	FundSpecialDealDiscount		O	NN	Char Not permitted

Tag	Field Name	RF	R	7M	Comment
5156	UnreleasedDate		O	OO	LocalMktDate MAX-ONE Attribute for orders valid from this date. Must be filled with date >= current business date Every date > current business date is valid, even if the date is not a trading day The actual value valid-from will be set by the trading system internally. The used value will be delivered in the response message (also in tag 5156 - field unreleased date). The use of the DEAL and MTCH parameters must be applied for at the GSE exchanges.
5253	OrdTypeExt		C	OO	Char MAX-ONE **E = "EG-Order"** EG-Order rule in Tag 58 (Text): **One-Cancels-Other (OCO)** OCO?trigger?0 **Trailing-Stop (TS)** TS?A?trigger?diffAbs TS?P?trigger?diffPerc trigger = Trigger-Limit (e.g. 12.4) diffAbs = Trailing Stop Diff. - absolutely (e.g. 1.5) diffPerc = Trailing-Stop Diff. – per cent (e.g. 5.0)
<standard message trailer>		M	M		

7.2.1.3 Response "Execution Report" – Identification Criteria

FIX tags within the Execution Report for the identification of responses for order submissions:

FIX tags		Response for Order submission			
Tag	Field	Preliminary	Positive	Negative	Negative (Vestima only)
39	OrdStatus	A = "Pending New"	0 = "New"	8 = "Rejected"	4 = "Cancelled"
150	ExecType	A = "Pending New"	0 = "New"	8 = "Rejected"	4 = "Cancelled"
5946	PendingReason	2 = "locked stock" 4 = "order status unknown (end of day)"	-	-	-

7.2.1.4 Response "Execution Report" – Message Data

A New Order Single Request may provide only one entry in the <parties> component block, if entering firm and executing firm are identical. Yet, the BT-FIX gateway will nevertheless set up two entries in the Execution Report. If a market maker is involved, an additional entry will be generated.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “8” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 2 … 4 The value must correspond to the number of parties (repeating groups) provided
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	MM	The participant having issued the order If the repeating group is missing, “entering firm” will become the owner of the order
<market maker>		O	O	OO	The market maker
<intermediary>		O	O	NN	Data for intermediary (sales institution) Will not be delivered
end <parties>					
<instrument>		M	M		Financial instrument given as ISIN
1	Account	O	O	OM	String(2) Consists of Account Type and Account Type Number Trading systems may provide default values
6	AvgPx	M	M		Price Average price Will be set to “0”
11	ClOrdID	O	M		String(16) Unique key of an order related task (request)
14	CumQty	M	M		Qty, Float(15,4) Total quantity executed Will be set to “0”
17	ExecID	M	M		String Unique key of the Execution Report Uniqueness must be guaranteed within a single trading day
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros) If no order number is available, “[N/A]” will be set. This happens in case of rejections and preliminary confirmations.
38	OrderQty	O	M		Qty, Float(15,4) Total quantity ordered
39	OrdStatus	M	M		Char Order status 0 = “New” Submission positive A = “Pending New” Submission preliminarily accepted (further information can be found in tag 5946 – PendingReason) 8 = “Rejected” Submission rejected
40	OrdType	O	M		Char Order type

Tag	Field Name	RF	R	7M	Comment
44	Price	C	C		Price, Float(11,8) Order limit Filled for OrdType = “2” or “4”
54	Side	M	M		Char Side of order 1 = "buy” 2 = “sell”
58	Text	O	O	OO	String(24) Text
59	TimeInForce	O	M		Char
60	TransactTime	O	M		UTC Timestamp [microseconds YYYYMMDD-HH:MM:SS.ssssss] Time of execution/order creation
99	StopPx	C	O	CC	Price, Float(11,8) Stop limit, filled for OrdType = “3” or “4”
100	ExDestination	O	M		Exchange MIC Code Will always be supplied by the BT-FIX Gateway
110	MinQty	O	O	NN	Qty, Float(15,4) Minimum quantity to be executed Will not be delivered
150	ExecType	M	M		Char Type of Report 0 = “New” Submission positive A = “Pending New” Submission preliminarily accepted (further information to be seen via tag 5946 – PendingReason) 8 = “Rejected” Submission rejected
151	LeavesQty	M	M		Qty, Float(15,4) Quantity open for further execution Will be set to OrderQty
336	TradingSessionID	O	O	OO	String(1) Valid value 1 = “Day” Will always be used from a New Order Single Request together with tag 625
432	ExpireDate	O	M		LocalMktDate Order expiration date Will always be supplied with TimeInForce = “6” (tag 59)
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number User defined key of the order (Order number)
625	TradingSessionSubID	O	O	CC	String Will always be used together with tag 336
1094	PegPriceType		O	NN	Integer Will not be delivered
1138	DisplayQty		O	NN	Qty, Float Maximum visible volume of the order Will not be delivered
5048	OrdSubStatus		O	NN	String Will not be delivered

Tag	Field Name	RF	R	7M	Comment
5076	FundReinvestIncome		O	NN	Char Will not be delivered
5078	FundSpecialDealDiscount		O	NN	Char Will not be delivered
5156	UnreleasedDate		O	OO	LocalMktDate Will be used to set up a “valid from” condition MAX-ONE Date valid from for orders which become valid in the future. Tag contains exchange day from which the order will be valid.
5253	OrdTypeExt		C	OO	Char Second order type Will be set to “E” if present. Used only for EG-Orders MAX-ONE E = EG Order
5476	PrivateReference		O	NN	String Will not be delivered
5862	UpdateReason		O	ON	Reason of order modification or deletion by the system Value range see appendix C
5946	Pending Reason		O	CC	String Delivery by BT-FIX Gateway; only integer(1) This field is only filled in case of preliminary confirmation (“Pending New” - OrdStatus = A, ExecType = A) 2 = “locked stock” Order submission held on because of a locked order book (T7 GSM, MAX-ONE) 4 = “order status unknown (end of day)” No confirmation of order submission until end of day (either positive nor negative). Status of the order is unknown.
9933	CombinedOrderType		O	ON	Char Will not be delivered
	The following fields are only filled in the case of a rejection (“Rejected” - OrdStatus = 8, ExecType = 8)				
5555	ReturnCode		O	CC	Integer Return code
9320	OrderRejectReasonTxt		O	CC	String Error text delivered by the trading system
9803	TradingSystemID		O	CC	Integer Identification ID of the system generating the return code
<standard message trailer>		M	M		

7.2.2 Order-Cancellation

7.2.2.1 Operations

No.	**Successful Cancellation of an Order**	**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	Order Cancel (“ClOrdID”, “OrigClOrdID”)	→		
			→	
	Optionally: Preliminary confirmation with PendingReason (tag 5946)			←
2	Execution Report (“Pending Cancel”, “Pending Cancel”)		←	
	Confirmation			←
3	Execution Report (“Cancelled”, “Cancelled”)		←	

No.	**Rejected Cancellation of an Order**	**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	Order Cancel (“ClOrdID”, “OrigClOrdID”)	→		
			→	
	Optionally: Preliminary confirmation with PendingReason (Tag 5946)			←
2	Execution Report (“Pending Cancel”, “Pending Cancel”)		←	
	Final negative confirmation with error information (tags 5555, 9320, 9803)			←
3	Order Cancel Reject (“Rejected”)		←	

Nr.	***Preliminarily* Accepted Cancellation of an Order**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	Order Cancel (“ClOrdID”, “OrigClOrdID”)		● →		
				→ ●	
	Optionally: Preliminary confirmation with PendingReason (tag 5946)				● ←
2	Execution Report (“Pending Cancel”, “Pending Cancel”)			● ←	
	End of day: Preliminary confirmation with PendingReason 4 = “order status unknown (end of day)”				● ←
3	Execution Report (“Pending Cancel”, “Pending Cancel”)			● ←	

Explanatory Notes:

The Execution Report "Pending Replace" or "Pending Cancel", in connection with the Completion Code 127650 (MODIFICATION/CANCELLATION ACCEPTED BUT TEMPORARILY POSTPONED), means that an order modification resp. order deletion has already become logically final, but has been temporarily postponed due to technical reasons. The final Execution Report of the Acknowledement "Replace" or "Cancel" will follow.

7.2.2.2 Order Cancel Request

Modified tag assignment: The hitherto optional FIX tag 100 ExDestination (MIC code of the exchange location) will become „mandatory“ in the future and is thus to be included in all cases along with the call of the requests.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “F” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 1 – 5 The value must correspond to the number of parties (repeating groups) provided
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	OO	The participant being in charge of the order If the repeating group is missing, “entering firm” will become the owner of the order
<client identification code>		O	O	OO	Identification of the customer
<investment decision maker>		O	O	OO	Trading member employee or algorithm being responsible for the investment decision.

Tag	Field Name	RF	R	7M	Comment
<Execution within firm>		O	O	OO	Trading member employee or algorithm being responsible for the order execution.
end <parties>					
<instrument>		M	M		Financial instrument given as ISIN
<OrderAttributes>		O	O	OO	Repeating Group for attribute of orders
11	ClOrdID	M	M		String(16) Unique key of an order related task (request) Will be provided by the sending system. For as long as the corresponding order is active, no other task (request) referring to it will be allowed to use the identical ClOrdID value. So the uniqueness must be guaranteed across all trading days. Uniqueness will be verified by the BT-FIX Gateway.
37	OrderID	O	C		Integer Unique order number of the trading system May be used for order identification. If so, then OrigClOrdID must be set to “[N/A]”.
38	OrderQty	M	M		Qty, Float Total quantity ordered This tag will be ignored.
41	OrigClOrdID	M	M		String(16) ClOrdID of the previous successful FIX request corresponding to the order, used to identify the order. If OrigClOrdID is set to “[N/A]”, OrderID (Tag 37) must be present and will be used for order identification.
54	Side	M	M		Char Side of order 1 = “buy” 2 = “sell” cancel requests including errors but using the correct format will be accepted.
60	TransactTime	M	M		UTC Timestamp Provided by the sending system or the owner of the order. This tag will be ignored.
100	ExDestination	O	M		Exchange location MIC Code
5253	OrdTypeExt		OC	OO	Char Second Order Type Will be ignored by MAX-ONEThe Request will be processed anyway.
6042	CxlReason	O	O	OO	Integer Identification of deleting an order by kill-functionality (MIFID II). 1 = Cancel by kill-functionality
<standard message trailer>		M	M		

7.2.2.3 Response Execution Report (Preliminary, Positive)

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “8” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid value: only “2” The value must correspond to the number of parties (repeating groups) provided
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	MM	The participant having sent the order If the repeating group is missing, “entering firm” will become the owner of the order
end <parties>					
<instrument>		M	M		Financial instrument
6	AvgPx	M	M		Price Average price Will be set to “0”
11	ClOrdID	O	M		String(16) The value provided by the request will be returned
14	CumQty	M	M		Qty, Float(15,4) Total quantity executed
17	ExecID	M	M		String Unique key of the Execution Report Uniqueness must be maintained across the entire trading day.
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros)
38	OrderQty	M	M		Qty, Float(15,4) Total quantity ordered
39	OrdStatus	M	M		Char Order status 4 = successfully cancelled 6 = cancellation pending Cancellation preliminarily accepted (more information see Tag 5946 – PendingReason).
41	OrigClOrdID	O	M		String(16) The values provided by the request will be returned
44	Price	O	O	CC	Price, Float(11,8) Order limit, will be provided if OrdType is set to “2” or “4”
54	Side	M	M		Char Side of order
60	TransactTime	O	M		UTC Timestamp [microseconds YYYYMMDD-HH:MM:SS.ssssss] Time of execution/order cancellation
100	ExDestination		M		Exchange location MIC Code

Tag	Field Name	RF	R	7M	Comment
150	ExecType	M	M		Char Type of Report 4 = “Cancelled” Cancellation positive 6 = “Cancellation Pending” Cancellation preliminarily accepted (further information on tag 5946 – PendingReason).
151	LeavesQty	M	M		Qty, Float(15,4) Quantity open for further execution Will be set to “0”
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number
5048	OrdSubStatus		O	NN	String Will not be delivered
5476	PrivateReference		O	NN	String Supplement to OrdSubStatus Will not be delivered
5862	UpdateReason		O		Reason of order modification or deletion by the system Value range see appendix C
5946	Pending Reason		O	CC	String Delivery by BT-FIX Gateway; only integer(1) This field will only be filled when preliminarily confirmed (“Pending Cancel” – OrdStatus = 6, ExecType = 6) 2 = “locked stock” Order submission held due to a locked order book (T7 GSM, MAX-ONE) 4 = “order status unknown (end of day)” No confirmation of order submission until end of day (neither positive nor negative). Status of the order is unknown.
<standard message trailer>		M	M		

7.2.2.4 Response "Order Cancel Reject" (Negative from Vestima)

Instead of an Execution Report, an Order Cancel Reject message will be sent.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = "9" (MsgType)
<parties>			M		
453	NoPartyIDs		M		NumInGroup Number of parties involved Valid value "2" The value must correspond to the number of parties (repeating groups) provided.
<entering firm>			M		The participant operating the connection
<executing firm>			O	OO	The participant having sent the order. If the repeating group is missing, "entering firm" will become the owner of the order.
end <parties>					
11	ClOrdID	M	M		String(16) Unique key of an order related task (request). The value provided by the request will be returned.
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros) May be missing or set to "[N/A]"
39	OrdStatus	M	M		Char Order status Will be set to "8" (Rejected).
41	OrigClOrdID	M	M		String(16) ClOrdID of the previous successful FIX request corresponding to the order, or set to "[N/A]". The value provided by the request will be returned.
60	TransactTime	O	M		UTC Timestamp Time of execution/rejection
100	ExDestination		M		Exchange location MIC Code
102	CxlRejReason	O	M		Integer Will be set to 99 = "Other" if no appropriate FIX reason code is available. Tag 5555 will then contain an error code, and tag 9320 contains the related error text.
434	CxlRejResponseTo	M	M		Char Will be set to "1" (Order Cancel Request)
5555	ReturnCode		M		Integer Return code
9320	OrdRejectReasonText		M		String Error text issued by the trading system
9803	TradingSystemID		M		Integer Will identify the system generating the return code.
<standard message trailer>		M	M		

7.2.3 Order -Modification

7.2.3.1 Operations – Orders

No.	**Immediate Successful Order Modification**	**Message Flow** FE Customer / BT FIX Gateway / Trading System
1	Order Cancel/Replace ("ClOrdID", "OrigClOrdID")	→
		→
	Optionally: Preliminary confirmation with PendingReason (tag 5946)	←
2	Execution Report ("Pending Replace", "Pending Replace")	←
	Confirmation positive	←
3	Execution Report *("replace", actual order status)*	←

No.	**Rejected Modification of an Order**	**Message Flow** FE Customer / BT FIX Gateway / Trading System
1	Order Cancel/Replace ("ClOrdID", "OrigClOrdID")	→
		→
	Optionally: Preliminary confirmation with PendingReason (tag 5946)	←
2	Execution Report ("Pending Replace", "Pending Replace")	←
	Final negative confirmation with error information (tags 5555, 9320, 9803)	←
3	Order Cancel Reject ("Rejected")	←

No.	**Temporarily Accepted Modification of an Order**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	Order Cancel/Replace ("ClOrdID", "OrigClOrdID")		→		
				→	
	Optionally: Preliminary confirmation with PendingReason (tag 5946)				←
2	Execution Report ("Pending Replace", "Pending Replace")			←	
	End of day: Preliminary confirmation with PendingReason 4 = "order status unknown (end of day)"				←
3	Execution Report ("Pending Replace", "Pending Replace")			←	

Explanatory Notes:

The Execution Report "Pending Replace" or "Pending Cancel", in connection with the Completion Code 127650 (MODIFICATION/CANCELLATION ACCEPTED BUT TEMPORARILY POSTPONED), means that an order modification resp. order deletion has already become logically final, but has been temporarily postponed due to technical reasons. The final Execution Report of the Acknowledement "Replace" or "Cancel" will follow.

