



XONTRO Order
Xentric® Order S.W.I.F.T.

Financial Institutes

Technical Connection

Changes valid from 24th May 2021

Version: **5.56**

Update date: 02nd November 2020

Financial Institutes - Technical Connection (English)Version 5.56

	Content	Page
1	Introduction	1
1.1	General remarks	1
1.2	XONTRO – Connection to the XONTRO-Stock Exchanges	2
1.3	INVESTRO – Connection to the Fund Settlement System	3
1.4	Xentric Order S.W.I.F.T. – Connection to Xetra	4
1.5	Xentric Order Frankfurt 2 – Connection to Xetra Frankfurt 2	5
1.6	MAX-ONE – Connection to the Bavarian Stock exchange - Munich	6
1.7	Types of Connections	7
1.7.1	Decentralized Connection	7
1.7.2	Centralized Connection	8
2	Compilation of Message Transmission Conventions	9
2.1	Basic Message Structure	9
2.2	Message Types	11
2.3	Message Syntax	12
2.3.1	Restrictions in Length	12
2.3.2	Type of Valid Characters	12
2.3.3	Special Formats	12
2.3.4	ISO-Codes	13
2.3.5	Optional Subfields	13
2.3.6	Code-Words	13
2.3.7	Order Numbers	13
2.3.8	Division and Component Parts of the Fields	13
2.3.9	Mandatory and Optional Fields	14
2.3.10	Special features of the specific trading systems	14

Financial Institutes - Technical Connection (English)

Version 5.56

2.4	Message Structure	15
2.4.1	Block Structure	15
2.4.1.1	Description: Basic-Header	16
2.4.1.2	Description: Application Header	17
2.4.1.3	Text Block	19
2.4.1.4	End of the Message (Trailer)	19
2.4.2	Basic Structure of a S.W.I.F.T. Address	20
2.4.3	Sequence Numbers	20
2.4.3.1	Input Sequence Control (ISN: Input Sequence Number)	20
2.4.3.2	Output Sequence Control (OSN: Output Sequence Number)	21
2.4.3.3	Availability	21
2.5	Resend Functionality	22
3	Message Formats	23
3.1	System Messages	26
3.1.1	Registration (MT 000)	27
3.1.2	Log-on Confirmation, Password Changes and Changes of Message Extent (MT 001)	30
3.1.3	Logoff (MT 002)	32
3.1.4	Logoff Confirmation (MT 003)	33
3.1.5	Retrieval Requests (MT 020)	34
3.1.6	Response to Retrieval (MT 021)	36
3.2	Security-related Messages	37
3.2.1	Buy order / INVESTRO Buy order (MT 500)	37
3.2.2	Sell Order / INVESTRO Sell Order (MT 501)	52
3.2.3	Direct-Banking-Trade (OTC → MT 511)	66
3.2.4	Contract note (MT 512)	75
3.2.5	OTC Trade Report (MT 513)	77
3.2.6	Orders belonging to a contract note (MT 599)	80
3.2.7	Execution Confirmation for the Execution of a Funds Order (MT 515)	81
3.2.8	Execution Confirmation (MT 519)	84

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.9	Events in security transactions (MT 551)	94
3.2.10	Inquiry: Modification / Deletion / Cancellation / Trade reversal (MT 595)	107
3.2.11	Response (MT 596)	124
3.2.12	Overview of the fields and systems	132
3.2.12.1	MT 500 / MT501 (Buy order / Sell order)	132
3.2.12.2	MT 511 (direct (OTC) trades)	133
3.2.12.3	MT 513 (OTC Trade Report)	134
3.2.12.4	MT515 (Execution confirmation for funds order)	135
3.2.12.5	MT 519 (Execution confirmation)	135
3.2.12.6	MT 595 (Modification / deletion / cancellation / reversal)	136
3.2.12.7	MT 596 (Acknowledgement)	138
3.2.13	Message for personal use (MT 598)	139
4	Error messages	140
4.1	Errors in header / format errors	140
4.2	Errors within the message (Mnn)	140
4.3	Errors in text (Tnn)	140
4.4	Plausibility errors (Cnn)	141
4.5	Retrieval quota errors (Knn)	141
4.6	XONTRO – Error messages / comments	141
4.7	Xetra – error messages / comments	147
5	Examples of message transmission	149
5.1	Buy order (MT 500)	149
5.2	Sell order (MT501)	150
5.3	Execution confirmation (MT 519)	152
5.4	Event in security transactions (MT 551)	154

Financial Institutes - Technical Connection (English)

Version 5.56

5.4.1	Spot price notification	154
5.4.2	Suspension of price fixing for VW shares in Frankfurt	154
5.5	Special events (MT 551)	155
5.5.1	XONTRO end-of-accounting (BUS)	155
5.5.2	End of trading MAX-ONE	155
5.5.3	Preliminary SAKI End Message	156
5.5.4	SAKI-End Message	156
5.6	Inquiry (MT 595)	156
5.6.1	Order modification	156
5.6.2	Order deletion	158
5.7	Direct (OTC) trade (MT 511) / Cancellation and reversal (MT595)	159
5.7.1	Direct (OTC) trade entry	159
5.7.2	Direct (OTC) trade cancellation	159
5.7.3	Direct (OTC) trade reversal	160
5.8	OTC Trade Report (MT 513) / OTC Trade Report cancellation (MT 595)	161
5.8.1	OTC Trade Report entry	161
5.8.2	OTC Trade Report cancellation	161
5.9	Response (MT 596)	162
5.9.1	Confirmation of the order acceptance	162
5.9.2	Rejection due to data error	163
5.9.3	Confirmation of a modification	165
5.9.4	Confirmation of a deletion	166
5.9.5	Confirmation of a direct (OTC) trade	167
5.9.6	Confirmation of a direct (OTC) trade cancellation	167
5.9.7	Confirmation of a direct (OTC) trade reversal	168
5.9.8	Confirmation of an OTC Trade Report entry	168
5.9.9	Confirmation of an OTC Trade Report cancellation	169
5.10	Message for personal use (MT 598)	170
5.10.1	Logon	170

Financial Institutes - Technical Connection (English)Version 5.56

5.10.2	Logon confirmation	170
5.10.3	Acknowledgement of defective message by financial institute	171
5.10.4	Retrieval request, Start-OSN	171
5.10.5	Response to retrieval request	172
5.11	Contract note (MT 512) / Orders belonging to contract note (MT 599)	173
5.11.1	Contract note	173
5.11.2	Orders belonging to contract note	173
5.12	Execution confirmation for a funds order (MT 515)	173
5.12.1	Execution confirmation for Investro depository bank, if the order issuer is a Vestima+ participant	174
5.12.2	Execution confirmation for the Investro order issuer, if the OHA is a Vestima+ participant	175

Financial Institutes - Technical Connection (English)

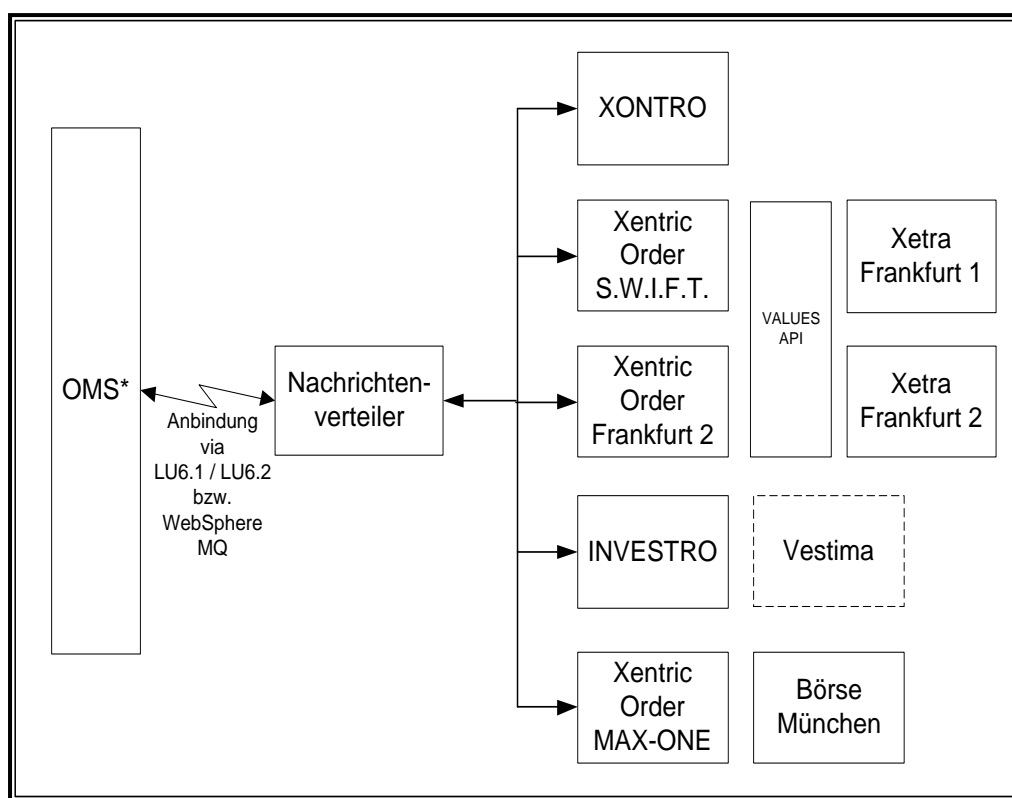
Version 5.56

1 Introduction

1.1 General remarks

This document describes the connection of an Order Management System to the XONTRO Trading System, to INVESTRO, to Xetra (Frankfurt 1 and Frankfurt 2) via Xentric^{®1} Order Routing System of the Deutsche Boerse AG and to MAX-ONE trading system of the Bavarian Stock Exchange - Munich.

The owner of the technical connection described in this document (including the message distributor) is BrainTrade Gesellschaft für Börsensysteme mbH, which provides the data for all downstream systems shown in the diagram below.



* OMS = Order management system (Front-End at bank)

¹ Xentric[®] is a registered trademark of Deutsche Boerse AG.

Financial Institutes - Technical Connection (English)

Version 5.56

1.2 **XONTRO – Connection to the XONTRO-Stock Exchanges**

Xontro has been used successfully at the FWB since December 1992; and, since September 1993, at all German stock exchanges. Market participants admitted are entitled to use XONTRO for their daily trading from 1:00 a.m. until 8:30 p.m.

In total, more than 150 financial institutes and their subsidiaries participate in XONTRO.

XONTRO is designed for all financial institutes and intermediaries who wish to participate in floor trading.

XONTRO Order

The XONTRO system connection for financial institutes offers professional order routing to the seven leading German stock exchanges (XONTRO stock exchanges).

After successful registration of their in-house Order Management System (OMS), the XONTRO system connection for financial institutes enables banks, which have been admitted to trade on their respective stock exchanges, to transmit orders and order informations (suspensions, changes and deletions) directly into the orderbook of the intermediary. Price fixing is supported by the electronic order book which the broker has at his disposal.

Every message content is acknowledged by the exchange system XONTRO. Beyond that, the participants' applications are informed about every order execution, too, via individual messages.

XONTRO Trade

The XONTRO system connection also enables financial institutes to enter trades electronically (PUEV and OTC trades), as well as cancellations and reversals of trades. These messages are forwarded onto XONTRO Trade.

The XONTRO trading system confirms each message it receives.

In order to ensure the consistency of the message flow on the participant's side, all messages sent to participant systems may be retrieved during the current trading day with the aid of a retrieval function.

If desired, the file transfers "Comparison of the Order Portfolio" and "File Historical Messages" may be transmitted to the participant after the end of the trading day.

Basic legal conditions for participants

Only those financial institutes that are admitted for trading, and which possess a valid CBF account at that location, are allowed to trade on the respective stock exchanges.

Financial Institutes - Technical Connection (English)

Version 5.56

1.3 INVESTRO – Connection to the Fund Settlement System

INVESTRO is the XONTRO fund settlement system. With INVESTRO, BrainTrade Gesellschaft fuer Boersensysteme mbH has extended the application range of it's core product - XONTRO.

Participating financial institutes may use INVESTRO weekdays (Clearing Calendar) from approx. 1:00 a.m. to 8:30 p.m.

The INVESTRO system connection is technically identical to the XONTRO system connection for financial institutes.

It enables the financial institutes to exchange order information data (entry, deletion and price fixing). The order information is forwarded to the receiving bank.

Those contract notes arising from the price fixings are in addition entitled to be received in realtime via the system connection for banks.

In order to ensure consistency of the message flow on the participant's side, all messages sent to participant's systems can be retrieved during the current trading day with the aid of the retrieval function.

If desired, the file-transfers "Comparison of the Order Portfolio" and "File Historical Messages" will be transmitted to the participant after the end of the trading day.

Depending on the acceptance deadline and price delivery of the respective instruments, open orders are tagged every half hour.

Basic legal conditions for participation

All financial institutes which are admitted as participants by BrainTrade, and which possess a valid CBF account, may participate in INVESTRO.

Along with the onset of the XONTRO Release 27, orders determined for the trading system Vestima+ may now be routed by INVESTRO participants, too. After the order execution has occurred by Vestima+, the INVESTRO order issuer receives an execution confirmation using the SWIFT format ISO 15022.

Likewise, Vestima+ order issuers may issue orders in instruments being traded in INVESTRO. After the order execution within a price fixing procedure has occurred, the INVESTRO depository bank receives a copy of the execution confirmation using the SWIFT format ISO 15022.

Note:

The message formats and field assignments described in this document are likewise valid for VESTIMA+. Deviations thereof, being valid for the message exchange with Vestima+ participation only, are specially flagged with "INVESTRO/VESTIMA+".

Financial Institutes - Technical Connection (English)

Version 5.56

1.4 Xentric Order S.W.I.F.T. – Connection to Xetra

Through Xentric Order S.W.I.F.T., Deutsche Boerse AG provides order routing to Xetra^{®1} via the interface (S.W.I.F.T.-Formats) described herein. Using this connection variant, Deutsche Boerse AG assumes operation of the Xetra MISS for the participant. Furthermore, the participant must acquire a license for the Xentric Order S.W.I.F.T. software from Deutsche Boerse AG.

Xentric Order offers professional order routing to the electronic trading systems of the Deutsche Boerse AG. It accepts messages from the bank's Order Management System from the system connection described in this handbook (S.W.I.F.T. formats; SNA network) and sends them to the Xetra[®] trading system. The replies received from the Xetra[®] Trading System are processed and forwarded via interface to the bank's Order Management System.

In order to ensure consistency of the message flow on the participant's side, all messages sent to participant systems from the stock exchanges may be retrieved during the current trading day with the aid of the retrieval function.

Basic conditions for participants

In order to participate on the Xetra stock exchange, a participant must meet the following requirements: Xetra membership and a Xetra Member ID. The CBF Konto (CBF Account) will be assigned to the Xetra Member ID.

The operation of the participant's Xetra MISS occurs in the data processing center of the Deutsche Boerse AG. Deutsche Boerse AG also licenses the Xentric Order S.W.I.F.T. product.

¹ Xetra[®] is a registered trademark of the Deutsche Boerse AG.

Financial Institutes - Technical Connection (English)

Version 5.56

1.5 Xentric Order Frankfurt 2 – Connection to Xetra Frankfurt 2

Deutsche Börse, via Xentric Order Frankfurt 2, offers an order routing option to Xetra Frankfurt 2, using the interface described in here (S.W.I.F.T. formats). Using this connection variant, Deutsche Börse AG assumes the Xetra MISS operation for the participant.

Xentric Order offers a professional order routing facility onto the electronic trading systems operated by Deutsche Börse AG. It accepts messages sent by the bank-internal order management system via the system connection as described in this handbook, and it then forwards these messages onto the trading system Xetra Frankfurt 2. Those response messages received from the trading system Xetra Frankfurt 2 will be processed and, via the interface, forwarded onto the bank-internal order management system.

In order to ensure the consistency of the message flow at the participant's side, all messages having been sent from the exchanges to the participants' systems may be recalled using the retrieval functionality during the current trading day.

General framework requirements for the participation

General prerequisites for the participation at the trading location Xetra Frankfurt 2 are the Xetra membership and the existence of a Xetra member ID. The CBF account number will be assigned to the Xetra member ID.

The participant's Xetra MISS will be operated at the Deutsche Börse AG data processing centre.

Note:

The message type formats and field assignments described for Xetra in what follows are likewise valid for Xetra Frankfurt 2.

Financial Institutes - Technical Connection (English)

Version 5.56

1.6 MAX-ONE – Connection to the Bavarian Stock exchange - Munich

The bank's Order Management System is able, via the interface (S.W.I.F.T.-Formats) described here and Xentric Order ETS, to transmit orders to MAX-ONE trading system of the Bavarian Stock exchange – Munich.

Replies received from the trading system are processed and forwarded via interface to the bank's Order Management System.

Furthermore, there exists an option to enter direct (OTC) bank trades (local as well as PUEV). These trades will also be forwarded onto XONTRO Trade.

The reception of contract notes is also possible.

To ensure consistency of the message flow on the participant's side, all messages sent from the stock exchanges to participant systems may be retrieved during the current trading day with the aid of the retrieval function.

Basic conditions for participants:

Membership on MAX-ONE and the existence of a CBF account at the Bavarian Exchange is a precondition for participation on the Bavarian Stock Exchange – Munich.

Financial Institutes - Technical Connection (English)

Version 5.56

1.7 Types of Connections

1.7.1 Decentralized Connection

Each CBF account of a financial institute is treated as an individual system connection. Messages for all branches (CBF accounts / stock exchange) can be exchanged from the data processing center. The same administrative connection may be used for all branches, including the central office. However, the following actions must be performed or complied with by each branch / central office (CBF account / stock exchange):

- Generation of sets of logical units (LUs; see technical connection / appendix)
- LOGON:
 - For each LTERM (sender / receiver): The bank must make a registration, marked by the CBF account.
 - For each LTERM: The bank receives a logon confirmation.
- LOGOFF:
 - For each LTERM (sender / receiver): The bank must perform a logoff, marked by the CBF account.
 - For each LTERM: The bank receives a logoff confirmation; for the last logoff (for each CBF account) the highest OSN assigned is stated, each time, for each CBF account.
- ISN/OSN-assignment:
 - The ISN/OSN assignment and examination occur, respectively, at Deutsche Boerse AG, as well as at the connected financial institutes for each branch or central office, i.e. for each CBF account.
- Nationwide valid event notifications (MT551) are created by CBF account, e.g.:
 - BOEND
 - NOT02
- User profiles are required for process control for each CBF account.
- S.W.I.F.T. address of message formats:
 - Each CBF account must have a unique S.W.I.F.T. address, indicated in the header.

Financial Institutes - Technical Connection (English)Version 5.56

1.7.2 Centralized Connection

The central office and all branches of a bank are treated as a single institute. It is necessary for the data exchange to occur via one data processing center. The following actions must be performed only once for the central office; and, as a result they become valid for all branches (stock exchanges / CBF accounts):

- Generation of a set of Logical-Units (LUs; cf. technical connection / appendix) for the central office
- LOGON:
 - For each LTERM (sender / receiver), only a registration for the central office is carried out, characterized by the central office's CBF account.
 - For each LTERM, the central office receives an application confirmation.
- LOGOFF:
 - For each LTERM (sender / receiver), a logoff characterized by the CBF account is carried out by the central office.
 - For each LTERM: The bank receives a logoff confirmation with the last logoff submitted by the central office. The highest OSN of the central office assigned for each security number range is stated.
- ISN/OSN assignment:
 - ISN/OSN assignment and validation are carried out for all branches only through a single security number range (security number range of the central office). A retrieval requirement for all of a branch's rates is not possible, because an ISN / OSN-assignment does not occur for each branch.
- Valid nation-wide event notifications (MT551) are transmitted a single time to the central office of the bank; examples:
 - BOEND
 - NOT02
- The user profile which is required for process control needs to be submitted a single time by the central office.
- S.W.I.F.T. address of message formats:
 - All messages contain the S.W.I.F.T. address of the central office in the header. The CBF account of the bank (central or branch office, respectively) is identified in the message formats MT500 / MT501 via field F:82D and MT595 in field F:75.

Note: File-Transfer may occur in decentralized as well as centralized connections.

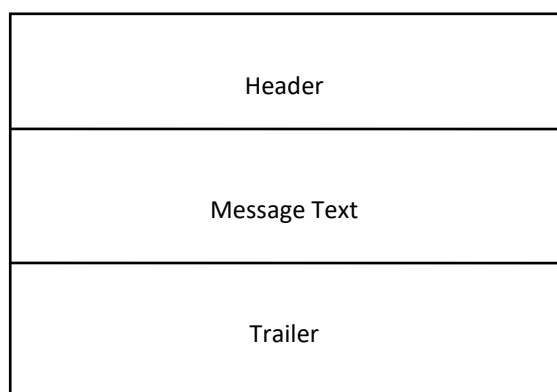
Financial Institutes - Technical Connection (English)

Version 5.56

2 Compilation of Message Transmission Conventions

The relevant conventions for message transmission are presented in this section. The messages are composed in a format similar to the S.W.I.F.T. format.

2.1 Basic Message Structure



When used together, the header and trailer form the "envelope" of a message.

The single fields are separated with control characters (field separator):

- | | | |
|-------------------------------|---------|----------------|
| • Start of Message | = SOH | (Hex '01') |
| • Field Separator within Text | = CrLf: | (Hex '0D257A') |
| • End of Text | = CrLf- | (Hex '0D2560') |
| • End of Message | = ETX | (Hex '03') |
| • New Line | = CrLf | (Hex '0D25') |

Financial Institutes - Technical Connection (English)

Version 5.56

The fields in the message text begin with a Tag, followed by a ":"

Colon	=	Delimiter of Tag
New line + colon	=	Limit of Field Each field begins with a colon
Hyphen	=	End of the text

The colon or hyphen are not allowed to be used as the first sign in a line.

The Header contains the destination and the address from which the message was sent, the consecutive number, the message type, and the priority.

The Message Text consists of a series of fields that are subject to certain conventions. Subfields are marked by slash(es) (/, //).

In accordance with the message types, the text may consist of a closed block or several sections. Some sections may appear more than once within a message (sequence). However, the maximum length of 2000 characters must not be exceeded.

The Trailer portion of the message need not be completed.

Financial Institutes - Technical Connection (English)

Version 5.56

2.2 Message Types

Each message is clearly specified by the Message Type. The **Message Type** consists of three digits.

Message Type	Meaning
500	Buy order / INVESTRO Buy order
501	Sell order / INVESTRO Sell order
511	Direct (OTC) trade (between financial institutes only)
512	Contract note
513	OTC Trade Report
515	Execution confirmation along with Vestima+ participation (using ISO-SWIFT format 15022
519	Execution confirmation
551	Message describing an event
595	Inquiry: changes / deletion (order / INVESTRO order) / cancellation / trade reversal
596	Response
598	Message for proprietary / personal application
599	Order reference(s) belonging to a contract note

Financial Institutes - Technical Connection (English)

Version 5.56

2.3 Message Syntax

2.3.1 Restrictions in Length

nn	maximum length
nn-nn	minimum and maximum length
<u>nn</u>	fixed length
nn*nn	maximum number of lines times maximum line length

2.3.2 Type of Valid Characters

n	only digits
a	only letters
c	only letters and digits
b	only spaces
x	any character from the permitted character reserve including blanks: a ... z A ... Z 0 ... 9 special characters: / - ? : () . , ' + \$ % & (only valid for the F35B security brief description subfield)

Note: Non capital letters will be transformed into capitals by the order transmission system

2.3.3 Special Formats

<u>gn</u>	Date according to the ISO standard (YYMMDD)
nn....n,	Values (e.g: amounts / sums)

Financial Institutes - Technical Connection (English)

Version 5.56

2.3.4 ISO-Codes

e.g: currency code (EUR, USD)

2.3.5 Optional Subfields

Optional subfields appear included in [...]s

2.3.6 Code-Words

e.g. ISIN, DWZ-USER, ...

2.3.7 Order Numbers

A slash "/" is not permitted as the first or last character in a field; nor are two slashes, which directly follow each other "//", permitted within the field.

2.3.8 Division and Component Parts of the Fields

The fields are divided into groups that are labelled by the first character of the tag.

Financial Institutes - Technical Connection (English)

Version 5.56

2.3.9 Mandatory and Optional Fields

Each type of message format is distinguished by a number of fields of fixed and variable length. They can be mandatory or optional.

O = Optional

M = Mandatory

A mandatory field is always required.

The field must conform to the specifications given. A field which is not permissible, or a field that does not appear in a format description for a single type, must never occur.

2.3.10 Special features of the specific trading systems

Fields which are relevant for the specific trading systems are listed in a table in the message formats chapter.

During input, special characters in text fields or in the field Bank internal order number will be converted into the character "?" by a front-end application.

Financial Institutes - Technical Connection (English)

Version 5.56

2.4 Message Structure

2.4.1 Block Structure

Transactions (messages) consist of a maximum of five blocks:

MESSAGE	BASIC HEADER
	APPLICATION HEADER
	TEXT
	[TRAILER]
	([] = optional)

Main blocks begin with a label consisting of a digit followed by a colon:

1:	=	Basic Header
2:	=	Application Header
4:	=	Text Block
5:	=	Trailer Block

The basic header, the application header and the textblock are mandatory blocks. Each block of a message begins and ends with a bracket '{' and '}' (HEX 'C0' bzw. HEX 'D0').

Each message is transmitted as a consecutive chain of characters.

Financial Institutes - Technical Connection (English)

Version 5.56

2.4.1.1 Description: Basic-Header

Block label / mark	=	1:	
Application identifier	=	F	
Identifier entity	=	01	
S.W.I.F.T. address	=	<u>4a2a2c1c3c</u>	
		Input messages:	S.W.I.F.T.-Address of sender
		Output messages:	S.W.I.F.T.-Address of receiver
Session number	=	0000	
		Input messages:	Not relevant
		Output messages:	Overflow for OSN-areas
Sequence number	=	<u>6n</u>	
		ISN / OSN	

Example: {1:F01BANKDEFFAXX0000123456}

Financial Institutes - Technical Connection (English)

Version 5.56

2.4.1.2 Description: Application Header

Block label	=	2:
Label for	=	<u>1a</u> In- / Output I for Input (Bank → System) O for Output (System → Bank)
Transaction Type	=	<u>3n</u> Message Type
<i>Only for input:</i>		
Destination address	=	<u>4a2a2c1c3c</u> S.W.I.F.T. address of recipient
Priority	=	N S for System U for Urgent N for Normal (not relevant for order transmission system)
Monitoring of delivery	=	2 1 Warning message for non-delivery 2 Delivery message 3 Both 1 and 2 (not relevant for order transmission system)
Overdue period	=	005 5 Min units (not relevant for order transmission system)

Example: Application header (Input) {2:I500DWZXDEFFABOSN2005}

Financial Institutes - Technical Connection (English)Version 5.56

Only for output:

Time of input	=	HHMM
Input reference	=	Input date (YYMMDD) S.W.I.F.T. address of sender Session number ISN of referred input message or '000000' respectively
Output date	=	YYMMDD
Output time	=	HHMM
Priority	=	N S for System U for Urgent N for Normal (not relevant for the order transmission system)

Example: Application header (output)

{2:O5961200010430DWZXDEFFABOS00001234560104301201N}

Financial Institutes - Technical Connection (English)

Version 5.56

2.4.1.3 Text Block

See Chapter 3 Message Formats.

2.4.1.4 End of the Message (Trailer)

The trailer consists of a series of trailer components. One trailer component consists of a three-digit identifier which is followed by (optional) information about it's cause.

The order transmission system reads over all trailer information with the exception of the TNG trailer (Training). Messages with the TNG-Trailer are checked and confirmed (MT596; DWZ order number = 000000000000) by the Deutsche Boerse AG; however, they are not stored in the system. Response messages to training messages are also written into the exit database with the TNG trailer. However, all other messages are written without the Trailer block.

Therefore, checks of the lines and checks of the format examination routines are always possible while the system is running.

XONTRO: This function does not exist for direct (OTC) trades, and neither for cancellations and trade reversals (between financial institutes).

Xetra: This function does not exist in Xetra.

MAX-ONE: This function does not exist in MAX-ONE.

Example: End of the Message (Trailer)

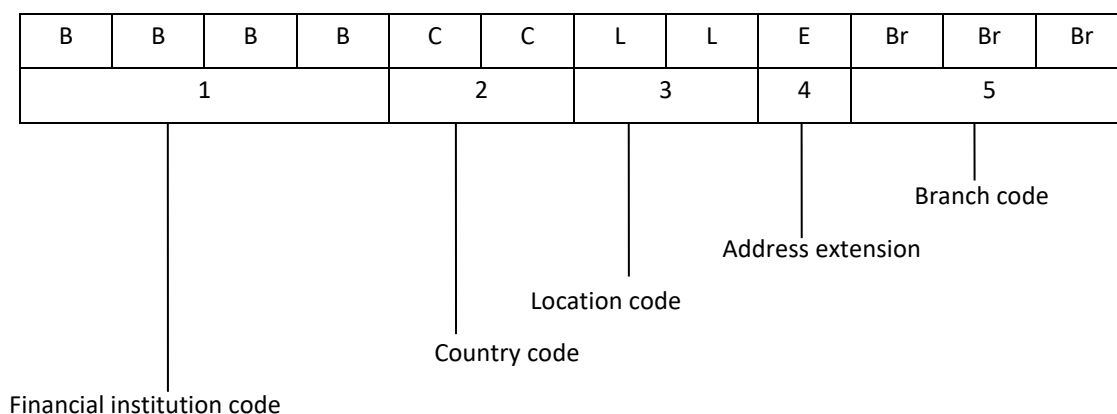
{5:{TNG:}}

Financial Institutes - Technical Connection (English)

Version 5.56

2.4.2 Basic Structure of a S.W.I.F.T. Address

The S.W.I.F.T. address consists of the following subfields:



The address extension contains the type of transfer for the stock exchange system.

Possible values:

DWZXDEFFA	XXX	=	Computer-Computer-Connection
DWZXDEFFB	XXX	=	File transfer
DWZX		=	Adress code of Deutsche Boerse AG
	XXX	=	BOS: XONTRO (formerly BOSS-CUBE)

2.4.3 Sequence Numbers

2.4.3.1 Input Sequence Control (ISN: Input Sequence Number)

Each message sent by the bank must contain an Input-Sequence-Number (ISN), that is assigned by the bank and which must be unique during each day.

In the event of connection malfunctions the bank must re-send the messages, using the same Input-Sequence-Numbers, that were not acknowledged by the Deutsche Boerse AG. Deutsche Boerse AG ensures that messages with the same Input-Sequence-Numbers are processed and acknowledged only once.

Any message having been flagged as "Resend / Possibly Duplicate" (cf. MT500/MT501) must be sent using a new, unique ISN and order data identical to the original order.

