

EUROPEAN HIGH FREQUENCY FINANCIAL DATABASE (BEDOFIH)

Euronext Paris

CBOE Europe BXE CXE DXE

London Stock Exchange

Turquoise

Xetra

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Euronext Paris

1. Overview

1.1. Versions

There are 2 versions of the BEDOFIH Euronext Paris database:

Version	Period
1 (AMF)	2009 – 2017
2 (Euronext)	From 2018

1.2. Data files

1.2.1. AMF Euronext Paris Version 1 (2009 – 2017) consists of 3 types of files

Version 1 consists of 3 types of files:

- Order file: details on orders submitted on Euronext Paris,
- Trade file: information about transactions,
- Event file: status of the security.

The data is presented with microseconds timestamp. All times are in Paris local time.

1.2.2. Euronext Paris Version 2 (from 2018)

Version 2 consists of 9 types of files:

- Standing data file: instrument characteristics,
- Technical notification file: beginning of Start and End Retransmissions,
- Timetable file: instrument trading patterns for the current trading day,
- Market status change file: market events and/or market phase transitions occurring at the instrument level,
- Market update file: data to build the limits for the order book depth, trade prices and collars,
- Order update file: information needed to build the order book,
- Price update file: reference prices,
- Statistics file: statistics on prices and volumes on an instrument,
- Full trade information file: EU and UK MiFID II compliant trade summary.

Timestamps are in UTC and represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).

1.3. Available instruments

• Version 1 (2009 – 2017)

The BEDOFIH AMF Euronext Paris database provides order and trade records on firms admitted to trading on Euronext Paris for which the Autorité des Marchés Financiers (AMF), the French regulator, is the competent supervisory authority (that is firms whose market of reference is Euronext Paris).

• Version 2 (from 2018)

The BEDOFIH Euronext Paris database provides order and trade records on firms admitted to trading on Euronext Paris.

File: Symbols.csv (one file per year)

This file provides the list of instruments available in the BEDOFIH database for the year under consideration.

Name	Field	Description	
ISIN	1	ISIN code.	
InstrumentID	2	uronext Paris internal identifier of the instrument.	
BegDate	3	First date of the year at which the ISIN code appears in the BEDOFIH Euronext Paris database.	
EndDate	4	Last date of the year at which the ISIN code appears in the BEDOFIH Euronext Paris database.	
NbDays	5	Number of days for which there is at least one message.	

1.4. Source and further readings

- Euronext Rule Book
- Notice n°4-01 Trading manual
- Appendix to Euronext Notices n°4-01 & 4-03 (Trading Manuals)
- Euronext info flashes
- Euronext Markets Optiq MDG Client Specifications
- Euronext Cash and Derivatives Markets Optiq MDG Messages Interface Specification
 External

2. Version 1 (2009 – 2017)

2.1. High-frequency trader classification

The Autorité des Marchés Financiers (AMF), the French regulator, distinguishes three types of market participants in the order book: pure high-frequency traders (HFTs), mixed HFTs, and non-HFTs (AMF 2017¹). The AMF classification is based on the lifetime of cancelled orders.

A participant is considered as a HFT if it meets one of the following conditions:

- the average lifetime of its cancelled orders is less than the average lifetime of all orders in the book and it has cancelled at least 100,000 orders during the year;
- the participant must have cancelled at least 500,000 orders with a lifetime of less than 0.1 second and the top percentile of the lifetime of its cancelled orders must be less than 500 microseconds (i.e. 1% of lifetimes below 500 microseconds).

If a participant meets one of these conditions and is not an investment bank, it is a pure HFT. If an investment bank meets one of these conditions, it is a mixed HFT. If a participant does not meet any of the above conditions, it is a non-HFT.

The categorization of the participants is performed by the the AMF ex-post, at the end of every year. Changes of category are rare. For new members, the categorization is performed at the end of the year (not when the new participant enters the market).

2.2. Order files

Orders submitted during the current trading day

File:

- until December 31, 2014 VHOXcurrent_ISIN_YYYYMMDD.csv (one file per day and instrument),
- from January 1, 2015 VHOX_ISIN_YYYYMMDD.csv (one file per day and instrument).