7.2.3.2 Order Cancel / Replace Request

As a rule, a Cancel/Replace Request should deliver all information items of an order. The BT-FIX Gateway supports this standard behavior, but will in addition accept messages which only include those tags whose values need to be changed – as far as optional tags are concerned. Of course all mandatory tags must always be present. The request description will discuss in detail how conditionally mandatory tags will be handled. "Unchangeable", "May not be changed", etc. merely constitute remarks. The BT-FIX Gateway will always pass the tags' values to the trading system without further examination.

Modified tag assignment: The hitherto optional FIX tag 100 ExDestination (MIC code of the exchange location) will become „mandatory" in the future and is thus to be included in all cases along with the call of the requests.

Tag	Field Name	RF	R	OM	Comment
<standard message header>		M	M		Tag 35 = "G" (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 2 – 6 The value must correspond to the number of parties (repeating groups) provided.

Tag	Field Name	RF	R	OM	Comment
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	MM	The participant being in charge of the order. If the repeating group is missing, then “entering firm” will become the owner of the order.
<market maker>		O	O	OO	The market maker.Not relevant valid for T7 GSE and MAX-ONE. The content of this field is ignored
<client identification code>		O	O	OO	Identification of the customer
<investment decision maker>		O	O	OO	Trading member employee or algorithm being responsible for the investment decision.
<Execution within firm>		O	O	OO	Trading member employee or algorithm being responsible for the order execution.
end <parties>					
<instrument>		M	M		Financial instrument given as ISIN
<trading sessions>		O	O	OO	Trading Session Information Only TradingSessionSubID will contain useful information Alternatively, single tags 336 and 625 may be used. This also holds for FIX 4.2 messages. Please note that in this case FIX 4.4 definitions hold, which are not compliant to FIX 4.2.
<OrderAttributes>		O	O	OO	Repeating Group for attribute of orders
<ValueChecksGrp>		O	O	OO	Check flag for the maximum market value permitted for one order an the trading venue.
1	Account	O	O	NN	String(2) Consists of Account Type and Account Type Number. Possible values: P1 – bank’s own-account trading A1 – bank’s customer (agent) business
11	ClOrdID	M	M		String(16) Unique key of an order related task (request). Will be provided by the sending system. For as long as the corresponding order is active, no task (request) referring to it will be allowed to use the identical ClOrdID value. So uniqueness must be guaranteed across the entire life span of an order. Uniqueness will be verified by the BT-FIX Gateway.
21	HandlInst	M / O	M / O		Char "FIX.4.2" mandatory "FIX.4.4" optional Instructions for order handling on Broker trading floor. Valid values: 1 = Automated execution order, private, no Broker intervention 2 = Automated execution order, public, Broker intervention OK 3 = Manual order, best execution This tag will be ignored
37	OrderID	O	C		Integer Unique order number of the trading system (without leading zeros) May be used for order identification. If filled, OrigClOrdID must be set to “[N/A]”.

Tag	Field Name	RF	R	OM	Comment
38	OrderQty	O	M		Qty, Float(15,4) Total quantity ordered (incl. total quantity filled). For orders addressing T7 GSE or MAX-ONE, this value is identical to the original order quantity. ~~A modification of the QTY is not possible.~~ T7 GSE: It is possible to change the OrderQty in T7. If the OrderQty is changed, the order in T7 receives a new “priority timestamp.” If the OrderQty is reduced and there is no executable remainder left, the order is deleted~~The request is declined if OrderQty and quantity of the original order are unuequal.~~ MAX-ONE: This tag will be ignored.
40	OrdType	M	M		Char Valid values: T7 GSE: 1 = “Market” 2 = “Limit” 3 = “Stop” 4 = "Stop Limit"
41	OrigClOrdID	M	M		String(16) ClOrdID of the previous successful FIX request corresponding to the order, used to identify the order. If OrigClOrdID is set to “[N/A]”, OrderID (Tag 37) must be present and will be used for order identification.
44	Price	O	C		Price, Float(11,8) Order limit Must be present if Tag 40 (OrdType) is set to “2” or “4”, is not allowed otherwise.
54	Side	M	M		Char Side of order Valid values: 1 = “Buy” 2 = “Sell” May not be changed
58	Text	O	O	OO	String(24) Text T7 GSE: If the field is not included in the change, the text will be deleted.
59	TimeInForce	O	O	OO	Char Valid value: 6 = Good till Date T7 GSE: If the field is not supplied during the change, the default value “0” Good for Day is set. MAX-ONE: There is no default value for this tag. If the expiration date of an order must be changed, Tag 59 must be set to “6”, and tag 432 must contain the (new) expiration date.
60	TransactTime	M	M		UTC Timestamp Provided by the sending system or the owner of the order. This tag will be ignored.

Tag	Field Name	RF	R	OM	Comment
99	StopPx	O	O	CC	Price, Float(11,8) Stop Limit Must be present if tag 40 (OrdType) is set to “3” or “4”, is not allowed otherwise.
100	ExDestination	O	O		Exchange location MIC Code May not be changed.
432	ExpireDate	O	C		LocalMktDate Order expiration date Must be present if Tag 59 is set to “6”.
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number User defined key of the order (Order number). May be defined by the sending system or the owner of the order. Will not be examined by the BT-FIX Gateway. The uniqueness is not checked by the system. T7 GSE: If the field is not supplied when the change is made, the bank's internal order number is deleted.
1094	PegPriceType		O	NN	Integer Not permitted
1138	DisplayQty		O	NN	Qty, Float Not permitted
1724	OrderOrigination	O	O	OO	Integer Flag for DEA (Direct Electronic Access). (ESMA RTS 24, Field 2) 5 = DEA (Direct Electronic Access) Missing Tag means „no DEA“.
6126	OrigLeavesQty		O	OO	Qty, Float This tag will be ignored.
<standard message trailer>		M	M		

7.2.3.3 Response Execution Report (Preliminary, Positive)

A Cancel/Replace Request may provide only one entry in the <parties> component block, if entering firm and executing firm are identical. The BT-FIX gateway will, however, still set up two entries in the Execution Report. If a market maker is involved, then an additional entry will be generated.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “8” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 2 … 3 The value must correspond to the number of parties (repeating groups) provided
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	OO	The participant being in charge of the order. If the repeating group is missing, “entering firm” will become the owner of the order.
<market maker>		O	O	OO	The market maker
end <parties>					
<instrument>		M	M		Financial instrument given as ISIN
1	Account	M	M		String(2) Consists of Account Type and Account Type Number
6	AvgPx	M	M		Price Average price Will be set to “0”
11	ClOrdID	O	M		String(16) Unique key of an order related task (request) copied from the related request
14	CumQty	M	M		Qty, Float(15,4) Total quantity executed
17	ExecID	M	M		String Unique key of the Execution Report Uniqueness must be guaranteed for the entire trading day
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros)
38	OrderQty	O	M		Qty, Float(15,4) Total quantity ordered
39	OrdStatus	M	M		Char Order status 0 = “New” Will reflect the current status of the order. Modification done (finally) Filled in reference to the status of the order Modification done (preliminary) E = “Pending Replace” (for further information cf. tag 5946 – PendingReason)
40	OrdType	O	M		Char Order type

Tag	Field Name	RF	R	7M	Comment
41	OrigClOrdID	O	M		String(16) Copied from the related request ClOrdID of the previous successful FIX request related to the order, if Tag 41 was used to identify the order. Will contain "[N/A]", if Tag 37 was used for order identification.
44	Price	C	C		Price, Float(11,8) Order limit
54	Side	M	M		Char Side of order
58	Text	O	O	OO	String(25) Text
59	TimeInForce	O	O	OO	Char
60	TransactTime	O	M		UTC Timestamp [microseconds YYYYMMDD-HH:MM:SS.ssssss] Time of execution/order modification
99	StopPx	C	O	CC	Price, Float(11,8) Stop limit
100	ExDestination		M		Exchange location MIC Code Will always be supplied by the BT-FIX Gateway
150	ExecType	M	M		Char Type of Report will be set to "5" (Replace) Modification done (finally) 5 = "Replace" Modification done (preliminary) E = "Pending Replace" (for further information cf. tag 5946 – PendingReason)
151	LeavesQty	M	M		Qty, Float(11,4) Quantity open for further execution
336	TradingSessionID	O	O	OO	String(1) Valid value 1 = "Day" Will always be used together with tag 625
432	ExpireDate	O	C		LocalMktDate Order expiration date
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number User defined key of the order (Order number)
625	TradingSessionSubID	O	O	CC	String Will always be used together with tag 336
1094	PegPriceType		O	NN	Integer Not permitted
1138	DisplayQty		O	NN	Qty, Float Not permitted
5862	UpdateReason		O	ON	Reason of order modification or deletion by the system Value range see appendix C

Tag	Field Name	RF	R	7M	Comment
5946	Pending Reason		O	CC	String Delivery by BT-FIX Gateway only as an integer(1) This field is only filled in case of preliminary confirmation ("Pending Replace" - OrdStatus = E, ExecType = E) 2 = "locked stock" Order submission in hold due to locked order book (T7 GSM, MAX-ONE). 4 = "order status unknown (end of day)" No confirmation of order submission received until end of day (neither positive nor negative). Status of the order is unknown.
<standard message trailer>		M	M		

7.2.3.4 Response "Order Cancel Reject" (Negative)

Instead of an Execution Report, an Order Cancel Reject message is sent. It is almost identical to an Execution Report responding to a rejected Order Cancel Request. The tags listed below have differing values.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = "9" (MsgType)
<parties>			M		
453	NoPartyIDs		M		NumInGroup Number of parties involved Valid value "2" The value must correspond to the number of parties (repeating groups) provided.
<entering firm>			M		The participant operating the connection
<executing firm>			O	MM	The participant owning the order If the repeating group is missing, "entering firm" will become the owner of the order.
end <parties>					
11	ClOrdID	M	M		String(16) Unique key of an order related task (request). The value provided by the Order Cancel/Replace Request will be returned.
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros) May be missing or set to "[N/A]".
39	OrdStatus	M	M		Char Order status Will be set to "8" (Rejected).
41	OrigClOrdID	M	M		String(16) ClOrdID of the previous successful FIX request corresponding to the order or set to "[N/A]". The value provided by the Order Cancel/Replace Request will be returned.
60	TransactTime	O	M		UTC Timestamp Time of execution/rejection

Tag	Field Name	RF	R	7M	Comment
100	ExDestination		M		Exchange MIC Code Will always be supplied by the BT-FIX Gateway
102	CxlRejReason	O	M		Integer Will be set to 99 = “Other” if no appropriate FIX reason code is available. Tag 5555 will then contain an error code and tag 9320 the related error text.
434	CxlRejResponseTo	M	M		Char Will be set to “2” (Order Cancel/Replace Request)
5555	ReturnCode		M		Integer Return code
9320	OrdRejectReasonText		M		String Error text issued by the trading system
9803	TradingSystemID		M		Integer Will identify the system generating the return code
<standard message trailer>		M	M		

7.2.4 OrderExecution

7.2.4.1 Operations – Orders

No.	**Partial Fill**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	*Partial Fill* Execution Report (“Trade”, “Partially Filled”)			←	←

No.	**Complete Fill**		**Message Flow** FE Customer	BT FIX Gateway	Trading System
1	*Complete fill* Execution Report (“Trade”, “Filled”)			←	←

7.2.4.2 Response “Execution Report” Order Execution

The corresponding New Order Single Request may provide only one entry in the <parties> component block, if entering firm and executing firm are identical. The BT-FIX gateway will, however, still set up two entries in the Execution Report. If a market maker is involved, an additional entry will be generated.