Financial Institutes - Technical Connection (English)Version 5.56

2.4.3.2 Output Sequence Control (OSN: Output Sequence Number)

Each message (sent from XONTRO, Xetra, INVESTRO and MAX-ONE into the exit database and transferred to the bank or placed ready for transfer respectively), contains a unique and consecutive number (OSN) that is assigned each day by Deutsche Boerse AG for each bank. The bank must ensure that each unique OSN is processed only once, because, e.g. after malfunctions, messages might be sent twice by the Deutsche Boerse AG (same OSN).

Double messages must be ignored by the bank. When several receiving LTERMs are in use, the messages may not necessarily arrive in a consecutive series of OSNs on the financial institutes' side.

Deutsche Boerse AG assigns the OSN for each bank in three different sets of numbers:

Acknowledgements of orders and registrations	(000001 to 299999)
Events / Execution Confirmations	(300001 to 599999)
Acknowledgements of direct (OTC) trades, cancellations and trade reversals;	(600001 to 999999)
Contract notes and orders belonging to contract notes	

At the end of the trading day, the bank must have a complete sequence for each set of sequence number ranges for the messages that were received during that day.

In case of a sequence number range overflow, the first value (of the set of security numbers on hand) will be used to continue the series and the highest field session number will be used in the BASIC-Header. Retrieval requirements are not currently possible for these overflow areas.

2.4.3.3 Availability

At present, the system connection for financial institutes is available at exchange business days from approx. 01:00 a.m.

The individual trading systems transmit an appropriate event notification at the end of the exchange trading day. At present, the system connection for banks remains available for another 5 minutes after the reception of the final event notification. After this point, no more messages should be transmitted from the bank to the system.

Within the end-of-day-processing that follows thereafter, the event notification "SAKI-ENDE" (SAKI-END) is distributed (cf. chapter 3.2.9), and the sequence numbers (OSNs) will be reset to their initial value by the system.

Financial Institutes - Technical Connection (English)

Version 5.56

2.5 Resend Functionality

By means of the “resend” functionality the SAKI users will be enabled to repeatedly send an order entry request again that has already been sent in the past, in case no response message has yet been received by the order issuer along with the original order entry. This feature will exclusively be available for the MTs 500/501 (Bank to System), for orders to be sent to Xetra.

The “resend” message contains order data identical to the original MT500/501. In addition, within the Tag 23, the subfield “Automatic delivery release” will have to be filled with a “D” (for “Duplicate”). The bank-internal order number must be filled and, in combination with the order attributes, be unique. The ISN must be new and unique.

An order entry resend may be sent repeatedly. Along with the resend functionality usage, it is guaranteed that every individual order will be inserted into the trading system only once.

In case the original order cannot be matched up with a resend unambiguously, then the resend message is rejected using the error code XK0050F “Order data not unique for resend message”.

The response to a resend will be referenced using the ISN of the resend message. Any order confirmation possibly still outstanding for the original order is transferred, together with the ISN of the original MT500/501, in the field “entry reference” of the application header.

Financial Institutes - Technical Connection (English)

Version 5.56

3 Message Formats

The following table shows all defined order routing Message Types for all trading systems.

(1) From financial institutes to System

(1.1) Program connection (LU 6.1 / LU 6.2)

- (1.1.1) Logon to System (MT000)
- (1.1.2) Password Changes (MT001)
- (1.1.3) Changes in Message Extent (MT001)
- (1.1.4) Logoff from System (MT002)
- (1.1.5) Retrieval Requests (MT020)
- (1.1.6) Orders (MT500 / MT501)
- (1.1.7) Entry of Direct (OTC) Trades (MT511)
- (1.1.8) Change / Deletion of Orders, Cancellations, and Trade Reversals of Direct (OTC) Trades (MT595)
- (1.1.9) Acknowledgement of Defective Messages (MT021)

Comment:

On the Deutsche Boerse AG side, the recipient transaction code for all Message Types is:

BC\$nnnnA (nnnn = CBF account of bank)

(2) From System to financial institutes:

(2.1) Program connection (LU 6.1 / LU 6.2)

- (2.1.1) Logon confirmation (MT001)
- (2.1.2) Confirmation of password changes (MT001)
- (2.1.3) Confirmation of changes in message extent (MT001)
- (2.1.4) Logoff confirmation (MT003)
- (2.1.5) Confirmation of Retrieval Requests (MT021)
- (2.1.6) Confirmation or error message for electronically transmitted or placed orders, order changes, or order deletions, as well as entries, cancellations, and reversals of direct (OTC) trades (MT596)

Comment: A detailed description of error messages follows in section 4.

Financial Institutes - Technical Connection (English)

Version 5.56

- (2.1.7) Transmission / Recording of all order entries (MT500 / MT501), changes and deletions (MT595) that were entered into XONTRO via terminal entries by financial institutes or by brokers.
 Transmission / Recording of all order entries (MT500 / MT501), changes and deletions (MT595) that were entered into Xetra through a VALUES based front end application (with an order routing Trader-ID).
 Transmission / Recording of all INVESTRO order entries (MT500 / MT501), and order deletions (MT595), that were entered by the bank via terminal into the system.
 Transmission / Recording of all order entries (MT500 / MT501), changes and deletions (MT595) that were entered into MAX-ONE via a front end application.
- (2.1.8) Execution confirmations for funds' orders along with a Vestima+ participation (MT515)
- (2.1.9) Execution confirmations (MT519)
- (2.1.10) Execution confirmations on instrument level for spot price determination (only "paid / bz" prices) (MT551)
- (2.1.11) Order changes / deletions by the system
- on instrument level (MT551)
 - on individual order level (MT595)
- (2.1.12) Event notifications (MT551)
- Insertion, change and cancellation of a price-fixing
 - General Information
 - Interruption and release of exchange trading session
 - Change of trading hours
 - Malfunction due to technical problems
 - Restart of normal operations after a malfunction
 - Trading interruption for a specific instrument
- (2.1.13) Contract notes (MT512) and Orders belonging to contract notes (MT599)

Comment:

- Recipient transaction codes for financial institutes with LU6.1- Connection and IMS:
 - BC01nnnn ... BC04nnnn (nnnn = CBF account)
- Recipient transaction codes for financial institutes with LU6.1- Connection and CICS:
 - BC01 ... BC04
- Assignment of messages to transaction codes:
 - BC01nnnn or BC01: 2.1.1.; 2.1.2.; 2.1.3.; 2.1.4.; 2.1.5.
 - BC02nnnn or BC02: 2.1.6.; 2.1.7.
 - BC03nnnn or BC03: 2.1.8.; 2.1.9., 2.1.10., 2.1.13.
 - BC04nnnn or BC04: 2.1.11; 2.1.12.
- Recipient transaction codes for financial institutes with LU6.2- Connection
 - BC01
- For banks using an IBM WebSphere MQ connection, there are no recipient transaction codes existent

Financial Institutes - Technical Connection (English)

Version 5.56

(2.2) File-Transfer

(2.2.1) Portfolio comparison (XONTRO, INVESTRO and MAX-ONE / but not Xetra):

Contains all orders still to be executed by XONTRO and MAX-ONE as well as INVESTRO orders for control purposes (MT500 / MT501) and following rates which are correlated to them (MT596). In addition, it also contains all orders (MT500 / MT501) that have been cancelled during the End-of-day-processing due to suspension of the price-fixing; as well as the following rates which are correlated with them (MT596).

Xetra: A portfolio comparison can be carried out via customer's own MISS using the reports (and the information they contain).

(2.2.2) Historical Messages:

If the connection between Bank and Deutsche Boerse AG is interrupted until the end of the online session, a FT / data carrier with the day's messages can be requested by telephone from the Deutsche Boerse AG (+49 – (0)69 – 211 – 11000)

(2.2.3) Contract notes data carrier from XONTRO Trade:

Contains trade confirmations and contract notes (MT512) as well as orders belonging to contract notes (MT599)

The individual Message Types are described as follows:

Comment:

- (1) The structure of the individual Message Types is identical for program connection and file transfer.
- (2) For File-Transfers the file to be transmitted is to be structured as follows:
 - Telecommunication header record (MT000 or MT598)
 - 1. Data set
 - 2. Data set
 - ...
 - n. Data set
 - Telecommunication end record (MT002 or MT598)

Financial Institutes - Technical Connection (English)

Version 5.56

3.1 System Messages

The system messages are embedded in the MT598.

Since the system messages described below are represented as a text string, the formats can be individually modified according to the needs of Deutsche Boerse AG. This is valid for the transaction code, e.g., or other descriptions of the User-ID. However, the total length of 73x must not be exceeded.

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.1 Registration (MT 000)

Originator:	User (Bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)	
Bank:	<p>The logical terminal (LTERM) identifies itself to the System of Deutsche Boerse AG. Upon registration of the recipient LTERM, the size of the message exchange for the corresponding LTERM is defined. This size can be modified through MT001. The bank can send further messages to the system or receive messages from the system only after successful registration.</p> <p>Exception: Password changes and Retrieval are possible without previous Registration.</p>	
System:	Telecommunication header record for File-Transfers	
Format:	10x/[8x1a]/[5a]/[6n6n]/	
Content:	<p>User-ID, 10x</p> <p>for File-Transfer = "BOSSnnn":</p> <p>User identifier ("BOSS")</p> <p>GV-Code</p> <ul style="list-style-type: none"> – 011 Comparison of the Order Portfolio – 016 Historical messages (from Initial OSN) <p>Password (not applicable for File transfer) /[8x</p> <p>Sender / recipient flag (not for File transfer) 1a]</p> <p>S: Bank sends messages via corresponding LTERM</p> <p>E: Bank receives messages via corresponding LTERM</p> <p>Size of message exchange: (not for File transfer; only for registration by Bank and Sender / Recipient flag = 'E') /[5a]</p> <ul style="list-style-type: none"> 1. Digit: Confirmation of order transmission Y/N/D 2. Digit: Execution confirmation Y/N/D 3. Digit: Event notification Y/N/D <li style="padding-left: 20px;">This field is not relevant for Xetra. <li style="padding-left: 20px;">This field is not relevant for INVESTRO. <li style="padding-left: 20px;">This field is not relevant for MAX-ONE. 4. Digit: Modification of the Order Portfolio Y/N/D <li style="padding-left: 20px;">due to ancillary rights <li style="padding-left: 20px;">This field is not relevant for Xetra. <li style="padding-left: 20px;">This field is not relevant for INVESTRO. 	

Financial Institutes - Technical Connection (English)

Version 5.56

5. Digit:	XONTRO: Transmission of entries via terminal	Y/N/D
	Xetra: Entry via VALUES-based front end application	
	INVESTRO: Transmission of entries via terminal	
	MAX-ONE: Transmission of entries via front end application and terminal	
(D)Default:	User-Profile (requires written notification before application date).	

Generally and independent of the bank individual parameter settings, the financial institutes will be notified of the event '**Service malfunction**' even though it is not defined in the default user profile (see application description).

The contract notes reception mode (MT512, MT599) may neither be modified using the message exchange scope settings.

All messages in the user profile that begin with '**INFO...**' are combined under the '**Event notification**' parameter.

Date of preparation (YYMMDD)

/[6n]

Only for File transfer:

The portfolio comparison is prepared at the end of the trading day and always contains the date of the completed trading day, even if the data carrier is prepared on the following day.

Time of preparation (HHMMSS)

6n]/

Only for File transfer

Financial Institutes - Technical Connection (English)

Version 5.56

Concerning Registration:

The bank must send one registration for each LTERM.

A registration via two LTERMs (LUs) is recommended for each bank:

- one LTERM for sending messages (max. 4 LTERMS possible)
- one LTERM for receiving messages (max. 4 LTERMS possible)

Comment: Acknowledgements of the Registration / Logoff / Password Changes / Change of Message Extent and Retrieval Requests (MT0NN) are sent via the LTERM that performed the Inquiry (as well as via the sending-LTERM).

The registration is carried out by entering the User-ID and PASSWORD. Registration with the same User-ID to both LTERMs is possible. For each bank, one authorized User-ID should be defined in order to send messages via Program-Program-Connection.

The User-ID including authorization can be implemented by the bank's security administrator via entry into the bank's terminal.

An initial password is assigned to facilitate the installation of a User-ID. This initial password must be changed **prior to** the first Registration using the User-ID (MT001). The PASSWORD is only valid for a specific period of time (**currently one month**). After expiration of this period, registration with this initial password is rejected with the comment BC1230F: 'PASSWORT ABGELAUFEN' (password expired). A valid registration is only possible after the password has been changed.

Further information may be obtained from the security system description of the Deutsche Boerse AG.

Messages arriving from financial institutes without a previously valid registration will be rejected and the financial institutes will be notified with error message: BC1330F.

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.2 Log-on Confirmation, Password Changes and Changes of Message Extent (MT 001)

Originator:	User (Bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)		
Bank:	(1) Changes of password: The system demands that the user change the password in cyclical spans. A change of the password is possible without a previously valid log-on to the system. (2) Change of message extent: The size specified in the log-on can be modified here.		
System:	(1) Confirmation/Rejection of log-on (MT000) (2) Confirmation/Rejection of password changes (MT001) (3) Confirmation/Rejection of message extent changes (MT001)		
Format:	[10x]/[8x][1a]/[8x]/[5a]/3n/[3x7x]		
Content:	User-ID, Old password, Sender/Recipient flag (compare MT000) (only for GV-Code = 102; 001; 002; 005; 006) New Password Size of message transfer (only possible for receiving-LTERM; see MT000), Default: Retain current status Transaction code from bank to system: 101 Password changes 102 Change message extent Transaction code from System-to-Bank 001 Log-on accepted 002 Log-on rejected 003 Password change accepted 004 Password change rejected 005 Changes size of message accepted 006 Changes size of message rejected 007 Invalid Message Type (MT) or Transaction code Error code: Field tag, Error comment (see Error comment)	10x /[8x] [1a] /[8x] /[5a] /3n /3x7x	

Note:

The messages that are sent to the financial institutes as defined here always contain the data fields delivered by the bank (e.g. User-ID, size of message exchange) including transaction code and error code, if applicable. Exception: GV-Code = 007 or data fields in S.W.I.F.T.-Message not identifiable.

Financial Institutes - Technical Connection (English)

Version 5.56

The field old password and in case of password change the new password will be send back to the bank anonymized. The password will be made irrerecognizable with XXXXXXXX. It's not allowed to use these both fields of the system response for the case of analysis.

Comment:

The messages that are sent to the financial institutes as defined here always contain the data fields delivered by the bank (e.g. User-ID, old password new password, size of message exchange) including transaction code and error code, if applicable. Exception: GV-Code = 007 or data fields in S.W.I.F.T.-Message not identifiable.

The acknowledge messages to logon (MT000), password change (MT001) and change of message extent (MT001) are re-transmitted using the identical LTERM that was used for the respective request transmisson (i.e. using the "sender" LTERM, too).

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.3 Logoff (MT 002)

Originator:	User (Bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)		
Bank:	Logoff of logical terminal (LTERM) from System.		
Systems:	End of telecommunication record for File-Transfers		
Format:	10x/[<u>6</u> n]		
Content:	User-ID		10x
	for File-Transfer: "BOSS" (application identifier)		
	only for File-Transfer:		
	Number of rates transferred (including pre- and post-rates)		/[<u>6</u> n]
Comment:	financial institutes with LU6.2- Connection: The first logoff will logoff the Sender-LTERM, the second one will logoff the bank's recipient-LTERM.		

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.4 Logoff Confirmation (MT 003)

Originator:	Systems (XONTRO, Xetra, INVESTRO and MAX-ONE)	
Systems:	Confirmation of logoff (MT002) by the system or automatic logoff by the system.	
Format:	10x/ <u>6</u> n/ <u>3</u> n/[<u>6</u> n]/[<u>6</u> n]/[<u>3</u> x7x]	
Content:	<div> <div>User-ID</div> <div>Time</div> <div>Transaction code:</div> <div> <div>021</div> <div>Logoff accepted</div> </div> <div> <div>022</div> <div>Logoff rejected</div> </div> <div> <div>023</div> <div>Automatic logoff; order acceptance not possible due to technical problems</div> </div> <div> <div>last OSN of the 2nd security number range</div> <div>(Events / Execution confirmations)</div> </div> <div> <div>last OSN of the 3rd security number range</div> <div>(Contract notes, direct bank (OTC) trades)</div> </div> <div> <div>Error code:</div> <div>Fieldtag, Error comment (see Section Error comment)</div> </div> </div>	<div>10x</div> <div>/6n</div> <div>/3n</div> <div>/[6n]</div> <div>/[6n]</div> <div>/[3x7x]</div>

Comment:

The last OSN assigned by the Deutsche Boerse AG for order acknowledgement reports / System report (1st. security number range) is always the OSN for the logoff confirmation.

The last OSN of the 2nd and 3rd security number ranges, respectively are only filled for the logoff confirmation of the last (if several LTERMs are valid) Bank-recipient-LTERM with GV-Code = 021 or 023.

The acknowledge message to a logoff (MT002) is re-transmitted using the identical LTERM that was used for the respective request transmisson (i.e. using the "sender" LTERM, too).

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.5 Retrieval Requests (MT 020)

Originator: User (Bank)

Function (Bank): Requests for messages sent on the same day with a specific OSN (Output-Sequence-Number). Independent of a performed logon, all messages the bank is entitled to (according to the corresponding User-Profile) will be supplied in an exit database. The bank can request all accrued messages about this Message Type (such as late logon, bank system failures, etc.). On the basis of this request, only messages that were given in the message extent during logon will be sent. The number of messages in a transmitted message block is limited to 5000 messages per request. If necessary, the bank may submit additional requests for additional missing messages.

Since the OSN is assigned for three different security numbers, a retrieval request is required for each sequence number (i.e. for requests starting with OSN = 17 no messages from the sequence number beginning with 300001 will be transmitted).

A request of messages is possible until at last 30 minutes after compilation of the next BOEND (XONTRO-end close of accounting) and until the online-end. If the bank is not in the position to receive messages up to this point a data carrier with the corresponding information can be requested (File-Transfer Historical Messages: See MT000/GV-Code = 016).

MT 020 Retrieval Request			
O / M	Block	Block description	Format
O	153:	Starting OSN	<u>6</u> n
O	254:	Starting reference / End reference	<u>28</u> c <u>28</u> c

Financial Institutes - Technical Connection (English)Version 5.56

Rule: The delivery of one of the described blocks is mandatory.

Block 153 (Initial OSN)

Along with a retrieval request via Block 153 (Initial OSN), all messages which are present up to the point of request will be transmitted starting with the requested OSN. Messages that are generated between the time of the receipt of the retrieval request and the transmission of the message block, will be transmitted immediately.

Block 254 (Beginning reference / End reference)

Retrieval requests can be requested via Block 254 for a connected range of OSNs (from OSN, to OSN).

Reference structure:

Issue date	(YYMMDD)	<u>6n</u>
Recipient-LT	(according to Header)	<u>12c</u>
Session-No.	(according to Header)	<u>4n</u>
OSN		<u>6n</u>

(The fields: Issue date, Recipient LT, Session No. will not be checked by the order transmission system).

Comment:

The messages having been requested for are re-transmitted using the identical LTERM that was used for the respective request transmission (i.e. using the "sender" LTERM, too).

Financial Institutes - Technical Connection (English)

Version 5.56

3.1.6 Response to Retrieval (MT 021)

Originator: User (Bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)

Bank: Feedback notice regarding defective transmissions by Deutsche Boerse AG.

System: (1) Response to retrieval requests (MT020).
(2) Beginning / End notification of message transmission

MT 021 Retrieval-Response			
O / M	Block	Block description	Format
O	---	Original Header	
O	---	Original text	
O	421:	Error code / Comment code ANF - Beginning of message transmission END - End of message transmission all error comments	<u>3</u> c

Rule: The retrieval request (MT020) is treated as follows:

If the message has been formatted correctly (MT020), the bank will receive a confirmation of the request transmission (MT021).

If no retrieval messages correspond to the request (MT020), a confirmation of the request will merely be transmitted (MT021 / Block 421:END).

If retrieval messages are present, a confirmation will be sent (MT021 / Block 421:ANF), then the requested retrieval messages will be transmitted (MT5xx). A corresponding end report will complete the message transmission (MT021 / Block 421:END).

The complete message block, as well as the retrieval confirmations (MT021), will be sent via the same LU (LTERM), on which the request was received (MT020) at Deutsche Boerse AG.

Block 421: All defined error comments may be used by the bank for the feedback report of defective transmissions.

Financial Institutes - Technical Connection (English)Version 5.56

3.2 Security-related Messages**3.2.1 Buy order / INVESTRO Buy order (MT 500)**

Originator:	User (Bank) and Systems (XONTRO, Xetra, INVESTRO, Vestima+ and MAX-ONE)
Bank:	<p>(1) Transmission of buy orders</p> <p>A temporary message (MT596) follows the placement of an order during a continuous price determination in XONTRO or during a Order book balancing in Xetra or in MAX-ONE during the period between the price determination and order execution. The order will be pre-entered into the system and after de-freezing the Order Book or after termination of the Order book balancing, it will automatically be processed. The bank will receive a further message (MT596) in which order acceptance or rejection including the time of definite approval/rejection will be reported.</p> <p>(2) Transmission of INVESTRO Buy order. Along with buy orders having been transmitted from INVESTRO onto the Vestima+ trading system, the bank only receives a preliminary message (MT596). After the response from Vestima+ has arrived, the bank receives a final message (MT596), in which the order acceptance or rejection is included.</p>
XONTRO:	<p>(1) Transmission/Reporting of buy orders that bank or broker entered into the system via a Terminal.</p> <p>(2) For control purposes: Transmission of all buy orders still to be executed and all buy orders cancelled due to suspension of the price-fixing in the end-of-day-processing (Comparison of the Order Portfolio). This transmission occurs via file-transfer only.</p> <p>(3) Transmission / Reporting of buy orders having been entered by a trading member and forwarded to the settlement bank (in trading locations where this "role split" is possible, e.g. in Stuttgart).</p> <p>(4) Transmission of all buy orders still executable, as well as all buy orders of a trading member that have been cancelled due to suspension of price fixing during End-of-day-processing, for comparison purposes of the Order Portfolio. This transmission occurs via file-transfer only.</p>
Xetra:	<p>(1) Transmission of all buy orders that were entered via a VALUES-based Front-end application (emergency procedure). Comment: Logging into a VALUES-based front end application requires an order routing Trader-ID.</p> <p>(2) Transmission of all buy orders that were entered "on behalf" of the trader (e.g. by Market Supervision).</p>

Financial Institutes - Technical Connection (English)

Version 5.56

- INVESTRO:
- (1) For control purposes: Transmission of all INVESTRO buy orders still to be executed and all INVESTRO buy orders cancelled due to suspension of the price-fixing in End-of-day-processing (Comparison of the Order Portfolio). This transmission occurs via file-transfer only.
 - (2) Transmission of INVESTRO buy orders to the recipient bank. Buy orders for instruments being traded in the Vestima+ trading system are transferred from INVESTRO onto Vestima+ if no other depository bank has been entered as the recipient.
 - (3) Transmission of INVESTRO buy orders entered by the bank via Terminal to the ordering as well as to the recipient bank.
- MAX-ONE:
- (1) Transmission/Recording of buy orders that the bank or specialist entered into the system via Terminal or a Front-end application
 - (2) For control purposes: Transmission of all buy orders still to be executed and all buy orders cancelled due to suspension of the price-fixing in End-of-day-processing (Comparison of the Order Portfolio). This transmission occurs via file-transfer only.

Financial Institutes - Technical Connection (English)

Version 5.56

MT 500 Buy Order			
O / M	Tag	Field description	Format
M	20:	Bank internal order number, if not available: /NONREF (for Bank → System) DWZnnnnnnnnnnnnnn (for System → Bank)	16x
O	23:	Type of transaction: <ul style="list-style-type: none"> Transaction code Transaction type addition R = Buy to redemption price (only INVESTRO) W = Buy for reinvestment (only INVESTRO) <ul style="list-style-type: none"> Automatic delivery release J = YES N = NO D = Resend / possibly duplicate (Xetra only) A/P-flag Netting Type / Netting Category 	[3n][1a][b1a] [/2x]/[1a]
M	30:	Order valid until (YYMMDD)	6n
M	35A:	Type of Security (Code words will not be checked) Unit or par value Peak-Size-Qty	3a10n,3n [/10n,3n]
M	35B:	1. Line: International Security Identification Number (ISIN) 2. Line: Security brief description (will not be checked) Xetra to Bank: 3. Line: Version number (lastUpdateDat)	ISINb12c 35x [18n]
M	32L:	1. Line: Currency of price fixing (ISO-Code) Price- / Limit price Discretionary Range (signed) 2. Line: Stock exchange Order recipient (CBF account) Trading restriction Limit supplement exePrc-Stop-Order exec-Id	3a6n,4n[b1x8n,5n] /3n[4n][b2x]/[2a] [/[6n,4n]/[5x]]
O	82D:	Order- / Contract quitter	/4n
O	83C:	CBF account of "on behalf of" bank (correspondent bank)	/4n
O	50:	Trading system identification	3c

Financial Institutes - Technical Connection (English)

Version 5.56

O	60:	RegulatoryID	10x
O	53C:	INVESTRO distribution partner	/10x
O	71D:	Fee details expenses if negative: Constant /N Commission Commission amount (PD) or Commission rate (PM) or Standard commission (PS) if negative: Constant /N	[7n,2n[/N]] [/_2a7n,3n[/N]]
O	72:	1. Line: free Text 2. Line: ID for Terminal entry via System (only for System-to-Bank) 3. Line: Time of Message preparation (HHMMSSH5) (only for System-to-Bank)	[25x] [DWZ-USERb10x] [EIN-ZEITb8n]

Rules:

Field 20 (Bank internal order number):

Data transfer from System to Bank: Field F:20 requires input of Bank internal order number. The trading system's order number is provided in a follow-up message (MT596) in Field F:20 and the referencing is carried out via Field F:21 (Bank internal order number). If an Bank internal order number is not available, the trading system's order number is set in Field F:20 of MT500 (with prefix 'DWZ'). In this case a follow-up message is not provided (MT596).

INVESTRO: (System-to-Bank) The DWZ-Order Number (GV-Code 531/538) is entered for the order recipient's dataset.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 23 (Transaction Code):

The transaction codes and the Systems (XONTRO, Xetra, INVESTRO and MAX-ONE) which support them are listed below:

Code	Meaning
Bank to System:	
121	XONTRO: Order valid as of following day MAX-ONE: Order valid as of following day
System to Bank:	
031	XONTRO: Order placed via Bank Terminal Xetra: Order placed via VALUES-based Front-end application INVESTRO: Contract placed via Bank Terminal MAX-ONE: Order placed via Front-end application bank
032	XONTRO: Order placed via broker/intermediary MAX-ONE: Order placed via specialist
033	XONTRO: Portfolio comparison (executable orders) INVESTRO: Portfolio comparison (executable contracts) MAX-ONE: Portfolio comparison (executable orders)
034	XONTRO: Order placed during freeze via Bank Terminal MAX-ONE: Order placed during price labelling via bank terminal or Front-end application bank Xetra: Order placed during freeze via VALUES based front-end application INVESTRO/Vestima+: Order placed onto Vestima+ (preliminarily)
035	XONTRO: Order placed during freeze via broker MAX-ONE: Order placed during price labelling via Front-end application specialist
036	XONTRO: Rejection of order placed via GV-Code = 034 confirmation after price determination Xetra: Rejection of order placed via GV-Code = 034 confirmation after price determination INVESTRO/Vestima+: Rejection of an order placed onto Vestima+ and having been confirmed using the GV-Code = 034
037	XONTRO: Rejection of order placed via GV-Code = 035 confirmation after price determination
038	XONTRO: Order placed via Bank Terminal valid as of following day (electronically) INVESTRO: Order placed via Bank Terminal valid as of following day (electronically) MAX-ONE: Order placed via Front-end application bank valid as of following day (electronically)

Financial Institutes - Technical Connection (English)

Version 5.56

Code	Meaning	
039	XONTRO:	Order placed via broker valid as of following day (electronically)
	MAX-ONE:	Order placed via specialist valid as of the following day (electronically)
040	XONTRO:	Order placed via Bank Terminal valid as of following day (manually)
	MAX-ONE:	Order placed via spezialist valid as of following day (manually)
041	Xetra:	Stop-Limit Order placed
042	Xetra:	Order placed "on behalf" (e.g. by Market Supervision)
043	Xetra:	Order placed with a Trading Restriction (except EK, KS, SK)
044	Xetra:	Iceberg Order placed
045	Xetra:	Market-to-Limit Order placed
061	XONTRO:	Subscription order placed, valid until end of year
062	XONTRO:	Fund segment; validity adjusted.
063	XONTRO:	Fund segment; validity adjusted. Valid from tomorrow.
233	XONTRO:	Portfolio comparison (cancelled orders due to Suspension of the price-fixing in End-of-day-processing, as well as deletion of unconfirmed EG ("event driven") orders)
333	XONTRO:	Portfolio comparison (executable orders of a trading-only member) to the settlement institute)
433	XONTRO:	Portfolio comparison (due to an ENOT (end of notification pricing process) deleted orders of a trading-only member, as well as deletion of unconfirmed EG ("event driven") orders) to the settlement institute
531	INVESTRO:	Contract placed / Message for recipient
538	INVESTRO:	Contract placed for following day / Message for recipient
631	XONTRO:	Order of a trading-only member placed / Message for settlement institute
638	XONTRO:	Order of a trading-only member placed for following day / Message for settlement institute
662	XONTRO:	Order of a trading-only member placed in fund segment / Message for settlement institute, validity adjusted.
663	XONTRO:	Order of a trading-only member placed in fund segment / Message for settlement institute, validity adjusted. Valid from tomorrow.

Field 23 (Transaction code = 121):

Due to internal bank order acceptance deadlines, orders can be placed until the next trading day. These orders will not be executed on the day of entry and will also not be

Financial Institutes - Technical Connection (English)

Version 5.56

considered for processing of ancillary rights. The positive confirmation in MT596 is carried out with GV Code 300 (Entry executed without error).

Xetra: Function not permitted.

INVESTRO: Function not permitted.

Field 23 (Transactiontype code = 041):

Xetra: Upon entry of a Stop-Limit Order via a VALUES-based Front-end application, the GV-Code 041 will be sent to the bank. In the Field Price-/ Limit price (Field F:32L, 1st Line), the limit for which the order will be executed will be delivered.

In Field exePrc-Stop Order, the limit is reported on which the order will be executed.

Field 23 (Transactiontype code = 043):

Xetra: Upon entry of orders with Trading Restriction not equal to EK (= opening auction), KS (= auction only) or SK (= closing auction) via a Values-based Front-end application, the GV-Code 043 will be sent to the bank. The Trading Restriction will be put into the field: Trading restriction (F:32L, 2nd Line).