The files VHOXcurrent and VHOX contain information about order messages that enter the system during the trading day.

Orders submitted during previous trading day that are still present in the order book

File:

- for components of the CAC All Tradable index VHOXhistory_ISIN_YYYYMMDD.csv,
- in 2015, for all instruments VHOR_ISIN_YYYYMMDD.csv.

¹ AMF (2017). Study of the behaviour of high-frequency traders on Euronext Paris.

VHOXhistory and VHOR files contain information about orders that entered the system during previous trading days but are still present in the order book of the current trading day.

Both types of files are useful to rebuild the order book and can be used indifferently. The main difference between VHOXhistory and VHOR files is that for VHOR files the date at which the order is executed, cancelled, or expires (o_d_br, o_t_br, and o_m_br) is only provided if the event occurs during the current trading day otherwise it will be set to 99991231 00:00:00 0.

		Order file – AMF Euronext Paris		
Name	Field	Description		
o_seq	1	AMF internal sequential number. Empty in 2011, 2012, and 2013.		
o_isin	2	SIN code of the instrument.		
o_d_i	3	Integration date of the order in the AMF database, YYYYMMDD.		
o_t_i	4	Integration time of the order in the AMF database. Always 00:00:00.		
o_cha_id	5	Characteristic identifier of the order, starts at 1 and increments by 1 when the order is modified.		
o_id_fd	6	Fundamental identifier of the order. Any order in the book maintains this fundamental ID until its life ends (i.e. until it is totally filled, canceled or expired). For instance, a new order is sent, it has a fundamental ID equal to 1234567890 and a characteristic ID equal to 1. Later, this order is modified and this event is represented by a new row in the order file where the fundamental ID is still 1234567890 whereas the characteristic ID has increased to 2. It follows that the set (O_CHA_ID, O_ID_FD) is unique for each row. The fundamental ID can be used for cross-referencing of orders between the order data file and the trade data file.		
o_d_be	7	Date of an order submission (book entry), YYYYMMDD. The set (o_d_be, o_t_be, o_m_be) gives the exact date-time-microsecond of order book entry (submission). For orders with characteristic identifier equal to 1 (new orders) the order book entry time is equal to the order validity time. If the characteristic ID of a message is greater than 1 (modified order) then they differ, but the order book entry time is equal, though, to the initial validity time of the unmodified order.		
o_t_be	8	Time of order submission (order book entry), hh:mm:ss.		
o_m_be	9	Microsecond of an order submission, represented by a number between 0 and 999999.		
o_d_br	10	Date when the order is released from the book, YYYYMMDD. It is the date of the last trade, if the order is totally filled, or the date of cancelation or expiration. The set (o_d_br, o_t_br, o_m_br) gives the exact date-time-microsecond of order book release.		
o_t_br	11	Time when the order is released from the book, hh:mm:ss.		
o_m_br	12	Microsecond of an order release, represented by a number between 0 and 999999.		
o_d_va	13	Date of order validity, YYYYMMDD. It is the starting date of the characteristic validity. The set (o_d_va, o_t_va, o_m_va) gives the exact date-time-microsecond of order validity.		
o_t_va	14	Time of order validity, hh:mm:ss.		
o_m_va	15	Microsecond of order validity, represented by a number between 0 and 999999.		
o_d_mo	16	Date of order modification or cancelation by the broker, YYYYMMDD. This column is filled for orders with o_state equal to 5 (modified) or 4 (cancelled by		