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		Tag 35 = “8” (MsgType)
<parties>		O	M		
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 1 – 3 The value must correspond to the number of parties (repeating groups) provided.
<entering firm>		O	M		The participant operating the connection
<executing firm>		O	O	OO	The participant being in charge of the order. If the repeating group is missing, “entering firm” will become the owner of the order.
<market maker>		O	O	OO	The market maker
end <parties>					
<instrument>		M	M		Financial instrument given as ISIN
<RegulatoryTradeIDGrp>		O	O	MM	TVTIC (Trading venue transaction identification code)
6	AvgPx	M	M		Price Average price Will be set to “0”

Tag	Field Name	RF	R	7M	Comment
11	ClOrdID	O	M		String(16) Unique key of an order related task (request). The key value of the last successfully processed FIX request.
14	CumQty	M	M		Qty, Float(15,4) Total quantity executed
15	Currency	O	O	OOOOO	Currency Trading currency used at trading exchange location
17	ExecID	M	M		String Unique key of the Execution Report Uniqueness must be guaranteed for the entire trading day.
31	LastPx	M	M		Price, Float(11,8) Market value
32	LastQty	M	M		Qty, Float(15,4) Quantity bought/sold on this execution.
37	OrderID	M	M		Integer Unique order number of the trading system (without leading zeros)
38	OrderQty	O	M		Qty, Float(11,4) Total quantity ordered
39	OrdStatus	M	M		Char Order status 1 = “Partially Filled” 2 = “Filled”
44	Price	C	O	CN	Price, Float(11,8) Order limit, will be provided if OrdType is set to “2” or “4”. Will not be delivered by MAX-ONE.
54	Side	M	M		Char Side of order 1 = “buy” 2 = “sell”
59	TimeInForce	O	M		Char
60	TransactTime	O	M		UTC Timestamp [microseconds YYYYMMDD-HH:MM:SS.ssssss] Time of execution/order creation
64	SettlDate	O	O	OO	LocalMktDate Settlement date The value date from T7 or MAX-ONE is delivered with every order execution.
99	StopPx	C	C		Price, Float(11,8) Stop limit, will be provided if OrdType is set to “3” or “4”
100	ExDestination		M		Exchange location MIC Code Will always be supplied by the BT-FIX Gateway
110	MinQty	O	O	NN	Qty, Float Will not be deliveredWill not be delivered
150	ExecType	M	M	MM	Char Type of report All trading systems: F = “Trade” (message directed to the owner of the order)

Tag	Field Name	RF	R	7M	Comment
151	LeavesQty	M	M		Qty, Float(11,4) Quantity open for further execution 0 when filled completely
155	SettlCurrFxRate	O	O	OO	Float(10,5) Exchange rate
157	NumDaysInterest	O	O	OO	Integer Number of accured interest days Like FIX 4.4 Tag 157; also for FIX.4.2
432	ExpireDate	O	M		LocalMktDate Order expiration date
526	SecondaryClOrdID	O	O	OO	String(16) Bank internal order number User defined key of the order (Order number).
1094	PegPriceType		O	NN	Integer Will not be delivered
1138	DisplayQty		O	NN	Qty, Float Will not be delivered
5048	OrdSubStatus		O	NN	Char Will not be delivered
5944	InitialDisplayQty		O	NN	Qty, Float Will not be delivered
6585	SpreadPctDiscount		O	NN	Float(10,7) Will not be delivered
6611	TotalAccruedInterestAmt		O	NN	Float(17,8) Will not be delivered
6893	Profit		O	NN	Float(15,8) Will not be delivered
7491	CustomPrice1		O	NN	Float(15,8) Will not be delivered
7680	OTCInd		M		Integer Indicator trade is exchange related 0 = On exchange trade 1 = Off exchange trade
9583	MIFIDInternalizationIndicator		O	NN	Char Will not be delivered
<standard message trailer>		M	M		

7.2.5 Requests Using Any Other Interface Than FIX

7.2.5.1 Submission, Modification and Cancellation of Orders

Submissions, modifications and cancellations of Orders via an interface other than the FIX interface may generate FIX Execution Reports, whenever an entering firm/executing firm using the FIX connection is affected.

- T7 GUI T7 GSE, MAX-ONE
- ETI Gateway Specialist T7 GSE
- MAX-ONE GUIs MAX-ONE

Execution Reports will be distributed whenever the first request triggering the workflow has been accepted. They will be generated for all events included in the workflow. E.g., for an order modification entered during a locked stock period, which was subsequently rejected when the locked stock period had ended, a positive (Pending Replace) and a negative (Reject) Execution Report will be transmitted. Only Execution Reports are affected, differing tag values are discussed below.

Execution Reports will additionally include the <session> repeating group in the <parties> component block. OrigClOrdID (Tag 41) will be set to “[N/A]”. ClOrdID (Tag 11) will reflect the last successfully processed request entered via the FIX interface (if any).

If a request entered via an interface other than the FIX interface is rejected, no information will be passed onto the BT-FIX Gateway.

Tag	Field Name	RF	R	7M	Comment
<parties> component block, NoPartyIDs will be increased					
448	<session> PartyID		M		String KVNr or MemberID of the originator
447	PartyIDSource		M		Char Will always be set to “D”
452	PartyRole		M		Integer Will be set to 55 = “Session ID”
802	NoPartySubIDs		M		NumInGroup Will be set to “1”
523	PartySubID		M		String(6) The last six Characters of the originator's user identifier
803	PartySubIDType		M		Integer Will be set to “4040” (User identifier)
11	ClOrdID	M	M		String(16) ClOrdID of the previous successfully processed FIX request corresponding to the order or set to “[N/A]”. The value provided by the request will be returned.
41	OrigClOrdID	M	M		String(16) Set to “[N/A]”

7.2.5.2 Triggering a Stop Order

The trading system will generate an Execution Report almost identical to the Execution Report responding to an unconditionally accepted Order Cancel/Replace Request. OrdStatus will always be set to “0” (New). In addition, the TriggerIndicator (tag 6489) will be set to “Y”, and a party instance of type <executing system> – see chapter 7.2.3.3 Response Execution Report (Preliminary, Positive) – will be added to the <parties> repeating group. OrigClOrdID (Tag 41) will be set to “[N/A]”. ClOrdID (Tag 11) will reflect the last successfully processed request entered via the FIX interface (if any). Tag 6489 (TriggerIndicator) will be delivered.

Tag	Field Name	RF	R	7M	Comment
<parties> component block, tag 453 will be increased					
448	<executing system> PartyID		M		String Valid values: T7 GSE MAX-ONE
447	PartyIDSource		M		Char Will always be set to “D”
452	PartyRole		M		Integer Will be set to 16 = “Executing System”
802	NoPartySubIDs		M		NumInGroup Will be set to “1”
523	PartySubID		M		String Will be set to “[N/A]”
803	PartySubIDType		M		Integer Will be set to “3” (System)
11	ClOrdID		M		String(16) ClOrdID of the previously successful FIX request corresponding to the order or set to “[N/A]”. The value provided by the request will be returned
39	OrdStatus		M		Char Order status Valid values: 0 = “new”
41	OrigClOrdID		M		String(16) Will be set to “[N/A]”
6489	TriggerIndicator		C	CC	Always set to “Y”. "Y" = Trigger Stop Order Will never be present when responding to a Cancel/Replace request

7.2.5.3 Activation of an EG Order

If the rule for the activation of an EG-order is fulfilled, then it will be activated by the intermediary.

In this case an Execution Report is transmitted, which is similar to the Execution Report for a modification from any other interface (cf. chapter “Order Submission, Modification and Cancellation“).

In this case Tag 6489 (TriggerIndicator) will be delivered in addition:

Tag	Field Name	RF	R	7M	Comments
6489	TriggerIndicator		C	CC	Char MAX-ONE "A“ = activation of an EG-Order

7.2.6 System Generated Order Modifications and Cancellations

In certain specific situations orders will be modified and cancelled by the relevant trading system:

- Master data modification — modification, cancellation
- Suspended trading — cancellation
- Ancillary rights — modification, cancellation
- Order decline (MAX-ONE, T7 GSE) — cancellation
- Input of system administrator (Market Supervision) — modification, cancellation

In these cases Execution Reports are also generated. These Reports are similar to Cancel/Replace resp. Cancel Requests, with the following differences:

- An additional entry for PartyRole **executing system** at the <parties> Component Block is generated
- An additional Tag 5862 UpdateReason is created, which includes the reason for the modification or cancellation of the order
- Cancellations due to validity FIX messages include an additional differing OrdStatus “C” (“expired”) and ExecType “C” (“expired”)

According to the end of day processing, some orders are modified and cancelled by T7 GSE. These orders will be transferred to the relevant OMS at the next morning.

Tag	Field Name	RF	R	7M	Comment
<parties> Component Block (tag 453 will be increased)					
448	<executing system> PartyID		M		String Valid values are T7 GSE MAX-ONE
447	PartyIDSource		M		Char Will be set to = “D”
452	PartyRole		M		Integer Will be set to 16 = “Executing System”
802	NoPartySubIDs		M		NumInGroup Will be set to “1”

Tag	Field Name	RF	R	7M	Comment
523	PartySubID		M		String Will be set to “[N/A]”
803	PartySubIDType		M		Integer Will be set to “3” (by system)
39	OrdStatus		M		Char OrderStatus Will be set to “C” (expired) in case of cancellation due to order validity expiration.
150	ExecType		M		Char Type of record Will be set to “C” (expired) in case of cancellation due to order validity expiration.
5862	UpdateReason		O	OO	Reason of order modification or deletion by the system Value range see appendix C

7.2.7 Component Blocks

Only the following component blocks defined by FIX version 4.4 message specifications will be used:

- Instrument
- Parties
- Trading Sessions
- Order Attributes
- Value Checks
- Regulatory TradeID

7.2.7.1 Instrument Component Block <instrument>

Incoming Messages

Tag	Field Name	RF	R	7M	Comment
55	Symbol	O	M		String This tag will be ignored.
48	SecurityID	O	M		String ISIN
22	SecurityIDSource	O	M		String Must be set to “4”

Outgoing Messages

Tag	Field Name	RF	R	7M	Comment
55	Symbol	O	M		String Will always be set to “[N/A]”
48	SecurityID	O	M		String ISIN
22	SecurityIDSource	O	M		String Will always be set to “4”

The instrument component block will be referred to by <instrument>.

7.2.7.2 Party Concept <parties>

The party component block is used to describe all parties participating in a transaction. For each party a separate repeating group is set up.

The parties component block is referred to by <parties>, the repeating groups by <entering firm>, <executing firm>, <market maker>, <executing system>, <Client Identification Code>, <Execution within Firm>, <Investment Decision Maker> and <session>, respectively.

Incoming Messages

Tag	Field Name	RF	R	7M	Comment
453	NoPartyIDs	O	M		NumInGroup Number of parties concerned Valid values are 1 – 6 The value must correspond to the number of parties (repeating groups) provided.
448	PartyID	O	M		String **PartyRole = 1 (Executing Firm)** String(4), KVNr of the **owner of the order** **PartyRole=3 (Client Identification Code)** String(20), Shortcode. (ESMA RTS24 Field 3) Special values: 1 = AGGR 2 = PNAL **PartyRole = 7 (Entering Firm)** String(4), KVNr of party/customer **PartyRole=12 (Execution within Firm)** String(20), Shortcode or algorithm. (ESMA RTS24 Field 5) Special values: 3 = NORE **PartyRole = 66 (Market Maker)** String(4), KVNr of intermediary **PartyRole=122 (Investment Decision Maker)** String(20), Shortcode or algorithm. (ESMA RTS24 Field 4)
447	PartyIDSource	O	M		Char PartyIDSource=D (KVNr), if PartyRole equal to 1 = "Executing Firm" 7 = "Entering Firm" 66 = "Market Maker" PartyIDSource=P (Shortcode), if PartyRole equal to 3 = "Client Identification Code“ 12 = "Execution within Firm“ 122 = " Investment Decision Maker“
452	PartyRole	O	M		Integer Valid values: 1 = “Executing Firm” 3 = "Client Identification Code“ 7 = “Entering Firm” 12 = "Execution within Firm“ 66 = “Market Maker” 122 = "Investment Decision Maker“

Tag	Field Name	RF	R	7M	Comment
2376	PartyRoleQualifier	O	O	OO	Integer The indication of this qualifiers is only necessary if „PartyID“ represents an algorithm (22) and not a shortcode (default). The differentation of a shortcode as LEI (23) or natural person (24) ist not necessary and will be ignored. 22 = „Algorithmus“ PartyID as algorithm. Only valid for PartyRoles 12 = "Execution within Firm“ 122 = "Investment Decision Maker“ 23 = „LEI (Legal Entity Identifier)“ PartyID as Shortcode for LEI Only valid for PartyRole 3 = "Client Identification Code“ 24 = „Nat. Person“ PartyID as Shortcode for a natural person Only valid for PartyRole 3 = "Client Identification Code“ 12 = "Execution within Firm“ 122 = "Investment Decision Maker“

Outgoing Messages

Tag	Field Name	RF	R	7M	Comment
453	NoPartyIDs	O	M		NumInGroup Number of parties concerned Valid values are 1 – 5 The value must correspond to the number of parties (repeating groups) provided.
448	PartyID	O	M		String **PartyRole = 1 (Executing Firm)** String(4), KVNr of the **owner of the order** **PartyRole = 7 (Entering Firm)** String(4), KVNr of party/customer **PartyRole = 16 (Executing System)** Valid values: T7 GSE "MAX-ONE" **PartyRole = 55 (Session ID)** String(4), KVNr of originator or String(5), T7-MemberID **PartyRole = 66 (Market Maker)** String(4), KVNr of the intermediary
447	PartyIDSource	O	M		Char Will always be set to “D”

Tag	Field Name	RF	R	7M	Comment
452	PartyRole	O	M		Integer Valid values: 1 = “Executing Firm” 7 = “Entering Firm” 16 = “Executing system” 55 = “Session ID” 66 = “Market Maker” This tag will be ignored “55” will only be used for an order entry/modification via any interface other than FIX. “16” will indicate a message generated by a trading system.
802	NoPartySubIDs	O	C		NumInGroup Will be set to “1” if PartyRole = “55” or “16 “, or will be missing.
523	PartySubID	O	C		String(11) Will contain the user identifier of the person/role who caused the original action. Only valid if PartyRole is set to “55”.
803	PartySubIDType	O	C		Integer Will be set tot “4040” (user identifier), if PartyRole is set to “55”. Will be set tot “3” (system), if PartyRole is set to “16

7.2.7.3 Trading Sessions Repeating Group <trading sessions>

Incoming Messages

Tag	Field Name	RF	R	7M	Comment
386	NoTradingSessions	O	O	OO	NumInGroup will be ignored Must always be set to “1” If this tag is available, the tags 336 and 625 will follow.
336	TradingSessionID	O	O	OO	String(1) will be ignored Must always be set to “1” mandatory if tag 386 is available mandatory if tag 625 is available
625	TradingSessionSubID	O	O	OO	String mandatory if tag 336 is available Valid values: T7 GSE: 6 = "Main auction" (KS - SAO – Special Auction) MAX-ONE 6 = "Main auction" (KS - Kassa-Order) The assignment corresponds to FIX 5.0 definitions.

Instead of Repeating Group <trading sessions> – which always exist with one instance only – the Single Tags TradingSessionID (336) and TradingSessionSubID (625) can be used. Tag NoTradingSessions (386) is not allowed.

The Trading Sessions Repeating Group will be referred to with <trading sessions>.