Field 23 (Transaction supplement):

INVESTRO/VESTIMA+: Orders determined for VESTIMA+ and having a transaction supplement are rejected by INVESTRO.

Field 23 (Automatic Delivery Release):

XONTRO: The default value from the bank's profile details can be overwritten here. Currently, this field is ignored.

Xetra: The assignment of the field using a "D" flags a message as a renewed transmission of an order entry having been sent earlier already. The order data are to be identical to the original message (resend functionality).

INVESTRO: This field is ignored.

MAX-ONE: This field is ignored.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 23 (A/P-flag *):

The field contains acctTypCod in the first place and acctTypNo in the second place.

Possible value range:

Form	Meaning	XONTRO	Xetra	MAX-ONE
A1	Agent	Yes	Yes	Yes
P1	Proprietary	Yes	Yes	Yes
M1	Designated Sponsor	No	Yes	No
I1	Issuer	No	Yes	No
L1	Liquidity-Provider	No	Yes	No
Q1	Liquidity-Manager	No	Yes	No
E1	Best Executor	No	Yes	No

* = Agent/Proprietary-Flag; This Field separates "proprietary" from client ("agent") transactions. The default value for no input is "A1".

Field 23 (Netting Type / Netting Category):

Xetra: Generally the netting type which has been defined in the Xetra member Set-Up will be taken.

Field 30 (Order valid until):

In contrast to XONTRO, Xetra rejects all expiration dates that do not conform to valid trading practices.

INVESTRO:

(Bank to System) This Field will not be checked. It is a mandatory field, therefore a valid date must be entered.

(System to Bank) The date good till end of maximal order validity (360 days) is entered into this field.

Field 35B / 2nd Line (Security designation):

Xetra: If the security designation for entry via a VALUES-based Front-end application cannot be determined the default value "???" will be delivered to the participant.

MAX-ONE: If the security designation for entry via a Front-end application cannot be determined, the default value "???" will be delivered to the participant.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 35B / 3rd Line (Version number lastUpdateDat):

Xetra: If a buy order via VALUES-based Front-end application is registered, the participant will receive a message MT500. In this case, Xetra transfers the current version number. This version number should be used for future order modifications.

Field 32L / 1st Line (Currency of the price-fixing):

XONTRO (bank to system): the field must contain a valid ISO-Code. Further verifications will not be executed.

(system to bank) The field contains the currency of the price-fixing.

Xetra: Will not check the currency.

INVESTRO

(bank to system): Will not check the currency.

(system to bank): The field contains the currency of the settlement-price

Field 32L / 1st Line (Price-/Limit price):

Unlimited orders ("market" orders) require input "0"

Xetra and MAX-ONE: Upon entry of a Stop Order, this Field contains the limit on which the order will be converted into a limit order ("order execution price").

INVESTRO: This field requires input "0".

Field 32L / 1st Line (Discretionary Range):

Xetra: Along with "Discretionary Order" type: Gives the span between the "visible" and the "discretionary" (invisible) limit.

The following rule applies: Discretionary Limit = Limit + Discretionary Range

Remaining systems: This field will be ignored.

Field 32L / 2nd Line (Stock exchange):

Stock exchange where the order is to be executed (according to WM-key GD621). Possible value range:

100 – Berlin	160 – Munich
120 – Duesseldorf	170 – Stuttgart
130 – Frankfurt	183 – INVESTRO
140 – Hamburg	194 – Xetra Frankfurt
150 – Hannover	944 – Xetra Vienna

Financial Institutes - Technical Connection (English)

Version 5.56

Field 32L / 2nd Line (Recipient of Order):

XONTRO: Details of recipient broker. In the case of no input, the order will be assigned to the lead broker (pricing intermediary, "skontrofuehrer").

Xetra: An entry in this field will be ignored.

INVESTRO: Details of recipient bank. In case of no entry, the order is assigned to the lead depository bank.

INVESTRO / VESTIMA+: If the ISIN is traded in the Vestima+ trading system, and if the field has been left blank or has been filled with the Vestima+ CBF account number, then the order is transferred onto VESTIMA+.

MAX-ONE: Details of recipient specialist. In case of no input, the order will be assigned to the lead specialist.

Field 32L / 2nd Line (exePrc-Stop-Order):

Xetra: For Stop-Limit Order entries, this field contains the limit on which the order will be executed after having been converted into a limit order ("order stop limit"). This Field can be omitted or requires input "0" for Stop-Market Orders.

Xontro: The Stop-Limit-Order does not exist. Entries will be ignored.

Investro: The Stop-Limit-Order does not exist. Entries will be ignored.

Max-One: Entering a stop-limit-order, the field contains the limit which the order will be switched to. Concerning a stop-market-order, the field may be ignored or be set to zero.

Field 32L / 2nd Line (exec-Id):

Xetra: Member-ID of the BEST Executor for Xetra BEST.

Field 32L / 2nd Line (Trading restriction):

The following lists the individual types of trading restrictions in XONTRO and Max-One.

Key XONTRO	Comment
KS	Spot price auction
EK	Opening price auction
(not filled)	According to practices

All Xetra Trading Restrictions may also be coded in this field. All XONTRO forms may be used for this purpose. In this case, the XONTRO trading comments are transformed into the corresponding Xetra Trading Restrictions (see table).

Financial Institutes - Technical Connection (English)

Version 5.56

Key XONTRO	Key Xetra	Comment
KS	AU	Auction only
EK	OA	Opening Auction
SK *)	CA	Closing Auction
	(not filled)	According to Xetra Market Model

*) : This setting is no longer allowed for orders in XONTRO

XONTRO: For order registration via terminal "KS" is generally set for spot orders.

Orders bearing the "EK" trading restriction are not allowed for the Stuttgart Exchange.

Xetra: For orders with no entry in the field trading restriction, Xetra sets the default trading restriction according to the Xetra Market Model of the instrument on hand.

When a buy order is sent from Xetra to the bank within the framework of the emergency procedure (order entry via VALUES-based Front-end application), the Xetra Trading Restrictions AU, OA and CA will be transformed into the corresponding XONTRO trading comments. All other Trading Restrictions will not be transformed.

INVESTRO: There are no trading restrictions in INVESTRO. Any such input is ignored.

Field 32L / 2nd Line (Limit Supplement):

Possible value range:

Form	Meaning	XONTRO	Xetra	MAX-ONE
SB	Stop Buy	yes	yes	yes
SL	Stop Loss	yes	yes	yes
EG	Event driven Order	yes	no	yes
FK	Fill-or-Kill	no	yes	no
IC	Immediate-or-Cancel	no	yes	no
ML	Market-to-Limit	no	yes	no
IB	Iceberg	no	yes	no
MP	Midpoint	no	yes	no
MI	Midpoint Immediate-or-Cancel	no	yes	no

Financial Institutes - Technical Connection (English)

Version 5.56

Form	Meaning	XONTRO	Xetra	MAX-ONE
MF	Midpoint Fill-or-Kill	no	yes	no
DI	Discretionary Order	no	yes	no
HI	Hidden Order	no	yes	no

XONTRO: If the limit supplement "EG" is delivered, then the free text (Label 72, 1st row) must be filled according to the rules (cf. Label 72).

INVESTRO: There is no limit supplement in INVESTRO. Any input is ignored.

Field 82D (Order-quitter):

If no entry is made in this field, the order-quitter's CBF account will be used to obtain the S.W.I.F.T.-Address. For financial institutes with central connection, the field must be completed for orders that are not to be routed to the stock exchange of the central office.

Recommendation: The field should always be maintained (also for financial institutes with decentralized connection).

XONTRO: (System-to-Bank) Concerning the file-data for the settlement institute (GV-Code 631/638) the CBF account of the trading member will be allocated.

INVESTRO: (System-to-Bank) The order-quitter's CBF account will be deposited with the order recipient's dataset (GV-Code 531/538).

Field 35A (Type of Securities); changes valid as of 23 November 2009:

The following lists the various types of security:

Type of security	Meaning
SHS	Shares
BON	Bonds
BCE	Bonds, similar to certificates
WTS	Warrants
CER	Certificates
FUN	Funds
SUB	Subsidiary rights
RTE	Profit-sharing rights
UNT	Units
MSC	Miscellaneous

The subfield 'type of security' always requires the input of the security type (using a corresponding code word).

Financial Institutes - Technical Connection (English)Version 5.56

Xetra: If the type of security cannot be determined for an entry via Front-end application the participant is provided with the default value "MSC".

MAX-ONE: If the type of security cannot be determined for an entry via Front-end application, the participant is provided with the default value "MSC".

Field 35A (Unit or par value):

Xetra: For entry of a FOK or IOC buy order via VALUES-based Front-end application (emergency procedure), that is not or only partially executed, the original nominal will be provided in this field. The part of the order that is not executed but cancelled will be provided as a partial deletion in Message Type MT595. The procedure for entry of a FOK / IOC order is described in Message Type MT596.

Field 35A (Peak-Size-Qty):

Xetra: The maximum order size of an Iceberg Order as shown in the Order Book resp. the "Minimum Acceptable Quantity" along with a Midpoint Order.

Field 50 (Trading system identification):

This field is filled along with "System to Bank" messages.

Along with "Bank to System" messages, this field will be ignored.

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2

Field 60 (RegulatoryID):

XONTRO, MAX-ONE:

Along with *Bank to System* messages, the field contains the number of the algorithm that has served as the basis for the insertion of the order.

Only numerical values in the range between "1 ... 4294967294" are valid.

Along with *System to Bank* messages, the field is not delivered.

Investro: The field is ignored.

Xetra: The field is ignored.

Financial Institutes - Technical Connection (English)Version 5.56

Field 53C (INVESTRO Distribution Partner):

The distribution partner number is part of the maintenance conditions. Using this number, the various bonuses can be deposited in one order-quitter's number (CBF account). The conditions are maintained by the depot financial institutes. The order-quitter must provide the number of the distribution partner together with the order details.

Field 83C (CBF account of the "on behalf of" bank):

CBF account of the correspondent bank "on behalf of" which the order was placed.

For trading-members only, this functionality does not exist.

Xetra: This function (and the associated fields Commission and Expenses: Field F:71D) do not exist in Xetra. Orders with corresponding input will be rejected.

INVESTRO: There is no correspondent bank in INVESTRO. Any such input will be ignored.

MAX-ONE: This function (and the associated fields Commission and Expenses: Field F:71D) do not exist in MAX-ONE. Orders with corresponding input will be rejected.

Field 71D (Fee Details):

Only applies for correspondent bank orders (Field F:83C input required). The Commission can be entered in three forms: Commission amount (in Currency of the price-fixing (Field F:32L), Commission rate (in per mil of price-fixing value) or Standard commission. The 2a-Field identifies the type of Commission. In addition, the following definition should be noted:

Commission amount (2a7n,2n):

e.g.: PD100,5 → commission = 100,50 EUR
PD,0 → no commission

Commission rate (2a2n,3n):

e.g.: PM5,725 → commission = 5,725 per mil of price-fixing value

Standard commission (XONTRO Trade)

e.g.: PS,0 or
no input of commission field

For trading-members only, this functionality does not exist. Orders with concerned informations will be rejected.

Xetra: Compare Field F:83C

INVESTRO: Compare Field F:83C

MAX-ONE: Compare Field F:83C

Financial Institutes - Technical Connection (English)

Version 5.56

Field 72 / 1st Line (free Text):

XONTRO: (System-to-Bank) Along with datasets to be sent to the settlement institute, the field will not be filled (GV-Code 631/638).

XONTRO: (Bank to System) If the limit supplement "EG" ("event driven order") is used, then the field must be filled according to the field description to be found in the "EG Order Types" document issued by the Boerse Stuttgart AG and to be retrieved under

http://www.xontro.de/fileadmin/media/documents/KI_Dokumentation_SAKI/1_boersestuttgart_egorder_feldbeschreibung_aktuell.pdf

Xetra: Xetra supports only 12 of the 25 permitted characters. Longer entries will be cut off.

INVESTRO: (System-to-Bank) Along with datasets to be sent to the recipient of an order, the field will not be reserved (GV-Code 531/538).

Field 72 / 2nd Line (ID KZ):

XONTRO: (System-to-Bank) File-Data to the settlement institute the field will not be reserved (GV-Code 631/638).

Xetra: The ID KZ contains the last six figures of the order routing Trader-ID.

INVESTRO: (System-to-Bank) The dataset for the order recipient (GV-Code 531/538) does not require input in Field 72.

Field 72 / 3rd Line (Message creation time):

INVESTRO: (System-to-Bank) The dataset for the order recipient (GV-Code 531/538) does not require input in this field.

Financial Institutes - Technical Connection (English)Version 5.56

3.2.2 Sell Order / INVESTRO Sell Order (MT 501)

Originator: User (Bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)

Bank: (1) Transmission of sell orders

A temporary message (MT596) follows the placement of an order during a continuous price determination in XONTRO or during a Order book balancing in Xetra or in MAX-ONE during the period between the price determination and order execution. The order will be pre-entered into the system and after de-freezing the Order Book or after termination of the Order book balancing, it will automatically be processed. The bank will receive a further message (MT596) in which order acceptance or rejection including the time of definite approval/rejection will be reported.

(2) Transmission of INVESTRO sell orders. Along with sell orders having been transmitted from INVESTRO onto the Vestima+ trading system, the bank only receives a preliminary message (MT596). After the response from Vestima+ has arrived, the bank receives a final message (MT596), in which the order acceptance or rejection is included.

XONTRO: (1) Transmission/Recording of sell orders that bank or broker have entered into the system via a Terminal.

(2) For control purposes: Transmission of all sell orders still to be executed and all sell orders cancelled due to suspension of the price-fixing in the End-of-day-processing (Comparison of the Order Portfolio).

This transmission occurs via file-transfer only.

(3) Transmission/Recording of sell orders having been entered by a trading member, to be forwarded onto the settlement institute.

(4) For control purposes: Transmission of all sell orders having been entered by a trading member and still to be executed, and all sell orders cancelled due to suspension of the price-fixing in the End-of-day-processing, to be forwarded onto the settlement institute. (Comparison of the Order Portfolio).

This transmission occurs via file-transfer only.

Xetra: (1) Transmission of all sell orders that were entered via a VALUES-based Front-end application (emergency procedure).

Comment: Logging into a VALUES-based Front-end application requires an Order routing Trader-ID.

(2) Transmission of all sell orders that were entered "on behalf" of the trader (e.g. by Market Supervision).

Financial Institutes - Technical Connection (English)

Version 5.56

- INVESTRO:
- (1) For control purposes: Transmission of all INVESTRO sell orders still to be executed and all INVESTRO sell orders cancelled due to suspension of the price-fixing in End-of-day-processing (Comparison of the Order Portfolio). This transmission occurs via file-transfer only.
 - (2) Transmission of INVESTRO sell orders to the recipient bank. Sell orders for instruments being traded in the Vestima+ trading system are transferred from INVESTRO onto Vestima+ if no other depository bank has been entered as the recipient.
 - (3) Transmission of INVESTRO sell orders entered by the bank via Terminal to the ordering and the recipient bank.
- MAX-ONE:
- (1) Transmission/Recording of sell orders that the bank or specialist entered into the system via Front-end application.
 - (2) For control purposes: Transmission of all sell orders still to be executed (Comparison of the Order Portfolio). This transmission occurs via file-transfer only.

Financial Institutes - Technical Connection (English)

Version 5.56

MT 501 Sell order			
O / M	Day	Field description	Format
M	20:	Bank internal order number; if not available, then: /NONREF (for Bank → System) DWZnnnnnnnnnnnn (for System → Bank) (“DWZ” Systems’ Order Number)	16x
O	23:	Type of transaction: – Transaction code – Automatic delivery release J = Yes N = No D = Resend / possibly duplicate (Xetra only) – Reference number for condensing of series (currently ignored) – A/P-flag – Netting Type / Netting Category	[3n][1a][3n] [/2x][1a]
M	30:	Order valid until (YYMMDD)	6n
M	35A:	Type of security (Code words will not be checked) Unit or par value Peak-Size-Qty	3a10n,3n [/10n,3n]
M	35B:	1. Line: International Security Identification Number (ISIN) 2. Line: Security designation (will not be checked) Xetra to Bank: 3. Line: Version number (lastUpdateDat)	ISINb12c 35x [18n]
M	32L:	1. Line: Currency of price-fixing (ISO-Code) Price limit Discretionary Range (signed) 2. Line: Stock exchange location Order recipient (CBF account number) Trading restriction Limit supplement exePrc-Stop-Order exec-Id	3a6n,4n[b1x8n,5n] /3n[4n][b2x][2a] [/[6n,4n][5x]]
O	82D:	Order-/Contract-quitter	/4n
O	83C:	CBF account of "on behalf of" bank (correspondent bank)	/4n

Financial Institutes - Technical Connection (English)

Version 5.56

MT 501 Sell order (continued 1)			
O / M	Tag	Field description	Format
O	50:	Trading system identification	<u>3</u> c
O	60:	RegulatoryID	10x
O	53C:	INVESTRO distribution partner	/10x
O	71D:	Fee details expenses if negative: Constant /N Commission Commission amount (PD) or Commission rate (PM) or Standard commission (PS) if negative: Constant /N	[7n,2n[/N]] [/ <u>2</u> a7n,3n[/N]]
O	72:	1. Line: free Text 2. Line: ID for Terminal entries via System (only for System-to-Bank) 3. Line: Time of Message preparation (HHMMSSHS) (only for System-to-Bank)	[25x] [<u>DWZ-USER</u> b10x] [<u>EIN-ZEIT</u> b8n]

Rule:

Field 20 (Bank internal order number):

Data transfer from System-to-Bank: Field F:20 requires input of Bank internal order number. The trading system's order number is provided in a follow-up message (MT596) in Field F:20 and the referencing is carried out via Field F:21 (Bank internal order number). If an Bank internal order number is not available the trading system's order number is set in Field F:20 of MT501 (with prefix 'DWZ'). In this case a follow-up message is **not** provided (MT596).

The message to the Settlement Institute always contains the Trading System's Order Reference (prefixed with 'DWZ'). In this case, **no** follow-up message (MT596) is provided.

INVESTRO: (System-to-Bank) The order recipient's dataset is generally set to the DWZ-Order Number (GV-Code 531/538)

Field 23 (Transaction code):

The following lists which types of transaction codes are supported by which system (XONTRO, Xetra and INVESTRO):

Code	Meaning
Bank-to-System:	

Financial Institutes - Technical Connection (English)

Version 5.56

Code	Meaning
121	XONTRO: Order valid as of following day MAX-ONE: Order valid as of following day
System-to-Bank:	
031	XONTRO: Order placed via Bank Terminal Xetra: Order placed via VALUES-based Front-end application INVESTRO: Order placed via Bank Terminal MAX-ONE: Order placed via Front-end application bank
032	XONTRO: Order placed via broker/intermediary MAX-ONE: Order placed via specialist
033	XONTRO: Portfolio comparison (executable orders) INVESTRO: Portfolio comparison (executable contracts) MAX-ONE: Portfolio comparison (executable orders)
034	XONTRO: Order placed during freeze via Bank Terminal MAX-ONE: Order placed during price labeling via bank terminal or Front-end application bank Xetra: Order placed during freeze via VALUES based front end application INVESTRO/Vestima+: Order placed onto Vestima+ (preliminarily)
035	XONTRO: Order placed during freeze via broker MAX-ONE: Order placed during price labeling via Front-end application specialist
036	XONTRO: Rejection of order placed via GV-Code = 034 confirmation after price determination Xetra: Rejection of order placed via GV-Code = 034 confirmation after price determination INVESTRO/Vestima+: Rejection of an order placed onto Vestima+ and having been confirmed using the GV-Code = 034
037	XONTRO: Rejection of order placed via GV-Code = 035 confirmation after price determination
038	XONTRO: Order placed via Bank Terminal valid as of following day (electronically) INVESTRO: Order placed via Bank Terminal valid as of following day (electronically) MAX-ONE: Order placed via Front-end application bank valid as of following day (electronically)

Financial Institutes - Technical Connection (English)

Version 5.56

Code	Meaning
039	XONTRO: Order placed via broker valid as of following day (electronically) MAX-ONE: Order placed via specialist valid as of following day (electronically)
040	XONTRO: Order placed via Bank Terminal valid as of following day (manually) MAX-ONE: Order placed via specialist valid as of following day (manually)
041	Xetra: Stop-Limit Order placed
042	Xetra: Order placed "on behalf" (e.g. by Market Supervision)
043	Xetra: Order placed with Trading Restriction (except EK, KS, SK)
044	Xetra: Iceberg Order placed
045	Xetra: Market-to-Limit Order placed
061	XONTRO: Subscription order placed, valid until end of year
062	XONTRO: Fund segment; validity adjusted.
063	XONTRO: Fund segment; validity adjusted. Valid from tomorrow.
233	XONTRO: Portfolio comparison (cancelled orders due to Suspension of the price-fixing in End-of-day-processing, as well as deletion of unconfirmed EG ("event driven") orders)
333	XONTRO: Portfolio comparison (executable orders of a trading-only-participant) to the settlement institute
433	XONTRO: Portfolio comparison (due to an ENOT (end of notification pricing process) deleted orders of a trading-only member, as well as deletion of unconfirmed EG ("event driven") orders) to the settlement institute
531	INVESTRO: Contract placed / Message for recipient
538	INVESTRO: Contract placed for following day / Message for recipient
631	XONTRO: Order placed for trade-only-member to settlement institute
638	XONTRO: Order placed for trade-only-member to settlement institute for following trade-day
662	XONTRO: Order of a trading-only member placed in fund segment / Message for settlement institute, validity adjusted.
663	XONTRO: Order of a trading-only member placed in fund segment / Message for settlement institute, validity adjusted. Valid from tomorrow.

Field 23 (Transaction code = 121):

Due to internal bank order acceptance deadlines, orders can be placed until the next trading day. These orders will not be executed on the day of entry and will also not be considered for processing of ancillary rights. The positive confirmation in MT596 is carried out with GV-Code 300 (Entry executed without error).

Financial Institutes - Technical Connection (English)

Version 5.56

Xetra: Function not permitted.

INVESTRO: Function not permitted.

Field 23 (Transactiontype code = 041):

Xetra: Upon entry of a Stop-Limit Order via a VALUES-based Front-end application, the GV-Code 041 will be sent to the bank. In the Field Price-/ Limit price (Field F:32L, 1st Line), the limit at which the order will be changed into 'executable' will be delivered.

In Field exePrc-Stop Order (field F:32L, 2nd line), the limit is reported on which the order will be executed.

Field 23 (Transactiontype code = 043):

Xetra: Upon entry of orders with Trading Restriction not equal to EK (= opening auction), KS (= auction only) or SK (= closing auction) via a Values-based Front-end application, the GV-Code 043 will be sent to the bank. The Trading Restriction will be put into the field: Trading restriction (F:32L, 2nd Line).

Field 23 (Automatic delivery release):

XONTRO: The default value from the Bank's profile can be overwritten here. This field is currently ignored.

Xetra: The assignment of the field using a "D" flags a message as a renewed transmission of an order entry having been sent earlier already. The order data are to be identical to the original message (resend functionality).

INVESTRO: This field is ignored.

MAX-ONE: This field is ignored.

Field 23 (Reference-Number):

XONTRO: The entry of this field is only possible with serial SIN numbers. Orders about serial numbers with the same master instrument and the same reference number should be placed by the broker in condensed form.

Field 23 (A/P-flag *):

The field contains acctTypCod in the first place and acctTypNo in the second place.

Possible value range:

Form	Meaning	XONTRO	Xetra	MAX-ONE
A1	Agent	Yes	Yes	Yes
P1	Proprietary	Yes	Yes	Yes

Financial Institutes - Technical Connection (English)

Version 5.56

Form	Meaning	XONTRO	Xetra	MAX-ONE
M1	Designated Sponsor	No	Yes	No
I1	Issuer	No	Yes	No
L1	Liquidity-Provider	No	Yes	No
Q1	Liquidity-Manager	No	Yes	No
E1	Best Executor	No	Yes	No

* = Agent/Proprietary-Flag; This Field separates "own" from client transactions. The default value for no input is "A1".

Field 23 (Netting Type / Netting Category):

Xetra: The netting-type from the Xetra member data set up will be taken generally.

Field 30 (Order valid until):

In contrast to XONTRO, Xetra rejects all expiration dates that do not conform to valid trading guidelines.

INVESTRO:

(Bank-to-System) This Field will not be checked. It is a mandatory field, therefore a valid date must be entered.

(System-to-Bank) The date good till end of maximum order validity (360 days) is entered into this field.

Field 35B / 2nd Line (Security designation):

Xetra: If the security designation for entry via a VALUES-based Front-end application cannot be determined, the default value "???" will be delivered to the participant.

MAX-ONE: If the security designation for entry via a Front-end application cannot be determined, the Default value "???" will be delivered to the participant.

Field 35B / 3rd Line (Version number lastUpdateDat):

Xetra: If a sell order via Values-based Front-end application is registered the participant will receive a message MT501. In this case, Xetra transfers the current version number. This version number should be used for future Order modifications.

Field 32L / 1st Line (Currency of the price-fixing):

XONTRO: (Bank-to-system): The field has to contain a valid currency code (ISO) – more validations will not be done.
(System-to bank): The field will be filled with the correct currency.

Xetra: Will not check the currency.

Financial Institutes - Technical Connection (English)

Version 5.56

Investro: (Bank-to-system): Will not check the currency.
 (System-to bank): The field will be reserved with the correct currency.

Field 32L / 1st Line (Price limit):

Unlimited orders ("market" orders) require input "0".

Xetra: Upon entry of a Stop Order, this Field contains the limit on which the order will be converted to executable.

INVESTRO: This Field requires input "0".

Max-One: Entering a stop-order the field contains the limit, the order will be converted to executable.

Field 32L / 1st Line (Discretionary Range):

Xetra: Along with "Discretionary Order" type: Gives the span between the "visible" and the "discretionary" (invisible) limit.

The following rule applies: Discretionary Limit = Limit – Discretionary Range

Remaining systems: This field will be ignored.

Field 32L / 2nd Line (Stock exchange location):

Stock exchange location where the order is to be executed (according to WM-key GD621).

Possible value range:

100 – Berlin	160 – Munich
120 – Duesseldorf	170 – Stuttgart
130 – Frankfurt	183 – INVESTRO
140 – Hamburg	194 – Xetra Frankfurt
	944 – Xetra Vienna
150 – Hannover	

Field 32L / 2nd Line (Recipient of Order):

XONTRO: Account number of recipient broker. In the case of no input, the order will be assigned to the lead broker.

Xetra: An entry in this field will be ignored.

INVESTRO: CBF account number of recipient bank. In case of no input, the order is assigned to the lead depository bank.

INVESTRO / VESTIMA+: If the ISIN is traded in the Vestima+ trading system, and if the field has been left blank or has been filled with the Vestima+ CBF account number, then the order is transferred onto VESTIMA+.

MAX-ONE: Account number of recipient specialist. In case of no input, the order will be assigned to the lead specialist.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 32L / 2nd Line (exePrc-Stop-Order):

Xetra: For Stop-Limit Order entries, this field contains the limit at which the order will be executed. This Field can be omitted or requires input "0" for Stop-Market Orders.

Xontro: The Stop-Limit-Order does not exist. Entries will be ignored.

Investro: The Stop-Limit-Order does not exist. Entries will be ignored.

Max-One: Entering a stop-limit-order the field contains the limit at which the order will be executed. Concerning a stop-market-order, the field may be ignored or be filled with zero.

Field 32L / 2nd Line (exec-Id):

Xetra: Member-ID of the BEST Executor for Xetra BEST.

Field 32L / 2nd Line (Trading restriction):

The following lists the individual types of trading restrictions in XONTRO and Max-One.

Key XONTRO	Comment
KS	Spot price auction
EK	Opening price auction
(not filled)	According to practices / MAX-ONE market model

All Xetra Trading Restrictions may also be coded in this field. All XONTRO forms may be used for this purpose. In this case, the XONTRO trading comments are transformed into the corresponding Xetra Trading Restrictions (see table).

Key XONTRO	Key Xetra	Comment
KS	AU	Auction only
EK	OA	Opening Auction
SK *)	CA	Closing Auction
	(not filled)	According to Xetra Market Model

*) = This trading restriction is no longer allowed for XONTRO orders.

XONTRO: For order registration via Terminal "KS" is generally set for spot orders.

Orders bearing the "EK" trading restriction are not allowed for the Stuttgart Exchange.

Financial Institutes - Technical Connection (English)

Version 5.56

Xetra: For orders with no entry in the field trading restriction, Xetra sets the default trading restriction according to the Xetra Market Model of the instrument on hand.

When a buy order is sent from Xetra to the bank within the framework of the emergency procedure (order entry via VALUES-based Front-end application), the Xetra Trading Restrictions AU, OA and CA will be transformed into the corresponding XONTRO trading comments. All other Trading Restrictions will not be transformed.

INVESTRO: There are no trading restrictions in INVESTRO. Any such input is ignored.

Field 32L / 2nd Line (Limit supplement):

Possible value range:

Form	Meaning	XONTRO	Xetra	MAX-ONE
SB	Stop Buy	Yes	Yes	Yes
SL	Stop Loss	Yes	Yes	Yes
EG	Event driven Order	Yes	No	Yes
FK	Fill-or-Kill	No	Yes	No
IC	Immediate-or-Cancel	No	Yes	No
ML	Market-to-Limit	No	Yes	No
IB	Iceberg	No	Yes	No
MP	Midpoint	No	Yes	No
MI	Midpoint Immediate-or-Cancel	No	Yes	No
MF	Midpoint Fill-or-Kill	No	Yes	No
DI	Discretionary Order	No	Yes	No
HI	Hidden Order	No	Yes	No

XONTRO: If the limit supplement "EG" ("event driven order") is delivered, then the free text (Label 72, 1st row) must be filled according to the rules (cf. Label 72).

INVESTRO: There is no limit supplement in INVESTRO. Any input is ignored.

Field 82D (Order-quitter):

If no entry is made in this field, the order-quitter's CBF account will be used to obtain the S.W.I.F.T.- Address. For financial institutes with central connection, the field must be completed for orders that are not to be routed to the stock exchange of the central office.

Financial Institutes - Technical Connection (English)

Version 5.56

Recommendation: This Field should always be maintained (also for financial institutes with decentralized connection type).

INVESTRO: (System-to-Bank) For messages to be sent to the recipient of the order (GV-Code 531/538), the order-quitter's CBF account number will be deposited here.

XONTRO: (System-to-Bank) For messages to be sent to the settlement institute (GV-Code 631/638) the CBF account of the trading member will be allocated.