			Order file – AMF Euronext Paris	
Name	Field		Description	
110.1110		the broker). The set (o_d_mo, o_t_mo, o_m_mo) gives the exact date-time-		
			nd of order modification or cancelation by the broker.	
o_t_mo	17	Time of order modification or cancelation by the broker, hh:mm:ss.		
o_m_mo	18	Microseco	nd of order modification or cancelation by the broker, represented by	
		a number	between 0 and 999999.	
o_d_en	19	Date at wh	ich the order entered the system, YYYYMMDD.	
o_t_en	20	Time at wh	nich the order entered the system. Always 00:00:00.	
o_sq_nb	21	Sequence	number of the order, queuing identifier.	
o_sq_nbm	22		number of the modified order when o_state = 5 (modified). It is the	
			ng identifier of the modified order.	
o_d_p	23	_	te of the order, YYYYMMDD. The set (o_d_p, o_t_p, o_m_p) gives the	
0 + 0	2.4		-time-microsecond of order priority.	
o_t_p	24		ne of the order, hh:mm:ss.	
o_m_p	25	999999.	crosecond of the order, represented by a number between 0 and	
o_state	26	State of th	e order.	
		0	Eliminated by Corporate Events	
		S	Canceled by market operation (eliminated by supervision)	
		0	New order (new entry in the book)	
		1	Partially filled	
		2	Totally filled	
		3	Done for day, these orders are eliminated because of day validity (e.g. Good until Specified date, Valid for Auction and Valid for Closing)	
		4	Canceled by the broker	
		5	Modified, when an order is modified, the new one keeps the same fundamental ID as the old one while its characteristic ID increments	
			by 1	
		8	Rejected by the system	
		С	Canceled by the trading system	
		Р	Canceled by the self-trade prevention (STP) mechanism	
o_currency	27	Currency.		
o_bs	28	Order side		
		В	Buy	
		S	Sell	
o_type	29	Order type		
		1	Market order	
		2	Limit order	
		3	Stop Market order	
		4	Stop Limit order	
		Р	Pegged order	
		K	Market to Limit order	
o_execution	30	Execution	instruction (if any).	
		R	Primary peg (track the best bid (ask) for buy (sell) orders) when o_type = P	

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of an		
order in the Euronext Paris platform is 365 days). Time of the expiration of the order, hh:mm:ss.		
Order price. For market orders (pure market, stop market or market to limit		
orders) it is zero.		
Outbreak threshold price for orders with stop condition (e.g., stop limit orders).		
Price difference for a pegged order. Always 0.		
 .il		
Discretionary offset component for pegged orders. Always 0. Reserved until discretionary offsets are introduced in France.		
Initial order size.		
Minimal quantity for the order, valid only at the time the order is entered. If the		
specified minimum quantity is filled immediately, the unexecuted part of the		
executed, the entire order is canceled.		
Disclosed quantity for iceberg orders. For any other type of orders it is equal to		
0. Cumulative quantity negotiated for a given fundamental ID.		
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7 are		
YSE		
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to be		
matched in Euronext's central order book. 0 No application		
ugh a		
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			Order file – AMF Euronext Paris
Name	Field		Description
		3	Basket cross order (act of matching an order to buy or sell a group
			of securities simultaneously)
		4	Valuation trade, orders from market makers aiming at initiate the
			trading day for illiquid securities
		5	No application (IMS)
		6	Cross order (IMS)
		7	Basket cross order (IMS)
o_origin	43	Trading orig	gin (initiative) of the order (if filled by the member).
			Index trading arbitrage, index arbitrage focuses on index
			components
		Р	Portfolio strategy
		G	Unwind order, order aiming at hedging a position
		Α	Other orders
		С	Cross margining, market participants transfer excess margin from
			one account to another account with margin less than the required
			maintenance margin
o_account	44	User accou	nt.
		1	Client account, the member operates for a client
		2	Own account, the member of operates for himself
		3	Retail Liquidity Provider (RLP), orders submitted by an RLP can only
			match with an order submitted by an RMO (available from January
			28, 2013)
		4	Retail Market Organization (RMO), these orders interact with both
			RLP and non RLP orders (available from January 28, 2013)
		6	Liquidity provider (market maker)
		7	Parent company account
o_nb_tr	45		
			· -
o_q_rem	46	_	
	47	_	, ,
		·	
o_t_upd	48		
o mombor	40		
o_member	49		· · · ·
			Mixed high-frequency trader (investment bank with HFT activity)
			Non high fraguency trader
			Non high-nequency trader
o d ob	50		L ding day YYYYMMDD
	50	Carrent tra	anig aaj, i i i inimbo.
-			
o_nb_tr o_q_rem o_d_upd o_t_upd o_member o_d_ob (available in VHOR files only)	45 46 47 48 49		

	Order file – AMF Euronext Paris				
Name	Field	Description			
o_t_ob (available in VHOR files only)	51	Always 00:00:00.			