7.2.7.4 Order Attribute Repeating Group <OrderAttributes>

Only valid for inbound messages

Tag	Field Name	RF	R	7M	Comment
2593	NoOrderAttributes	O	O	OO	NumInGroup Number of order attributes. Only the values 1 .. 3 are permitted. The value indicated must match the number of the repeating groups that follow.
2594	OrderAttributeType	O	O	OO	Integer Type of attribute. 0 = AGGR (Aggregated Order) The inclusion of this attribute excludes the concurrent inclusion of the party <client identification code> (ESMA RTS 24 Field 3) 1 = PNAL (Pending Allocation) The inclusion of this attribute excludes the concurrent inclusion of the party <client identification code> (ESMA RTS 24 Field 3) 2 = Liquidity provision activity order (ESMA RTS 24 Feld 8) Only permitted in NewOrderSingle message. 6 = NORE The inclusion of this attribute excludes the concurrent inclusion of the party <Execution within firm> (ESMA RTS 24 Field 5)
2595	OrderAttributeValue	O	O	OO	String(1) Value for OrderAttributeType Y = Yes

7.2.7.5 Value Checks Repeating Group <ValueChecksGrp>

Only valid for inbound messages

Tag	Field Name	RF	R	7M	Comment
1868	NoValueChecks	O	O	OO	NumInGroup Number of ValueCheck entries contained. Only the value „1“ is permitted.
1869	ValueCheckType	O	O	OO	Integer Type of attribute. 1 = Value check for market value permitted as a maximum on the trading venue (ESMA RTS 7 Opt-Out-Flag)
1870	ValueCheckAction	O	O	OO	Integer Value for ValueCheckType 0 = no value check 1 = perform value check (Default)

7.2.7.6 Regulatory TradeID Repeating Group <RegulatoryTradeIDGrp>

Tag	Field Name	RF	R	7M	Comments
1907	NoRegulatoryTradeID	O	O		NumInGroup Only „1“ is valid.
1903	RegulatoryTradeID	O	O		String(52) TVTIC (Trading venue transaction identification code) The T7 GSE TVTIC is a concatenation of: Envir_Flag (1) + SecurityID (20) + TranTime (20) + DealType (1) + MatchStepID (10) MAX-ONE TVTIC: Segment MIC (4 digits) + ISIN (12 digits) + Trading day (8 digits) + time of price fixing termination (12 digits) The TVTIC from T7 is supplied with a length of 52 characters. The TVTIC from MAX-ONE is supplied with a length of 36 characters (without spaces at the end).
1906	RegulatoryTradeIDType	O	O		Integer Type of Regulatory TradeID 5 = TVTIC (Trading venue transaction identification code)

7.2.8 Particular Tag Behavior

Faulty tags of New Order Single Requests are always returned in the Execution Report.

Default values of a New Order Single are taken onto the Execution Report. Optional tags of the Execution Report are only filled if they are used in the request, too.

If an order is sent by an interface other than FIX, in defined cases optional tags can be transferred if they include no significant values. In this case the client must be capable to handle content like 12 = 0 or 526 = ” “.

This can occur in case of Cancel/Replace Requests – in the case of less information of an Cancel Reject message.

Multiple blanks are deleted by the BT-FIX Gateway. If a tag consists of blanks only, then only one blank will be left.

Example:

An order will be changed: the text of the order will be adjusted from “dissimilar blank” to “blank”.

This modification is communicated as an ExecutionReport with Tag 58 = " ". For this reason it is obvious that the new order text is blank.

7.3 Notification of Events

7.3.1 Operations

No.	Event		Message Flow: FE Customer	BT FIX Gateway	Trading System
	Event				
1	News			←	

7.3.2 Component Blocks

News Messages

Tag	Field Name	RF	R	7M	Comment
<standard message header>		M	M		tag 35 = "B" (MsgType)
<LinesOfTextGrp>		O	M		
<InstrmtGrp>		O	O		
148	Headline		M		String event key - FIXOF Suspension of price fixing (MAX-ONE) - FIXON Withdrawal of price fixing suspension (MAX-ONE) - BOSTAOTC Start of Service T7 GSE OTC - BOSTAORD Start of Service T7 GSE Order - BOENDOTC End of Service T7 GSE OTC - BOENDORD End of Service T7 GSE Order - EHSTA Start of Trading MAX-ONE - EHEND End of Trading MAX-ONE Event key T7 MassActionReason - T7MAR**nnn** Values for für **nnn**: 105 = Product State Halt 106 = Product State Holiday 107 = Instrument Suspended 110 = Volatility Interruption 111 = Product temporarily not tradeable 113 = Instrument Stopped 116 = Instrument Sold Out 115 = Instrument Knock Out 118 = Instrument Knock Out has been reverted Event key T7 News - T7NEWS Market Supervision info in the "Text" field
<routingGrp>		O	M		
6255	EndTime		O	OO	String end of trading hours (event TREXP) Format "HHMM0000"
6516	NewsValidUntil		O	OO	LocalMktDate date until the news is valid
6517	NewsEventDate		O	OO	LocalMktDate date for resp. date from which the news is valid
<standard message trailer>		M	M		

7.3.3 NoLinesOfText Repeating Group <LinesOfTextGrp>

Tag	Field Name	RF	R	7M	Comment
33	LinesOfText		M		NumInGroup Number of lines filled with “1”
58	Text		M		String text for event

7.3.4 NoRelatedSym Repeating Group <InstrmtGrp>

Tag	Field Name	RF	R	7M	Comment
146	NoRelatedSym	O	O		NumInGroup Number of lines filled with “1” If this tag is available, the tags 55, 22 and 48 will follow
55	Symbol	O	C		String available if tag 146 is present Will be set to “[N/A]” by the BT-FIX Gateway
22	SecurityIDSource	O	C		String must be present if tag 146 contains a value Will be set to “4” by the BT-FIX Gateway
48	SecurityID	O	C		String must be present if tag 146 contains a value ISIN

7.3.5 NoRoutingIDs Repeating Group <RoutingGrp>

Tag	Field Name	RF	R	7M	Comment
215	NoRoutingIDs	O	O		NumInGroup Valid values are “1”, “2” or “3”. If this tag is available, then tags 216 and 217 will follow.
216	RoutingType	O	C		Integer Available if tag 215 is present Will be set to “1” by the BT-FIX Gateway.
217	RoutingID	O	C		String Available if tag 215 is present contains - 1st Group-Element always trading system ("T7", "MAX") - 2nd Group-Element always trading exchange location MAX-ONE: MIC (e.g. "XMUN") T7 GSE: MIC + "/" + product group (T7 ProductID) (e.g. "XDUS/123") - 3rd Group-Element always receiver Note: If a receiver is available, then the trading system and trading exchange location will be given, too. Their content value may, however, be “[N/A]”. If a trading exchange location is available, then the trading system will be given, too. This content may, however, assume the value of “[N/A]”.

7.4 Trade Functionality

7.4.1 Supported Events

Scenario	Incoming Message	Outgoing Message	Recipient of Outgoing Message
OTC trade entry	TradeCaptureReport	TradeCaptureReportAck	Originator
OTC trade cancellation	TradeCaptureReport	TradeCaptureReportAck	Originator
Trade information (realtime contract notes)	-	TradeCaptureReportSno	Both counterparties (depending on the connections configuration)

In case of an OTC trade entry or cancellation, the originator receives a confirmation.

In addition, contract notes for the trade are send to both counterparties.

For 3270 dialog or SAKI entries the FIX member gets a FIX message about the generated contract note.

For trades generated out of a price fixing or trade entries, all FIX members affected will get a FIX message about the generated contract note. The messages for the contract notes include information about the affected orders.

The transmission of contract note information (TradeCaptureReportSno) depends on the configuration of the member. These will only delivered to FIX members who have been set up for the reception of realtime contract notes.

7.4.2 Operations

Nr.	**OTC Requests**		**Message Flow** FE Customer	BT FIX Gateway	T7 GSE
1	Trade Capture Report		→	→	
	Confirmation (always final)				←
3	Trade Capture Report Ack			←	

Nr.	**SNO Realtime**		**Message Flow** FE Customer	BT FIX Gateway	T7 GSE
	Contract note				←
1	Trade Capture Report SNO (for counterpart 1)			←	
2	Trade Capture Report SNO (for counterpart 2)			←	

7.4.3 OTC Trades– Requests

7.4.3.1 Request "TradeCaptureReport" – Identification Criteria

The following FIX tags within the TradeCaptureReport for identification of trade requests will be given:

	6556 BusinessTransactionType	**487 TradeReportTransType**	**856 TradeReportType**
OTC trade entry (EnterOTC)	Tag not available	0 (new)	0 (submit)
OTC trade cancellation (DeleteOTC)	Tag not available	1 (cancel)	6 (TradeReportCancel)

In all cases tag 571 (TradeReportID) is filled with a unique value (Unique identifier of trade capture report). The uniqueness must be ensured by the FIX member. There is no check within the FIX Gateway.

The field TradeReportID in the request message is returned back with the response message.

For cancellations of OTC trades, the trade number will be filled in tag 880 (TrdMatchID).

In the following chapter the message format of the cases supported will be described.

Columns “R” and “RF” will indicate if a tag is **M**andatory or **C**onditionally mandatory. The columns EnterOTC contain information about **M**andatory/**O**ptional/**C**onditional/**N**ot allowed/**I**gnored.

7.4.3.2 Request “TradeCaptureReport” – Message Data

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
<standard message header>		M	M			Tag 35 = “AE” (MsgType)
30	LastMkt	O	M			Stock Exchange Location MIC Code
31	LastPx	M	M			Price, Float(11,8)
32	LastQty	M	M			Quantity, Float(15,4)
60	TransactTime	M	M			UTCTimestamp
64	SettlDate	O		C	I	LocalMktDate Date of fixed value Always used in combination with tag 5053
75	TradeDate	M	M			LocalMktDate Trade date (AS) Date of trade having been transacted
283	LocationID	O	O	I	N	String(4) Is not yet used by the BT-FIX gateway.
487	TradeReportTransType	O	M			Integer 0 = new EnterOTC 1 = cancel DeleteOTC
570	PreviouslyReported	M	M	C	C	Boolean If Tag 487 = new (0), then Tag 570 = N, otherwise = Y N = EnterOTC Y = DeleteOTC
571	TradeReportID	M	M			String(16) Unique Identifier of trade, assigned by the FIX Client. Not checked by the BT FIX Gateway
572	TradeReportRefID	O	O	N	M	String(16) Key of a trade related task, assigned by the FIX Client
578	TradeInputSource	O	O	O	I	String(4) Segment MIC of a „Non T7 GSE Exchange Trading Venue” in order for the trade to be flagged according to the CSDR rules and regs.
818	SecondaryTradeReportID	O	O	O	I	String(13) bank internal OTC number, assigned by the FIX Client. Not checked by the BT FIX Gateway

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
880	TrdMatchID	O	O	N	M	Integer Original T7 trade number (without leading zeros)
856	TradeReportType	O	M			Integer 0 (submit) EnterOTC 6 = TradeReportCancel DeleteOTC
<instrument>		M	M			
<TrdRegTimestamps>		O		O	I	Deviating trade contraction date (code “AA”)
5053	TradeType2	O		C	I	Integer Identification code of fixed value date 1 (DVP) = FZ Always used in combination with tag 64
5179	TradeTime	O		O	I	String Trade time (hhmmss) EnterOTC The current trade entry time is used as default.
6556	BusinessTransactionType	O	O	N	N	String 1 = TradeAdvice
5458	MDDelayed	O	O	I	I	Boolean Delay-Indicator This tag will be ignored.
7017	VolumeIndicator	O	O	I	I	Integer Quotation unit 1 = “unit”, 2 = “percentage”, 3 = “per thousand”, 4 = “scores”, 9 = “other”
7566	TimezoneOffset	O	O	I	I	signed Integer Difference between UTC Time Stamp and actual (local) trade time.
7567	ReportedPxDiff	O	O	I	I	Boolean Deviant price indicator This tag will be ignored.
7568	ReportedPxReason	O	O	I	I	Char Negotiated price indicator “N” = negotiated Trade This tag will be ignored.
7680	OTCInd	O	O	O	I	Integer OTC (Off Exchange order) indicator 0 = On-exchange 1 = Off-exchange (default)
<TrdCaptRptSideGrp>		M	M			
<standard message trailer>		M	M			

7.4.3.3 Instrument Component Block <instrument>

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
55	Symbol	O	M			String Ticker symbol This tag will be ignored by the BT FIX Gateway.
48	SecurityID	M	M			String ISIN
22	SecurityIDSource	M	M			String Always set to “4”

The instrument component block is referenced with <instrument>.

7.4.3.4 NoTrdRegTimestamps Repetition Group <TrdRegTimestamps>

The “TrdRegTimestamps” component block contains the Repeating Group NoTrdRegTimestamps.

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
768	NoTrdRegTimestamps	O	O	O	I	NumInGroup Valid value “1“ If available then tags 769 and 770 will follow.
769	TrdRegTimestamp	O	C	C	I	UTCTimestamp Following tag 768, if Tag 768 is available. This field contains the deviant trade date. Enter-OTC Permitted are exchange days in past (max. 90 days). If the field is not filled, the current exchange day is used. Specifying this timestamp overrides the trading date specified in the TradeDate field and the trade time specified in the TradeTime field.
770	TrdRegTimestampType	O	C	C	I	Integer Available if tag 768 is present Valid values 1 = “Execution Time”

7.4.3.5 NoTransactionCosts Repeating Group <courtage>

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
9471	NoTransactionCosts	O	O	O	I	NumInGroup Valid value = “1“ If available, then tag 9473 will follow; possibly tag 9476 will follow.
9473	TransactionCostCode	O	O	C	I	Char Available if tag 9471 is present. Valid values: 1 = AC (different brokerages fee) 2 = FC (free of brokerage fee) 3 = FR (free of any fees)
9476	TransactionCostAmt	O	O	C	I	Float(11,2) Amount of brokerage fees Available if tag 9473 contains “1” = AC.

7.4.3.6 NoSides Repeating Group <TrdCaptRptSideGrp>

The “TrdCaptRptSideGrp” component block contains Repeating Group NoSides, which contains Repeating Groups NoTransactionCosts and NoPartyIDs.

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
552	NoSides	M	M	2	1	NumInGroup For EnterOTC: Valid value = “2” Tag 54 will follow (Side).
<Side 1>		M	M			<Side 1> trade details of the originator
<Side 2>		O	O	M	N	<Side 2> trade details of the counterparty

<Side1>

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
54	Side	M	M			Char Side of trade 1 = Buy 2 = Sell
37	OrderID	M	M			String Will be set to “[N/A]”
<parties>		O	M			
453	NoPartyIDs	O	M			NumInGroup Valid values are 1 – 4.
<entering firm>		O	M			
<executing firm>		O	O	O	O	
<report originator>		O	O	N	N	
<execution venue>		O	O	N	N	
end <parties>		O	M			
12	Commission	O	O	O	I	Float(11,2) Commission
15	Currency	O	O	M	I	Currency Currency of price fixing This tag will be ignored for EnterOTC.
58	Text	O	O	O	I	String(24) Arbitrary text
155	SettlCurrFxRate	O	O	C	I	Float(11,8) Currency exchange rate of trade Only valid with tag 156
156	SettlCurrFxRateCalc	O	O	C	I	Char D = divide Only valid with tag 155
1815	TradingCapacity	O	O	OO		Integer Trading function. (ESMA RTS 24, Feld 7) 1 = AOTC (trading for customer) 5 = DEAL (trading for his own account) In case of no assignment of the FIX tag, the value “AOTC” will be submitted by default
6586	CashOffset	O	O	O	I	Float Reinvestment discount in percent For investment trust certificates only. This tag will be ignored
<courtage>		O	O	O	I	
9596	ClientFreeField1	O	O	C	I	String Provision Float(11,2) Only valid with tag 9597

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
9597	ClientFreeField2	O	O	C	I	String(2) Key for provision Only valid with tag 9596 Valid values: PD = “Amount in Euro”

<Side2>

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
54	Side	M	M	M	N	Char Side of trade for counterpart 1 = Buy 2 = Sell
37	OrderID	M	M	M	N	String Will be set to “[N/A]”
<parties>		O	O			
453	NoPartyIDs	O	O			NumInGroup Valid value = “1“
<contra firm>		O	O	M	N	
end <parties>		O	M			

7.4.3.7 Party Concept <parties>

The “parties” component block is used for the specification of all members of an operation.