Field 35A (Type of Securities); changes valid as of 23 November 2009:

The following lists the various types of security:

Type of security	Meaning
SHS	Shares
BON	Bonds
BCE	Bonds, similar to certificates
WTS	Warrants
CER	Certificates
FUN	Funds
SUB	Subsidiary rights
RTE	Profit-sharing rights
UNT	Units
MSC	Miscellaneous

The subfield "Type of Security" always contains the security type (using a corresponding code word).

Xetra: If the type of security cannot be determined for an entry via a VALUES-based Front-end application, the participant is provided with the default value "MSC".

MAX-ONE: If the type of security cannot be determined for an entry via a VALUES-based Front-end application, the participant is provided with the default value "MSC".

Field 35A (Unit or par value):

Xetra: For entry of a FOK or IOC sell order via a VALUES-based Front-end application (emergency procedure) that is not or partially executed, the original nominal will be provided in this field. The part of the order that is not executed, but cancelled, will be provided as a partial deletion in Message Type MT595. The procedure for entry of a FOK / IOC order is described in Message Type MT596.

Field 35A (Peak-Size-Qty):

Xetra: The maximum order size of an Iceberg Order as shown in the Order Book resp. the "Minimum Acceptable Quantity" of a Midpoint Order.

Financial Institutes - Technical Connection (English)Version 5.56

Field 50 (Trading system identification):

This field is filled along with "System to Bank" messages.

Along with "Bank to System" messages, this field will be ignored.

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2

Field 60 (RegulatoryID):

XONTRO, MAX-ONE:

Along with *Bank to System* messages, the field contains the number of the algorithm that has served as the basis for the insertion of the order.

Only numerical values in the range between "1 ... 4294967294" are valid.

Along with *System to Bank* messages, the field is not delivered.

Investro: The field is ignored.

Xetra: The field is ignored.

Field 53C (INVESTRO Distribution Partner):

The distribution partner number is part of the maintenance conditions. Using this number, the various bonuses can be deposited in one order-quitter's number (CBF account). The conditions are maintained by the depot financial institutes. The order-quitter must provide the number of the distribution partner together with the order details.

Field 83C (CBF account of the "on behalf of" bank):

CBF account of the correspondent bank "on behalf of" which the order was placed. This feature is not available for Trading Members. Orders containing corresponding entries will be rejected.

Xetra: This function (and the associated fields Commission and Expenses: Field F:71D) do not exist in Xetra. Orders with corresponding input will be rejected.

INVESTRO: There is no correspondent bank in INVESTRO. Any such input will be ignored.

MAX-ONE: This function (and the associated fields Commission and Expenses: Field F:71D) do not exist in MAX-ONE. Orders with corresponding input will be rejected.

Field 71D (Fee details):

Only applies for correspondent bank orders (Field F:83C input required). The Commission can be entered in three forms: Commission amount (in Currency of the price-fixing (Field F:32L), Commission rate (in per mil of price-fixing value) or Standard commission. The 2a-

Financial Institutes - Technical Connection (English)

Version 5.56

Field identifies the type of Commission. In addition, the following definitions should be noted:

Commission amount (2a7n,2n):

e.g.: PD100,5 → Commission = 100,50 EUR
PD,0 → no Commission

Commission rate (2a2n,3n):

e.g.: PM5,725 → Commission = 5,725 per mil of the price-fixing value

Standard commission (XONTRO Trade)

e.g.: PS,0 or
no input of commission field

Xetra: Compare Field F:83C

INVESTRO: Compare Field F:83C

MAX-ONE: Compare Field F:83C

Field 72 / 1st Line (Free text):

XONTRO: (System-to-Bank) Along with datasets to be sent to the settlement institute, the field will not be reserved (GV-Code 631/638).

XONTRO: (Bank to System) If the limit supplement "EG" ("Event driven order") is used, then the field must be filled according to the field description to be found in the "EG Order Types" document issued by the Boerse Stuttgart AG and to be retrieved under

http://www.xontro.de/fileadmin/media/documents/KI_Dokumentation_SAKI/1_boersestuttgart_egorder_feldbeschreibung_aktuell.pdf

Xetra: Xetra supports only 12 of the 25 permitted characters. Longer entries will be cut off.

INVESTRO: (System-to-Bank) Along with datasets to be sent to the recipient of an order, the field will not be reserved (GV-Code 531/538).

Field 72 / 2nd Line (Identifier):

Xontro: (System-to-bank) For file data to the settlement institute the field (GV-Code 631/638) will not be reserved.

Xetra: The identifier contains the last six figures of the order routing Trader-ID.

INVESTRO: (System-to-Bank) The dataset for the order recipient (GV-Code 531/538) does not require input in this field.

Field 72 / 2nd Line (Message creation time):

INVESTRO: (System-to-Bank) In the dataset for the order recipient (GV-Code 531/538) this field is not filled.

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.3 Direct-Banking-Trade (OTC → MT 511)

Originator: User (bank)

Bank: Transfer of direct (OTC) trades business (domestic (same exchange) and non domestic ("PÜEV")).

For this transfer the bank must be admitted to perform OTC entries within XONTRO. The admission for this may be obtained from BrainTrade.

The entry of an direct (OTC) trade will be transferred directly onto XONTRO Trade.

The bank will receive a confirmation (MT596) in which the direct (OTC) trade will be accepted or rejected.

If the transmission (entry) of direct bank (OTC) trades from the bank, as well as the transmission (output) of contract notes (MT512) to the bank, was set up for one participant, then, after a successful entry of the MT511, the participant also receives a contract note using the MT512 format.

Cancellations and reversals of direct (OTC) trades are now also possible using the MT595.

MT 511 Direct-banking-Trade ¹			
O / M	label	Data description	Format
O	20:	Member Internal OTC Number	<u>13</u> x
M	23	Record type (bought or sold) Indication on-exchange or OTC trade: BS on-exchange	<u>3</u> n[/ <u>2</u> x]

¹ message length: 354 bytes

Financial Institutes - Technical Connection (English)

Version 5.56

MT 511 Direct-banking-Trade ¹			
O / M	label	Data description	Format
M	31P	Exchange location Trade date (YYMMDD) Trade time (HHMMSS) (Deviant) Trade date (YYMMDD) Fixed value flag FZ value versus payment (DVP) Date of fixed value (settlement date) Flag emission EM emission-trade Interest days with algebraic sign Discount days <u>Segment MIC of Trading Platform</u> <u>Reporting Exchange Trading Location</u>	3x/[6n]/[6n]/[6n] [/2a6n][2a][1x3n] [3n]/[4x]/[3n]
M	35A	Security type (will not be validated) Quantity traded	3a10n,3n
M	35B	First line – Security ID (ISIN)	ISINb12c
M	33T	Currency of listing (will not be validated) Price	3a6n,4n
M	82D	ID of trade entry party (CBF account number) Counterparty (CBF account number)	4n/4n
O	71B	Reinvestment discount (amount) Bonification (percent) if negative: constant /N	[7n,2n]/[2n,3n[/N]]
O	71C	Brokerage fee if negative: constant /N Flag brokerage (only one of the following allowed): AC different borkerage fee FC free of brokerage fee FR free of bill HC half of brokerage fee	[7n,2n[/N]]/[2x]
O	71D	Details of fees: Fees if negative: constant /N Commission commission flag: PD: entry of commission amount PM: entry basis points if negative: constant /N	[7n,2n[/N]] [/2a7n,3n[/N]]
O	72	Free text	35x
O	36	Exchange rate (indirect quotation related to one Euro)	7n,11n

Financial Institutes - Technical Connection (English)Version 5.56

Field 20 (Member internal OTC number):

If desired, the financial institute may assign a bank internal OTC number to the OTC trade. This number will then be re-delivered to the bank within the confirmation as well as within the contract note.

Field 23 (Record Type):

Possible values:

012Buy – direct (OTC) trade

022Sell – direct (OTC) trade

The record type defines the rule of the counterparty. The record type 012 has to be used if the counterparty is the buyer and 022 if they are the seller.

Field 23 (Indicator exchange related):

Indicator if trade is exchange-related. Possible values to be entered:

BS on-exchange trade

Generally, XONTRO distinguishes between "on-exchange trades" and "off-exchange trades". The distinction is between trades that have actually gone through a price fixing procedure ("on-exchange") or not ("off-exchange"). The default value for direct (OTC) trades in this respect is "off-exchange". The German abbreviations used for this distinction are "BS" ("boerslich", on-exchange) and "AB" ("ausser-boerslich", off-exchange). The default value for OTC trades (off-exchange, "AB") may be changed to "on-exchange" ("BS"), if, for whatever reason, the OTC trade that is to be entered should be regarded as an "on-exchange" trade. It should be kept in mind that this classification is relevant for the German exchange trading supervising authorities "BaFin" in some ways. Please note also that "AB" cannot be specified here because this is the default value. For trades entered on "exchange" location "Frankfurt" ("EDF"/"130"), "BS" may not be entered in XONTRO.

Field 31P (General description):

In principle, the field 31P is mandatory. Of the nine possible entries in this field, however, only the first one (Exchange location) and the third one (Trade time) must be given.

Field 31P (Exchange location):

Exchange location where trade has been made. Input must be the same as the exchange of the trade-issuer (field 82D). - Possible values:

100 – Berlin	140 – Hamburg	170 – Stuttgart
120 – Duesseldorf	150 – Hannover	

Financial Institutes - Technical Connection (English)

Version 5.56

130 – Frankfurt	160 – Munich	
-----------------	--------------	--

Field 31P (Trade date):

There are two "Trade date" entries possible in this label: They are labelled "Trade date (YYMMDD)" and "(Deviant) Trade date (YYMMDD)".¹ The difference between the two is explained below:

The entry "Trade date" should only be used for a very special purpose, in which the trade was carried out within a trading system that offers its services for private investors on weekends and holidays, too. The German "Quotrix" system is an example. If a trade was carried out in Quotrix on a Saturday, Sunday or Holiday, then the German exchange trading supervising authorities "BaFin" demand that the actual trading day should be documented within the trade. This is why the field "Trade date" was inserted into the label 31P. Therefore, if this field is used, then it **must not** be a normal exchange business day, it **must** represent a Saturday, Sunday or Holiday, and it **must** represent a date in the past with a maximum of 90 days "backwards" (as seen from "today").

From thence it should be clear that this entry "Trade date" should not be used in most cases. If it is filled in the **MT511**, it is documented in the **MT512** (contract note) in label 72, 3rd line, in the field "trade date", and it is then different from the field "trade date" in label 31P in the **MT512**. In addition, in label 30, the "Indicator for differing date of transaction 'AA' " is also filled with "AA" ("Abweichendes Abschlussdatum" = "Deviant Trade Date"). Please note that the field in label 72, 3rd line, is always filled with a "trading date". If no "AA" was used, then it is identical to the "trade date" in label 31P in the **MT512**; if an "AA" was used for a trade, then the two are not identical. In addition, please note that, in the **MT511**, the "AA" flag itself cannot and must not be entered.

Field 31P (Trade time):

This field is **optional** and contains the time of the trade closed. It must have the format "HHMMSS".

Field 31P ((**Deviant**) trade date):

This field gives the date at which the contract was actually made, using the format YYMMDD. This date must be an exchange business day. Saturdays, Sundays and Holidays are not allowed. This date may be omitted. If it is omitted, then the system automatically inserts "today", i.e. the date the MT511 was sent, into its place, and the resulting trade has a "Trade date" of "today". In the contract note (MT512), this date is given in label 31P in the field "Trade date".

If the field "(Deviant) Trade date" is filled, then the date given (must not be a Saturday, Sunday, or Holiday, and) must lie between 1 and 90 days in the past. In this case, this date will also be documented in label 31P ("Trade date") of the MT512 (contract note). In addition, in the MT512, label 31P, the "indicator for deviant

¹ In the German version of this document, the labels used are "Abschlussdatum (JJMMTT)" and "(Abweichender) Schlusstag (JJMMTT)".

Financial Institutes - Technical Connection (English)Version 5.56

trade date 'AS' " will be filled with "AS", and the resulting trade will thus have a "deviant trade date" (in the past). Please note that the addition "AS" itself cannot and must not be added in the MT511.

Field 31P (Fixed value flag):

The field contains the value type of a trade. The following input is possible:

Flag	Meaning
FZ	delivery versus payment (DVP)

Field 31P (Fixed value/settlement date):

This entry specifies the settlement date for the trade. The field is mandatory if the fixed value flag (cf. above) has been set. If it is filled, then the settlement date must contain a valid exchange business day (up to 90 days) in the future. If omitted, the default "FZ (T+2)" will be used. "FZ" is the same as "DVP" (delivery versus payment). If a longer settlement period than (T+2) is desired, then "FZ (T+3)", "FZ (T+4)" and so on should be specified. If the trade is to be settled on the following day (T+1), then "FZ (T+1)" may be specified. The entry of "today" as the settlement date is not permitted.

If instruments residing within the "AKV" custody type are traded, then a deviant settlement date may now be entered for "AKV" instruments, too. With reference to this issue, please regard the XONTRO / BrainTrade Newsletter #21, issued on June 27th 2005.

Field 31P (Emission flag):

Flag that shows that the trade is an emission trade (an 'IPO').

Field 31P (Interest days):

The field contains the interest-days. An input is only possible for fixed-income instruments. If the amount is negative, the constant '/N' is to be given. If no interest days have been entered, XONTRO will calculate the interest days.

Entry is no longer permitted.

Field 31P (Discount days):

The field contains diskont (discount) days. An entry is only possible for special public securities ('Finanzierungsschaetze'). If the field has not been filled, XONTRO will calculate the discount days.

Entry is no longer permitted.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 31P (Segment MIC of Trading Platform):

Segment MIC of a "NON-XONTRO Exchange Trading Location" used to mark a trade according to the CSDR rules and regs.

Field 31P (Reporting Exchange Location):

Exchange Trading Place for which the trade is to be reported. The tag may not correspond to the Exchange Location of the issuer (Tag 82D).

Range of values permitted:

<u>Reporting Exchange ID</u>	<u>Bezeichnung</u>
<u>001</u>	<u>Unterschleißheim - Baader Bank</u>
<u>002</u>	<u>London - Bloomberg Trading Facility</u>
<u>003</u>	<u>Amsterdam - Bloomberg Trading Facility</u>
<u>004</u>	<u>Stuttgart - cats</u>
<u>005</u>	<u>Berlin - Börse Berlin Equiduct Trading</u>
<u>006</u>	<u>München - Börse München - gettex</u>
<u>007</u>	<u>Düsseldorf - Lang & Schwarz - Wertpapierhandel</u>
<u>008</u>	<u>Hamburg - Hanseatische Wertpapierbörse Hamburg - Lang & Schwarz Exchange</u>
<u>009</u>	<u>London - MarketAxess Europe</u>
<u>124</u>	<u>Düsseldorf - Börse Düsseldorf - Quotrix</u>
<u>011</u>	<u>Berlin - Tradegate Exchange</u>
<u>012</u>	<u>Berlin - Tradegate Wertpapierhandelsbank</u>
<u>013</u>	<u>London - Tradeweb Europe</u>
<u>014</u>	<u>London - Turquoise</u>
<u>015</u>	<u>Amsterdam - Turquoise Europe</u>
<u>016</u>	<u>Stuttgart - EUWAX AG</u>

Financial Institutes - Technical Connection (English)

Version 5.56

017 Stuttgart - Baden-Württembergische
Wertpapierbörse

018 Stuttgart - Baden-Württembergische
Wertpapierbörse - Technical Platform 2

Field 35A (Type of security); valid as of 23 November 2009:

The sub-field 'type of security' generally contains one of the following code words:

Type of security	Meaning
SHS	Shares
BON	Bonds
BCE	Bonds, similar to certificates
WTS	Warrants
CER	Certificates
FUN	Funds
SUB	Subsidiary rights
RTE	Profit-sharing rights
UNT	Units
MSC	Miscellaneous

The field will not be validated.

Field 35A (Quantity):

The field contains the nominal or the quantity of the trade. The Input is only possible using the format 9n,3n.

Field 35B (Security ID):

The field contains the 12 digit-ISIN of the instrument traded.

Field 33T (Currency of quotation):

The field contains the currency of the listed instrument in ISO-format. Field will not be validated.

Field 33T (Price):

The field contains the price for the trade.

Financial Institutes - Technical Connection (English)Version 5.56

Field 82D (CBF account number of the institute having entered the trade):

The field contains the 4 digits of the CBF account number of the financial institute which has entered the trade. This number must be compliant to the exchange location in field 31P.

From now on it is also possible to have a 'third party institute' enter the OTC trades 'on behalf' of the trading member. The 'third party' institute must have a permission to enter the trades.

Field 82D (Counterparty):

The field contains the 4-digit CBF account number of the counterparty of the trade.

Field 71B (Re-investment discount):

This field contains an amount of the re-investment discount. Input is only possible for funds.

Field 71B (Bonification):

The field contains the percentage for the calculation of the bonification amount. For special public securities ('Finanzierungsschaetze'), the field is mandatory. In any other cases the input is only possible for emission trades ('IPO's). If the percentage of bonification is negative, the field is to be set with the constant '/N'.

Field 71C (Brokerage fee – general remark):

Depending on the general set up of the customers's CBF account in XONTRO, brokerage ("courtage") may also be included in direct (OTC) trades. Generally speaking, for OTC trades, the party that enters the trade will also receive the brokerage for the trade, whereas the other party (which has not entered the trade) will have to pay the brokerage. If no brokerage is to be included into the OTC trade entered, then the constant flag "FC" in label 71C should be added.

Field 71C (Brokerage fee amount):

The field contains the brokerage fee amount. In case that is amount negative, the constant '/N' is to be given; this will in effect reverse the brokerage fee flow (brokerage is paid by the counterparty to the party having entered the OTC trade). – The input of a brokerage fee amount (in EURO) is only allowed if the brokerage fee flag is filled with 'AC'.

Field 71C (Brokerage fee flag):

The field contains additional information concerning the brokerage fee. The following values are possible:

Input	Meaning
AC	Different brokerage fee
FC	Free of brokerage fee

Financial Institutes - Technical Connection (English)

Version 5.56

Input	Meaning
FR	Free of bill
HC	Half of brokerage fee

After having filled the field with 'AC', the brokerage fee amount is mandatory.

Field 71D (Fees):

The field contains the fee amount. Concerning these special public instruments ('Finanzierungsschaetze') the input is not allowed. If the amount is negative, the constant '/N' is to be given.

Field 71D (Commission):

This field contains a commission amount or a commission in one-tenth of a percent. The commission flag indicates the type of commission. Different data definitions are allowed, as follows:

Commission amount (in EURO) 2a7n,2n z.B. PD100,5

Commission in one tenth of a percent 2a2n,3n z.B. PM5,275

If the amount is negative, the constant '/N' is to be given.

Field 72 (Text):

This field contains a text that may be chosen freely by the entering party.

Field 36 (Exchange rate):

The field contains the exchange rate for an indirect quotation to 1 Euro . Only the format "5n,5n" is allowed at present.

Financial Institutes - Technical Connection (English)Version 5.56

3.2.4 Contract note (MT 512)

Originator: XONTRO, INVESTRO and MAX-ONE systems

A separate operation approval having been issued by BrainTrade is required for a participant to receive the contract notes via the system connection for banks.

The site receiving the contract notes may be any financial institute equipped with a system connection for banks. Transmission of the same contract notes to more than one receiving site is, however, not feasible.

The additional reception of contract notes using other transfer paths, such as the contract notes data carrier using SNA, is also possible.

Note for contract notes data carrier recipients: The OSN (Output Sequence Number) used in a MT512 / MT599 message within the system connection for banks bears no relationship whatsoever to the OSN used for the same contract note in the contract notes data carrier.

XONTRO: (1) Transmission of contract notes from the retrieval groups („Abruf-Gruppen“ used in BxAG):
A – “Aufgaben” (pending trades)
G – XONTRO-Trades (including “Aufgabe” closings and trade reversals (“Durchlieferungen”))
S – Cancellations

(2) In case a single contract note is based upon more than one order, then the associated order references are transmitted using one or more additional messages using the MT599 type, if desired by the participant.

INVESTRO: (1) Transmission of contract notes from the retrieval groups („Abruf-Gruppen“ used in BxAG):
V – INVESTRO Trades

(2) In case a single contract note is based upon more than one INVESTRO order, then the associated order references are transmitted using one or more additional messages using the MT599 type, if desired by the participant.

INVESTRO/
Vestima+: (1) Transmission of contract notes from the retrieval group („Abruf-Gruppe“):
F – EUFO Trades

Financial Institutes - Technical Connection (English)

Version 5.56

- (2) One given EUFO contract note is always based upon one EUFO order only. Therefore, no MT599 will be sent in any case here.

MAX-ONE:

- (1) Transmission of contract notes from the retrieval groups („Abruf-Gruppen“ used in BxAG):
- A – “Aufgaben” (pending trades)
 - G – XONTRO-Trades (including “Aufgabe” closings and trade reversals (“Durchlieferungen”))
 - S – Cancellations
- (2) In case a single contract note is based upon more than one MAX-ONE order, then the associated order references are transmitted using one or more additional messages using the MT599 type, if desired by the participant.

MT 512 Contract note / Trade confirmation

O / M	Tag	Field description	Format
-------	-----	-------------------	--------

The description of this message type format is included in the document „S.W.I.F.T. Message formats for contract notes, trade confirmations and CCP trades in XONTRO Trade”, and may be referenced there. This document is also available on BrainTrade’s internet site www.xontro.de.

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.5 OTC Trade Report (MT 513)

Originator: Bank
Submission of XONTRO OTC Trade Reports

MT 513 OTC Trade Report			
O / M	Etikett	Field description	Format
O	20:	Bank internal OTC Trade Report Number	<u>13</u> x
M	31P:	Exchange location Trade date (YYMMDD) Trade time (HHMM)	<u>3</u> x <u>6</u> n <u>4</u> n
M	40:	BIC of originator Execution venue ID Deviant price indicator Negotiated price indicator Delay indicator Amendment indicator Quotation unit Deviation from UTC – signed – (+/-HHMM)	<u>11</u> x/ <u>12</u> x/[<u>1a</u>]/[<u>1a</u>]/ [<u>1a</u>]/[<u>1a</u>]/[<u>1n</u>]/ [<u>1x4</u> n]
M	35A:	Nominal amount traded	10n,3n
M	35B:	ISIN	<u>ISIN</u> b <u>12</u> c
M	33T:	Price currency Price	<u>3a</u> 6n,4n
M	82D:	Issuer of the trade	<u>4</u> n

With the exception of the label M40:, all labels are identical to those of the MT511.

Label 20 (Bank internal OTC-Trade-Report-Number):

If desired, the bank may assign a bank internal OTC number to the trade reported. This number will then be re-submitted in the acknowledgement/confirmation message.

Label 31P (Exchange location):

This field must comply to the issuer's exchange location (Label 82D).

Possible value range:

100 – Berlin	150 – Hannover
120 – Duesseldorf	160 – Munich
130 – Frankfurt	170 – Stuttgart
140 – Hamburg	

Financial Institutes - Technical Connection (English)

Version 5.56

Label 31P (Trade date):

This field contains the contraction date of the trade using the format YYMMDD. Every calendar day is allowed, i.e. including a Saturday, Sunday, or a holiday.

Label 31P (Trade time):

This label indicates the time at which the trade was contracted. The local time of the appropriate authority to whom the trade is to be reported must be given here.

Label 40 (BIC of originator):

11-digit alphanumeric code for the identification of the reporting agent. Here, the institute that has contracted the trade to be published has to be inserted. In case of „on behalf“ trade reports, the originator's BIC thus deviates from the issuer (Label 82D). No cross check validation for the existence of the BIC given will be performed.

Label 40 (Execution Venue ID):

Here it is to be stated whether the trade to be reported was an OTC trade, or if it was an internalized trade, or if it was contracted on a trading platform, and if so, on which trading platform.

The following values are allowed:

,OTC' for OTC trades constant value

,SI' for systematic internalizers constant value

For the identification of a platform:

,B' plus BIC (ISO 9662, 11-digit alphanumeric) e.g. BDEUTDEFFXXX

,M' plus MIC (ISO10383, 4-digit alphanumeric) e.g. MXFRA

,I' plus IBEL (ISO16327, 10-digit alphanumeric) e.g. IDE12345670

Label 40 (Indicator: Price is deviant from market price):

This field is to be filled with 'J' (yes), if the price deviates from the current market price. In this case, the price validation routine will be suppressed.

Label 40 (Indicator: Negotiated price):

This field is to be filled with 'J' (yes), if the price was a negotiated one. In this case, the price validation routine will be suppressed.

Label 40 (Delay indicator):

By means of this flag, the so called block trade delay will be addressed. If the delay indicator is set to "J" (Yes), then, according to the MiFID delay rules, the trade report will only be released for publication at the latest point in time possible.

Financial Institutes - Technical Connection (English)

Version 5.56

Label 40 (Amendment indicator):

This field is to be filled with 'J' (yes), if, after a cancellation, a trade report was entered anew. No verification will be performed on this flag.

Label 40 (Quotation unit):

This field may have one of the following values:

Value	Significance
1	unit quotation
2	percentage quotation
3	per thousand quotation

Label 40 (Deviation from UTC (signed) +/-HHMM):

Here it is to be stated how far the reported trade time for the trading location reported deviates from the Universal Time Coordinated (UTC). CET (winter) = +0100, CET (summer) = +0200.

Label 35A (Nominal amount):

This field contains the nominal amount or the number of shares traded. At present, the entry of the nominal amount is only permitted using the format 9n,3n.

Label 35B (ISIN):

This field contains the 12-digit International Securities Identification Number (ISIN) of the instrument traded.

Label 33T (Price currency):

Along with unit quoted securities, this field contains the price currency using the ISO format; along with percentage quoted securities, the underlying instrument currency is given.

Label 33T (Price):

This field contains the price of the trade.

Label 82D (Issuer of the trade):

This field contains the 4-digit CBF account number of the issuer. This number must comply with the exchange location given in field 31P.

As an option, there exists the possibility to enter trade reports "on behalf" for "other" CBF account numbers having been entitled for this purpose.

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.6 Orders belonging to a contract note (MT 599)

Originator: XONTRO, INVESTRO and MAX-ONE systems

XONTRO,
INVESTRO,
MAX ONE:

- (1) Transmission of orders belonging to the specified contract note. This message occurs only in connection with a contract note (MT512). It is generated, if
 - (a single contract note is associated with more than one order, or
 - not the entire order amount was executed for this contract note), and
 - the order reference reception option was set up / initiated for the financial institute's receiving site.
- (2) Per one MT599, a maximum of 10 orders are transmitted. This is deviant from the contract notes (SNA) data carrier; there, 34 orders per one MT599 may be transmitted as a maximum.
- (3) The OSNs for the messages for one contract note are delivered in an ascending, but not necessarily in a continuous order. This is (also) different from the contract notes (SNA) data carrier.

MT 599 Orders belonging to the contract note			
O / M	Tag	Field description	Format

The description of this message type format is included in the document „S.W.I.F.T. Message formats for contract notes, trade confirmations and CCP trades in XONTRO Trade“, and may be referenced there. This document is also available on BrainTrade's internet site www.xontro.de.

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.7 Execution Confirmation for the Execution of a Funds Order (MT 515)

Issuer: INVESTRO and Vestima+ systems.
The message layout complies to the SWIFT format 15022.

- INVESTRO:
- (1) After an order in an INVESTRO ISIN has been executed with a Vestima+ order issuer, a copy of the execution confirmation is transferred onto the depository bank (Order Handling Agent / OHA).
 - (2) After an order in a Vestima+ ISIN has been executed, the execution confirmation that had originally been sent from Vestima+ onto Investro is transferred to the Order Issue (OI) of the order.

(1) Message set up MT515 onto INVESTRO depository bank (OHA):

M/O	TAG	Format	Value	Comments
M	:16R:		GENL	Start of A - General Information
M	:20C:	:4!c//16x	:SEME//OHAordernumber	INVESTRO reference to INVESTRO OHA
M	:23G:	4!c/4!c]	NEWM	NEWM=New confirmation
M	:22F:	:4!c//4!c	:TRTR//TRAD	Transaction type indicator
M	:16R:		LINK	Start of A 1 – Linkages (3)
C	:20C:	:4!c//16x	:RELA//DWZordernumber	“DWZ”+DWZ Order number
M	:16S:		LINK	End of A 1 – Linkages (3)
M	:16S:		GENL	End of A - General Information
M	:16R:		CONFDET	Start of C – Confirmation Details
M	:98A:	:4!c//8!n	:SETT//yyyymmdd	Settlement date
M	:98A:	:4!c//8!n	:TRAD//yyyymmdd	Trade date
M	:90B:	:4!c//4!c/3!a15d	:DEAL//ACTU/EURamount	Deal price and currency as actual amount
M	:22H:	:4!c//4!c	:BUSE//REDM :BUSE//SUBS	REDM=Redemption (Verkauf) SUBS=Subscription (Kauf)
M	:22H:	:4!c//4!c	:PAYM//APMT	Payment type indicator
M	:16R:		CONFPTY	Start of C1 – Confirmation Parties
M	:95R:	:4!c/[8c]/34x	:BUYR/CEDE/account number :SELL/CEDE/account number	CBF Account Number of German OHA

Financial Institutes - Technical Connection (English)

Version 5.56

M/O	TAG	Format	Value	Comments
O	:97A:	:4!c//35x	:SAFE//account number	Confirmation Party account number on Fundside to settle order
M	:16S:		CONFPTY	End of C1 – Confirmation Parties
M	:36B:	:4!c//4!c/15d	:CONF//UNIT/quantity	Confirmed quantity of financial instrument
M	:35B:	[ISIN1!e12!c] [4*35x]	ISIN isin description	ISIN and description
M	:16S:		CONFDET	End of C – Confirmation Details
M	:16R:		SETDET	Start of D – Settlement Details
M	:22F:	:4!c//4!c	:SETR//TRAD	Type of settlement transaction indicator: trade
O	:22F:	:4!c/[8c]/4!c	:STCO/CEDE/DFLT	Default as stored in KUSTA
M	:16R:		SETPRTY	Start of D1 Settlement Parties (1)
M	:95P:	:4!c//4!a2!a2!c[3!c]	:PSET//BIC address	Place of Settlement
M	:16S:		SETPRTY	End of D1 – Settlement Parties (1)
M	:16R:		SETPRTY	Start of D1 Settlement Parties (2)
M	:95P:	:4!c//4!a2!a2!c[3!c]	:xEAG//BIC address	DEAG if 22H Redemption REAG if 22H Subscription
C	:97A:	:4!c//35x	:SAFE//account number	Account number 5!n or 8!n
M	:16S:		SETPRTY	End of D1 – Settlement Parties (2)
M	:16R:		SETPRTY	Start of D1 Settlement Parties (3)
C	:95P:	:4!c//4!a2!a2!c[3!c]	:xEUC//BIC address	DECU if 22H Redemption RECU if 22H Subscription
C	:97A:	:4!c//35x	:SAFE//account number	Account number 5!n or 8!n
M	:16S:		SETPRTY	End of D1 – Settlement Parties (3)
M	:16R:		SETPRTY	Start of D1 Settlement Parties (4)
C	:95P:	:4!c//4!a2!a2!c[3!c]	:BUYR//BIC address or :SELL//BIC address	SELL if 22H Redemption BUYR if 22H Subscription
C	:97A:	:4!c//35x	:SAFE//account number	Account number 5!n or 8!n
M	:16S:		SETPRTY	End of D1 – Settlement Parties (4)
M	:16R:		AMT	Start of D3 – Conditional Amounts (1)

Financial Institutes - Technical Connection (English)

Version 5.56

M/O	TAG	Format	Value	Comments
M	:19A:	:4!c//3!a15d	:DEAL//EURamount	Trade amount
M	:16S:		AMT	End of D3 – Conditional Amounts (1)
M	:16R:		AMT	Start of D3 – Conditional Amounts (6)
M	:19A:	:4!c//3!a15d	:SETT//EURamount	Settlement amount
M	:16S:		AMT	End of D3 – Conditional Amounts (6)
M	:16R:		AMT	Start of D3 – Conditional Amounts (7)
O	:19A:	:4!c//3!a15d	:BAKL//EURamount	Amount of back-end-load charges
M	:16S:		AMT	End of D3 – Conditional Amounts (7)
M	:16R:		AMT	Start of D3 – Conditional Amounts (8)
O	:19A:	:4!c//3!a15d	:ENTF//EURamount	Amount of entrance charges: Difference between Settlement amount and trade amount
M	:16S:		AMT	End of D3 – Conditional Amounts (8)
M	:16S:		SETDET	End of D – Settlement Details

Caption: M=Mandatory, O=Optional; C=Conditional

Note for (1):

Within the settlement details, the settlement chain of the Vestima+-order issuer (OI) is transmitted.