2.3. Trade file

File: VHD_ISIN_YYYYMMDD.csv

This file contains information about transactions that occur during the trading day. Each row corresponds to a negotiation which involves two orders: one buy order and one sell order. It is possible to search and find these orders in the order data file using their fundamental identifier.

		Trade file – AMF Euronext Paris		
Name	Field	Description		
t_seq	1	AMF internal sequential number. Empty in 2011, 2012, and 2013.		
t_capital	2	Value of the transaction, in Euros.		
t_price	3	Transaction price.		
t_price_max	4	Highest trading price reached since the beginning of the session.		
t_price_min	5	Lowest trading price reached since the beginning of the session.		
t_d_b_en	6	Date the buy order entered the book, YYYYMMDD.		
t_t_b_en	7	Time the buy order entered the book. Always 00:00:00.		
t_d_s_en	8	Date the sell order entered the book, YYYYMMDD.		
t_t_s_en	9	Time the sell order entered the book. Always 00:00:00.		
t_d_neg	10	Date of the trade, YYYYMMDD. The set (t_d_neg,t_t_neg,t_m_neg) gives the date-		
		time-microsecond of the trade.		
t_t_neg	11	Time of the trade, hh:mm:ss.		
t_m_neg	12	Microsecond of the negotiation.		
t_currency	13	Currency.		
t_cd_gc	14	Code of the trading group. See the Appendix to Euronext Notices n°4-01 & 4-03		
		(Trading Manuals) for the trading group list.		
t_id_b_fd	15	Fundamental identifier of the buy order (see o_id_fd).		
t_id_s_fd	16	Fundamental identifier of the sell order (see o_id_fd).		
t_id_u_fd	17	Fundamental identifier of an order that is undone (see o_id_fd). The cancelation		
		(undo) is a specific operation conducted by the system.		
t_undo	18	Undone indicator.		
		1 Not undone		
		2 Undone		
t_app	19	An application occurs when a seller and a buyer send orders with same price		
		and same quantity, both orders will be executed jointly. Note that 5, 6 and 7 are		
		equivalent to 0, 1, and 3, respectively, for members having subscribed to NYSE		
		Euronext Internal Matching Service (IMS).		
		0 No application		
		1 Cross order (act of matching a buy order with a sell order through a		
		single transaction)		

			Trade file – AMF Euronext Paris		
Name	Field	Description			
		3	Basket cross order (act of matching an order to buy or sell a group		
			of securities simultaneously)		
		4	Valuation trade, orders from market makers aiming at initiate the		
			trading day for illiquid securities		
		5	No application (IMS)		
		6	Cross order (IMS)		
		7	Basket cross order (IMS)		
t_isin	20	ISIN code o	f the instrument.		
t_origin	21	Origin of th	e message		
		01	Opening trade		
		02	Rest of the session		
t_b_sq_nb	22	Sequence r	number of the buy order involved in the trade (see o_sq_nb).		
t_s_sq_nb	23	Sequence r	number of the sell order involved in the trade (see o_sq_nb).		
t_b_account	24	Buyer acco	unt (see o_account).		
		1	Client account, the member operates for a client		
		2	Own account, the member of operates for himself		
		6	Liquidity provider (market maker)		
		7	Parent company account		
		3	Retail Liquidity Provider (RLP), orders submitted by an RLP can only		
			match with an order submitted by an RMO (available from January		
			28, 2013)		
		4	Retail Market Organization (RMO), these orders interact with both		
4	25	Callanasas	RLP and non RLP orders (available from January 28, 2013) Seller account (see t_b_account above and o_account).		
t_s_account	25				
t_cd_pc	26	Code of the trading platform. Always 025 = Euronext Paris. Negotiated quantity, in number of shares.			
t_q_exchan ged	27	Negotiated	quantity, in number of snares.		
t_tr_nb	28	Day/instrument-specific transaction number.			
t_id_tr	29	Transaction			
t_agg	30		ification. Empty during auction phases.		
00		Α	Buyer initiated trade		
		V	Seller initiated trade		
		2	Application		
t_yield	31		struments traded on BondMatch only).		
t_spread	32		id (for instruments traded on BondMatch only).		
t_b_type	33		requency Trading classification of the trader who sent the order.		
		HFT	Pure high-frequency trader		
		MIXED or	Mixed high-frequency trader (investment bank with HFT activity)		
		MIX	5 - 14- 1- 5 - 1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
		NON HFT	Non high-frequency trader		
		or NON			
t_s_type	34	AMF High F	requency Trading classification of the seller (see t_b_type above).		