The TradeCaptureReport for FIX 4.2 is an user defined message. The message structure is identical to the TradeCaptureReport of FIX 4.4. If a FIX 4.2 member obtains trade messages, too, then they must consider the NoPartyIDs Repeating Group.

Tag	Field Name	RF	R	Comments
453	NoPartyIDs	O	M	NumInGroup Number of involved entities Valid values are 1 – 4. The value used must conform to the numbers of the following Repeating Groups. Tags following are 448, 447, 452.

Tag	Field Name	RF	R	Comments
448	PartyID	O	M	String PartyRole = 1 (Executing Firm) String(4), KVNr of the owner **originator** PartyRole = 7 (Entering Firm) String(4), KVNr of the party/customer PartyRole = 17 (Contra Firm) String(4), KVNr of the counterparty PartyRole = 62 (Report Originator) String(11), Code for the identification of the reporting institution PartyRole = 73 (Execution Venue) String(12) Information about the features of a reported trade: • OTC-trade • internalised trade or • used platform for the trade (if used) • character String "OTC" for OTC trades • character String "SI" for systematic internaliser Identification of the trading platform used: • 12-digit starting with "B" (ISO 9662): BIC • 5 - digit starting with "M" (ISO 10383): MIC • 11-digit starting with "I" (ISO 16327): IBEI
447	PartyIDSource	O	M	Char Valid value = “D” only
452	PartyRole	O	M	Integer Valid values: 1 = “Executing Firm” 7 = “Entering Firm” 17 = “Counterparty Firm” 62 = “Report Originator” 73 = “Execution Venue”

The parties component block will be referred to as <parties>, the repeating groups as <entering firm>, <executing firm>, <contra firm>, <report originator>, <execution venue>.

7.4.4 OTC Trades – Responses

7.4.4.1 Response “TradeCaptureReportAck” – Identification Criteria

The following FIX tags within the TradeCaptureReportAck serve as an identification of trade responses.

TradeCaptureReportAck (confirmation)

	6556 Business TransactionType	**487** TradeReport TransType	**856** TradeReportType	**150** ExecType
OTC trade entry	Tag not available	0 (new)	0 (submit)	0 (new)
OTC trade cancellation	Tag not available	1 (cancel)	6 (TradeReportCancel)	4 (cancelled)

In all cases tag 571 (TradeReportID) and tag 572 (TradeReportRefID) are filled with the content of the request message.

Tag 880 (TrdMatchID) contains the trade entry (OTC) generated trade number

TradeCaptureReportAck (Negative Confirmation)

The field assignment will have the same content as with a positive confirmation, but tag 150 (ExecType) = 8 (rejected).

In all cases tag 571 (TradeReportID) and tag 572 (TradeReportRefID) are filled with the content of the request message.

7.4.4.2 Response "TradeCaptureReportAck" – Message Data

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
<standard message header>		M	M			Tag 35 = "AR" (MsgType)
<instrument>		M	M			
30	LastMkt	O	M			Exchange location MIC Code Used by the FIX Client. Similar to the FIX 5.0 definition of TradeCaptureReportAck.
58	Text	O	C	C	C	String Error text of trading system Relates to tags 751, 5555, 9803.
60	TransactTime	M				UTCTimestamp
150	ExecType	M	M			Char Type of report: 0 = "New", when successful EnterOTC 4 = "Cancelled", when successful DeleteOTC 8 = " Rejected", when not successful
487	TradeReportTransType	O	M			Integer 0 = "new", in answer to EnterOTC 1 = "cancel", in answer to DeleteOTC
571	TradeReportID	M	M			String(16) Unique identifier of trade which is assigned by the FIX client. String(16) Unique identifier of trade, assigned by FIX Client. Not checked by the BT FIX Gateway.
572	TradeReportRefID	O	O	N	M	String(16) Unique identifier for trade which is assigned by the FIX client. Not checked by the BT FIX Gateway.
751	TradeReportRejectReason	O	O	O	O	Integer Reason for Rejection Only if tag 150 = "8", then set to 99 = "Other" Combined with tags 58, 5555, 9803
818	SecondaryTradeReportID	O	O	O	-	String(13) Bank internal OTC number which is assigned by the FIX client. Not checked by the BT FIX Gateway.
856	TradeReportType	O	M			Integer 0 = "submit", in answer to EnterOTC 6 = "TradeReportCancel", in answer to DeleteOTC

Tag	Field Name	RF	R	EnterOTC	DeleteOTC	Comments
880	TrdMatchID	O	M			Integer T7 Trade number (without leading zeros) In case of a positive answer: Unique identifier for trade which is assigned by the trade system. In case of a negative answer: “[N/A]”.
5555	ReturnCode	O	C	C	C	Integer Error code (e.g. 3730) Related to tags 58, 751, 9803
6555	OrigTrdMatchID	O	O	-	-	Integer Old trade number used by the FIX client’s request as TrdMatchID. Will not be delivered
6556	BusinessTransactionType	O	O	N	N	String 1 = TradeAdvice
9591	PriceCheckingFlag	O	O	-	-	Integer Indicator for price alert. 2 = severe (PriceAlert)
9803	TradingSystemID	O	C	C	C	Integer Identification of the system which generated the error code. Releates to tags 58, 751, 5555
<standard message trailer>		M	M			

7.4.4.3 Instrument Component Block <instrument>

Tag	Field Name	RF	R	Comments
22	SecurityIDSource	O	M	String Will always be set to “4”
48	SecurityID	O	M	String ISIN Format
55	Symbol	O	M	String Will always be set to “[N/A]”

7.4.5 Realtime Contract Notes

The contract notes are transferred with a user defined message “TradeCaptureReportSno” (MsgType “USN”).

Likewise, the FIX 4.4 defined TradeCaptureReport (MsgType AE), but without any restriction for tag 552 (NoSides). In FIX 4.4 and FIX 5.0 the only values valid are “1“ and “2”. For the new message “TradeCaptureReportSno” for tag 552 (NoSides), values ≥ “2” are possible.

Every “TradeCaptureReportSno” can include 1 order reference.

The order reference is transferred as additional “Sides” within the repeating group “NoSides” (tag 552).

Order references are generated when the trade originated from an order, and when the member is configured for receiving order numbers. This is adjustable by the member configuration. Depending from the configuration, either the Exchange-number or the bank internal order number will be delivered.

This rule is valid for the manual input of subscription rights, too.

Every message for a contract note is marked with “N” in tag 9954 (NextMsgFlag).

In each message, for tag 571 (TradeReportID) a unique value will be inserted by FAGSE.

7.4.5.1 Trade Information "TradeCaptureReportSno"

Tag	Field Name	RF	R	Comments
<standard message header>		M		Tag 35 = "USN" (MsgType)
<instrument>		M		
30	LastMkt	O	M	Exchange location MIC Code GSE-Exchanges "XDUS" = Duesseldorf "XFRA" = Frankfurt "XHAM" = Hamburg "XHAN" = Hannover "XMUN" = Muenchen
31	LastPx	M		Price, Float(11,8) Rate
32	LastQty	M		Quantity, Float(11,4) Nominal value
75	TradeDate	M		LocalMktDate Trade date (possibly deviant trade date)
60	TransactTime	M		UTCTimestamp
64	SettlDate	O	M	LocalMktDate Fixed value date Always used in combination with tag 5053.
283	LocationID	O	M	String Exchange trading place of registration. Is provided as FIX Data Type Exchange. T7 GSE-Exchange "XMUN" = Muenchen "XDUS" = Duesseldorf "XFRA" = Frankfurt "XHAM" = Hamburg "XHAN" = Hanover
487	TradeReportTransType	O	M	Integer 0 = new
570	PreviouslyReported	M	M	Boolean N = no
571	TradeReportID	M	M	String(16) Unique identifier, delivered by FAGSE
578	TradeInputSource	O	O	String(4) OTC trade: Segment MIC of the OTC entry (optional) Local Exchange transaction: Segment MIC of the T7 GSE exchange location.
<TrdRegTimestamps>		O		- date of transaction + differing time of transaction (AU) If a differing date of transaction (AA) was used then this date will be used as date of transaction. Otherwise the date of transaction is always like tag 75 (trade date) - input time
820	TradeLinkID	O	O	String(16) "Wegen" trade number

Tag	Field Name	RF	R	Comments
828	TrdType	O	O	Integer OTC Post-trade indicator Indicator for type of transaction according to ESMA RTS 22 Field 63. 9001 = ACTX (Agency cross transaction) 9002 = CANC (Cancellation) 9101 = ACTX CANC (Agency cross transaction and Cancellation)
829	TrdSubType	O	M	Integer record type See chapter 14 Appendix G: Possible Values Tag 829 TrdSubType (Record Type) e.g. 9012 = “Buy – direct trade”
856	TradeReportType	O	M	Integer 0 = submit
880	TrdMatchID	O	O	Integer T7 Trade number (without leading zeros)
1126	OrigTradeID	O	O	String(16) Original trade number Will not be delivered
<RegulatoryTradeIDGrp>		O	O	TVTIC (Trading venue transaction identification code)
5053	TradeType2	O	C	Integer indicator for fixed value date 1 (DVP) = FZ 7 (When Issued) = FE Always used in combination with tag 64
5494	LastTrader	O	O	Integer Original intermediary
5665	MKTXPriceDiff	O	O	Float Price difference Will not be delivered
6034	ConcessionAmt	O	O	Float Bonus differential amount Will not be delivered
6475	ClientIndicator	O	O	Char Y = “IW-trade” Will not be delivered

Tag	Field Name	RF	R	Comments
6732	DealerNote	O	O	String(350) different content of SAKI-Fields separated by "\"s. All relevant tags of a trade are defined in the TradeCaptureReportSno. The new tag 6732 includes the additional data content of the SAKI SNO Message respectively by the reason of additional requirements. Label delivery release (valid from 03.06.2013 always space)\ Different counterparty price \ always „000000,0000" Indicator for deviant trade date \ Type of security \ Type of custody \ Coupon date \ Constant 'APMT' \ Currency code of contract price \ Currency code of market value \ Currency code of price difference \ [Will not be delivered] Currency code of interest accrued \ [Will not be delivered] Flag brokerage \ Flag fees \ Indicator for reinvestment discount \ [Will not be delivered] Indicator for bonus \ [Will not be delivered] Indicator for bonus difference \ [Will not be delivered] Indicator for commission \ Currency code of brokerage \ Currency code of fees \ Currency code of reinvestment discount \ [Will not be delivered] Currency code of bonus \ [Will not be delivered] Currency code of bonus difference \ [Will not be delivered] Currency code of commission \ Indicator for reinvestment discount \ [Will not be delivered] Indicator for bonus \ [Will not be delivered] Bonus key \ [Will not be delivered] Indicator for bonus difference \ [Will not be delivered] Indicator for order reference \ Entering Party-ID \ [Will not be delivered] Formats and values see Appendix C: User Defined Tags
7017	VolumeIndicator	O	O	Integer Unit of security quotation 1 = unit quotation, 2 = percentage quotation, 3 = per thousand quotation
7680	OTCInd	O	M	Integer OTC (Off Exchange) indicator 0 = on-exchange trade 1 = off-exchange trade
9954	NextMsgFlag	O	M	Boolean N = no (more) following records
9807	RegFeeFlag	O	O	Char Amount of brokerage fees from the respective brokerage fee scales. Please note that contract notes having been created by a nominal distribution routine are not allocated a key for brokerage fees, since in these cases the original nominal may have been changed. Will not be delivered
9893	DiscountRate	O	O	Float Will not be delivered
<SnoRealtimeSideGrp>		M		
<standard message trailer>		M	M	

7.4.5.2 Instrument Component Block <instrument>

The “instrument” component block contains the repeating group NoSecAltID.

Tag	Field Name	RF	R	Comments
55	Symbol	O	M	String Ticker symbol Will be set to “[N/A]” by the BT-FIX Gateway
48	SecurityID	O	M	String ISIN format
22	SecurityIDSource	O	M	String Will be set to “4” by the BT-FIX Gateway
223	CouponRate	O	O	Float(12,7) Interest rate
228	Factor	O	C	Float(10,9) Pool factor/conversion factor Will always be used together with tag 691
240	RedemptionDate	O	O	LocalMktDate Last redemption date (last maturity)
<SecAltIDGrp>		O	O	
691	Pool	O	C	String Indicator for tag 228. 1 = PF (pool factor) 2 = FS (Public-Bonds, municipal) 3 = IK (index coefficient)
6893	Profit	O	O	Float Mid-way profit Will not be delivered
7491	CustomPrice1	O	O	Float Initial offering price Will not be delivered

7.4.5.3 NoSecAltID Repeating Group <SecAltIDGrp>

The SecAltIDGrp component block contains the repeating group NoSecAltID.

Tag	Field Name	RF	R	Comments
454	NoSecAltID	O	O	NumInGroup Will always be set to “1”, “2” or “3”. If present, tags 455 and 456 must follow immediately.
455	SecurityAltID	O	C	String Ticker symbol WKN ISIN Available, if tag 454 is present
456	SecurityAltIDSource	O	C	String Will be set to “8” = “Ticker symbol” “B” = “Security” (WKN) “4” = “ISIN” by the BT-FIX Gateway Available if tag 454 is present

7.4.5.4 NoTrdRegTimestamps Repeating Group <TrdRegTimestamps>

The “TrdRegTimestamps” component block contains the repeating group NoTrdRegTimestamps.