(2) Message set up MT515 onto INVESTRO order issuer in a Vestima+ ISIN:

The message set up for the order issuer may be found in the following document:

www.clearstream.com

→ Publications & Downloads

→ Investment Funds

→ Vestima+ User Documentation

→ Vestima+ SWIFT

Vestima+ SWIFT User Guide for Order Issuers

Note for (2):

Deviant from the specifications in the document listed above, the field 20C SEME always contains the string „CON“, followed by the 13 digit DWZ order number.

The field 20C RELA contains the bank internal order number, if it had been included into the order. If there had been no bank internal order number included, then the field contains the string “DWZ”, followed by the 13 digit DWZ order number.

Financial Institutes - Technical Connection (English)Version 5.56

3.2.8 Execution Confirmation (MT 519)

Originator: System XONTRO, Xetra, INVESTRO and MAX-ONE

- XONTRO:
- (1) The confirmations of all electronically transmitted orders executed for this price-fixing will be send to the users (financial institutes) after price determination and after the end of the price correction period. The executed nominal is always provided in this message. Execution confirmations are binding. It is not possible to cancel a execution confirmation. (A cancellation is only possible via input of a trade cancellation transaction in a stock exchange transaction).
 - (2) For execution confirmation of spot prices without supplements (price-fixings with turnover), the bank can choose between a notification on the individual order level defined here and a global notification on the instrument level (compare to MT551). This is established in the User-Profile.
 - (3) For spot prices with supplements, which necessitate partial execution of individual orders, execution confirmations are always generated on single order level with details of the executed nominal.
 - (4) Execution confirmations are generated for all orders in the system.
 - (5) For orders executed in favour of a trading member, additional execution confirmations are created in favour of their settlement institute.

- Xetra:
- (1) An execution confirmation is transmitted to the participant after the execution of an order.
 - (2) An execution confirmation is generated for all orders transferred via order routing and via a VALUES-based front-end application (emergency procedure).
 - (3) Execution confirmations are always transmitted on individual order level.
 - (4) In Xetra, one order can be executed in several partial executions with several different prices. Therefore several execution confirmations can be generated per execution (one for each price).

- INVESTRO:
- (1) The order-quitter and order recipient both receive an execution confirmation after price labeling of an INVESTRO order.

Financial Institutes - Technical Connection (English)

Version 5.56

INVESTRO/Vestima+: After an order in an INVESTRO ISIN issued by a Vestima+ order issuer has been executed, there will be no MT519 transferred to the recipient of the order as a copy of the execution confirmation (but rather a MT515).

After an order in a Vestima+ ISIN has been executed, there will be no MT519 transferred to the order issuer (but rather a MT515).

- MAX-ONE:
- (1) After execution of an order, the participant receives an execution confirmation.
 - (2) An execution confirmation is generated for all orders entered via order routing or via a front-end application.
 - (3) Execution confirmations are always transmitted on individual order level.

Financial Institutes - Technical Connection (English)

Version 5.56

MT 519 Execution confirmation			
O / M	Tag	Field description	Format
M	20:	Reference order number: DWZ-Order Number or Xetra-Order Number or Order number of Trading System	<u>13</u> x
M	21:	Bank internal order number (Field F:20 of Order) If not available: /NONREF	16x
M	23:	Transaction type: – BOUGHT or SOLD – Identifier on-exchange trade	6x[/2x]
M	31P:	Contract details: – Execution date (YYMMDD) – Stock exchange location – Trading restriction – Executing broker / counterparty / specialist – Execution time (HHMMSSHS) – Price notation according to key table list – Interest days with algebraic sign – Free field; not used at present	<u>6n3n2a4n8n</u> [b3x]/[<u>1x3n</u>]/[<u>1x</u>]
M	35A:	Type of Securities Unit or par value Rem-Peak-Qty	<u>3a10n,3n</u> /[10n,3n]
M	35B:	1. Line: International Security Identification Number (ISIN) 2. Line: Security description 3. Line: Version number (lastUpdateDat) exec-Id exec-Flag	<u>ISINb12c</u> 35x [<u>18n</u>]/[<u>5x1x</u>]
O	50:	Trading system identification	<u>3c</u>
M	33T:	Currency of the price-fixing (ISO-Code) Execution price	<u>3a6n,4n</u>

Financial Institutes - Technical Connection (English)

Version 5.56

MT 519 Execution confirmation (continued)				
O / M	Tag	Field description		Format
O	72:	1 st Line:	ID-ID of the order-quitter	[DWZ-USERb10x]
		INVESTRO	Algebraic sign of intermediate profit if negative: "N"	[/[N]][/N][2n,2n]
		INVESTRO	Algebraic sign of accumulated yields if negative: "/N"	
		INVESTRO	Offering premium	
		2 nd Line:	INVESTRO Bonus rate	[2n,3n][3n,7n]
		INVESTRO	Reinvestment discount	[7n,8n]]]
		INVESTRO	Intermediate profit (if negative, see 1 st Line)	
		3 rd Line:	INVESTRO Issue price	[7n,8n][9n,8n]
		INVESTRO	Comparison of accumulated dividend yields (if negative, see 1 st Line)	

Rules:

Field 20 (Subscription Order Number):

The DWZ-Order Number has the following structure:

Digits 1 ... 6 (6n): Date of entry of the order into the trading system

Digits 7 ... 13 (7n): 7-digit serial number

Xetra: The Xetra order number does not contain any indication of date or other order attributes.

MAX-ONE: The order number of the Trading system does not contain any indication of date or other order attributes.

Field 21 (Bank internal order number):

XONTRO: The field Bank internal order number is not filled with orders of a trading member executed when being sent to their settlement institute.

INVESTRO: The input into the field Bank internal order number is only required for the order-quitter.

Field 23 (Transaction type):

BOUGHT from MT500

SOLD from MT501

Financial Institutes - Technical Connection (English)

Version 5.56

Field 23 (Stock exchange internal identifier):

BS on-exchange trade

AB off-exchange trade

XONTRO: Generally "AB" or "BS"

Xetra: Generally "AB" or "BS"

INVESTRO: Generally "AB"

MAX-ONE: Generally "BS"

Field 31P (Execution day):

XONTRO: Date of price determination

Xetra: Date of price determination

INVESTRO: Date of price

MAX-ONE: Date of price determination

Field 31P (Stock exchange):

Stock exchange where the order was placed (according to the WM key GD621). Possible value range:

100 – Berlin

150 – Hannover

160 – Munich

120 – Duesseldorf

170 – Stuttgart

130 – Frankfurt

183 – INVESTRO

140 – Hamburg

194 – Xetra Frankfurt

944 – Xetra Vienna

Financial Institutes - Technical Connection (English)

Version 5.56

Field 31P (Trading restrictions):

Possible value range:

Form	Meaning	XONTRO	Xetra	INVESTRO	MAX-ONE
KS	Spot price auction	Yes	No	No	Yes
EK	Opening auction	Yes	No	No	Yes
SK	Closing auction	Yes *)	No	No	No
VA	Variable	Yes	No	Yes	Yes

XONTRO: *) = Closing price orders are no longer permitted; closing price auctions may still be made "technically" – and then covering only "variable" orders.

Xetra: Trading restrictions do not exist in Xetra. The value "XT" is provided as an identifier, because this field must not contain spaces.

INVESTRO: Trading restrictions do not exist in INVESTRO. The value "VA" is provided as an identifier. because this field must not contain spaces.

Field 31P (Executing Broker / Counterpart / Specialist):

XONTRO: CBF account number of executing broker.

Xetra: Since this field is mandatory, it is returned with the default value zero.

INVESTRO: CBF account number of order recipient.

MAX-ONE: KV account number of specialist.

Field 31P (Time of execution):

Xetra: In Xetra, the time of execution is filled with only 6 digits (HHMMSS). The two digits that represent hundredths of seconds will be filled with zero.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 31P (Price notation):

Key account:

blank	Paid
+	Paid; small amounts without turnover
BB	Paid offer
BB+	Paid offer; small amounts without turnover
BBP	Paid ask/offer primary market
BG	Paid bid
BG+	Paid bid; small amounts without turnover
BGP	Paid bid primary market
EB	Only some paid offer
EB+	Only some paid offer; small amounts without turnover
EG	Only some paid bid
EG+	Only some paid bid; small amounts without turnover
RB	Rationed/Rep. Offer
RB+	Rationed/Rep. Offer; small amounts without turnover
RBP	Rationed/Rep. Offer / Scaling down ask primary market
RG	Rationed/Rep. Bid
RG+	Rationed/Rep. Bid; small amounts without turnover
RGP	Rationed/Rep. Bid / Scaling down bid primary market
C	Compensation transaction (only Stock Exchange Frankfurt)

Xetra: Price notations do not exist in Xetra.

INVESTRO: Price notations do not exist in INVESTRO.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 35A (Type of Securities); changes valid as of 23 November 2009:

The following lists the various types of security:

Type of security	Meaning
SHS	Shares
BON	Bonds
BCE	Bonds, similar to certificates
WTS	Warrants
CER	Certificates
FUN	Funds
SUB	Subsidiary rights
RTE	Profit-sharing rights
UNT	Units
MSC	Miscellaneous

Xetra: If the security type cannot be determined, the participant will receive the default value "MSC".

MAX-ONE: If the security type cannot be determined, the participant will receive the default value "MSC".

Field 35A (Rem-Peak-Qty):

Xetra: Contains the visible volume of an Iceberg Order in the Order Book after a price determination.

Field 35B / 2nd Line (Security description):

Xetra: If the security description cannot be determined, the default value "???" is provided.

MAX-ONE: If the security description cannot be determined, the default value "???" is provided.

Field 35B / 3rd Line (Version number lastUpdateDat):

Xetra: Xetra transfers the current version number for partial execution (lastUpdateDat). This version number should be used for future Order Modifications. A version number is not provided when the order is either immediately executed completely or if it is an FOK / IOC order.

XONTRO: Along with order executions during the subscription trading phase, as well as along with "trading on terms of issue" ("*Handel per Erscheinen*"), the issue date (= the Issue Value Date from WM Field GD660) will be inserted into the first 8 bytes of the field lastUpdateDat.

Financial Institutes - Technical Connection (English)

Version 5.56

MAX-ONE: Along with order executions during the subscription trading phase, as well as along with "trading on terms of issue" (*"Handel per Erscheinen"*), the issue date (= the Issue Value Date from WM Field GD660) will be inserted into the first 8 bytes of the field lastUpdateDat.

Field 35B / 3rd Line (exec-Id):

Xetra: Member-ID of the BEST Executor for Xetra BEST.

Field 35B / 3rd Line (exec-Flag):

Xetra: Indication if the order was executed in Xetra BEST.

Field 50 (Trading system identification):

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2

Field 33T / (Currency of the price fixing):

INVESTRO: The field will be filled with the INVESTRO settlement currency.

Field 72 / (ID-flag of order issuer):

XONTRO: For orders executed, this field is filled with the CBF account number of the trading member if the dataset is to be sent to the trader's settlement institute.

Field 72 / All lines:

INVESTRO: The lines of field 72 are only transmitted to the order-quitter.

Field 72 / 1st Line (sign of intermediate profit):

INVESTRO: This field is filled with "N" if a negative profit is given in line 2.

Field 72 / 1st Line (sign of accumulated yields)

INVESTRO: If in line 3, a negative accumulated dividend comparison is provided, this field is filled with "N".

Field 72 / 1st Line (Offering premium):

INVESTRO: This field contains the offering premium in percent.

Field 72 / 2nd Line (Bonus rate):

Financial Institutes - Technical Connection (English)

Version 5.56

INVESTRO: This field contains the bonus rate for settlement of the transaction. The bonus rate "1" will be transmitted for the account on the issue price (standard conditions). The bonus rate "2" will be transmitted for the balance of the issue price at the time of reinvestment (transaction type addition = "W").

If bonuses are not granted, for sales or for rebuys, the field contains "0".

Field 72 / 2nd Line (Reinvestment discount):

INVESTRO: The reinvestment discount will be provided within the reinvestment period.

Field 72 / 2nd Line (Intermediate profit):

INVESTRO: The intermediate profit is always provided. If negative, the algebraic sign is given in line 1.

Field 72 / 3rd Line (Issue price):

INVESTRO: When the funds are in the rebuy phase, the issue price can be empty.

Field 72 / 3rd Line (Comparison of the accumulated dividend yields):

INVESTRO: When it is available and when the currency equals "EUR", the comparison of the accumulated dividend yields, which equal the dividend payment, are provided. If the proceeds are negative, the input of the algebraic sign in line 1 is required.

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.9 Events in security transactions (MT 551)

Originator: System XONTRO, Xetra and MAX-ONE

- XONTRO:
- (1) Notifications from the following instrument-related events:
 - Spot price notifications/execution confirmation on instrument level:
Spot price notices can be received from the user (bank) for all spot prices without supplements as an alternative to the execution confirmation on the individual order level (set up via the user profile). With regard to the execution confirmation on spot price level, the nominals/amounts processed will not be provided.
 - Suspension of price fixings
 - Insertion / modification / deletion of a price-fixing
 - Order changes/deletions because of ancillary rights by the system; notices on instrument level. As a rule, processing of ancillary rights and distribution of the event notification takes place during the end-of-accounting (BUS) of the following trading day. However, processing is also possible on the next day (initiated by broker). At that time, only those orders that were available at the close of accounting of the previous day will be processed.
 - Because of the suspension of the price-fixing after the end-of-day-processing by the system, the processing of order deletions takes place after the online end of XONTRO. Therefore, they cannot be transmitted immediately to the financial institutes. The data (MT551/MT595) will be made available on the next day and can be retrieved via a retrieval request.
 - (2) Notification of other events:
 - Extension of trading hours
 - Interruption of the trading session
 - Start/restart of the trading session
 - Technical malfunction, e.g. loss of line connection to the HOST of the Deutsche Boerse AG
 - Loss of XONTRO user functions
 - General information

Financial Institutes - Technical Connection (English)

Version 5.56

- Xetra:
- (1) Notification about the following instrument-related events:
 - Price fixing suspensions and withdrawals of price fixing suspensions
 - (2) Notification of other events:
 - End of trading session (Indicator XEBAT):
The XEBAT indicator will be delivered for each Xetra and Xetra Frankfurt 2.
 - Note: The BOEND indicator will continue to be sent for the exchange location Frankfurt.

Event numbers are allocated depending on the exchange location being either Xetra or Frankfurt Floor.

INVESTRO: MT551s are not available.

- MAX-ONE
- (1) Notification of the following instrument-related events.
 - Price suspensions
 - Order cancellations by the system due to ancillary rights, notification occurs on instrument level.
The rights are processed and the event notifications (in the end-of-the-day-processing) and are sent prior to trading on the following trading day. Upon the specialist's request, however, processing on the following day is possible only for those orders that were available before the end-of-day processing of the previous day.
 - Order cancellations do to price suspension by the system; notification occurs on instrument level. The event notifications are usually processed and sent after the close of ongoing trading (end-of-day-processing).
 - (2) Notification of miscellaneous events:
 - End of the trading day (indicator: EHEND).

The assignment of event numbers for MAX-ONE occurs similar to that for XONTRO for the Bavarian Exchange – Munich.

Financial Institutes - Technical Connection (English)

Version 5.56

Financial institutes will be notified of an event at the time of it's occurrence or processing.

MT 551 Message about an Event			
O / M	Tag	Field description	Format
M	20:	Event number (TRN)	<u>6</u> n <u>7</u> n
M	35B:	1st Line: International Security Identification Number (ISIN) 2nd Line: Security short description 3rd Line: Security Identification Number (German) if instrument-related; otherwise: 1st Line: Indicator group: MISC = not instrument-related TECH = Technology, not instrument-related nnnn = CBF account of the broker CBF account of the Xetra participant CBF account of the MAX-ONE participant	<u>[ISINb12c]</u> 35x <u>[6x]</u> 35x
O	50:	Trading system identification	<u>3</u> c
M	79:	Event key: 1st Line 2nd Line 3rd Line <i>See the following tables for details !</i>	<u>5c6n6n[6n6n]</u> /[<u>6</u> n, <u>4</u> n]/[N]/[<u>3</u> n] /[<u>3</u> a]/[<u>4</u> n]/[<u>2</u> n] /[<u>1x3</u> n]/[<u>ISINb12c]</u> /[<u>4</u> x]/[<u>6</u> n, <u>4</u> n]/[<u>6</u> n, <u>4</u> n] /[<u>2</u> a]] /[<u>6</u> n, <u>4</u> n]/[<u>3</u> x]/[<u>6</u> n, <u>4</u> n] /[<u>3</u> x]]
O	72:	Free information text	3*35x

Rules:

Field 20 (Event number):

The event number (TRN) is structured as follows:

Digits 1 ... 6 (6n): Date using the format YYMMTT

Digits 7 ... 13 (7n): 7-digit serial number

Financial Institutes - Technical Connection (English)

Version 5.56

Field 35B (Indicator group):

The indicator group nnnn (CBF account number of the broker, the Xetra participant, or the MAX-ONE participant) can only appear at the indicator (Field F:79 / 1st Line = TREXP, XEBAT or EHEND).

Field 50 (Trading system identification):

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2

Field 79 (General description):

Line	Description
1 st Line	Event key: Indicator 1. Date (YYMMDD) 1. Time (HHMMSS) 2. Date (YYMMDD) 2. Time (HHMMSS)
2 nd Line	Price / limit mark down N = Identifier for Limit spread Stock exchange location Currency of the price fixing Executing broker Type of Plus-/Minus Announcement: 01 = single (+/-) 02 = double (++) 03 = triple (+++/-) Interest days with algebraic sign New instrument of securities Type of ancillary rights Bid price Ask price Indicator for the close of the acceptance
3 rd Line	Old price Old supplement New price New supplement

Field 79 / 1st Line:

Financial Institutes - Technical Connection (English)

Version 5.56

Following is a description of the single event keys in Field F:79 / 1st Line depending on the indicator group in Field F:35B:

Indicator group (Field F:35B)	Event key (Field F:79 / 1 st Line): Indicator	
ISIN (instrument- related)	FIXOF	(Fixing stopped) Suspension of price fixing
	FIXON	(Fixing restarted) Withdrawal of price fixing suspension
	SPOTR	(Spot-Price) Spot price notification
	EKURS	Insertion of a new price fixing
	AKURS	Modification of a price fixing
	LKURS	Deletion of a price fixing
	ORDCH	(Orders changed) Order changes/-deletions on instrument on behalf of Ancillary rights. Order deletions on instrument due to of the price-fixing (End of the day processing)
	ORDIN	Information concerning ancillary rights, that do not effect any shares in the Order Portfolio (only informative)
MISC	BOEND	(XONTRO end of accounting); start of next trading day in XONTRO. XONTRO has created all event notifications (MT551), execution confirmations (MT519) and contract notes (MT512, MT599). For the expired trading day, no more of these messages will be created for the XONTRO trading system.
	SAKIV	(SAKI END preliminary); last system message actively sent for elapsed "SAKI day" (except for "SAKIE"). The system will, however, remain open for at least 10 more minutes, e.g. for retrievals or logouts.
	SAKIE	(SAKI END); last system message for elapsed "SAKI day". The OSN sequence numbers will be reset afterwards.
	BOERE	(XONTRO restart); XONTRO available again; Order transmission will no longer possible "today"
	ORDRE	(XONTRO restart including Orders) XONTRO again available; Order transmission is possible again
	BOINT	(Stock exchange interrupt) Interruption of the trading sessions; No further processing functions by the brokers are possible (including price determination)
	TRINT	(Trade interrupt) Interruption of the price determination; other broker functions (e.g. post processing) are allowed
	BOSTA	(Boerse started) Restart of the trading session (after BOINT)
	TRSTA	(Trading started) Restart of the price determination (after TRINT)
	NBSTA	(post processing started) restart of the trading sessions only for re-work functions; price determination no longer possible (after BOINT)
	TREXP	(Trading time expanded) Information on extension of the trading hours (global)
	INF01	Information (general notifications)

Financial Institutes - Technical Connection (English)

Version 5.56

Indicator group (Field F:35B)	Event key (Field F:79 / 1 st Line): Indicator	
TECH	NOT01	Bank cannot transmit orders (e.g. due to malfunction of the line connection Bank ↔ System)
	NOT02	Host is not available (e.g. loss of the HOST computer of Deutsche Boerse AG)
	NOT03	Bottleneck in System of the Deutsche Boerse AG (e.g. Bank does not receive order confirmations)
<ul style="list-style-type: none"> – After the malfunction has ended, this message concerning NOT01 or NOT02 will be transmitted to the bank. The message concerning NOT03 will be transmitted to the bank at the time when the malfunction occurs. These messages will only be transmitted to financial institutes that were logged-on at the time of the malfunction. – After the malfunction has ended, those financial institutes that were automatically disconnected will receive messages that the malfunction has ended (ORDRE or BOERE). After reception of this message about the end of the malfunction, the bank can rejoin the data exchange with the Deutsche Boerse AG, starting with the logon message. – Generally, after messages of the indicator group TECH have been sent to the bank, an automatic logoff of all LTERMs of the bank (including transmission of the logoff confirmation (MT003 in MT598 with GV-Code = 023)) occurs. Exception: At NOT01, only malfunctioning LTERMs are logged-out. 		
nnnn	TREXP	(Trading time expanded) Information about an extension of the trading hours (Market segment)
	XEBAT	End of Xetra order routing at participant's level End of Xetra Frankfurt 2 order routing at participant's level
	EHEND	End of MAX-ONE order routing at participant's level

Financial Institutes - Technical Connection (English)

Version 5.56

Xetra: XEBAT is only valid for the Xetra participant listed, at the relevant exchange location given. For this participant, no more order executions or positive order confirmations will be transferred after XEBAT for the exchange location indicated.

The actual status for all messages that have not, as yet, been answered, cannot be determined electronically. Because of that, manual post processing of these orders is required. The negative confirmations for these outstanding messages will be transferred after XEBAT, together with the appropriate error message (XK0300F, Field F:79).

In exceptional cases, the XEBAT will only be completed and sent during the end-of-day-processing. Because it cannot be determined that all broadcasts have been sent to the respective participant, this message will be transmitted with the text Field F:72 filled: XK0310F EVTL. FEHLENDE BROADCASTS.

MAX-ONE:

EHEND is always only valid for the MAX-ONE participant listed. No further order transactions or positive order confirmations will be transferred for this participant after EHEND.

For all messages that have not, as yet, been answered, the actual status cannot be determined electronically. Because of that, manual post processing of these orders is necessary. The negative confirmations for these outstanding messages will be transferred after EHEND with a respective error notice (BC9430F, Field F:79).

Field 79 / 2nd Line (Stock exchange location):

Cf. WM key GD621. Possible value range:

100 – Berlin	150 – Hannover
	160 – Munich
120 – Duesseldorf	170 – Stuttgart
130 – Frankfurt	194 – Xetra Frankfurt
140 – Hamburg	994 – Xetra Vienna

Field 79 / 3rd Line (Old supplement / New supplement):

Key index:

blank	Paid
P	Paid primary market
+	Paid; small amounts without turnover
BB	Paid ask
BB+	Paid ask; small amounts without turnover
BBP	Paid ask/offer primary market
BG	Paid bid
BG+	Paid bid; small amounts without turnover

Financial Institutes - Technical Connection (English)

Version 5.56

BGP	Paid bid primary market
EB	Only some paid ask
EB+	Only some paid ask; small amounts without turnover
EG	Only some paid bid
EG+	Only some paid bid; small amounts without turnover
RB	ask
RB+	Rationed /Rep. ask; small amounts without turnover
RBP	Rationed/Rep. Offer / Scaling down ask primary market
RG	Rationed /Rep. bid
RG+	Rationed / Rep. bid; small amounts without turnover
RGP	Rationed/Rep. Bid / Scaling down bid primary market
C	Compensation transaction (only Frankfurt stock exchange)
B	Ask
BP	Ask primary market
G	Bid
-	Cancelled
-B	Cancelled ask
-G	Cancelled bid
-T	Cancelled quote
-BT	Cancelled ask / quote
-GT	Cancelled bid / quote

Field 79 / 1st, 2nd and 3rd Line (Event key):

Use of the indicators requires the following field input:

Indicator	Mandatory fields (M)	Optional fields (O)
FIXOF	Stock exchange location 1. Date (valid as of) 1. Time (valid as of): Current time if valid for the same day; otherwise: '000000'	2. Date (valid until) 2. Time (valid until) generally, if 2. Date required: '235959' Type of ancillary right: The supplements '-ZG' (cancelled drawing) and 'PO' (Public Offering) are possible
	XONTRO: Along with to 'PO' (Public Offering) addition, the message serves as a hint indicating a so called subscription order freeze phase. As with any suspension event, order routing for this ISIN will not be possible afterwards. Orders already having been entered by the customers will, however, not be deleted when this addition is being delivered. If the optional fields are not completed, the suspension will be valid until the explicit redemption is delivered.	
FIXON	Stock exchange location 1. Date (valid as of)	None

Financial Institutes - Technical Connection (English)

Version 5.56

Indicator	Mandatory fields (M)	Optional fields (O)
	1. Time (valid as of)	
SPOTR	Stock exchange location 1. Date (valid as of) 1. Time (valid as of) Price determination time Price (= Spot price) Executing lead broker	Currency Interest days
TREXP ("nnnn")	Stock exchange location 1. Date (YYMMDD) 1. Time (HHMMSS)	2. Date (YYMMDD) 2. Time (HHMMSS)

Financial Institutes - Technical Connection (English)

Version 5.56

Indicator	Mandatory fields (M)	Optional fields (O)
EKURS	Stock exchange location	2. Date (of execution)
AKURS	1. Date (of the price determination)	2. Time (of execution)
LKURS	1. Time (of the price determination)	Old price (with AKURS / LKURS)
		Old supplement (with AKURS / LKURS)
		New price (with EKURS / AKURS)
		New supplement (with EKURS / AKURS)
ORDCH	1. Date (valid as of): This Field contains of the execution day of the trading event 1. Time (valid as of): Generally '000000' Type of ancillary rights → For the possible types of ancillary rights see the following table	Stock exchange location Limit markdown N = Identifier for limit markup Currency New instrument of securities (= Instrument modification) If none of optional fields is filled, the orders were cancelled.
ORDIN	1. Date (valid as of): This field contains the execution day of the trading event 1. Time (valid as of): Generally '000000' Type of Ancillary rights → For the possible types of ancillary rights see the following table	Stock exchange location
BOEND	1. Date (valid as of) 1. Time (valid as of)	free information text (Field F:72)
SAKIV	1. Date (YYMMDD) 1. Time (HHMMSS)	free information text (Field F:72) for field assignment cf. notes for "SAKIV"
SAKIE	1. Date (YYMMDD) 1. Time (HHMMSS)	free information text (Field F:72) for field assignment cf. notes for "SAKIE"
ORDRE	Stock exchange location	free information text (Field F:72)
BOERE	1. Date (valid as of)	
TRINT	1. Time (valid as of)	
TRSTA		
BOINT		
BOSTA		
NBSTA		
INF01		
XEBAT		
("nnnn")		
EHEND		
("nnnn")		
TREXP	Stock exchange location 1. Date (valid until)	none

Financial Institutes - Technical Connection (English)

Version 5.56

Indicator	Mandatory fields (M)	Optional fields (O)
NOT01	Stock exchange location	free information text (Field F:72)
NOT02	1. Date (valid until)	
NOT03	1. Time (valid until)	

ORDCH:

ORDCH: The following types of ancillary rights are allowed:			
Type of AR	Description		Action upon order portfolio
EREO	ex Redenomination due to Euro		Order deletion
EXBR	ex Subscription rights (ordinary capital increase)		Order deletion
EXBA	ex Bonus shares (Capital increase from company's financial resources)		Order deletion
EXAG	ex Dividend distribution	(with participation certificates)	Order deletion
EXDI	ex Dividend (Dividend distribution)		Order deletion
EXDA	ex Dividend (Dividend distribution)	(with foreign shares)	Order deletion
EXZS	ex Interest	(with redemption)	Order deletion
EXAZ	ex Compensation payments	(with shares)	Order deletion
EXBO	ex Bonus rights	(with shares)	Order deletion
HL	Comment (details to be published separately)		Order deletion
HA	Comment (details to be published separately)		Limit markup
EABC	ex various Rights		Order deletion
EXSP	Division (Split) with foreign shares		Order deletion
EXRS	"Reverse split" (merge) for shares		Order deletion
WKNA	ISIN change		Instrument modifications
ENOT	Suspension of price fixing		Order deletion
LHBR	End of subscription rights trading		Deletion of limited orders
SBSL	No SB-/SL-orders possible		Order deletion
MSEG	For XONTRO invalid market segment		Order deletion

Financial Institutes - Technical Connection (English)

Version 5.56

ORDCH: <i>The following types of ancillary rights are allowed:</i>		
Type of AR	Description	Action upon order portfolio
MBKS	Modification single price quotation flag, smallest tradeable unit, minimum amount or increment minimum lot single price fixing	Order deletion / modification
MBVA	Modification variable trading flag, smallest tradeable unit, minimum amount or increment minimum lot continuous price fixing	Order deletion / modification
KSVA	Change of single price fixing in continuous price fixing without single price fixing	Order deletion / modification
KSKH	Change of single price fixing in no trading	Order deletion
VAKS	Change from continuous price fixing without single price fixing to single price fixing	Order deletion / modification
VAKH	Change from continuous price fixing without single price fixing to no trading	Order deletion
VKKS	Change from continuous price fixing with single price fixing to single price fixing	Order deletion / modification
VKVA	Change from continuous price fixing with single price fixing to continuous price fixing without single price fixing	Order deletion / modification
VKKH	Change from continuous price fixing with single price fixing to no trading	Order deletion

ORDIN:

ORDIN: <i>The following types of ancillary rights are allowed:</i>		
Type of NR	Description	Action upon order portfolio
EXAR	ex Dividend distribution with bonds	none; only for information
H	Comment (details to be published separately)	none; only for information

XONTRO comments for ORDCH and ORDIN:

1. The date and time of the processing of the trading events are included in the header. As a rule, this point in time will be at the end-of-accounting (BUS) before the execution day.
2. However, in exceptional cases, processing is also possible on the execution day before the first price fixing. Generally only those orders are processed whose entry was submitted up to the end-

Financial Institutes - Technical Connection (English)

Version 5.56

of-accounting (BUS) before the ex day in XONTRO. With regard to the trading events: All orders, whose DWZ order number is identical to the execution day in the first 6 digits (Form: YYMMDD) and all orders which were submitted by the order buyer with validity starting on the following day, will not be processed.