2.4. Event file

File: VHE_ISIN_YYYYMMDD.csv²

This file contains information about market events affecting a security. Events that affect the market as a whole (e.g. delayed opening of all equities) are not included in these files.

			Event file – AMF Euronext Paris		
Name	Field	Description			
e_seq	1	AMF internal sequential number. Empty in 2011, 2012, and 2013.			
e_act_m_state	2	Event, if any, that caused a change in the instrument state.			
		Α	Order entry has been authorized for the instrument		
		С	Start trading		
		D	Cancellation of a delayed opening or auction		
		E	Orders in the book have been eliminated		
		F	Instruments in Fast-Market state		
		G	Instrument has been frozen or unfrozen		
		I	Order entry has been forbidden for the instrument		
		М	Halted instrument		
		N	The instrument is being initialized (beginning of the trading day)		
		0	Go to open state		
		Р	Delayed opening		
		R	Automatic reservation after the group opening		
		S	Return to normal activity (Slow-Market state)		
		U	Modification of the state of a warrant due to a change of state of its		
			underlying instruments		
		W	Programming of a deferred opening for a warrant due to an action of the warrant robot		
		Χ	Cancellation of a deferred opening of a warrant due to an action of		
			the warrant robot		
e_d_upd	3	Update date, YYYYMMDD.			
e_d_me	4		of the market event, YYYYMMDD. The set (e_d_me, e_t_me) gives the me of the market event.		
e_t_me	5		of the market event, hh:mm:ss.		
e_d_suspension	6		of suspension, YYYYMMDD. The set (e_d_suspension, e_t_suspension)		
'			he date-time of suspension. Always empty.		
e_t_suspension	7	Time o	of suspension, hh:mm:ss. Always empty.		
e_ct_state	8	Quotation state indicator. Always empty.			
e_value_state	9	State of the instrument.			
		Α	Authorized		
			Forbidden		
		AS	Authorized halted		
		AG	Authorized frozen		

-

² For 2009 – 2010, event files can also be found each month in reference_files folders under the name reference_file_euronext_YYYYMMDD.csv. For 2011 – 2015, event files can also be found each month in events_files folders under the name VHE_YYYYMMDD.csv.

Event file – AMF Euronext Paris					
Name	Field	Description			
		AR Authorized reserved			
		IS	Forbidden halted		
		IG	Forbidden frozen		
		IR Forbidden reserved			
e_cd_gc	10	Code of the trading group.			
e_t_op	11	Programmed opening time, hh:mm:ss. Filled when e_act_m_state = P.			
e_reservation	12	Origin of halting for an instrument. Filled when e_act_m_state = M or R.			
		A Automatic			
		M Manual			
e_isin	13	ISIN code of the instrument.			
e_cd_pc	14	Code of the trading platform. Always 025 = Euronext Paris.			

3. Version 2 (from 2018)

Instruments are identified by their Symbol Index (exchange identification code of the instrument).

3.1. Standing data file

File: StandingData_YYYYMMDD.csv (one file per day).

This file provides instrument characteristics for Cash products, valid for the current trading day (one message per instrument).

Standing Data Message – Euronext Paris Version 2 (from 2018)					
Field name	Presence	Description			
Market Data Sequence Mandatory		Assigned by Market Data Gateway (MDG) for each message.			
Number		Each channel (and partition) has its own Market Data			
		Sequence Number sequence.			
Message Type	Mandatory	Always StandingData.			
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 –			
		otherwise).			
Symbol Index	Mandatory	Exchange identification code of the instrument.			
Optiq Segment	Mandatory	An Optiq segment is a universe of instruments sharing			
		common trading properties. Always 1 – Equities.			
Partition ID	Mandatory	Identifies uniquely an Optiq partition across all the			
		Exchange partitions.			
		Instruments have the flexibility to be moved from one			
		partition to another within an Optiq segment.			
Full Instrument Name	Optional	Full Instrument Name.			
Instrument Name	Mandatory	Instrument Name.			
Instrument Trading	Optional	Trading code is a 12-character string, the only instrument			
Code		identifier that is unique in the feed in addition to the			
		symbol index.			