Tag	Field Name	RF	R	Comments
768	NoTrdRegTimestamps	O	O	NumInGroup Valid values are “1” or “2”. If present, tags 769 and 770 must follow immediately.
769	TrdRegTimestamp	O	C	UTCTimestamp [microseconds YYYYMMDD-HH:MM:SS.ssssss] Available if tag 768 is present.
770	TrdRegTimestampType	O	C	Integer Must be present if tag 768 has a value. Valid values 1 = “Execution Time” 2 = “Time In”

7.4.5.5 No longer relevant~~NoMiscFees Repeating Group <gebuehren>~~

~~The “MiscFeesGrp” component block contains repeating group NoMiscFees.~~
~~Will not be delivered~~

7.4.5.6 NoTransactionCosts Repeating Group <courtage>

Tag	Field Name	RF	R	Comments
9471	NoTransactionCosts	O	O	NumInGroup Valid value = “1” If present, tag 9473 and when indicated 9476 follow immediately.

Tag	Field Name	RF	R	Comments
9473	TransactionCostCode	O	C	Char Available if tag 9471 is present. Valid values: 0 = brokerage fee 1 = AC (different brokerage fee in Euro) 2 = FC (free of brokerage fee) 3 = FR (free of any fees)
9476	TransactionCostAmt	O	C	Float(11,2) Brokerage fee Available if tag 9471 is present

7.4.5.7 NoSides Repeating Group <SnoRealtimeSideGrp>

The Repeating Group NoSides contains Repeating Groups NoTransactionCosts, NoMiscFees and NoPartyIDs.

Tag	Field Name	RF	R	Comments
552	NoSides	M	M	NumInGroup Only values ≥ “2” are possible Tag 54 (Side) will follow
<Side 1>		M	M	<Side 1> trade details of the originator
<Side 2>		O	O	<Side 2> trade details of the counterpart
<Side #>		O	O	<Side 3> to <Side n> for order references

<Side1>

Tag	Field Name	RF	R	Comments
54	Side	M	M	Char Side of trade for <entering firm> 1 = Buy 2 = Sell
37	OrderID	M	M	String Will always be set to "[N/A]"
<parties>		O	M	
453	NoPartyIDs	O	M	NumInGroup Valid values “1” to “6”
<customer account>		O	M	Data which specify the recipient of the contract notes
<executing firm>		O	O	Data which specify the originator
<buyerseller>		O	O	Data which specify buyer / seller
<order origination trader>		O	O	Trader ID
<clearing firm>		O	O	KVNR of clearer
<clearing organization>		O	O	KVNr of the recipient of the trade confirmations in the case of internal settlement to be applied. KVNr of the recipient of the trade confirmations in the case of aggregated settlement to be applied
end <parties>		O	M	

Tag	Field Name	RF	R	Comments
1	Account	O	O	String(2), Based on account type code and account type number. The 'indicator proprietary trading' of the recipient of the trade confirmation is shown. Exceptions are contract notes for the intermediary's proprietary trading. In such cases, the originator's 'indicator own-account trading' will be shown instead of the 'indicator own-account trading' of the recipient of the trade confirmation. In case of interbank trades, the indicator field will remain blank. Possible values: EE – intermediary's own-account trading P1 – bank's own-account trading A1 – bank's customer (agent) business
12	Commission	O	O	Float(11,2) Charges This field contains the description of charges.
58	Text	O	O	String(35) Arbitrary text, if necessary with prefix included: "BOSS/", In case of trades coming from T7 GSE order "MAX/" In case of MAX-ONE order-trades "FIX/" In case of OTC-trades inserted by FIX "FIXF/" In case of OTC-trades inserted by another FIX counter part
119	SettlCurrAmt	O	O	Amt, Float(11,2) Actual amount
120	SettlCurrency	O	O	Currency Currency of actual amount
155	SettlCurrFxRate	O	C	Float(11,8) Foreign exchange rate of trade. Always used in combination with tag 156
156	SettlCurrFxRateCalc	O	C	Char D = divide Always used in combination with tag 155
157	NumDaysIntegererest	O	C	Integer Days of interest, if tag 5427 = I Days of discount, if tag 5427 = D
159	AccruedIntegererestAmt	O	C	Amt, Float(11,2) Amount of interest, if tag 5427 = I Amount of discount, if Tag 5427 = D
381	GrossTradeAmount	O	O	Amt, Float(11,2) Market value
5427	IntegerrAttribType	O	C	Char Attribute if tag 157 and 159 will be delivered I = Interest D = Discount
9596	ClientFreeField1	O	O	String Fee Float(11,2) Always used in combination with tag 9597.
9597	ClientFreeField2	O	O	String(2) Fee code Always used in combination with tag 9596 Valid values: PD = "Amount in Euro"

Tag	Field Name	RF	R	Comments
9938	ClearingHandlingType	O	O	Char Character indicating internal or aggregated settlement. Flagged trades are not delivered to Clearstream. "I" = internal settlement "A" = aggregated settlement Contract note out of trading. Flagged trades are not delivered to Clearstream. "B" = aggregated settlement
~~<gebühren>~~		~~O~~	~~O~~	
<courtage>		O	O	

<Side2>

Tag	Field Name	RF	R	Comments
54	Side	M	M	Char Side of trade for “contra firm” 1 = Buy 2 = Sell
37	OrderID	M	M	String Will be set to “[N/A]”
<parties>		O	M	
453	NoPartyIDs	O	M	NumInGroup Valid values are “2” .. “7”
<contra firm>		O	M	Data describing the counterparty
<contra firm>		O	O	LEI (Legal Entity Identifier) of counterpart
<buyerseller>		O	M	Data describing the buyer / seller If tag 54 (Side) from <Side2> = sell, then seller If tag 54 (Side) from <Side2> = buy, then buyer
end <parties>		O	M	

<Side 3 >

Tag	Field Name	RF	R	Comments
54	Side	M	M	Char Side of trade for <entering firm> 1 = Buy 2 = Sell
37	OrderID	M	C	String System order number - T7-OrderID: Prefix „DWZ“ + Number (e.g. DWZ1765123456000000001) - T7-Trade without order refernce: Prefix „MAN“ + Number (e.g. MAN1765123456000000002) - MAX-ONE OrderID: Prefix „MAX“ + Number (e.g. MAX176868001) - intermediary´s own-account trading: „MAN“ + optional intermediary reference or bank internal order number (SecondaryClOrdID) or bank internal OTC number (SecondaryTradeReportID) together with tag 6141
119	SettlCurrAmt	O	C	Float(11,2) proportional settlement amount

Tag	Field Name	RF	R	Comments
6141	TradeQty	O	C	Qty, Float(15,4) Total quantity filled together with tag 37 (OrderID)

7.4.5.8 Party Concept <parties>

The party component block will be used to describe all parties participating in a transaction.

The TradeCaptureReportSno for FIX 4.2 and FIX 4.4 is an user defined message. If a FIX 4.2 – member wants to receive trade messages, then they must be able to process the NoPartyIDs repeating group.

The parties component block will be referred to by <parties>. The repeating groups will be referred to by <executing firm>, <clearing firm>, <order origination trader>, <contra firm>, <clearing organization>, <customer account>, <buyer seller>, <custodian>, <agent>, <report originator>, <execution venue>.

Outgoing Messages

Tag	Field Name	RF	R	7M	Comments
453	NoPartyIDs	O	M		NumInGroup Number of parties involved Valid values are 2 .. 7 The value must correspond to the number of parties (repeating groups) provided.
448	PartyID	O	M		String **PartyRole = 1 (Executing Firm)** String(4), KVNr of the **originator or owner of the order** **PartyRole = 4 (Clearing Firm)** String(4), KVNr of the clearer **PartyRole = 11 (Order Origination Trader)** String(6), Trader ID **PartyRole = 17 (Contra Firm)** String(4), KVNr of the counterpart, if PartyIDSource = D String(20), LEI (Legal Entity Identifier) of counterpart, PartyIDSource = N **PartyRole = 21 (Clearing Organization)** KVNr of recipient of trade confirmations in the case of internal settlement to be applied KVNr of recipient of trade confirmations in the case of agrigated settlement to be applied **PartyRole = 24 (Customer Account)** String(4), KVNr of the contract note- recipient **PartyRole = 27 (Buyer Seller)** String(4), KVNr of buyer/seller, when PartyIDSource = D When settlement is processed through the custodian bank, the broker's KV number is entered. When a direct bank transaction is settled directly, the bank's settlement KV number is entered.
447	PartyIDSource	O	M		Char always = “D”, if PartyRole = 1, 4, 11, 21, or 24 or = “B”, if PartyRole = 10, 28, or 30 or = “D” or “B”, if PartyRole = 27 or = „D“ or „N“ if PartyRole 17

Tag	Field Name	RF	R	7M	Comments
452	PartyRole	O	M		Integer Valid values 1 = “Executing Firm” 4 = “Clearing Firm” 11 = “Order Origination Trader” 17 = “Contra Firm” 21 = “Clearing Organization” 24 = “Customer Account” 27 = “Buyer Seller” 28 = “Custodian” 30 = “Agent”
PtysSubGrp		O	C		Only valid for PartyRole = 27, 28 or 30

7.4.5.9 NoPartySubIDs Repeating Group <PtysSubGrp>

Tag	Field Name	RF	R	7M	Comments
802	NoPartySubIDs	O	C		NumInGroup Will be set to “1” or “2” Only valid for PartyRole = 27, 28, or 30
523	PartySubID	O	C		String(35) For PartyRole = 27, 28, or 30 with further identification attribute of safe-accounts
803	PartySubIDType	O	C		Integer If PartyRole = 27 then set to "4050" (buy/sell safe account) If PartyRole = 30 and tag 54 (Side) from <Side2> = sell then set to "4060" (DEAG-safe-account), If PartyRole = 30 and tag 54 (Side) from <Side2> = buy then set to “4070” (REAG-safe-account), If PartyRole = 28 and tag 54 (Side) from <Side2> = buy then set to "4080“ (DECU-safe-account), If PartyRole = 28 and tag 54 (Side) aus <Side2> = sell then set to "4090" (RECU-safe-account).

7.4.5.10 Regulatory TradeID Repeating Group <RegulatoryTradeIDGrp>

Tag	Field Name	RF	R	7M	Comments
1907	NoRegulatoryTradeID	O	O		NumInGroup Only „1“ is valid.
1903	RegulatoryTradeID	O	O		String(52) TVTIC (Trading venue transaction identification code) The T7 GSE TVTIC is a concatenation of: Envir_Flag (1) + SecurityID (20) + TranTime (20) + DealType (1) + MatchStepID (10) MAX-ONE TVTIC: Segment MIC (4 digits) + ISIN (12 digits) + Trading day (8 digits) + time of price fixing termination (12 digits)
1906	RegulatoryTradeIDType	O	O		Integer Type of Regulatory TradeID 5 = TVTIC (Trading venue transaction identification code)

8 Appendix A: Current Examples

Logon Request

```
8=FIX.4.4.9=103.35=A.34=1.49=FS1234I7.52=20260312-
09:00:01.479.56=FSRH03I7.98=0.108=40.554=XXXXXXXXXXXX.553=6500001234.10=004.
```

NewOrderSingle Request

```
8=FIX.4.4.9=343.35=D.34=12.49=FS1234I7.52=20260312-
09:06:29.375.56=FSRH03I7.11=1083737.40=1.54=1.58=15242
.59=6.60=2026031209:06:29.375.100=XHAM.432=20260312.526=ABC0000000001.55=[N/A].48=DE0001030575.22
=4.453=4.448=12320123.447=P.452=3.2376=23.448=3.447=P.452=12.2376=24.448=1244.447=D.452=7.448=303
7.447=D.452=1.38=1000.1815=1.1868=1.1869=1.1870=0.10=135.
```

TradeCaptureReport Request

```
8=FIX.4.4.9=364.35=AE.34=292.49=FS1234I7.52=20260312-
07:57:37.56=FSRH03I7.487=0.856=0.571=ABCDEFG001.818=ABCDEFG001.570=N.7017=7.55=[N/A].48=DE000TB2Y
LE0.22=4.32=1.31=50.85.30=XFRA.75=20260312.5179=085501.60=20260312-
07:57:35.871.552=2.54=2.453=2.448=7099.447=D.452=7.448=7099.447=D.452=1.37=[N/A].58=TEXT1234.15=X
XX.1815=5.54=1.453=1.448=4099.447=D.452=17.37=[N/A].578=ABCH.10=185.
```

ExecutionReport

```
8=FIX.4.4.9=326.35=8.34=66.49=FSRH03I7.52=20260312-
09:06:29.995.56=FS1234I7.6=0.11=1083737.14=0.17=20260311000066.37=1773299808673013005.39=0.54=1.5
9=6.60=20260312-
09:06:29.993784.100=XHAM.150=0.151=1000.432=20260312.526=ABC000001.58=15242.1=A1.40=1.55=[N/A].48
=DE0001030575.22=4.453=2.448=1244.447=D.452=7.448=3037.447=D.452=1.38=1000.10=225.

8=FIX.4.4.9=437.35=8.34=1537.49=FSRH03I7.52=20260312-
07:48:12.064.56=FS1234I7.6=0.11=1234561111.14=1000.17=20260311001537.37=1773213431484207087.39=2.
54=1.60=20260312-
07:48:11.417868.64=20260317.100=XDUS.150=F.151=0.526=439873113.31=100.2.32=1000.1=A1.55=[N/A].48=
DE000A169NC2.22=4.453=3.448=2163.447=D.452=7.448=4099.447=D.452=1.448=4185.447=D.452=66.38=1000.1
5=EUR.157=310.7680=0.1907=1.1903=3000000000000025158000177330169141786816500000000001.1906=5.10=2
23.
```

TradeCaptureReportSno

```
8=FIX.4.4.9=960.35=USN.34=1538.49=FSRH03I7.52=20260312-
07:48:12.073.56=FS1234I7.571=0312084812061234.880=1.487=0.856=0.829=9011.570=N.9954=N.7680=0.283=
XDUS.7017=2.6732= \\000000,0000\\  \\BON\\GS \\11MAI   \\APMT\\EUR\\EUR\\   \\   \\     \\
\\      \\      \\      \\      \\   \\   \\   \\   \\   \\   \\  \\  \\  \\  \\     \\
\\.55=[N/A].48=DE000A169NC2.22=4.454=3.455=[N/A].456=8.455=A169NC.456=B.455=DE000A169NC2.456=4.24
0=20280511.223=1.375.6611=11.68.5053=1.32=1000.31=100.4.30=XDUS.75=20260312.768=2.769=20260312-
07:48:11.417868.770=1.769=20260312-07:48:11.417868.770=2.64=20260317.60=20260312-
07:48:11.417868.552=3.54=1.1=A1.37=[N/A].58=BOSS/.119=1015.68.120=EUR.157=310.159=11.68.381=1004.
5427=I.453=3.448=4099.447=D.452=24.448=4185.447=D.452=1.448=4099.447=D.452=27.54=2.37=[N/A].453=3
.448=8531.447=D.452=17.448=[N/A].447=N.452=17.448=8531.447=D.452=27.54=1.37=BI1234567890.119=1015
.68.6141=1000.1907=1.1903=3000000000000025158000177330169141786816500000000001.1906=5.578=DUSB.10
=161.

8=FIX.4.4.9=865.35=USN.34=2109.49=FSRH03I7.52=20260312-
07:57:39.228.56=FS1234I7.571=0312085738576477.880=7000001.487=0.856=0.829=9022.570=N.9954=N.7680=
1.283=XFRA.7017=1.6732= \\000000,0000\\AS\\WTS\\GS \\        \\APMT\\EUR\\EUR\\   \\   \ \
\\      \\      \\      \\      \\      \\   \\   \\   \\   \\   \\   \\ \\  \\  \\  \\     \\
\\.55=X302.48=DE000TB2YLE0.22=4.454=3.455=X302.456=8.455=TB2YLE.456=B.455=DE000TB2YLE0.456=4.240=
20980115.5053=1.32=1.31=50.85.30=XFRA.75=20260312.768=2.769=20260312-
07:57:37.839091.770=2.769=20260312-07:55:01.000000.770=1.64=20260317.60=20260312-
07:57:37.839091.552=3.54=2.1=P1.37=[N/A].58=FIX/TEXT1234
.119=50.85.120=EUR.155=1.156=D.453=3.448=7099.447=D.452=24.448=7099.447=D.452=1.448=7099.447=D.45
2=27.54=1.37=[N/A].453=3.448=4099.447=D.452=17.448=529900DSJ4S9VXG0FS94.447=N.452=17.448=4099.447
=D.452=27.54=2.37=ABCDEFG001   .119=50.85.6141=1.578=ABCH.10=248.
```

9 Appendix B: Restrictions Concerning Data Types and Component Blocks

Legend

Sort sequence: Sorted ascending by column “Data type/Structure”

Column headers: I/O indicates incoming/outgoing messages (from the BT-FIX Gateway's point of view). All other column headers are self-explanatory.