3. This is not valid if the ancillary right is LHBR. In this case, the limited orders with validity starting the following day will also be deleted.

MAX-ONE Comments for ORDCH:

1. The date and time of the processing of the trading events are included in the header. As a rule, this point in time will be at the end-of-accounting (BUS) before the ex day.
2. However, in exceptional cases, processing is also possible on the execution day before the first price fixing. Generally orders are only processed, if the entry was submitted before the end-of-accounting (BUS) before the ex day.

Comments for SAKIV indicator:

The field F:72 will be used as follows:

Position 1 .. 6:	SAKI date – current value
Position 7:	Space
Position 8 .. 27:	Last OSN assigned within each OSN sub-division, separated by “/”s (in case no OSN had been assigned within either of the sub-divisions, then the corresponding initial value 000000, 300000, 600000 is inserted)

Comments for SAKIE indicator:

The field F:72 will be used as follows:

Position 1 .. 6:	SAKI date – new value after SAKI END
Position 7:	Space
Position 8 .. 13:	SAKI date – old value until SAKI END
Position 14:	Space
Position 15 .. 34:	Last OSN assigned within each OSN sub-division, separated by “/”s (in case no OSN had been assigned within either of the sub-divisions, then the corresponding initial value 000000, 600000 is inserted)

Financial Institutes - Technical Connection (English)Version 5.56

3.2.10 Inquiry: Modification / Deletion / Cancellation / Trade reversal (MT 595)

- Originator: User (Bank) and Systems (XONTRO, Xetra, INVESTRO and MAX-ONE)
- Bank:
- (1) Transmission of order modifications and deletions.

A temporary notice (MT596) will be issued for order modifications / deletions during an ongoing price determination in XONTRO or during the order book balancing in Xetra or in MAX-ONE in the period between price determination and order execution. Modifications / deletions of the order will be presented in the system and automatically processed after de-freezing of the order book or after the end of the order book balancing. The bank will receive a final message (MT596), which shows the order acceptance or rejection including the actual time of the final approval / rejection.
 - (2) Transmission of INVESTRO order deletions. Along with order deletions having been transferred from INVESTRO onto the Vestima+ trading system, the bank only receives a preliminary message (MT596) in the first place. After the response from Vestima+ has arrived, the bank receives a message (MT596), in which the acceptance or rejection of the order deletion in Vestima+ is reported. After this, the bank receives a status report (MT595) about the execution or rejection of the order deletion by the Vestima+ depository bank (OHA).
 - (3) Transmission of a cancellation or reversal of a direct bank (OTC) trade. The bank need to explicitly apply for the transmission of these message types. BrainTrade will then have the bank's user profile alter accordingly. The entry of a cancellation or deletion will be forwarded onto XONTRO Trade immediately. If realtime contract notes are to be transmitted onto the participating bank(s), then the appropriate realtime contract note(s) (MT512, MT599) is/are immediately generated and transmitted accordingly.
 - (4) Transmission of an OTC Trade Report cancellation. The entry of a cancellation will be forwarded to the publishing agent immediately. The entry and publication of a cancellation may be done on the same day and for the previous four business days. Cancellation requests for older trade reports are rejected.
- XONTRO:
- (1) Transmission / record of order modifications and deletions that were entered via a terminal by the bank or entered into the system by a broker.
 - (2) Notification on order modifications / deletions due to ancillary rights (on individual order level).
 - (3) Notifications on partial deletions by partial executions of an incomplete multiple count of the minimum value of variable price trading.

Financial Institutes - Technical Connection (English)Version 5.56

- (4) Notification of the annual end-of-year order deletions (December 31st).
 - (5) Notification on modifications and deletions of orders of a trading member, to be forwarded onto their settlement institute.
 - (6) Notification of the change of a stop order into a market order.
- Xetra:
- (1) Transmission of all order modifications and order deletions, that were entered via a VALUES based front end application (emergency procedure).

Comment: The registration in the VALUES based front end application must be done with an order routing trader ID.
 - (2) Transmission of all order modifications and deletions that were entered "on behalf" of the trader (e.g. by Market Supervision)
 - (3) Notification of order modifications and deletions due to ancillary rights (on the order level). These notices are interpreted like order modifications or deletions that were entered via a VALUES based front end application.
- INVESTRO
- (1) Transmission of INVESTRO order deletions to the receiving bank.
 - (2) Transmission of INVESTRO order deletions that were entered into the system via terminal by the bank. Along with order deletions having been transferred from INVESTRO onto the Vestima+ trading system, the bank only receives a preliminary message (MT595) in the first place. After the response from Vestima+ has arrived, the bank receives a final message, in which the execution (MT595) or the rejection (MT596) of the order deletion is reported.
- MAX-ONE:
- (1) Transmission / recording of order modifications and order cancellations that were entered by the bank and the specialist into the system via a front end application.
 - (2) Notification on order cancellations due to ancillary rights (on the order level).
 - (3) Notification on order cancellations due to expiration.
 - (4) Transmission of order cancellations entered "on behalf" of the participants (e.g. by the Trading Supervisor) due to ancillary rights on the order level.

Financial Institutes - Technical Connection (English)Version 5.56

Rules:

Field 11 (Message type or date of the original message):

These fields are to be filled as follows:

- Message Type: 500, 501 or 511
- Date of original message: Date of the order acknowledgement or date.

Along with an OTC Trade Report cancellation, these fields are to be filled as follows:

- Message Type: 513
- Date of original message: OTC Trade Report date.

Field 20 (Bank internal order number or trade number, or OTC Trade Report number):

XONTRO: The field bank internal order number is not filled if the message containing the order of a trading member is directed to their settlement institute.

On occasion of a direct (OTC) trade being cancelled or reversed, the field 20 is to be filled with the 16-character trade number.

Along with an OTC Trade Report cancellation, the field 20 is to be filled with the 16-digit OTC Trade Report number.

INVESTRO: The field bank internal order number is only filled at the originator of the order.

Field 21 (Order reference number):

The DWZ order number is structured as follows:

- Digits 1 ... 6 (6n): Date of order input into the trading system
- Digits 7 ... 13 (7n): 7-digit serial number

Xetra: The Xetra order number contains no reference about the date or other order attributes.

MAX-ONE: The order number contains no reference about the date or other order attributes.

Field 20 (Bank internal order number or trade number) / Field 21 (Order reference number):

For bank-to-system messages, input into one of the two fields is sufficient. When input is entered into both fields, the fields must reference the same order within the order portfolio, otherwise the message will be rejected.

For the cancellation or reversal of a direct (OTC) trade, as well as along with the cancellation of an OTC Trade Report, field 20 must be filled, and an entry in field 21 will be ignored.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 75 (Transaction code):

The following list shows which systems support which of the various transaction codes (XONTRO, Xetra and INVESTRO):

Code	Meaning
Bank to System:	
111	XONTRO: Order modification Xetra: Order modification MAX-ONE: Order modification
113	XONTRO: Order deletion / Partial Order deletion Xetra: Order deletion INVESTRO: Order deletion MAX-ONE: Order deletion
114	XONTRO: Cancellation direct (OTC) trade
115	XONTRO: Reversal direct (OTC) trade
116	XONTRO: OTC Trade Report cancellation
System to Bank:	
041	XONTRO: Order modification acknowledgement via terminal input by bank Xetra: Order modification acknowledgement via VALUES based front end application MAX-ONE: Order modification acknowledgement via front end application by bank
042	XONTRO: Order modification acknowledgement via terminal input by broker MAX-ONE: Order modification acknowledgement via front end application by specialist
043	XONTRO: Order deletion acknowledgement via terminal input by bank Xetra: Order deletion acknowledgement via VALUES based front end application IMVESTRO: Acknowledgement INVESTRO order deletion via terminal input by Bank MAX-ONE: Order deletion acknowledgement via front end application by bank
044	XONTRO: Order deletion acknowledgement via terminal input by broker MAX-ONE: Order deletion acknowledgement via terminal input by specialist
045	XONTRO: Order (partial) deletion of spot price peak due to partial execution

Financial Institutes - Technical Connection (English)

Version 5.56

Code	Meaning
046	XONTRO: Order modification due to ancillary rights
047	XONTRO: Order deletion due to ancillary rights MAX-ONE: Order deletion due to ancillary rights
048	XONTRO: Postponed modification via terminal (due to freeze) MAX-ONE: Postponed modification via front end application (due to price labeling) Xetra: Postponed modification via VALUES based front end application (due to freeze)
049	XONTRO: Postponed deletion via terminal (due to freeze) MAX-ONE: Postponed deletion via front end application (due to price labeling) Xetra: Postponed deletion via VALUES based front end application (due to freeze) INVESTRO/Vestima+: Postponed deletion via terminal to Vestima+ (due to yet outstanding confirmation by Vestima+)
050	XONTRO: Order deletion due to time limit MAX-ONE: Order deletion due to time limit
051	Xetra: Conversion of a stop order into a market order Xontro: Conversion of a stop order into a market order
052	Xetra: Conversion of a stop limit into a limit order
053	Xetra: Order modifications "on behalf" (e.g. by Market Supervision) INVESTRO/Vestima+: Order insertion was positively acknowledged by Vestima+ depository bank (OHA); cf. field 77A
054	XONTRO: Order deletion by Systems Administration (Superuser) Xetra: Order deletion "on behalf" (e.g. by Market Supervision) MAX-ONE: Order deletion "on behalf" (e.g. by Trade Supervision) INVESTRO/Vestima+: Order deletion by Vestima+ depository bank (OHA)
055	Xetra: Notification of the un-executed part of a FOK/IOC order or market to limit order
056	Xetra: Modification of a stop limit order
057	Xetra: Modification of an iceberg order
058	Xetra: Modification of a market to limit order
060	XONTRO: Activation of an EG ("event driven") order MAX-ONE: Activation of an EG ("event driven") order
061	XONTRO: Reset of an activated order onto an EG ("event driven") order
450	INVESTRO/Vestima+: Deletion executed by Vestima+ / OHA

Financial Institutes - Technical Connection (English)

Version 5.56

Code	Meaning
451	INVESTRO/Vestima+: Deletion rejected by Vestima+ / OHA (see field F:77A)
452	INVESTRO/Vestima+: Provision check in Vestima+ yielded negative result; order remains open, but may not be executed until provision check yields positive result (see field F:77A)
453	INVESTRO/Vestima+: Provision check in Vestima+ yielded positive result (see field F:77A)
454	INVESTRO/Vestima+: Along with a deletion via terminal dialog, the order deletion entry was confirmed by Vestima+. The deletion is still preliminary as it can still be rejected by the OHA (see field F:77A)
543	INVESTRO: Acknowledgement of an order deletion for the recipient
641	XONTRO: Acknowledgement of an order modification of a trading only member, to be sent to the settlement institute
643	XONTRO: Acknowledgement of an order deletion of a trading only member, to be sent to the settlement institute (also due to expiry or deletion of, e.g., market supervision)
645	XONTRO: Order (partial) deletion of spot price peak due to partial execution and simultaneous suspension of the spot price for trading only member, to be sent to the settlement institute
646	XONTRO: Order modification due to ancillary rights for trading only member, to be sent to the settlement institute
647	XONTRO: Order deletion due to ancillary rights for trading only member, to be sent to the settlement institute
660	XONTRO: Activation of an EG ("event driven") order for a trading-only member, to be sent to the settlement institute
661	XONTRO: Reset of an activated order for a trading-only member onto an EG ("event driven") order, to be sent to the settlement institute

Field 75 (Transaction code = 111 Order modification):

The fields that need to be changed must be indicated in field F:79. In XONTRO, Xetra, and MAX-ONE, the bank internal order number may be changed by specifying the change details in field F:79. In field F:20, only the bank internal order number of the order that needs to be changed may be indicated.

INVESTRO: An order modification is not permitted.

Financial Institutes - Technical Connection (English)

Version 5.56

MAX-ONE: A bank internal order number that has been assigned may not be removed (input of "/NONREF" in field F:79 is not permitted).

Field 75 (Transaction code = 113 Order cancellation):

The order being referenced by field F:20 or F:21 will be removed completely.

Field F:79 may not be filled. Exception: Xetra (cf. Field description for F:79).

Field 75 (Transaction code = 114 Direct (OTC) trade cancellation):

The direct (OTC) trade being referenced by field F:20 will be cancelled. If realtime contract notes are to be transmitted onto the participating bank(s), then the associated cancellation contract note(s) is/are also generated and transmitted immediately.

Field 75 (Transaction code = 115 Direct (OTC) trade reversal):

The direct (OTC) trade being referenced by field F:20 will be reversed. The new trade number will be delivered in the MT596 (Field F:76, 1st line, New trade number). If realtime contract notes are to be transmitted onto the participating bank(s), then the associated new contract note(s) is/are also generated and transmitted immediately.

Field 75 (Transaction code = 116 OTC Trade Report cancellation):

The OTC Trade Report referenced by in field F:20 will be reported as cancelled to the publishing agent.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 75 (Transaction code = 045):

With spot price auctions bearing certain price notations (e.g. bG, bB, etc.), for variable orders to be executed within the spot price auction, partial executions with uneven multiple amounts of the minimum size set for variable trading are allowed to be executed, too. In these cases, the remaining order size that has been left over afterwards does not fulfill the prerequisites for variable trading any longer. For the resulting 'spot price peak' of the remaining order, an order cancellation or a partial cancellation will be issued. The bank will be notified of these 'new' transactions via GV-Code = 045, as follows:

Field F:20: Bank internal order number of the original order

Field F:21: DWZ order number of the original order

Field F:79: The amount of the variable order (spot price peak) which is to be (partially) deleted

Example: Original Order: Amount = 200
 DWZ order number = 9211010000001
 Bank internal order number = 4711
 Partial execution on 11-15-92: Nominal = 80 (MT519/:35A:SHS80,)

(1) A variable order remains from the original order:

Bank internal order number = 4711
 DWZ order number = 9211010000001
 Amount = 100

(2) In addition, there is an insertion of a 'new' spot price order:

Amount = 20 (spot price peak)
 Bank internal order number = not filled
 new DWZ order number = 9211150000002
 other fields = identical to the original order

The bank receives the following message (MT595):

```
:20:4711
:21:9211010000001
:75:045
:11:500
921101
:79:20:DWZ9211150000002
35A:SHS20,
.....
```

(Field F:79 contains all fields of the newly inserted spot price order)

Field 75 (Transaction code = 046 / 047):

Financial Institutes - Technical Connection (English)Version 5.56

XONTRO: If the bank has the following entries in its User-Profile, information at order level is generated:

Order Portfolio modifications due to ancillary rights: J (=MT551 event notification)
Information at order level: J

For Xetra, these GV-Codes are not provided.

For INVESTRO, these GV-Codes are not provided.

Field 75 (Transaction code = 048 / 049):

If a postponed modification / deletion, that was entered in XONTRO via Terminal or in MAX-ONE via a Front-end application, cannot be executed because of an interim spot price labeling, a MT595 will not be provided. Instead, a MT596, with transaction code 315/325 and with Error Code BC1520F (= order already executed), will be transmitted. As soon as the postponed modification / deletion was successfully executed, a MT595 with GV-Code 041 or 043 will be provided.

For postponed modifications of the bank internal order number, Field F:20 already contains the new bank internal order number.

Field 75 (Transaction code = 050):

MAX-ONE: The processing of order deletions due to validity limitations is done immediately after the continuous trading session (end of trading processing). Therefore, the data (MT595) will be transmitted to the financial institutes on the same day when the order deletion was executed.

Field 75 (Transaction code = 051):

XONTRO: The conversion of a stop order into a market order will be made known to the bank using the GV-code 051. The bank may apply at BrainTrade for the reception of these messages by means of a user profile alteration.

Xetra: Upon conversion of a stop market order to a market order in Xetra, the attribute "lastUpdateDat" will be updated. The bank will be notified of these modifications by GV-code 051.

Field 75 (Transaction code = 052):

Xetra: The bank will be notified of the conversion of a stop limit order into a limit order; the turnover limit will be transmitted to the bank.

Field 75 (Transaction code = 053):

Xetra: The bank will be notified of order modifications completed "on behalf" (e.g. by Market Supervision), using the GV-code 053.

Field 75 (Transaction code = 054):

Financial Institutes - Technical Connection (English)Version 5.56

XONTRO: A customer's orders can be deleted by the System Administrator (Superuser) because of an exceptional event. The bank will be notified of these deletions by GV-Code 054.

Xetra: The bank will be notified of order deletions completed "on behalf" (e.g. by Market Supervision), by GV-Code 054.

MAX-ONE: The bank will be notified of order deletions that have been executed "on behalf" of (e.g. by Trade Supervision) via GV-Code 054.

Field 75 (Transaction code = 055):

Xetra: When a FOK / IOC order is entered via Xentric Order or via a VALUES-based front-end application, a non- or partial- execution may occur. In this case, the part of the order that was not executed will be transmitted to the bank in Field F:79:35A (unit or par value) using the details of GV-Code 055. If a partial execution occurs (only relevant for IOC orders), then the execution confirmation(s) (message type MT 519) will be sent to the bank. A description of the steps taken when an FOK / IOC order is entered can be found in paragraph 3.2.10. Response (MT 596).

When a market-to-limit order is entered via a VALUES-based front-end application, a deletion of the order may occur which is caused by the order book situation. This deletion will be transmitted via GV-Code 055.

Field 75 (Transaction code = 056):

Xetra: The bank will be informed via GV-Code 056 of modifications of a stop market order or a stop limit order via a VALUES-based front-end application.

Field 75 (Transaction code = 057):

Xetra: The bank will be informed via GV-Code 057 of modifications of an iceberg order via a VALUES-based front-end application.

Field 75 (Transaction code = 058):

Xetra: The bank will be informed via GV-Code 058 of the modification of a market-to-limit order via a VALUES-based front-end application.

Field 75 (Stock exchange location):

(according to WM key GD621). Possible value area:

100 – Berlin

150 – Hannover

160 – Munich

120 – Duesseldorf

170 – Stuttgart

130 – Frankfurt

183 – INVESTRO

140 – Hamburg

194 – Xetra Frankfurt

944 – Xetra Vienna

Financial Institutes - Technical Connection (English)Version 5.56

XONTRO: The stock exchange location is mandatory for a cancellation or a reversal of a direct (OTC) trade, as well as for an OTC Trade Report cancellation. The exchange location given must match the party having entered the cancellation or reversal, as given in field 75.

The cancellation or reversal of a direct (OTC) trade is only possible at those locations for which the MT511 is allowed (cf. field 31 P). The OTC Trade Report cancellation is only possible at those locations for which the MT513 is allowed (cf. field 31 P).

INVESTRO: Stock exchange location is a mandatory field in the bank-to-system message as well as in the system-to-bank message.

Xetra: Stock exchange location is a mandatory field in the bank-to-system message as well as in the system-to-bank message.

Field 75 (Unit or par value):

This field (the current value should be known to the customer) may be added when using the GV-Codes = 111 or 113. If the current valid unit count / nominal of the order in XONTRO, Xetra (only with order modifications) or MAX-ONE is unequal to this field, the order modification, order split, or order deletion will be rejected. The rejection contains one of the following error codes:

XONTRO:	BC5120F
Xetra:	XA2010F
MAX-ONE:	BC5120F

If this field is not filled, the respective actions will generally be executed without a check of the unit count / nominal.

Along with the GV-Code = 116, this field will not be validated.

Xetra: If a modification of the currently valid unit count / nominal is desired, this can be achieved via entry in Field: F:79:35A.

Xetra: The field current valid unit count / nominal will only be checked for a modification (GV-Code 111). Along with an order deletion (GV-Code 113), an entry in this field will be ignored. It is recommended that this field should be filled along with order modifications, especially in cases where the attribute "lastUpdateDat" is not filled.

INVESTRO: The Tag 75 Field: Unit / nominal must not be filled for GV-Code 113. If the field is filled, the order deletion will be rejected with error code BC0210F.

Field 75 (Order quitter / cancellation, reversal or OTC Trade Report cancellation issuer):

If, for financial institutes with 'central connection', the CBF account number of the order quitter differs from the 'main branch' CBF account number, this field must be included within messages from bank to system. This field is generally filled for system-to-bank messages.

Financial Institutes - Technical Connection (English)

Version 5.56

Recommendation: The field should generally be maintained by the financial institutes (including financial institutes with a 'de-centralized' connection).

XONTRO: For cancellations and reversals of direct (OTC) trades, as well as for OTC Trade Report cancellations, the issuer's CBF account number must be given here. The entry must correspond to the stock exchange location given in field 75.

XONTRO: (system-to-bank) Within the dataset to be sent to the settlement institute (GV Codes 641 / 643 / 645 / 646 / 647), the CBF account number of the trading member will be stored here.

INVESTRO: (system-to-bank) The CBF account number of the order issuer will be placed here within the dataset to be sent to the recipient of an order (GV-Code 543).

Field 75 (ID flag at terminal input / VALUES based front-end application):

Xetra: The ID flag contains the last six characters of the order routing trader ID.

XONTRO: (system-to-bank) Within the dataset to be sent to the settlement institute (GV Codes 641 / 643 / 645 / 646 / 647), the field will not be filled.

INVESTRO: (system-to-bank) Within the dataset to be sent to the recipient of an order (GV-Code 543), this field will not be filled

Field 75 (Creation time of message):

The creation time contains the time of the order / trade entry into the system.

Field 75 (Type of ancillary rights):

The type of ancillary rights will also be transmitted (see also MT 551) for order modifications / deletions due to ancillary rights (GV-Code 046 / 047). With order deletions due to a suspension of a price-fixing, "AUSG" will be provided; with order deletions due to 'drawings', "ZG" will be delivered as the key value.

MAX-ONE: Other types / keys of ancillary rights may be possible.

Field 50 (Trading system identification):

This field is filled along with "System to Bank" messages.

Along with "Bank to System" messages, this field will be ignored.

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2

Financial Institutes - Technical Connection (English)

Version 5.56

Field 60 (RegulatoryID):

XONTRO, MAX-ONE:

Along with *Bank to System* messages, the field contains the number of the algorithm that has served as the basis for the insertion of the order.

Only numerical values in the range between "1 ... 4294967294" are valid.

Along with *System to Bank* messages, the field is not delivered.

Investro: The field is ignored.

Xetra: The field is ignored.

Field 77A (Free text):

Input allowed only for bank-to-system messages. If needed, modifications / deletions may be referenced here. The text that is entered here will be forwarded, unchanged, onto the acknowledgement by the system (MT596).

Along with messages from system to banks:

Xetra:

Along with final positive acknowledgements, the Field F:77A will be used as follows:

Byte 1:	Transaction type [<u>1</u> x]; corresponds to the Xetra field trnTypId
Byte 2:	Constant character [Q] (for quantity)
Bytes 3 .. 15:	Nominal amount [<u>+12</u> n] ; the last 3 digits represent the decimal digits; corresponds to the Xetra field ordrQty
Byte 16:	Constant character [E] (for executed quantity)
Bytes 17 .. 29:	Nominal amount executed [<u>+12</u> n] ; the last 3 digits represent the decimal digits; corresponds to the Xetra field ordrExeQty

INVESTRO/Vestima+:

Along with status changes reported from Vestima+, the field F:77A is used as follows:

Along with GV-Code	Field content
053:	Character string 'EINSTELLUNG BEI OHA'
054:	Text from Message as received from Vestima+
451	Text from Message as received from Vestima+
452	Character string 'PROVISION CHECK'

Financial Institutes - Technical Connection (English)

Version 5.56

453	Character string 'PROVISION CHECK'
454	Character string 'LOESCHUNG VON VESTIMA EMPFANGEN' (only in case of deletion via dialog)

Remaining systems:

The field 77A is not filled.

Field 79 (Descriptions and contents):

XONTRO: In case of a direct (OTC) trade cancellation or reversal, as well as for an OTC Trade Report cancellation, the ISIN must be given in the 1st line of the field F:79:35B.

Xetra: The following peculiarities must be observed for messages onto Xetra:

The entry of the ISIN is mandatory in Xetra for order modifications as well as for order deletions.

Because the ISIN must be entered in line 1 of the Field F:79:35B, according to the IAW S.W.I.F.T. conventions, line 2 (security short description) must also be filled. Furthermore, the attribute "lastUpdateDat" should also be entered in line 3 of the Field F:79:35B.

The limit addition in field F:79:32L is also mandatory for the deletion of a stop order within Xetra.

Together with modifications of the attributes of field F:79:32L (e.g. price limit) along with stop orders, market-to-limit orders, iceberg orders, and midpoint orders, the insertion of the limit supplement is always mandatory. This is always true for market-to-limit orders, iceberg orders, and midpoint orders; for stop orders, this is true only until the order has been converted into a market or limit order (MT595, GV-Codes 051, 052). Then, the limit supplement is no longer allowed.

The remaining mandatory fields in lines 1 and 2 of the field F:79:32L are to be entered in accordance with the S.W.I.F.T. regulations.

A new Xetra order number may be issued for modifications or deletions of an order via a VALUES-based front-end application. This new Xetra-Order Number is transmitted in field F:79:20 (DWZnnnnnnnnnnnnnnnn).

The following table summarizes of the field contents of F:20 (Bank internal order number), F:21 (Xetra order number) and F:79:20, in combination with an order modification or deletion via a VALUES-based front-end application:

Modification	F:20 (BI order no.)	F:21 (Xetra order no.)	F:79:20
No modification of the bank internal and the Xetra order number	Actual valid bank internal order number	Actual valid Xetra order number for reference	Actual valid bank internal order number

Financial Institutes - Technical Connection (English)

Version 5.56

Modification	F:20 (BI order no.)	F:21 (Xetra order no.)	F:79:20
Modification of the bank internal order number only	Actual valid bank internal order number	Actual valid Xetra order number for reference	Actual valid bank internal order number
Modification of the Xetra order number only	Actual valid bank internal order number	Old Xetra order number for reference with the customer	New Xetra order number (DZWnnnnnnnnnnnnnnnn).
Modification of both the bank internal and the Xetra order number	Actual valid bank internal order number	Old Xetra order number for reference with the customer	New Xetra order Number (DWZnnnnnnnnnnnnnnnn).

Deletion	F:20 (BI order no.)	F:21 (Xetra order no.)	F:79:20
Deletion without Xetra order number modification	Actual valid bank internal order number	Actual valid Xetra order number for reference	Actual valid bank internal order number
Deletion with Xetra order number modification	Actual valid bank internal order number	Old Xetra order number for reference with the customer	New Xetra order Number (DWZnnnnnnnnnnnnnnnn).

MAX-ONE: The following peculiarity needs to be observed for messages to MAX-ONE:

It is not possible to delete a bank internal order number. This rejection is reported with the error code BC9630F.

Along with modifications of the field F:79:32L (e.g. price limit) concerning stop market orders, the limit addition field is mandatory. Otherwise, the stop market order will be changed into a stop limit order. If the stop market order has already been converted into a market order, and the limit addition field is given, the modification will be rejected with the error-code BC9600F.

Field 79 (Subfield 23 / automatic delivery release):

This field is ignored by all trading systems. Thus, along with the MT595, the resend functionality is **not** available.

Field 79 (Subfield 23 / A/P-flag):

Xetra: (bank-to-system) it is not possible to modify the attribute A/P-flag in field F:79:23. The insertion of the A/P-flag is optional along with order modifications or order deletions for agent orders (setting "A1"). For all other A/P-flag settings, the A/P-flag is mandatory.

Field 79 (Subfield 32L / Trading restriction):

Xetra:

Financial Institutes - Technical Connection (English)

Version 5.56

The following rules are valid in case of modifications of the content of the trading restriction attributes (in Field F:79:32L):

1. (bank-to-system) In order to modify an order with the trading restriction to be set to the default value according to the Xetra market model, the key value "CT" must be entered.
1. (system-to-bank) Upon notification of an order modification (e.g. at the input via a VALUES-based front-end application) from system to bank, the key value "CT" will be transferred for orders without any trading restriction given.

The key value "CT" for the trading restriction attribute is not allowed for any other message types (e.g.: MT500, MT501, MT519).

Financial Institutes - Technical Connection (English)Version 5.56

3.2.11 Response (MT 596)

Originator: System XONTRO, Xetra, INVESTRO and MAX-ONE.

XONTRO: (1) Acknowledgement (confirmation and error notices) of order suspensions, order modifications and order deletions for electronically transmitted orders. For orders whose order book has been frozen due to an ongoing price determination, a corresponding message is transmitted first. After de-freezing the order book, the entry, modification or deletion of the order will be presented within the system and automatically processed. The bank receives an additional notification (MT596) in which the order acceptance or rejection (order already executed; spot price locked with good for the day order, etc.) - including the time of the definite approval / rejection - is transmitted (see attachment).

For EG ("event driven") orders, along with the insertion of the order, the bank initially receives a preliminary message (MT596 / GV code 302). After the confirmation by the pricing intermediary / QLP (Quality-Liquidity-Provider) the bank receives an additional message with regard to the final acceptance resp. rejection (MT596 having GV code 300 resp. 305).