Standi	ng Data Messa	age – Euronext Paris Version 2 (from 2018)	
Field name	Presence	Description	
Instrument Group Code Mandatory		Instrument Group / Class Identifier. See the Appendix to 4- 01 Manual OPTQ available on Euronext website for a list of possible values.	
ISIN Code	Mandatory	Instrument ISIN following ISO 6166. Identifier of a product. Combined with MIC and Currency, identifies an instrument traded on a given market using a given currency.	
CFI	Mandatory	Classification code of a financial instrument defined by the ISO-10962:2015 standard.	
Instrument Event Date	Mandatory	Date of the last instrument characteristic modification(s) except for some exceptions.	
Strike Price	Optional	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.	
Dark Eligibility	Optional	Indicates the Eligibility to dark (0 – is not eligible, 1 – is eligible).	
Dark LIS Threshold	Optional	Defines the minimum amount of an order to benefit from the LIS (Large In Scale) pre-transparency waiver.	
Dark Minimum Quantity	Optional	Defines the minimum quantity required for an order to be filled in the Dark liquidity. 0 indicates that no minimum amount is required. Deprecated field since February 26, 2024.	
Date Of Last Trade	Optional	Date of the Last Price for the Instrument.	
Depositary List	Optional	Identifies the possible main depository organizations (maximum four) for shares or fixed income. Use the clearing house to determine the relevant system for settling trades. 00001 – Euroclear France 00002 – Euroclear Belgium 00003 – Euroclear Nederland 00006 – Euroclear Bank 00009 – Euronext Paris non Euroclear France	
Main Depositary	Optional	Identifies the default (or main) depository organization of the instrument (between the possible 4 depositaries registered) used by priority for the settlement (for example: multi-listed instruments which have several depositories). For Cash Markets this data has to be treated in consideration of the data Depositary List used by the clearing house to determine the relevant system for settling trades.	
First Settlement Date	Optional	Represents the first possible settlement date for a given instrument.	

Standi	ng Data Messa	age – Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Guarantee Indicator	Optional	Indicates if the trade is guaranteed or not (for clearing purpose). 0 – This instrument is not guaranteed 1 – This instrument is guaranteed 2 – This instrument is not clearable 8 – This instrument is part of Cleared Borrowing and Lending Service (CBLM) and is guaranteed
ICB	Optional	Always empty.
Issuing Country	Optional	Issuing country. Provides the ISO 3166 (Alpha 3) code for the country of headquarter company that issued the instrument.
Last Adjusted Closing Price	Optional	Last traded price of the previous trading day after application of the adjustment coefficient.
Lot Size	Optional	For Cash and Derivatives it defines a multiple of the tradable quantity.
Maturity Date	Optional	Maturity Date of the instrument (text formatted as YYYYMMDD).
Maximum Decimals In Quantity	Optional	Always empty.
MIC	Mandatory	Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383. ALXP – EURONEXT GROWTH PARIS XMLI – EURONEXT ACCESS PARIS XOTH – Others - This MIC is not registered, it is use for testing purpose XPAR – EURONEXT - EURONEXT PARIS
MIC List	Optional	Identifies the Euronext markets on which an instrument is listed by its MIC (Market Identification Code). For an instrument listed on a single Euronext market, the listing MIC code is the same than "Market Identification Code (MIC) of the listed instrument". For an instrument listed on several Euronext Markets: - The first MIC is the same than the "Market Identification Code (MIC) of the listed instrument - The others MIC indicate the other listing places ALXB - EURONEXT GROWTH BRUSSELS XAMS - EURONEXT AMSTERDAM XBRU - EURONEXT BRUSSELS
Country Of Exchange	Optional	Country of exchange is the Country associated to the MIC following ISO 3166 Alpha-3. Always FRA – France.
Mnemonic	Optional	Mnemonic code of the instrument.
Underlying MIC	Optional	Always empty.
Underlying ISIN Code	Optional	Always empty.
Trading Currency	Optional	Code of the currency (ISO 4217-3A).