Content: An entry in column I/O will only be present if the information provided is not valid for either direction. Entries in restrictions/values will detail usage of an item. If a trading -system is not listed in column “trading system”, it will not allow the usage of the tag.

Tag	Data type/Structure	I/O	Restrictions/Values	Trading System
	KVNr		Valid “Kassenvereinsnummer”	uniform across systems
	Party		The structure will be restricted to three tags PartyID PartyIDSource PartyRole If the repeating group is not of type "session", "Executing System", „Execution within firm“ and „Investment Decision Maker“, "Settlement Location" or "Buyer Seller"	uniform across systems
		O	Exception: If PartyRole is set to “session ID”, the full structure will be used; in this case, additionally, the following tags will be present: NoPartySubIDs (Tag 802, set to “1” more) PartySubID (Tag 523) (identifier) PartySubIDType (Tag 803, always set to “4040”). For type "Executing System", the following tags will be used in addition: NoPartySubIDs (tag 802, set to "1" more) PartySubID (tag 523) = "[N/A]" PartySubIDType (tag 803) always = "3". For type "Settlement Location", the following tags will be used in addition: NoPartySubIDs (tag 802), set to "2" more PartySubID (tag 523) = "identifier" PartySubIDType (tag 803) = "4060" PartySubID (tag 523) = "identifier" PartySubIDType (tag 803) = "4080" or NoPartySubIDs (tag 802), set to "2" more PartySubID (tag 523) = "identifier" PartySubIDType (tag 803) = "4070" PartySubID (tag 523) = "identifier" PartySubIDType (tag 803) = "4090" is used. For type "Buyer Seller", the following tags will be used in addition: NoPartySubIDs (Tag 802) set to "1" more PartySubID (Tag 523) = " identifier " PartySubIDType (Tag 803) = "4050" is used. For type „Execution within firm“ the following qualifier will be used in addition: PartyIDRoleQualifier (Tag 2376) = „22“ (algorithm) or	uniform across systems

Tag	Data type/Structure	I/O	Restrictions/Values	Trading System
			"24" (natural person) For type „Investment Decision Maker" the following qualifier will be used in addition: PartyRoleQualifier (Tag 2376) = „22" (algorithm) or „24" (natural person) For type "Client Identification Code" the following qualifier will be used in addition: PartyRoleQualifier (Tag 2376) = „23" (LEI) or „24" (Nat. Person)	
	Price		It is always float (11.8)	uniform across systems
	Qty		It is always Float (15,4)	uniform across systems

10 Appendix C: User Defined Tags

Legend

Sort sequence: Sorted ascending by tag number

Column headers: I/O indicates incoming/outgoing messages (from the BT-FIX Gateway's point of view). All other column headers are self-explanatory.

Content: An entry in column I/O will only be present if the information provided is not valid for either direction. Entries in restrictions/values will detail usage of an item. Optionally a reference to a common “base” data type will be present. If a trading - system is not listed in column “trading system”, it will not allow usage of the tag.

Tag	Field Name	I/O	Restrictions/Values	Trading System
5053	TradeType2	I	1 (DVP) = FZ	T7 GSE, for TradeCaptureReport
		O	1 (DVP) = FZ 7 (when issued) = FE	T7 GSE, for TradeCaptureReportSno
5156	UnreleasedDate		LocalMktDate “Valid from” date	MAX-ONE
5177	Source	O	<session>	Uniform across systems, 4.2 only
5179	TradeTime	I	Trade time (hhmmss)	T7 GSE, for TradeCaptureReport
5253	OrdTypeExt This field is only used for EG orders		Valid value: E = "EG-Order"	MAX-ONE
5427	IntegerrAttribType	O	I = Interest D = Discount	T7 GSE, for TradeCaptureReportSno
5458	MDDelayed	I	Delay-Indicator	T7 GSE, for TradeCaptureReport
5494	LastTrader	O	Format KVNr. Permitted CBF account number (intermediary only) for T7 GSE.	T7 GSE, for TradeCaptureReportSno
5555	ReturnCode	O	Error code If TradingSystemID = 0: - Error code of FAGSE gateway In the format nnnnnn If TradingSystemID = 212: - Error code of FAGSE Connectors In the format nnnn If TradingSystemID = 312: - Error codeF MAX-ONE In the Format nnnn If TradingSystemID = 313: - Error codeF MAX-ONE In the Format nnnn If TradingSystemID = 7: - Error code T7 in the format nnnnn (ETI SessionRejectReason)	FAGSE, T7 GSE, MAX-ONE

5862	UpdateReason	A	String(15) Reason of order modification or deletion by the system **MAX-ONE:** "AUSG" = Suspended trading "HL" = Comment (order deletion) "EXBR" = Ex subscription rights "EXBA" = Ex bonus shares "EXDI" = Ex dividend "EXZS" = Ex interest (with redemption) "EXSP" = Division (split) with foreign shares "ENOT" = Suspension of price fixing "ORDEREXPIRED" = Order decline **T7 GSE:** "T7MAR**nnn**" = MassActionReason Value for **nnn**: 000 = No special reason 001 = Trading was stopped 002 = Emergency 006 = Session loss or logout 007 = Duplicate Session Login 008 = Clearing Risk Control 100 = Internal connection loss 107 = Instrument Suspended 115 = Instrument Knock Out 117 = Member has been disabled 118 = Instrument Knock Out reverted "T7ERR**nnn**"=ExecRestatementReason Value for **nnn**: 000 = Corporate Action 001 = Order book restatement 008 = Exchange option 101 = Order add accepted 102 = Order modify accepted 103 = Order delete accepted 108 = Book Order executed 122 = Instrument State Change 138 = Pending New 139 = Pending modify 141 = Pending new order processed 142 = Pending modified order proc. 146 = End of Day processing 148 = Order expiration 149 = Closing Auction Order has been activated 150 = Closing Auction Order has been inactivated 151 = Opening Auction Order has been activated 152 = Opening Auction Order has been inactivated 153 = Any Auction Order has been activated 154 = Any Auction Order has been inactivated 155 = Order refreshed 159 = Intraday Auction Order has been activated 160 = Intraday Auction Order has been inactivate 172 = Stop Order has been triggered 181 = Ownership Changed 197 = Pending order deletion 199 = Pending order cancellation processed	T7 GSE, MAX-ONE

Tag	Field Name	I/O	Restrictions/Values	Trading System
			237 = Order quantity exceeds maximum quantity 238 = Invalid limit price 241 = User does not exist anymore 242 = Session does not exist anymore 243 = Invalid stop price 245 = Instrument does not exist anymore 246 = Business Unit Risk Event 261 = Panic Cancel 292 = Dividend Payment 294 = Last Trading Day 295 = Trading Parameter Change 296 = Currency Change 297 = Product Assignment Change 298 = Reference Price Change 300 = Tick Rule Change 316 = QRS Order Expiry "T7OET**nnn**" = T7 OrderEventType Value for **nnn**: 100 = Status after locked stock – Pending requests discarded	
5946	PendingReason	O	Valid values: 2 = locked stock 4 = order status unknown (end of day)	MAX-ONE
		O	Valid values: 2 = locked stock 4 = order status unknown (end of day) 5 = verification pending	T7 GSE
6031	EnteringFirm		<entering firm>	Uniform across systems, version 4.2 only
6042	CxlReason	I	1 = Cancel by kill function	T7 GSE, MAX-ONE
6126	OrigLeavesQty	I	see Qty	T7 GSE
6141	TradeQty	O	see Qty	T7 GSE for TradeCaptureReportSno
6255	EndTime		end of trading hours	T7 GSE
6489	TriggerIndicator	O	A = Activation of an EG Order Y = Trigger Stop Order	MAX-ONE T7 GSE
6516	NewsValidUntil		date until	T7 GSE
6517	NewsEventDate		date respectively date from	T7 GSE
6556	BusinessTransactionType		“1” = TradeAdvice	T7 GSE for TradeCaptureReport and TradeCaptureReportAck
6611	TotalAccruedInterestAmt	O	Accumulated dividend equivalent earnings Float(17,8)	T7 GSE for TradeCaptureReportSno
6732	DealerNote	O	Different sub fields separated by “\”. The description follows at the end of this table.	T7 GSE for TradeCaptureReportSno
7017	VolumeIndicator	I	1 = “unit” 2 = “percentage” 3 = “per thousand” 9 = “other”	T7 GSE for TradeCaptureReport

Tag	Field Name	I/O	Restrictions/Values	Trading System
		O	1 = “unit” 2 = “percentage” 3 = “per thousand”	T7 GSE for TradeCaptureReportSno
7566	TimezoneOffset	I	Differing UTC Time stamp to trade time	T7 GSE for TradeCaptureReport
7567	ReportedPxDiff	I	Y = Deviant price indicator	T7 GSE for TradeCaptureReport
7568	ReportedPxReason	I	N = negotiated Trade	T7 GSE for TradeCaptureReport
7680	OTCInd		0 = on-exchange trading 1 = off-exchange trading (default)	uniform across systems
7931	VenueID		<executing system>	uniform across systems, version 4.2 only
9318	MktMkerID		<market maker>	uniform across systems, version 4.2 only This tag will be ignored.
9320	OrderRejectReasonTxt	O	Error text	uniform across systems
9471	NoTransactionCosts		<courtage>	T7 GSE for TradeCaptureReport and TradeCaptureReportSno
9473	TransactionCostCode		<courtage>	T7 GSE for TradeCaptureReport and TradeCaptureReportSno
9476	TransactionCostAmt		<courtage>	T7 GSE for TradeCaptureReport and TradeCaptureReportSno
9591	PriceCheckingFlag	O	2 = Severe (PriceAlert)	T7 GSE for TradeCaptureReportAck
9596	ClientFreeField1		String Float(11,2) Negative sign possible	T7 GSE
9597	ClientFreeField2		Valid values: PD = Amount (in Euro) PM = Per mille (from market value) space = None	T7 GSE
9803	TradingSystemID	O	0 = FAGSE Gateway 212 = FAGSE Connector 312 = MAX-ONE 313 = MAX-ONE 7 = T7 GSE	uniform across systems
9938	ClearingHandlingType	O	I = internal settlement A = aggregated settlement The trade will be not delivered to Clearstream individually. In case of internal settlement (“I”) it is the recipient’s responsibility to forward the position to Clearstream. In case of aggregated settlement (“A”) the trades are forwarded to Clearstream as an aggregated position.	T7 GSE
9954	NextMsgFlag	O	N = no (more) following records	T7 GSE for TradeCaptureReportSno

Tag	Field Name	I/O	Restrictions/Values	Trading System
20003	PartyIDClientID	E	<client identification code>	T7 GSE, MAX-ONE
21103	PartyIDClientIDQualifier	E	<client identification code>	T7 GSE, MAX-ONE
21303	PartyIDClientIDSource	E	<client identification code>	T7 GSE, MAX-ONE
20122	PartyIDInvestmentDecisionMaker	E	<Investment Decision Maker>	T7 GSE, MAX-ONE
21222	PartyIDInvestmentDecisionMakerQualifier	E	<Investment Decision Maker>	T7 GSE, MAX-ONE
21422	PartyIDInvestmentDecisionMakerSource	E	<Investment Decision Maker>	T7 GSE, MAX-ONE
20012	PartyIDExecutingTrader	E	<Execution within firm>	T7 GSE, MAX-ONE
21112	PartyIDExecutingTraderQualifier	E	<Execution within firm>	T7 GSE, MAX-ONE
21312	PartyIDExecutingTraderSource	E	<Execution within firm>	T7 GSE, MAX-ONE

Description of tag 6732 DealerNote

Tag 6732 contains different sub-fields which are seperated by "\". The initial values of these sub-fields are generally spaces. The subfield "deviating counterparty price" will be assigned with a fixed "000000,0000", as deviating prices like that will neither be able to be entered nor to be processed within T7 and by MAX-ONE.