- (2) For the transmission of orders that have been entered into the system via terminal input, and for the transmission of the entire order portfolio for control purposes, an MT596 will be transmitted as a supplement to the MT500 / MT501 to transmit the DWZ order number of the trading system to the bank (only in case a bank internal order number exists). The link to the MT500 / MT501 is done via Field F:20 (Bank internal order number).
- (3) Acknowledgement of electronically transferred direct (OTC) trades (confirmations and error messages).
- (4) Acknowledgement of electronically transferred cancellations and reversals for direct (OTC) trades (confirmations and error messages).
- (5) Acknowledgement of electronically transferred OTC Trade Reports (MT513) (confirmations and error messages).
- (6) Acknowledgement of electronically transferred OTC Trade Report cancellations (confirmations and error messages).

Xetra: (1) Acknowledgements (confirmation or error messages) will be prepared for orders that are entered, modified or cancelled via the order management system of the bank and passed on to Xetra via the order routing system. Message Type MT596 is used for this purpose.

During various trading phases in Xetra (e.g. during the order book balancing phase), as well as early in the morning, before Xetra accepts order entries, order messages that are entered may be temporarily confirmed by the system with the GV-Code 3n2. Within this preliminary order entry

Financial Institutes - Technical Connection (English)Version 5.56

confirmation, the Xetra order number is not filled. A final confirmation (approval including the naming of the Xetra order reference number, or rejection) will be transmitted after Xetra has accepted the order.

- (2) A MT596 will be transmitted as a supplement to MT500 / MT501 to transmit the Xetra order number to the bank (only if the bank internal order number is available) for the transmission of orders that have been entered into the system via input into a VALUES-based front-end application. The link to MT500 / MT501 is done via Field F:20 (bank internal order number).

INVESTRO:

- (1) Acknowledgements (confirmation and error message) of INVESTRO order suspensions and deletions for electronically transmitted orders.

For order entries and order deletions having been transferred from INVESTRO onto the trading system Vestima+, the bank only receives a preliminary message (MT596) in the first place. After the answer from Vestima+ has arrived, the bank receives a message (MT596), in which the acceptance or rejection of the order entry or order deletion by Vestima+ is then communicated. In case of order deletions, afterwards the bank receives a status report (MT595) about the execution or rejection of the order deletion by the Vestima+ depository bank (OHA).

- (2) For the transmission of INVESTRO orders that have been entered into the system via terminal input and with the transmission of the entire order portfolio for control purposes, an MT596 will be transferred as a supplement to MT500 / MT501 to transmit the DWZ order number to the bank (only if the bank internal order number is available). The link to the MT500 / MT501 is done via field F:20 (bank internal order number).

MAX-ONE:

- (1) Acknowledgements (confirmations and error messages) of order entries, order modifications and order cancellations for electronically transmitted orders.

For orders that were noted during an order book freezing in MAX-ONE (in the period between price determination and order execution) a corresponding message is provided.

Order entry, change and deletion will be pre-booked and automatically processed after the end of the order book freezing. The bank will receive a final message (MT596) which notifies it of the acceptance or rejection of the order (order already executed, etc.) and also includes the time of the definite acceptance / rejection.

- (2) For the transmission of orders that have been entered into the system via front-end application and the transmission of the entire order portfolio for control purposes, an MT596 will be transmitted as a supplement to MT500

Financial Institutes - Technical Connection (English)

Version 5.56

/ MT501 to transmit the order number of the trading system to the bank (only if the bank internal order number is available). The link to MT500 / MT501 is done via field F:20 (bank internal order number).

- (3) Acknowledgement of transferred OTC trades (confirmations and error messages).

MT 596 Response (Acknowledgement)			
O / M	Tag	Field description	Format
M	20:	Subscription order number: DWZ order number, or Xetra order number (old), or order number of the trading system, or bank internal OTC number, or bank internal OTC Trade Report number	<u>13</u> x
M	21:	Subscription order number (bank internal order number), or trade number, or OTC Trade Report number. If not available, '/NONREF'.	16x
M	76:	1 st Line: Code number Xetra order number (new) New trade number (along with reversals) 2 nd Line: Time of preparation of the message (HHMMSSSHS) Version number (lastUpdateDat)	/3n[/13x][16x] [EIN-ZEITb8n][18n]
O	50:	Trading system identification	<u>3</u> c
O	77A:	free text (to be copied from MT595 field F:77A)	35x
M	11:	1 st Line: Message type 2 nd Line: Date of the original message	<u>3</u> n <u>6</u> n
O	79:	Error code: Field tag, Error comments (see section error comments)	3* <u>3</u> x[7x]

Rules:

Field 20 (Subscription Order Number: Order number of the trading system / Bank internal OTC number / bank internal OTC Trade report number):

XONTRO: The subscription order number is structured as follows:

Digits 1 ... 6 (6n): Date of insertion of the order in the trading system
 Digits 7 ... 13 (7n): 7 digit serial number

Financial Institutes - Technical Connection (English)

Version 5.56

Acknowledgements of direct (OTC) trades contain either the bank internal OTC number (delivered in the MT511 in field 20), or the value '0000000000000', in field 20 of the MT596. Acknowledgements for cancellations or reversals always contain the value '0000000000000'. The trade number will be delivered in field 21.

Acknowledgements of OTC Trade Reports contain either the bank internal OTC Trade Report number (delivered in the MT513 in field 20), or the value '0000000000000', in field 20 of the MT596. Acknowledgements for OTC Trade Report cancellations always contain the value '0000000000000'. The trade number will be delivered in field 21.

Xetra: The Xetra order number contains no reference onto the date or other attributes of the order.

Along with certain modifications and deletions, Xetra issues a new order number. In these cases, field F:20 contains the old order number, and Field F:76 has the new order number.

Along with an order modification / deletion (MT595) that was only referenced via the bank internal order number (MT595), and which was rejected, field F:20 contains the value "0000000000000" in the MT596.

Field F:20 contains the value "0000000000000" in the MT596, for an order that was temporarily confirmed (during the order book balancing).

MAX-ONE: The trading systems's order number does not contain any reference of the date or other attributes of the order.

Field 21 Subscription order number (Bank internal order number or trade number):
Together with order messages, this field contains the bank internal order number.

For direct (OTC) trades, the field will be used for the transfer of the 16-characters DWZ trade number.

The trade number is built up as follows:

Position 1 ... 3	(3x):	stock exchange location
Position 4 ... 9	(6n):	trade day formatted as yymmdd
Position 10 ... 16	(7n):	continuing number

(Along with a negative acknowledgement, the field will be filled with '/NONREF')

Xetra: In contrast to Xontro, when modifying the bank internal order number, the new and not the old bank internal order number is provided in this field.

Field 76 (Code number):
The following table shows which code numbers are supported by which system(s):

Code number	Meaning
/000	All systems: Supplement to MT500 / MT501
/3n0	All systems: Requirements executed with no errors

Financial Institutes - Technical Connection (English)

Version 5.56

Code number	Meaning
/3n1	All systems: Conversion error (request was not executed)
/3n2	<p>XONTRO: Requirement is postponed due to current processing status (order book freeze). After a processing status change, a new retry will be initiated by XONTRO automatically, generating an additional acknowledgment (MT596).</p> <p>Xetra: The requirement is postponed due to current processing status (order book balancing in Xetra). After a processing status change, a new retry will be initiated by Xentric order S.W.I.F.T. automatically, generating an additional acknowledgment (MT596). The order was transferred onto Xetra, the response from Xetra is still pending. After the response has arrived from Xetra, the order will either be acknowledged or rejected together with an appropriate error code (MT596). In case no response is received from Xetra until the end of the day, then the order will be rejected from within the end-of-day-batch (MT596).</p> <p>MAX-ONE: The requirement is postponed due to current processing status (price labeling). After processing status change, a new retry will be initiated by MAX-ONE automatically, generating an additional acknowledgment (MT596).</p> <p>INVESTRO/Vestima+: Preliminary order entry or order deletion having been transferred from Investro onto Vestima+ but not yet having been approved by Vestima+.</p>
/3n3	All systems: Order not found
/3n4	All systems: Order already exists
/3n5	All systems: Data contents resulted in error(s)
/3n6	<p>XONTRO: Requirements not executed, functions are currently frozen</p> <p>INVESTRO: Requirements not executed, functions are currently frozen</p>
/307	<p>XONTRO: Entry executed correctly, valid as of the following day</p> <p>INVESTRO: Entry executed correctly, valid as of the following day</p> <p>MAX-ONE: Entry executed correctly, valid as of the following day</p>
/308	<p>XONTRO: OTC Trade Report inserted; price considered suspicious</p> <p>INVESTRO: Buy at redemption rate</p>
/309	<p>XONTRO: Subscription order inserted; valid until end of year</p> <p>INVESTRO: Buy at redemption rate, valid as of the following day</p>
/406	XONTRO: Fund segment, validity adjusted.
/407	XONTRO: Fund segment, validity adjusted. Valid from tomorrow.
/422	<p>INVESTRO/Vestima+: Order deletion entry approved by Vestima+. The deletion is still preliminary because it can still be rejected by the OHA.</p>

Financial Institutes - Technical Connection (English)

Version 5.56

Code number	Meaning
n =	0 → Entrance 1 → Modification / trade reversal 2 → Deletion / cancellation

XONTRO:

The code number /302, along with an EG ("event driven") order, means a "preliminary insertion", i.e. the order will have yet to be confirmed by the pricing intermediary resp. QLP.

Along with the Error Code BC7650F, the Code Numbers /312 resp. /322 mean that an order modification resp. deletion has logically already become final, but, due to technical reasons, has been temporarily postponed. The final acknowledge messages, using the Code Numbers /310 resp. /320, will then be sent later.

INVESTRO:

If no transaction type was given, but a 'R' was stored in the condition table, then the code number /308 or /309 is entered.

Xetra:

Work flow of the generated Message Types (system to bank), along with the entry of a FOK / IOC or Midpoint FOK / Midpoint IOC order via Xentric order or VALUES-based front-end application:

Order	Results	Xentric Order	Front-end application
FOK:	1. Execution	MT596 (GV-Code 300)	MT500 / MT501 and possibly the supplement MT596
		One to n execution confirmations (MT519)	
	2. Rejection	MT596 (GV-Code 300)	MT500 / MT501 and possibly the supplement MT596
		Order deletion notice MT595 (GV-Code 055)	
IOC:	1. Execution	MT596 (GV-Code 300)	MT500 / MT501 and possibly the supplement MT596
		One to n execution confirmations (MT519)	
	2. Rejection	MT596 (GV-Code 300)	MT500 / MT501 and possibly the supplement MT596
		Order deletion notice MT595 (GV-Code 055)	
	3. Partial execution	MT596 (GV-Code 300)	MT500 / MT501 and possibly the supplement MT596
		Partial order deletion notice MT595 (GV-Code 055) regarding the deleted part	

Financial Institutes - Technical Connection (English)

Version 5.56

One to n Execution confirmations (MT519)

Xetra:

Work flow of the generated Message Types (system to bank), along with the modification of an order in an FOK / IOC or Midpoint FOK / Midpoint IOC order via Xentric Order or a VALUES- based front-end application (similar to the order entry):

Order	Results	Xentric Order	Front-end application
FOK:	1. Execution	MT596 (GV-Code 310)	MT595
	One to n execution confirmations (MT519)		
	2. Rejection	MT596 (GV-Code 310)	MT595
Order deletion notice MT595 (GV-Code 055)			
IOC:	1. Execution	MT596 (GV-Code 310)	MT595
	One to n execution confirmations (MT519)		
	2. Rejection	MT596 (GV-Code 310)	MT595
	Order deletion notice MT595 (GV-Code 055)		
	3. Part. execution	MT596 (GV-Code 310)	MT595
Partial Order deletion notice MT595 (GV-Code 055) regarding the deleted part			
One to n execution confirmations (MT519)			

Field 76 (Xetra new order number):

Xetra issues a new order number for limit modifications, validity modifications, or nominal (amount) increases. In this case, Xetra delivers the old and the new order number.

Field 76 (New trade number):

Along with a trade reversal, the new trade number is delivered in this field..

Field 76 / 2nd Line (Version number lastUpdateDat):

Xetra: Upon successful entry of an order or a modification, Xetra transfers the current version number (lastUpdateDat). This version number should be used along with future order modifications.

Field 50 (Trading system identification):

The following table lists the values permitted:

Field content	Meaning
XON	XONTRO
MAX	MAX-ONE
INV	INVESTRO

Financial Institutes - Technical Connection (English)

Version 5.56

Field content	Meaning
XET	Xetra Frankfurt 1
FF2	Xetra Frankfurt 2
OTC	Reply to a MT511 as well as to a MT595 GV-Codes 114 or 115
MIF	Reply to a MT513 as well as to a MT595 GV-Code 116

Field 77A (Free text):

XONTRO:

Along with a response to a MT595, this field will be taken over from the MT595.

Xetra:

Along with final positive responses, the Field F:77A will be used as follows:

Byte 1:	Transaction type [<u>1</u> x]; corresponds to the Xetra field trnTypId
Byte 2:	Constant character [Q] (for quantity)
Bytes 3 .. 15:	Nominal amount [<u>+12</u> n] ; the last 3 digits represent the decimal digits; corresponds to the Xetra field ordrQty
Byte 16:	Constant character [E] (for executed quantity)
Bytes 17 .. 29:	Nominal amount executed [<u>+12</u> n] ; the last 3 digits represent the decimal digits; corresponds to the Xetra field ordrExeQty

INVESTRO/Vestima+:

The field F:77A has the following content if Vestima+ rejects an order deletion request issued by the bank:

Along with GV-Code	Field Content
325:	Text from answer by Vestima+

Remaining systems:

The field 77A is not filled.

Field 11 (Message type):

This field contains the message type which is referenced to by the order entry confirmation.

Financial Institutes - Technical Connection (English)

Version 5.56

Field 79 / Error code (Field tag):

Xetra: Xetra does not support the field tag. Instead, empty spaces are delivered.

3.2.12 Overview of the fields and systems

All mandatory and all optional fields for order messages are listed for each trading system in the following tables.

M = Mandatory field for the trading system.

O = Optional field for the trading system.

Note: The field/tag usage rules for the MT512/MT599 (contract notes and order references) are not listed here. They are available in the separate document "S.W.I.F.T. Message formats for contract notes, trade confirmations and CCP trades in XONTRO Trade". This document is also available from BrainTrade's internet site www.xontro.de.

3.2.12.1 MT 500 / MT501 (Buy order / Sell order)

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Bank internal order number	20:	M	M	M	M
Transaction code	23:	O	O	O	O
Transaction supplement	23:	O		O	
Automatic delivery release	23:		O		
A/P-flag	23:	O	O		O
Netting type / Netting category	23:		O		
Order valid until (YYMMDD)	30:	M	M	M	M
Type of securities	35A:	M	M	M	M
Unit or par value	35A:	M	M	M	M
Peak size quantity	35A:		O		
International security identification number (ISIN)	35B:	M	M	M	M
Security short description	35B:	M	M	M	M
Version number	35B:		O		
Currency of the price fixing	32L:	M	M	M	M
Price limit	32L:	M	M	M	M

Financial Institutes - Technical Connection (English)

Version 5.56

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Stock exchange location	32L:	M	M	M	M
Order recipient	32L:	O		O	O
Trading restriction	32L:	O	O		O
Limit supplement	32L:	O	O		O
exePrc-Stop-Order	32L:		O		
exec-ID	32L:		O		
Order / Contract quitter	82D:	O	O	O	O
CBF account of the "on behalf of" bank	83C:	O			
Trading system identification	50:	O	O	O	O
RegulatoryID	60:	O			O
INVESTRO distribution partner	53C:			O	
Expenses	71D:	O			
Commission	71D:	O			
Free text	72:	O	O	O	O
ID-flag at terminal input / ID-flag at front-end input	72:	O	O	O	O
Time the message was generated	72:	O	O	O	O

3.2.12.2 MT 511 (direct (OTC) trades)

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Bank internal OTC number	20:	O			O
Transaction type	23:	M			M
On-exchange identifier	23:	O			O
Stock exchange location	31P:	M			M
Trade date	31P:	O			O
Trade time	31P:	O			O
Deviant trade date	31P:	O			O

Financial Institutes - Technical Connection (English)

Version 5.56

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Sign of fixed value date	31P:	O			O
Date of fixed value date	31P:	O			O
Sign of emission trade	31P:	O			O
Interest days	31P:	O			O
Discount days	31P:	O			O
Type of securities	35A:	M			M
Quantity	35A:	M			M
Security identification number (ISIN)	35B:	M			M
Listing currency	33T:	M			M
Price	33T	M			M
Trade entry party	82D	M			M
Counterparty	82D	M			M
Reinvestment discount	71B	O			O
Bonification rate	71B	O			O
Brokerage fee	71C	O			O
Brokerage fee flag	71C	O			O
Fees	71D	O			O
Commission flag	71D	O			O
Commission	71D	O			O
Text	72	O			O
Exchange rate	36	O			O

3.2.12.3 MT 513 (OTC Trade Report)

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Bank internal OTC Trade Report Number	20:	O			O
Exchange location	31P:	M			M
Trade date (YYMMDD)	31P:	M			M

Financial Institutes - Technical Connection (English)

Version 5.56

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Trade time (HHMM)	31P:	M			M
BIC of originator	40:	M			M
Execution venue ID	40:	M			M
Deviant price indicator	40	O			O
Negotiated price indicator	40	O			O
Delay indicator	40	O			O
Amendment indicator	40	O			O
Quotation unit	40	O			O
Deviation from UTC – signed – (+/-HHMM)	40	O			O
Nominal amount traded	35A:	M			M
ISIN	35B:	M			M
Price currency	33T:	M			M
Price	33T:	M			M
Issuer of the trade	82D:	M			M

3.2.12.4 MT515 (Execution confirmation for funds order)

This message is only relevant for INVESTRO/Vestima+. For message set up cf. chapter 3.2.7.

3.2.12.5 MT 519 (Execution confirmation)

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Subscription order number	20:	M	M	M	M
Bank internal order number	21:	M	M	M	M
Transaction type	23:	M	M	M	M
On-exchange identifier	23:	O	O	O	O
Execution day	31P:	M	M	M	M
Stock exchange location	31P:	M	M	M	M
Trading restriction	31P:	M	M	M	M

Financial Institutes - Technical Connection (English)

Version 5.56

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Executing broker / specialist	31P:	M	M	M	M
Time of execution	31P:	M	M	M	M
Price notation	31P:	O			O
Interest days	31P:	O	O		O
Type of securities	35A:	M	M	M	M
Unit or par value	35A:	M	M	M	M
Rem-Peak-Qty	35A:		O		
International security identification number (ISIN)	35B:	M	M	M	M
Security short description	35B:	M	M	M	M
Version number	35B:		O		
Exec-ID	35B:		O		
Exec-Flag	35B:		O		
Trading system identification	50:	O	O	O	O
Currency of the price fixing	33T:	M	M	M	M
Price executed	33T:	M	M	M	M
ID-flag of the order quitter	72:	O	O	O	O
Algebraic sign of intermediate profits	72:			O	
Algebraic sign of accumulated yields	72:			O	
Offering premium	72:			O	
Bonus rate	72:			O	
Reinvestment discount	72:			O	
Intermediate profits	72:			O	
Issue price	72:			O	
Comparison of the accumulated dividend yield	72:			O	

Financial Institutes - Technical Connection (English)

Version 5.56

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Bank internal order number	20:	M/O	M/O	M/O	M/O
Subscription order number	21:	M/O	M/O	M/O	M/O
Transaction code	75:	M	M	M	M
Type of securities	75:	O	O	O	O
Check of the nominale	75:	O	O	O	O
Order quitter	75:	M/O	O	O	M/O
Stock exchange location	75:	M/O	M	M	M/O
ID-flag at terminal input	75:	O	O	O	O
Message creation time	75:	O	O	O	O
Type of ancillary rights	75:	O			O
Trading system identification	50:	O	O	O	O
RegulatoryID	60:	O			O
Free text	77A:	O			O
Message type	11:	M	M	M	M
Date of the original message	11:	M	M	M	M
Description and new content of the fields that need to be modified:	79:	M/O	M	O	O
– International security identification number	35B:	M/O	M		
– Security short description	35B:	M/O	M		
– Version number	35B:	O	O		
Other peculiarities, cf. description field 79					

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.12.7 MT 596 (Acknowledgement)

Field description	Tag	Xontro	Xetra	Investro	MAX-ONE
Subscription order number	20:	M	M	M	M
Bank internal order number	21:	M	M	M	M
Code number	76	M	M	M	M
Xetra order number (new)	76:		O		
Trade number (new)	76:	O			O
Message creation time	76:	O	O	O	O
Version number	76:		O		
Trading system identification	50:	O	O	O	O
Free text	77A:	O		O	O
Message type	11:	M	M	M	M
Date of the original message	11:	M	M	M	M
Error code	79:	O	O	O	O

Financial Institutes - Technical Connection (English)

Version 5.56

3.2.13 Message for personal use (MT 598)

Originator: User (bank) and System (XONTRO, Xetra, INVESTRO and MAX-ONE)

Function: This message type is used as an 'envelope' for the message types which have previously been defined as: MT000, MT001, MT002, MT003, MT020 and MT021.

MT 598 Message for personal use			
O / M	Tag	Field description	Format
M	20:	Order number (TRN)	<u>6</u> n <u>3</u> n
M	12:	Message type that is transmitted in this message	<u>3</u> n
M	77E:	Message according to special description without header and trailer.	73x [n*78x]

Rules:

Field 20:

File transfer requires the following format: 6n3n

Along with the transfer from system to bank, the order number is included in both the heading (Field F:12 = 000) and the trailing datasets (Field F:12 = 002). The numbers in both datasets are identical per batch.

For program-to-program-connections, the following general rules are valid:

Along with all acknowledgements and confirmations, the TRN from the underlying message, originating from the financial institute, will be inserted into field F:20.

The order number (TRN) is structured as follows:

Position 1 ... 6 (6n): Creation date of the (original) message

Position 7 ... 13 (3n): 7-digit serial number (will not be checked)

Financial Institutes - Technical Connection (English)

Version 5.56

4 Error messages

4.1 Errors in header / format errors

H01	Format error block 1
H02	User identifier not "F"
H15	Wrong session
H20	Wrong input sequence number (ISN)
H25	Format error block 2
H30	Invalid message type
H50	No destination address
H99	Invalid symbol in the user header
U00	Format error block 3
Z00	Format error block 5
010	From-OSN / To-OSN non-numeric
011	Sender is not an order routing participant

4.2 Errors within the message (Mnn)

M60	Invalid character
-----	-------------------

4.3 Errors in text (Tnn)

T12	Error in the field content
T13	Compulsory field missing, field sequence incorrect
T16	Field tag without colon; character was found in an unauthorized area
T26	Field must not start with "/" nor end with "/", a "/" is also not permitted
T30	Too many components were found in this field
T31	Separation character between the components is missing or invalid
T32	Compulsory component is missing
T33	Component too long
T34	Component too short
T37	Subfield 1 in field F:35A contains an invalid code word
T40	Amount / number missing or first character is wrong
T43	Separation character for decimal place is not a comma
T50	Date error
T52	Invalid type of security
T80	Trailer missing
T98	Wrong "end of message"
T99	This message contains more than one end-Sequence ('CR/LF/-')

Financial Institutes - Technical Connection (English)

Version 5.56

4.4 Plausibility errors (Cnn)

C03 Number of digits after the comma exceeds the maximum permitted in this field

4.5 Retrieval quota errors (Knn)

K01 Input quota for retrieval requests exceeded
K02 Output quota for retrieval requests exceeded

4.6 XONTRO – Error messages / comments

BC0000F	No authorization to use this function
BC0010F	Mandatory field is missing
BC0020F	Error in the dependability check
BC0030F	Field must contain a valid key value
BC0040F	Field must contain a valid date
BC0050F	Field must contain an instrument
BC0070F	Field must be numeric
BC0090F	False number of digits
BC0100F	Field contains characters not permitted
BC0110F	Instrument not available
BC0160F	Field cannot be changed
BC0170F	Limit not permitted, since transaction type is defective
BC0210F	Entries not permitted in this field
BC0220F	Function currently frozen
BC0260F	Counterparty not valid
BC0330F	Invalid entry combination
BC0340F	Stock exchange location invalid or not authorized
BC0350F	Order quitter invalid
BC0360F	Invalid "on behalf of" bank
BC0370F	Recipient invalid
BC0400F	Entree invalid
BC0480F	Nominal is smaller than minimum tradeable unit
BC0490F	Trading restriction and nominal do not correspond
BC0500F	Trade number cannot be found within trade portfolio
BC0510F	This trade was reversed already
BC0530F	Instrument specified is not instrument traded
BC0540F	Fixed value date with value date 'T+1' can only be cancelled on the same day ('T')
BC0600F	Broker is currently not occupied
BC0610F	Instrument at the corresponding stock exchange not authorized for XONTRO

Financial Institutes - Technical Connection (English)

Version 5.56

BC0630F	The counterpart's stock exchange has a holiday
BC0650F	Instrument's price fixing suspended
BC0660F	Split order 'Good for today' entered after spot price fixing
BC0670F	Spot order 'Good for today' entered after spot price fixing
BC0680F	Opening price order 'Good for today' entered after the opening price fixing
BC0690F	Order 'Good for today' entered after end of order acceptance period
BC0700F	Validity of the order exceeds final maturity
BC0710F	Only 'good for today' permitted
BC0720F	No trading comment permitted
BC0750F	Only trading comment < KS > permitted
BC0760F	Limit invalid
BC0780F	Limit supplement not permitted
BC0790F	Limit supplement must correspond with transaction type
BC0810F	Nominal deviates from the nominal executable
BC0830F	Instrument – modification / deletion not permitted
BC0840F	Order modification not permitted due to partial execution
BC0850F	No authorization for order modification / deletion
BC0860F	Commission / expenses only permitted with 'on behalf of' entries
BC0870F	Compensation not permitted with 'on behalf of' entries
BC0880F	Spot market freezed for price determination
BC0890F	Variable market freezed for price determination
BC0900F	Market value exceeds the limit allowed
BC0910F	Serial number only allowed for sales
BC0920F	Instrument specified is not a valid serial number
BC0940F	Bank internal order number not unique
BC0990F	Deviant contract date is valid only in the past
BC1140F	Account database not available for user
BC1150F	Account database not available for counterparty
BC1180F	Sender is not an order routing participant
BC1190F	Nominal is larger than original nominal
BC1210F	Original order: Market association must not be changed
BC1220F	Invalid password
BC1230F	Password expired
BC1240F	Invalid new password
BC1250F	Invalid User-ID
BC1260F	Expiration date for User-ID exceeded
BC1270F	Release of the authorization (by customer's security agent) missing
BC1280F	Initial password available; please change
BC1290F	Nominal is incorrect
BC1300F	Instrument is incorrect
BC1310F	Limit amount is incorrect
BC1320F	Limit supplement is incorrect
BC1330F	Bank (LTERM) is not logged-on
BC1340F	Bank (LTERM) already logged-on
BC1350F	This trade was already cancelled

Financial Institutes - Technical Connection (English)

Version 5.56

BC1390F	Temporary modification of 'scope of message exchange' from 'N' to 'Y' not allowed
BC1400F	Number of digits in front of the comma too large
BC1410F	Number of digits after the comma too large
BC1460F	Recipient not authorized in XONTRO
BC1500F	No order for bank internal order number available
BC1520F	Order has already been executed
BC1530F	Order 'good for the day' entered after closing price
BC1680F	Instrument is not listed at the corresponding stock exchange
BC1690F	Invalid trade type entered
BC1790F	PUEV trades are not allowed
BC1810F	Counterparty not admitted
BC1890F	Date entered is not a valid calendar date
BC1940F	Recipient must be an INVESTRO participant
BC1950F	Dataset with invalid message type
BC1970F	Modification / deletion for an order that cannot be changed
BC1980F	Deletion for an order that is no longer active
BC1990F	Message from bank was not received via sending LTERM of the bank
BC2000F	Serial number allowed only for sale or compensation
BC2070F	Unlimited compensations are not allowed
BC2180F	Supplemental trade type 'W', 'R', or empty
BC2190F	Recipient cannot be determined
BC2250F	Nominal is not a multiple of the minimum for variable price trading
BC2440F	Acceptance deadline reached: No further deletions permitted
BC2470F	Buy to rebuy (redemption?) not permitted
BC2480F	Acceptance deadline reached: Processing not possible
BC2580F	Depository bank not correctly maintained in database
BC2680F	Value behind the comma not does not correspond to the rules
BC2750F	Yield data not correctly maintained in database
BC2960F	Nominal is not a multiple of the smallest tradeable unit
BC3140F	Trade number invalid
BC3270F	Opening price orders are only possible 'good for day'
BC3280F	Field limit supplement cannot be changed
BC3480F	Instrument not permitted for INVESTRO trading
BC3600F	Field contains invalid special characters
BC3650F	Instrument deleted
BC3690F	Instrument deleted, only block deletion permitted
BC3700F	Contract date only allowed for dates in the past
BC3730F	The exchange trading date does not correpond to the deadlines for cancellations or reversals
BC3780F	Instrument not authorized for XONTRO
BC3790F	Processing not allowed for serial numbers
BC3910F	No lead broker available for this instrument
BC3950F	Instrument not listed for 'variable market'
BC3990F	Serial number only allowed for record type '012'
BC4160F	Minimum number of units exceeded

Financial Institutes - Technical Connection (English)

Version 5.56

BC4260F	Nominal amount is not a multiple of the minimum amount
BC4290F	Instrument in premature suspension, only buy trades possible
BC4310F	EG ("event driven") order instruction cannot be interpreted
BC4380F	Buy for rebuy (redemption?) not authorized
BC4400F	Limit supplement 'SB' / 'SL' not authorized for instrument
BC4590F	Partial order deletion for INVESTRO not possible
BC4600F	Order split for INVESTRO not possible
BC4670F	Along with 'SB' / 'SL' orders, trading comment 'opening auction' is not permitted
BC4680F	Sender LTERM is identical with a logged-in recipient LTERM
BC4690F	Recipient LTERM is identical with logged-in sender LTERM
BC4740F	End of order acceptance reached, price determination for instrument not concluded
BC4770F	Exchange rate for instrument not permitted
BC4830F	Recipient is not in the leading depository bank position
BC4850F	Modification of order recipient not permitted
BC4870F	Freelance broker ("Freimakler") as recipient along with instrument having "increment = 2" not permitted
BC4880F	Order modification momentarily not possible because of ancillary rights' processing
BC4900F	Compensation orders along with freelance intermediaries ("Freimakler") not permitted
BC4970F	Good for the day order entered after end-of-day-processing
BC4980F	Good for the day order entered after closing price fixing
BC4990F	Good for the day spot price order entered after spot price fixing
BC5000F	Good for the day opening price order entered after the opening price fixing
BC5110F	Issuer has authority to cancel trade
BC5120F	Listed units / nominal (original) deviates from current value of the order
BC5130F	Modification of the trading comment not permitted
BC5340F	Instrument no longer listed
BC5360F	Modification for INVESTRO not possible
BC5390F	No trading comment permitted
BC5400F	Quitter is not a ECU-Clearer
BC5440F	For this instrument, entry of a spot price order is not possible
BC5450F	Buy phase closed, only sales possible now
BC5460F	In this instrument, no spot price fixing is listed
BC5530F	Quitter is not 'non-CSC' ('AKV') participant
BC5540F	Settlement trade may not be cancelled
BC5560F	No conditions set up
BC5600F	Instrument currently inactive
BC5706	Instrument does not have a valid bonification key
BC5870F	Quitter and 'on behalf of' counterpart must be PUEV-participants
BC6100F	Instrument / ISIN not admitted for BOEGA (i.e. XONTRO Trade)
BC6120F	Validity date of next day order lies in the past
BC6230F	OTC entry deadline has been reached
BC6720F	Function not permitted (order split, partial deletion)
BC6850F	Modification not possible; SB/SL order is currently being converted into a market order

Financial Institutes - Technical Connection (English)

Version 5.56

BC6930F	Contract time invalid
BC7010F	Nominal amount along with instrument having "increment = 2" not according to the rule
BC7020F	Nominal amount is smaller than the minimum amount
BC7090F	Quotation type invalid
BC7190F	No responsible trader deposited
BC7400F	No on-exchange entries allowed at this exchange location
BC7520F	Quitter not admitted to use foreign currency rates
BC7530F	Recipient not admitted to use foreign currency rates
BC7610F	Function not permitted for trading-only members
BC7620F	Field entry not available for trading-only members
BC7650F	Modification/Cancellation accepted, but temporarily postponed
BC7660F	Quitter not admitted for entries of direct (OTC) trades, cancellations and reversals
BC7670F	Entries of direct (OTC) trades for exchange location specified is not permitted
BC7680F	Instrument not MiFID relevant
BC7690F	MiFID OTC Trade Report entry not allowed for the exchange location specified
BC7700F	OTC Trade Report not existing
BC7710F	Due to aggregation, trade may not be cancelled; please enter countering trade
BC7800F	Fixed Payment Date must not be set to a date before Date of Issue
BC8090F	Trade reversal not permitted along with 'aufgaben' (pending contracts)
BC8510F	Issuer must be a Eufo participant
BC8520F	Transaction supplement not permitted
BC8530F	Order has not yet been confirmed by Vestima+
BC8540F	Deletion has not yet been confirmed by Vestima+
BC8550F	Entry rejected by Vestima+
BC8560F	Deletion rejected by Vestima+
BC8570F	No confirmation received by Vestima+ so far
BC8580F	Entry forwarding onto Vestima+
BC8590F	Deletion forwarding onto Vestima+ (preliminarily)
BC8600F	Deletion received from Vestima+
BC9030F	DWZ order number not available
BC9430F	Order status not defined - please check
BC9460F	Modification 'limit order to market order' not possible
BC9470F	Modification 'market order to limit order' not possible
BC9500F	Participant halted
BC9510F	Participant suspended
BC9520F	Counterpart for market order not available
BC9530F	Invalid trailing distance
BC9540F	EG ("event driven") order type invalid
BC9550F	Undefined EG ("event driven") order control error
BC9560F	EG ("event driven") order preliminarily accepted
BC9580F	Limit supplement < EG > not permitted for pricing intermediary / QLP
BC9600F	Invalid stop limit
BC9610F	Order routing to MAX-ONE is not possible
BC9620F	Bank internal order number may be changed, but not deleted

Financial Institutes - Technical Connection (English)

Version 5.56

BC9630F	Requirement postponed in MAX-ONE
BC9640F	No trading time in MAX-ONE at present
BC9650F	Trading restriction invalid
BC9660F	Trading restriction 'EK' (opening auction) not permitted with SB / SL orders
BC9670F	Trading currency invalid
BC9680F	Limit addition 'SB' / 'SL' mandatory along with stop limit order
BC9760F	Subscription order placed, validity expiry adjusted
BC9770F	Subscription order placement not possible during orderbook freeze
BC9790F	Order placed outside subscription order entry phase
BC9820F	Trading restriction "EK" not allowed along with EG order
BC9830F	Along with EG order, trading restriction "KS" only allowed for SA
BC9840F	Invalid OCO limit relation
BC9850F	Trailing stop difference required
BC9860F	No trailing stop orders allowed for this instrument
BC9990F	System error

Comment: In case a field consists of several sub-fields, the sixth place of the Error-ID will show the first defective subfield.

Example: BC0072F ➔ 2nd sub-field is non-numeric

Xetra: If an identification of the defective sub-field is possible, this is also valid for the following Xetra error notices.

Financial Institutes - Technical Connection (English)

Version 5.56

4.7 Xetra – error messages / comments

Action	Environment	Error type	Error code	Indication of field tag
1. Decoding message, formal rough check, authorization check (security, registration)	Host general XONTRO part	Formal error	BCnnnnF	yes
2. Data check on formal and technical correctness	Xentric Order	1. Formal error 2. Content error 3. Technical error	XKnnnnF XKnnnnF & XAnnnnF BC9990F	yes
3. Check message to Xetra	Xetra Backend	1. Formal error 2. Content error	XnnnnnF XnnnnnF	no

1. The detailed error messages along with the message check to Xetra may be received from the current version of the "Xetra - VALUES API Programming Version" documentation; they are not listed here explicitly.
2. The error messages along with the decoding of the message, at the formal rough check, and at the authorization check (security, registration), correspond with the XONTRO error reports.
3. The error notices listed below are caused by formal and content error checks in Xentric Order:

XK0010F	Sender is not a Xetra participant
XK0020F	Xetra order routing not possible (MISS not available)
XK0030F	Resend not possible (MISS not available)
XK0040F	Order data invalid for resend message
XK0050F	Order data not unique for resend message
XK0100F	Partial order deletion for Xetra not possible
XK0110F	Order split not possible in Xetra
XK0120F	Direct (OTC) trade / cancellation / reversal entry not possible for Xetra
XK0130F	MiFID OTC Trade Report entry processing not possible for Xetra OTC Trade Reports
XK0210F	Field input not permitted for Xetra
XK0300F	Order status not defined – please check (Order could possibly not be processed)
XK0310F	Possibly missing broadcasts (This error is not provided in Message Type MT596, but only in Message Type MT551 in Field F:72 for the XEBAT event)
XK0320F	Response of Xetra trading system still pending – please check
XK0400F	Requirement postponed. Retry by system.
XK0410F	Postponed requirement rejected (at the end of the day)
XK0940F	Bank internal order number not unique
XA2000F	Order modification / order deletion request not unique

Financial Institutes - Technical Connection (English)

Version 5.56

XA2010F	Indicated unit / nominal (originally sent) deviates from the current value of the order
XA2020F	Entry not possible during actual trading phase

Financial Institutes - Technical Connection (English)

Version 5.56

5 Examples of message transmission

The examples are provided under consideration of the system restrictions.

5.1 Buy order (MT 500)

Example 1A: Buy of fixed interest securities at spot auction

```
{1:F01DRESDEFFAXX0000000004} (no CrLf)
{2:I500DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDEFGH
:30:000530
:35A:FMT10000,
:35B:ISIN DE0002681491
HESS.LDSBK.IS.E.242
:32L:EUR99,5
/130 KS
-}
```

Example 1B: Format for a Xetra – buy order

```
{1:F01DRESDEFFAXX0000000004} (no CrLf)
{2:I500DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDEFGH2
:30:980530
:35A:FMT10000,
:35B:ISIN DE0002030751
BAY.HYP.BK.AG PF.R.46 SVG
:32L:EUR99,5
/194
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

Example 1C: INVESTRO buy

```
{1:F01DRESDEFFAXXX0000000004} (no CrLf)
{2:I500DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:AB CDEFGH
:23: R
:30:010330
:35A:UNT10000,
:35B:ISIN LU003753395
DIT-LUX STAATSANLEIHEN
:32L:EURO,
/183
:82D:/7002
:53C:/1234567890
-}
```

5.2 Sell order (MT501)*Example 2A: Sale of shares in variable price trading*

```
{1:F01DRESDEFFAXXX0000000005} (no CrLf)
{2:I501DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDABCD
:30:900829
:35A:SHS100,
:35B:ISIN DE0007664005
VOLKSWAGEN
:32L:EURO,
/120
:82D:/4037
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

Example 2B: Format for a Xetra – sell order

```
{1:F01DRESDEFFAXXX0000000005} (no CrLf)
{2:I501DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDABCD2
:30:980829
:35A:SHS100,
:35B:ISIN DE0007664005
VOLKSWAGEN
:32L:EURO,
/194
:82D:/7002
-}
```

Example 2C: INVESTRO sale

```
{1:F01DRESDEFFAXXX0000000005} (no CrLf)
{2:I501DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDABCD
:30:010330
:35A:UNT10000,
:35B:ISIN LU003753395
DIT-LUX STAATSANLEIHEN
:32L:EURO,
/183
:82D:/7002
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.3 Execution confirmation (MT 519)*Example 3A: Execution confirmation for fixed interest securities*

Reference: Example 1A

```
{1:F01DRESDEFFAXX0000000001} (no CrLf)
{2:O5191125000515DWZXDEFFABOS00000000000005151125N} (no CrLf)
{4:
:20:0005150004711 (DWZ order number ref. MT596 to MT500)
:21:ABCDEFGH (Bank internal order number)
:23:BOUGHT
:31P:000515130KS780112020768/+105
:35A:FMT10000,
:35B:ISIN DE0002681491
HESS.LDSBK.IS.E.242
:33T:EUR99,45
-}
```

Example 3B: Format for a Xetra – execution confirmation

Reference: Example 1B

```
{1:F01DRESDEFFAXX0000000001} (no CrLf)
{2:O5191125980515DWZXDEFFABOS000000000009805151125N} (no CrLf)
{4:
:20:0000000000001 (Xetra order number ref. MT596 to MT500)
:21:ABCDEFGH2 (Bank internal order number)
:23:BOUGHT
:31P:980515194XT000012020700/+105
:35A:FMT10000,
:35B:ISIN DE0002030751
BAY.HYP.BK.AG PF.R.46 SVG
123456789012345678 (Version number / lastUpdateDat)
:33T:EUR99,45
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

Example 3C: Execution confirmation INVESTRO

Reference: Example 2C

```
{1:F01DRESDEFFAXX0000000001} (no CrLf)
{2:O5191204010330DWZXDEFFABOS00000000000103301204N} (no CrLf)
{4:
:20:0103300004711 (DWZ order number ref. MT596 to MT500)
:21:ABCDABCD (Bank internal order number)
:23:BOUGHT
:31P:010330183VA703012020768
:35A:UNT10000,
:35B:ISIN LU003753395
DIT-LUX STAATSANLEIHEN
:33T:EUR57,12
:72:DWZ-USER 7002192799
3,5/3,2/12,12
59,12/1,23
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

5.4 Event in security transactions (MT 551)**5.4.1 Spot price notification***Example 4A:*

```
{1:F01DRESDEFFAXX0000000002} (no CrLf)
{2:O5511336900830DWZXDEFFABOS00000000009008301336N} (no CrLf)
{4:
:20:9008301234567
:35B:ISIN DE0007664005
VOLKSWAGEN
766400
:79:SPOTR900830133550
/504,///130/EUR/7885////////
-}
```

5.4.2 Suspension of price fixing for VW shares in Frankfurt*Example 4B:*

```
{1:F01DRESDEFFAXX0000000003} (no CrLf)
{2:O5511155900830DWZXDEFFABOS00000000009008301155N} (no CrLf)
{4:
:20:9008302345678
:35B:ISIN DE0007664005
VOLKSWAGEN
766400
:79:FIXOF900830120050
///130////////
-}
```


Financial Institutes - Technical Connection (English)

Version 5.56

5.5 Special events (MT 551)

5.5.1 XONTRO end-of-accounting (BUS)

Example 5A:

```
{1:F01DRESDEFFA1300000300005} (no CrLf)
{2:O5512036020830DWZXDEFFABOS00000000000208302036N} (no CrLf)
{4:
:20:0208301234567
:35B:MISC
:79:BOEND020830203550
///130/////////
:72: BOSS-BUCHUNGSSCHNITT-ENDE
-}
```

5.5.2 End of trading MAX-ONE

Example 5C:

```
{1:F01DRESDEFFA1600000300005} (no CrLf)
{2:O5512036020830DWZXDEFFABOS00000000000208302036N} (no CrLf)
{4:
:20:0208301234567
:35B:2004
:79:EHEND020830203550
///160/////////
:72: MAX-ONE TRADE DAY CLOSED
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.5.3 Preliminary SAKI End Message

Example 5D:

```
{1:F01CSDBDE7172710000300433} (no CrLf)
{2:O5512219090112DWZXDEFFABOS00000000000901122219N} (no CrLf)
{4:
:20:0901138000003
:35B:MISC
:79:SAKIV090112221935
:72:090112 000023/300432/600099
-}
```

5.5.4 SAKI-End Message

Example 5E:

```
{1:F01CSDBDE7172710000300433} (no CrLf)
{2:O5512219090112DWZXDEFFABOS00000000000901122219N} (no CrLf)
{4:
:20:0901138000003
:35B:MISC
:79:SAKIE090112221935
:72:090113 090112 000023/300432/600099
-}
```

5.6 Inquiry (MT 595)

5.6.1 Order modification

Example 6A: (Reference: Example 2A)

Limit modification

```
{1:F01DRESDEFFAXX00000000006} (no CrLf)
{2:I595DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABCDABCD
:75:111/4037
:11:501
900515
:79:32L:EUR600,
/120
-}
```

Modification will be confirmed with MT596.

Financial Institutes - Technical Connection (English)Version 5.56

Example 6B: Format for a Xetra – order modification (Reference: Example 2B)

Limit modification

{1:F01DRESDEFFAXX0000000006}	(no CrLf)
{2:I595DWZXDEFFABOSN2005}	(no CrLf)
{4:	
:20:ABCDABCD2	
:21:00000000000002	(Xetra – Order number)
:75:111/7002/194	
:11:501	
980515	
:79:35B:ISIN DE0007664005	
VOLKSWAGEN	
123456789012345678	(Version number / lastUpdateDat)
32L:EUR600,	
/194	
-}	

Modification will be confirmed with MT596.

Financial Institutes - Technical Connection (English)Version 5.56

5.6.2 Order deletion*Example 7A: (Reference: Example 1A)*

```
{1:F01DRESDEFFAXX0000000007}          (no CrLf)
{2:I595DWZXDEFFABOSN2005}              (no CrLf)
{4:
:20:ABCDEFGH                           (Bank internal order number)
:21:0005150004711                     (DWZ order number ref. MT596 to MT500)
:75:113/4037
:11:500
000515
-}
```

Example 7B: Format for an Xetra – Order deletion (Reference: Example 1B)

```
{1:F01DRESDEFFAXX0000000007}          (no CrLf)
{2:I595DWZXDEFFABOSN2005}              (no CrLf)
{4:
:20:ABCDEFGH2                           (Bank internal order number)
:21:00000000000001                     (Xetra order number ref. MT596 to MT500)
:75:113/7002/194
:11:500
980515
:79:35B:ISIN DE0007664005
VOLKSWAGEN
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.7 Direct (OTC) trade (MT 511) / Cancellation and reversal (MT595)**5.7.1 Direct (OTC) trade entry***Example 8A:*

```
{1:F01DRESDEFFAXX0000000009} (no CrLf)
{2:I511DWZXDEFFABOSN2005} (no CrLf)
{4:
:20 :BANKINTNUMMER
:23:012 (record type)
:31P:130
:35A:SHS1000,
:35B:ISIN DE0007664005
:33T:EUR43,85
:82D:7002/7000
:72:TEXT
-}
```

5.7.2 Direct (OTC) trade cancellation*Example 8B: (Reference: Example 8A)*

```
{1:F01DRESDEFFAXX0000000010} (no CrLf)
{2:I595DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:EDF0403150000001 (Trade number as referred to in MT596 to MT511)
:75:114/7002/130
:11:511
040315
:79:35B:ISIN DE0007664005
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.7.3 Direct (OTC) trade reversal

Example 8C: (Reference: Example 8A)

{1:F01DRESDEFFAXX0000000011}	(no CrLf)
{2:I595DWZXDEFFABOSN2005}	(no CrLf)
{4:	
:20:EDF0403150000001	(Trade number as referred to in MT596 to MT511)
:75:115/7002/130	
:11:511	
040315	
:79:35B:ISIN DE0007664005	
-}	

Financial Institutes - Technical Connection (English)Version 5.56

5.8 OTC Trade Report (MT 513) / OTC Trade Report cancellation (MT 595)**5.8.1 OTC Trade Report entry***EXAMPLE 9A:*

```
{1:F01DRESDEFFAXX0000000009} (no CrLf)
{2:I513DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:BANKINTNUMMER
:31P:1300711051030
:40:BIC-MELDERS/BDRESDEFFXXX
:35A:1000,
:35B:ISIN DE0007664005
:33T:EUR145,85
:82D:7002
-}
```

5.8.2 OTC Trade Report cancellation*EXAMPLE 9B: (Reference: Example 9A)*

```
{1:F01DRESDEFFAXX0000000010} (no CrLf)
{2:I595DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:EDF0711050000001 (OTC Trade Report no. according to MT596 for MT513)
:75:116
:11:513
071105
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

5.9 Response (MT 596)**5.9.1 Confirmation of the order acceptance***Example 10A:* (Reference: Example 1A)

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000000004} (no CrLf)
{2:O5961125000515DWZXDEFFABOS00000000040005151125N} (no CrLf)
{4:
:20:0005150004711
:21:ABCDEFGH
:76:/300
EIN-ZEIT 11244001
:11:500
000515
-}
```

Example 10B: Format for Xetra (Reference: Example 1B)

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000000004} (no CrLf)
{2:O5961125980515DWZXDEFFABOS00000000049805151125N} (no CrLf)
{4:
:20:00000000000001
:21:ABCDEFGH2
:76:/300/0000000000003
EIN-ZEIT 11244001123456789012345678
:11:500
980515
-}
```


Financial Institutes - Technical Connection (English)Version 5.56

5.9.2 Rejection due to data error*Example 11A:*

Defective message:

```
{1:F01DRESDEFFAXX0000000009} (no CrLf)
{2:I500DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABABABAB
:30:XXXXXX
:35A:FMT10000
:35B:ISIN DE0002681491
HESS.LDSBK.IS.E.242
:32L:EUR99,5
/120
:82D:/4037
-}
```

Acknowledgement (data error):

```
{1:F01DRESDEFFAXX0000000006} (no CrLf)
{2:O5961125000515DWZXDEFFABOS00000000090005151125N} (no CrLf)
{4:
:20:00000000000000
:21:ABABABAB
:76:/305
EIN-ZEIT 11250110
:11:500
000515
:79:30 BC0700F
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

Example11B: Format for Xetra

Defective message:

```
{1:F01DRESDEFFAXX0000000009} (no CrLf)
{2:I500DWZXDEFFABOSN2005} (no CrLf)
{4:
:20:ABABABAB
:30:980710
:35A:FMT10000
:35B:ISIN DE0002681491
HESS.LDSBK.IS.E.242
:32L:EUR99,5
/194
:82D:/4037
-}
```

Acknowledgement (data error):

```
{1:F01DRESDEFFAXX0000000006} (no CrLf)
{2:O5961125980515DWZXDEFFABOS00000000099805151125N} (no CrLf)
{4:
:20:00000000000000
:21:ABABABAB
:76:/305
EIN-ZEIT 11250110
:11:500
980515
:79: XnnnnnF
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.9.3 Confirmation of a modification

Example 12A: (Reference: example 6A)

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000000007 (no CrLf)
{2:O5961125900829DWZXDEFFABOS00000000069005151125N} (no CrLf)
{4:
:20:9008290004712
:21:ABCDABCD
:76:/310
EIN-ZEIT 11255830
:11:595
900515
-}
```

Example 12B: Format for Xetra (Reference: example 6B)

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000000007} (no CrLf)
{2:O5961125980829DWZXDEFFABOS00000000069805151125N} (no CrLf)
{4:
:20:0000000000002
:21:ABCDABCD2
:76:/310/0000000000004
EIN-ZEIT 11255830123456789012345678
:11:595
980515
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

5.9.4 Confirmation of a deletion

Example 13A: (Reference: Example 7A)

Acknowledgement (negative):

```
{1:F01DRESDEFFAXX0000000008} (no CrLf)
{2:O5961125000515DWZXDEFFABOS00000000070005151125N} (no CrLf)
{4:
:20:0005150004711
:21:ABCDEFGH
:76:/323
EIN-ZEIT 11250110
:11:595
000515
-}
```

Example 13B: Format for an Xetra-Order (Reference: Example 7B)

Acknowledgement (negative):

```
{1:F01DRESDEFFAXX0000000008} (no CrLf)
{2:O5961125980515DWZXDEFFABOS00000000079805151125N} (no CrLf)
{4:
:20:00000000000001
:21:ABCDEFGH2
:76:/323
EIN-ZEIT 11250110
:11:595
980515
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

5.9.5 Confirmation of a direct (OTC) trade*Example 14A: (referring to example 8A)*

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000600001} (no CrLf)
{2:O5961125040315DWZXDEFFABOS00000000090403151125N} (no CrLf)
{4:
:20:BANKINTNUMMER
:21:EDF04031500000001
:76:/300
EIN-ZEIT 11250110
:11:511
040315
-}
```

5.9.6 Confirmation of a direct (OTC) trade cancellation*Example 14B: (referring to example 8B)*

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000600002} (no CrLf)
{2:O5961130040315DWZXDEFFABOS00000000100403151130N} (no CrLf)
{4:
:20:00000000000000
:21:EDF04031500000001
:76:/320
EIN-ZEIT 11300110
:11:595
040315
-}
```

Financial Institutes - Technical Connection (English)Version 5.56

5.9.7 Confirmation of a direct (OTC) trade reversal*Example 14C: (referring to example 8C)*

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000600003} (no CrLf)
{2:O5961130040315DWZXDEFFABOS00000000110403151130N} (no CrLf)
{4:
:20:00000000000000
:21:EDF04031500000001
:76:/310EDF04031500000002
EIN-ZEIT 11300110
:11:595
040315
-}
```

5.9.8 Confirmation of an OTC Trade Report entry*EXAMPLE 15A: (Reference: Example 9A)*

Acknowledgement (positive):

```
{1:F01DRESDEFFAXX0000600001} (no CrLf)
{2:O5961030071105DWZXDEFFABOS00000000090711051030N} (no CrLf)
{4:
:20:BANKINTNUMMER
:21:EDF07110500000001
:76:/300
EIN-ZEIT 10300110
:11:513
071105
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.9.9 Confirmation of an OTC Trade Report cancellation

EXAMPLE 15B: (Reference: Example 9B)

Acknowledgement (positive):

{1:F01DRESDEFFAXX0000600002}	(no CrLf)
{2:O5961035071105DWZXDEFFABOS00000000100711051035N}	(no CrLf)
{4:	
:20:00000000000000	
:21:EDF0711050000001	
:76:/320	
EIN-ZEIT 10350110	
:11:595	
071105	
-}	

Financial Institutes - Technical Connection (English)

Version 5.56

5.10 Message for personal use (MT 598)

5.10.1 Logon

Example 16:

```
{1:F01DRESDEFFAXX0000000010}      (no CrLf)
{2:I598DWZXDEFFABOSN2005}          (no CrLf)
{4:
:20:0005150000001
:12:000
:77E:USER567890/PASSWORDS///
-}
```

5.10.2 Logon confirmation

Example 17:

```
{1:F01DRESDEFFAXX0000000009}      (no CrLf)
{2:O5981006000515DWZXDEFFABOS00000000100005151006N} (no CrLf)
{4:
:20:0005150000001
:12:001
:77E:USER567890/XXXXXXXXX///001/
-}
```


Financial Institutes - Technical Connection (English)Version 5.56

5.10.3 Acknowledgement of defective message by financial institute*Example 18:*

```
{1:F01DRESDEFFAXX0000000011}          (no CrLf)
{2:I598DWZXDEFFABOSN2005}              (no CrLf)
{4:
:20:0005150000001
:12:021
:77E:1:F01DRESDEFFAXX0000000009        ← Begin original message
2:O5981006000515DWZXDEFFABOS00000000100005151006N
4:
:20:0005150000001
:12:001
:77E:USER567890/XXXXXXXXX//001/        ← End original message
:421:021
-}
```

5.10.4 Retrieval request, Start-OSN*Example 19:*

```
{1:F01DRESDEFFAXX0000000012}          (no CrLf)
{2:I598DWZXDEFFABOSN2005}              (no CrLf)
{4:
:20:0005150000002
:12:020
:77E:153:000017
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.10.5 Response to retrieval request

Example 20:

```
{1:F01DRESDEFFAXXX0000000010} (no CrLf)
```

```
{2:O5981006000515DWZXDEFFABOS0000000012000515006N} (no CrLf)
```

```
{4:
```

```
:20:0005150000002
```

```
:12:021
```

```
:77E:1:F01DRESDEFFAXXX0000000012
```

```
2:I598DWZXDEFFABOSN2005
```

```
4:
```

```
:20:0005150000002
```

```
:12:020
```

```
:77E:153:000017
```

```
:421:ANF
```

```
-}
```

```
:
```

```
: (messages requested; these messages are sent with the initial OSN)
```

```
:
```

```
{1:F01DRESDEFFAXXX0000000011} (no CrLf)
```

```
{2:O5981006000515DWZXDEFFABOS0000000012000515006N} (no CrLf)
```

```
{4:
```

```
:20:0005150000002
```

```
:12:021
```

```
:77E:1:F01DRESDEFFAXXX0000000012
```

```
2:I598DWZXDEFFABOSN2005
```

```
4:
```

```
:20:0005150000002
```

```
:12:020
```

```
:77E:153:000017
```

```
:421:END
```

```
-}
```

Financial Institutes - Technical Connection (English)

Version 5.56

5.11 Contract note (MT 512) / Orders belonging to contract note (MT 599)

5.11.1 Contract note

Example 21A: Contract note including 2 affected orders

Reference: Example 3A

{1:F01DRESDEFFAXX0000600009} (no CrLf)

{2:O5121125000515DWZXDEFFBBGA00006000090507151125N} (no CrLf)

{4:

:20:1300005150600012

:21:MT599

:23:BOUGHT/013/N//A1/BS

:31P:000515130///

:30:000000/1125/130//

:35A:FMT20000,

:35B:ISIN DE0002681491

HESS.LDSBK.IS.E.242

0062/5,25/21.02.G /

:82D:/7833

:87F:APMT/C/7066

:87F:APMT/D/7833

:33T:EUR99,45

:32M:EUR19890,

:34G:135EUR,93

:71C:/BROK/EUR,38/

:34B:EUR19890,

:72:7833

7066/268149

000515112500000000000000

BOSS/

-}

5.11.2 Orders belonging to contract note

Example 21B: Transmission of two orders belonging to one contract note

Reference: Example 21A

{1:F01DRESDEFFAXX0000600010} (no CrLf)

{2:O5991125000515DWZXDEFFBBGA00006000100507151125N} (no CrLf)

{4::20:0507184300002

:79:1300005150600012

ABCDEFGH/FMT10000,

XYZ/FMT10000,

-}

5.12 Execution confirmation for a funds order (MT 515)

Financial Institutes - Technical Connection (English)

Version 5.56

5.12.1 Execution confirmation for Investro depository bank, if the order issuer is a Vestima+ participant

EXAMPLE 22A:

```
{1:F01BVBEDEMMAXX0000300003} (no CrLf)
{2:O5151313080910DWZXDEFFABOS00000000000809101313N} (no CrLf)
{4:
:16R:GENL
:20C::SEME//OHA0809107400003
:23G:NEWM
:22F::TRTR//TRAD
:16R:LINK
:20C::RELA//DWZ0809107400003
:16S:LINK
:16S:GENL
:16R:CONFDET
:98A::SETT//20080912
:98A::TRAD//20080910
:90B::DEAL//ACTU/EUR63,
:22H::BUSE//SUBS
:22H::PAYM//APMT
:16R:CONFPRTY
:95R::SELL/CEDE/2013
:97A::SAFE//2013
:16S:CONFPRTY
:36B::CONF//UNIT/200,
:35B:ISIN DE0006329014
LA FLEX INVEST
:16S:CONFDET
:16R:SETDET
:22F::SETR//TRAD
:22F::STCO/CEDE/DFLT
:16R:SETPRTY
:95P::PSET//CEDELULLXXX
:16S:SETPRTY
:16R:SETPRTY
:95P::REAG//BKAUATWWXXX
:97A::SAFE//18481
:16S:SETPRTY
:16R:AMT
:19A::DEAL//EUR12600,
:16S:AMT
:16R:AMT
:19A::SETT//EUR13000,
:16S:AMT
:16R:AMT
```

Financial Institutes - Technical Connection (English)

Version 5.56

```
:19A::ENTF//EUR400,  
:16S:AMT  
:16S:SETDET  
-}
```

5.12.2 Execution confirmation for the Investro order issuer, if the OHA is a Vestima+ participant

EXAMPLE 22B:

```
{1:F01DREDWPFFAXX0000300004} (no CrLf)  
{2:O5151411080910DWZXDEFFABOS00000000000809101411N} (kein CrLf)  
{4:  
:16R:GENL  
:20C::SEME//CON0809107400012  
:23G:NEWM  
:22F::TRTR//TRAD  
:16R:LINK  
:20C::RELA//Bank Internal Order Number  
:16S:LINK  
:16S:GENL  
:16R:CONFDET  
:98A::TRAD//20080910  
:98A::SETT//20080911  
:90B::DEAL//ACTU/USD11,  
:22H::BUSE//SUBS  
:22F::PRIC/CEDE/NAVP  
:22H::PAYM//APMT  
:16R:CONFPTY  
:95P::SELL//MALALULLXXX  
:97A::SAFE//10020  
:16S:CONFPTY  
:36B::CONF//UNIT/333,  
:35B:ISIN LU0117468966  
SHS E + G FD-PROPERTY STOCKS AMER.  
:16S:CONFDET  
:16R:SETDET  
:22F::SETR//TRAD  
:22F::STCO/CEDE/MANU  
:16R:SETPRTY  
:95P::DEAG//MALALULLXXX  
:97A::SAFE//10020  
:16S:SETPRTY  
:16R:SETPRTY  
:95P::PSET//CEDELULLXXX
```

Financial Institutes - Technical Connection (English)

Version 5.56

```
:16S:SETPRTY  
:16R:AMT  
:19A::DEAL//USD3663,  
:16S:AMT  
:16R:AMT  
:19A::SETT//USD3663,  
:16S:AMT  
:16S:SETDET  
-}
```