Tag	Fieldname	Sub-Fieldname	Format	Restriction/Value
6732	DealerNote	Label delivery release	Char	"J", "N"
		Separator	Char	\
		Different counterparty price	String(11)	6 places before the decimal point, 4 decimal places
		Separator	Char	\
		Indicator for deviant trade date	String(2)	constant "AS"
		Separator	Char	\
		Type of security	String(3)	constant "SHS" = shares, Participation rights and equity-like units, "BON" = bonds, certificate-like bonds, profit participation rights with annuity-like characteristics, "WTS" = warrants, Certificates (excluding ETCs and ETNs), "FUN" = funds "SUB" = subsidiary rights "MSC" = others "ETF" = Exchange Traded Fund "ETC" = Exchange Traded Commodity "ETN" = Exchange Traded Note
		Separator	Char	\
		Type of custody	String(3) Char	constant "GS" = Girosammelverwahrung "AKV" = Clearstream Banking "NCT" = Non-Collective Safe Custody via T2S (NCSC-T) "STR" = Streifbandverwahrung "WPR" = Wertpapierrechnung
		Separator	String(8) Char	\
		Coupon date	String(4)	"GD812 + GD813 (see explanation below)

Tag	Fieldname	Sub-Fieldname	Format	Restriction/Value
		Separator	Char	\
		Constant ‘APMT‘	String(3)	"APMT" = against payment
		Separator	Char	\
		Currency code of contract price	String(3)	
		Separator	Char	\
		Currency code of market value	String(3),	
		Separator	Char	\
		Currency code of price difference	String(3),	[Will not be delivered]
		Separator	Char	\
		Currency code of interest accrued	String(6),	[Will not be delivered]
		Separator	Char	\
		Flag brokerage	String(6)	constant /BROK/
		Separator	Char	\
		Flag fees	String(6)	constant /FEES/
		Separator	Char	\
		Indicator for reinvestment discount	String(6)	[Will not be delivered]
		Separator	Char	\
		Indicator for bonus	String(6)	[Will not be delivered]
		Separator	Char	\
		Indicator for bonus difference	String(6)	[Will not be delivered]
		Separator	Char	\
		Indicator for commission	String(3)	constant /COMM/
		Separator	Char	\
		Currency code of brokerage	String(3)	= settlement currency
		Separator	Char	\
		Currency code of fees	String(3)	= settlement currency
		Separator	Char	\
		Currency code of reinvestment discount	String(3)	[Will not be delivered]
		Separator	Char	\
		Currency code of bonus	String(3)	[Will not be delivered]
		Separator	Char	\
		Currency code of bonus differential	String(3)	[Will not be delivered]
		Separator	Char	\
		Currency code of commission	String(2)	= settlement currency
		Separator	Char	\
		Indicator for reinvestment discount	String(2)	[Will not be delivered]
		Separator	Char	\
		Indicator for bonus	String(2)	[Will not be delivered]
		Separator	Char	\
		Bonus key	String(2)	[Will not be delivered]
		Separator	Char	\
		Indicator for bonus difference	String(5)	[Will not be delivered]
		Separator	Char	\
		Indicator for order reference	String(6)	constant „MT599“

Tag	Fieldname	Sub-Fieldname	Format	Restriction/Value
				(indicator from MT512 that a MT599 is following
		Separator	Char	\
		Entering Party-ID		[Will not be delivered]
		Separator	Char	\

Explanation of interest date:

The 8-digit interest date field in the 6th position of the DealerNote is filled from the combination of the two WM fields GD812 (interest date day) + GD813 (interest date month). The following additional rules apply to the field assignment for deviating days at the end of the month:

GD813	GD812	interest date
FA	29	28F29A
FA	30	28F30A
FA	31	28F31A
JJ	31	31J31J
MS	31	31M30S
AO	31	30A31O
MN	31	31M30N
JD	31	30J31D
F29A	29	28F29A

GD813	GD812	interest date
F29A	30	28F29A
F29A	31	28F29A
F30A	30	28F30A
F30A	31	28F30A
F31A	31	28F31A
A31O	31	30A31O
J31D	31	30J31D
Else	Else	GD812+GD813

11 Appendix D: 4.2 Extensions

Sorted ascending by tag number

Tag	Field Name
447	PartyIDSource
448	PartyID
452	PartyRole
453	NoPartyIDs
454	NoSecAltID
455	SecurityAltID
456	SecurityAltIDSource
487	TradeReportTransType
523	PartySubID
526	SecondaryClOrdID
552	NoSides
553	Username
554	Password
570	PreviouslyReported
571	TradeReportID
572	TradeReportRefID
578	TradeInputSource
625	TradingSessionSubID
691	Pool
751	TradeReportRejectReason
768	NoTrdRegTimestamps
769	TrdRegTimestamp
770	TrdRegTimestampType
789	NextExpectedMsgSeqNum
802	NoPartySubIDs
803	PartySubIDType
818	SecondaryTradeReportID
820	TradeLinkID
829	TrdSubType
856	TradeReportType
880	TrdMatchID
1094	PegPriceType
1125	OrigTradeDate
1126	OrigTradeID
1138	DisplayQty
1409	SessionStatus
20003	PartyIDClientID

Tag	Field Name
21103	PartyIDClientIDQualifier
21303	PartyIDClientIDSource
20122	PartyIDInvestmentDecisionMaker
21222	PartyIDInvestmentDecisionMakerQualifier
21422	PartyIDInvestmentDecisionMakerSource
20012	PartyIDExecutingTrader
21112	PartyIDExecutingTraderQualifier
21312	PartyIDExecutingTraderSource

12 Appendix E: 4.4 Extensions

Sorted ascending by tag number

Tag	Field Name
1094	PegPriceType
1125	OrigTradeDate
1126	OrigTradeID
1138	DisplayQty
1409	SessionStatus
6042	CxlReason

13 Appendix F: Restricted Use of Standard Tags

Legend

Sort sequence: Sorted ascending by tag number

Column headers: I/O indicates incoming/outgoing messages (from the BT-FIX Gateway's point of view). All other column headers are self-explanatory.

Content: An entries in column I/O will only be present if the information provided is not valid for either direction. Entries in restrictions/values will detail usage of an item. Optionally a reference to a common base data type will be present. If a trading - system is not listed in column “trading system”, it will not allow usage of the tag.

Tag	Field Name	I/O	Restrictions/Values	Trading System
1	Account		See AcctTypCod and AcctTypNo	
			Valid values: A = Agent P = Proprietary optional	T7 GSE (order routing), MAX-ONE
			“A” = Agent (Client) “P” = Proprietary (bank´s own-account trading) “E” = Proprietary (intermediary´s own-account trading) optional	T7 GSE for contract notes
	AcctTypNo		Valid value: Only “1” will be accepted optional	T7 GSE Order, MAX-ONE
			“1” = proprietary trading, only possible with AcctTypCod="A" or “P” optional	T7 GSE for contract notes
8	BeginString		Valid values: FIX.4.2 FIX.4.4	
11	ClOrdID		String(16) must be unique for as long as the corresponding order is active 1. message: ClOrdID = ABC1234 2. message: ClOrdID = abc1234 -> double or already used	uniform across systems
12	Commission		Float(11,2) Negative sign possible	T7 GSE
21	HandlInst	I	Char “FIX.4.2” mandatory “FIX.4.4” optional *ignored*	uniform across systems
22	SecurityIDSource		Valid value: 4 = ISIN number	uniform across systems
33	LinesOfText	O	Valid value: Only “1” will be accepted Along with application level messages the values „1” or „2” are permitted.	uniform across systems
35	MsgType	I	Valid values: “0”, “1”, “2”, “4”, “5”, “A”, “D”, “F”, “G”, “AE” 4.2 sessions will accept “AE” instead of “UAR”	uniform across systems

Tag	Field Name	I/O	Restrictions/Values	Trading System
		O	Valid values: “0”, “1”, “2”, “3”, “4”, “5”, “8”, “9”, “A”, “B”, “j”, 4.2 sessions will accept “UAR” instead of “AR”	uniform across systems
37	OrderID		Integer Unique order number of the trading system (without leading zeros)	In the field (Tag 37 OrderID) of the ExecutionReport, an exchange-based T7 order number will be provided for each marketplace (XDUS, XHAM, XHAN) in future. The allocation of T7 order numbers corresponds to the existing procedure, which is also used in the FWB's T7 specialist model.
38	OrderQty		see Qty	uniform across systems
39	OrdStatus	O	Valid values: 0 = “New” 1 = “Partially filled” 2 = “Filled” 4 = “Cancelled” 6 = “Pending Cancel” 8 = “Rejected” A = “Pending New” C = “Expired” E = “Pending Replace”	T7 GSE, MAX-ONE
40	OrdType		Valid values: 1 = “Market” 2 = “Limit” 3 = “Stop” 4 = "Stop Limit"	T7 GSE
			1 = “Market” 2 = “Limit” 3 = “Stop” 4 = “Stop Limit”	MAX-ONE
44	Price		see Price	uniform across systems
55	Symbol	I	*ignored*	uniform across systems
		O	always set to “[N/A]”	uniform across systems
58	Text		Length is restricted to 24 Characters Text entries with a total length of 24 bytes are permitted in the TradeCaptureReport request (2 x 12 bytes for transfer to the T7 fields FreeText1 and FreeText2)	uniform across systems
59	TimeInForce		0 = “Day” 6 = “Good till Date”	T7 GSE
60	TransactTime	I	*ignored*	uniform across systems
98	EncryptMethod		Valid value: Only “0” will be accepted	uniform across systems
99	StopPx		see Price	uniform across systems
100	ExDestination		MIC Code XDUS, XHAN, XHAM, XMUN, XFRA	uniform across systems

Tag	Field Name	I/O	Restrictions/Values	Trading System
150	ExecType	O	0 = “New” 4 = “Cancelled” 5 = “Replace” 6 = “Pending Cancel” 8 = “Rejected” A = “Pending New” C = “Expired” E = “Pending Replace” F = “Trade”	T7 GSE, MAX-ONE
156	SettlCurrFxRateCalc		Valid value: D = “divide”	T7 GSE
283	LocationID	E	Is not yet used by the BT-FIX gateway.	
336	TradingSessionID		Valid value: 1 = Day	uniform across systems
447	PartyIDSource		Valid value: For TradeCaptureReportSno “D”, “N” and “B” will be accepted. Otherwise “D” and “P” will be accepted.	uniform across systems
448	<buyer seller> PartyID		In combination with PartyIDSource = D KVNr base data type is necessary KVNr (Buyer/Seller) must be permitted by T7 GSE	uniform across systems
448	<clearing firm> PartyID		KVNr base data type is necessary. KVNr (clearer) must be permitted by T7 GSE.	uniform across systems
448	<clearing organization> PartyID		KVNr base data type is necessary. KVNr must be permitted by T7 GSE	uniform across systems
448	<contra firm> PartyID		KVNr base data type is necessary. KVNr (counterpart) must be permitted by T7 GSE. Exception: in TradeCaptureReportSno the <contra firm> will be sent as KVNr and as LEI.	uniform across systems
448	<customer account> PartyID		KVNr base data type is necessary. KVNr (recipient of contract notes) must be permitted by T7 GSE.	uniform across systems
448	<entering firm> PartyID		In opposition to the FIX standard, this field is mandatory. KVNr base data type is necessary. KVNr must be party/customer of the delivered SenderCompID. If only one "Party" is delivered, all restrictions of the ExecutingFirm format must be fulfilled.	uniform across systems
448	<executing firm> PartyID		KVNr base data type is necessary.	
			KVNr must be permitted by T7 GSEwith an adequate userID	T7 GSE, MAX-ONE
448	<executing system> PartyID	O	String Possible values: "T7 GSE" "MAX-ONE"	T7 GSE, MAX-ONE
448	[MarketMaker] PartyID		Must be of data type KVNr	T7 GSE, MAX-ONE
448	<order origination trader> PartyID		String(6), trader ID	T7 GSE, MAX-ONE

Tag	Field Name	I/O	Restrictions/Values	Trading System
448	<session> PartyID		String(4), KVNr of originator	T7 GSE, MAX-ONE
448	<client identification code> PartyID		String(20), client identification code	T7 GSE, MAX-ONE
448	<Execution within firm> PartyID		String(20), Execution within firm	T7 GSE, MAX-ONE
448	<Investment Decision Maker> PartyID		String(20), Investment Decision Maker	T7 GSE, MAX-ONE
452	PartyRole		1 = “Executing Firm” 3 = „Client Identification Code“ 4 = “Clearing Firm” 7 = “Entering Firm” 10 = “SettlementLocation” 12 = “Execution within Firm” 11 = “Order Origination Trader” 16 = “Executing System” 17 = “Contra Firm” 21 = “Clearing Organization” 24 = “Customer Account” 27 = “Buyer Seller” 28 = “Custodian” 29 = “Intermediary” 30 = “Agent” 55 = “Session ID” 62 = “Report Originator” 66 = “Market Maker” 73 = “Execution Venue” 122 = „Investment Decision Maker“	
453	NoPartyIDs		Values 1 .. 6 are valid (Incoming messages)	uniform across systems
			Values 1 .. 7 are valid (Outgoing messages)	uniform across systems
487	TradeReportTransType		Valid value: “0” for TradeCaptureReport and TradeCaptureReportAck. “0” for TradeCaptureReportSno	T7 GSE
523	PartySubID	O	String(6) Last 6 digits of the T7 GSE UserID for <session>	T7 GSE, MAX-ONE
			[N/A] for <executing system>	uniform across systems
526	SecondaryClOrdID		String(16)	uniform across systems
553	Username		Only the FAGSE session ID from the T7 Member Section is permitted. The last 4 digits of the session ID correspond to the FIX main branch account number. See EnteringFirm (Tag 448)	uniform across systems
554	Password		String Only the generated password for the FAGSE session ID from the T7 Member Section is permitted	uniform across systems
625	TradingSessionSubID		Valid values: 6 = "Main auction" (KS - SAO – Special Auction)	T7 GSE
			Valid values: 6 = "Main auction" (KS - Kassa-Order)	MAX-ONE
751	TradeReportRejectReason		Valid value: 99 = “Other”	T7 GSE

Tag	Field Name	I/O	Restrictions/Values	Trading System
768	NoTrdRegTimestamps		Valid value: “1” for TradeCaptureReport “1” or “2” for TradeCaptureReportSno	uniform across systems
770	TrdRegTimestampType		Valid value: “1” for TradeCaptureReport “1” or “2” for TradeCaptureReportSno	uniform across systems
802	NoPartySubIDs	O	Missing or set to “1” (PartyRole 55)	uniform across systems
803	PartySubIDType	O	Will be set to “4040” (User Identifier) for PartyRole = 55 Will be set to “3” (System) for PartyRole = 16	uniform across systems
828	TrdType	O	OTC Post-trade indicator 9001 = ACTX (Agency cross transaction) 9002 = CANC (Cancellation) 9101 = ACTX CANC (Agency cross transaction and Cancellation)	T7 GSE, MAX-ONE
829	TrdSubType		See chapter 14 Appendix G: Possible Values Tag 829 TrdSubType (Record Type)	T7 GSE

14 Appendix G: Possible Values Tag 829 TrdSubType (Record Type)

TrdSubType	Description
9011	Buy – contract note
9012	Buy – direct trade
9021	Sell – contract note
9022	Sell – direct trade
9611	Same-day cancellation/Buy – contract note
9612	Same-day cancellation/Buy – direct trade
9621	Same-day cancellation/Sell – contract note
9622	Same-day cancellation/Sell – direct trade