Standii	ng Data Mess	age – Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Currency Coefficient	Optional	When an actual price is displayed in a different 'price expression' than the official instrument trading currency, the Currency Coefficient represents the ratio 'price expression' divided by 'official currency'.
Trading Currency Indicator	Optional	Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency (0 – Change rate not applied to the traded price, 1 – Change rate applied to the traded price). Use Currency Coefficient field to identify the ratio to apply.
Strike Currency Indicator	Optional	Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency (0 – Change rate not applied to the strike price, 1 – Change rate applied to the strike price). Use Currency Coefficient field to identify the ratio to apply.
Number Instrument Circulating	Optional	Total number of shares issued by the company.
Par Value	Optional	Par Value (also called Nominal value) for Instrument.
Quantity Notation	Optional	Indication of the type of measurement in which the transaction is expressed. Always UNT – Units.
Instrument Unit Expression	Optional	Unit in which the instrument is quoted. Always 1 – Units.
Settlement Delay	Optional	Gives the number of trading days that represents the period between the trade date and the settlement date (delivery and payment) for an instrument to be cleared and settled. Always X – This value is assigned for a lot of products and internal management rules shared by Euronext and LCH-Clearnet (D+2).
Strike Currency	Optional	Code of the strike currency (ISO 4217-3A).
Tax Code	Optional	Tax deduction code to which the instrument belongs. 0 – Not eligible to PEA 3 – Eligible to PEA 9 – Not Applicable

Standi	ng Data Messa	age – Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Type Of Corporate Event	Optional	Indicates the last type of corporate event that has occurred on an instrument, such as detachment of rights, or of coupons. The data item is automatically calculated by the adjustment application but in case of problem or error, the data item value could be modified manually, particularly for purging the order book in case of absence of corporate event. 00 – No specific event 01 – Dividend payment in cash or in stocks 04 – Split 05 – Bonus (i.e. attribution) 06 – Subscription 07 – Share allocation 08 – Share swap 09 – Reverse split 10 – Merger 12 – Capital amortization 14 – Block trade of controlling interest 15 – Optional corporate events (dividend option) 16 – Complex corporate event 17 – Purge of the order book (purge is initiated manually in the absence of a corporate event, for example, following the modification of the variable tick of the listed instrument)
Type Of Market Admission	Optional	Indicates the type of market to which an instrument has been listed. D – Non-regulated market / instruments traded on the free market ('Marche Libre') E – Non-regulated market / Alternext H – Regulated Market / Equities / Segment A I – Regulated Market / Equities / Segment B J – Regulated Market / Equities / Segment C L – Regulated Market / Equities / Other instruments
Repo Indicator	Optional	Indicates whether the instrument listed underlies any loan contracts meaning it has been admitted to the Deferred Settlement system and/or to the lending market. 0 – Instrument neither eligible for the SRD, nor eligible for the Loan and Lending Market 1 – Instrument eligible for the SRD and for the Loan and Lending Market 2 – Instrument eligible for the SRD long only 3 – Instrument eligible for the Loan and Lending Market and for the SRD long only
Issue Price	Optional	Issuing price of the instrument.
Nominal Currency	Optional	Code of the nominal currency (ISO 4217-3A).
Liquid Instrument Indicator	Optional	Indicates whether the instrument is liquid or not as defined per EU and UK MiFID II (0 – Illiquid, 1 – Liquid).

Standi	ng Data Messa	age – Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Market Of Reference MIC	Optional	Indicates the instrument Exchange of Reference by its MIC (Market Identification Code according to ISO 10383) (For Future Use).
ICB Code (available from October 22, 2018)	Optional	Not relevant. Always empty.
Threshold LIS Post Trade 60mn (available from May 6, 2019)	Optional	Defines the amount of an order to benefit from the LIS Trade Deferred publication to 60 min.
Threshold LIS Post Trade 120mn (available from May 6, 2019)	Optional	Defines the amount of an order to benefit from the LIS Trade Deferred publication to 120 min.
Threshold LIS Post Trade EOD (available from May 6, 2019)	Optional	Defines the amount of an order to benefit from the LIS Trade Deferred publication to EOD.
Long Mnemonic (available from November 28, 2022)	Optional	Mnemonic code of the instrument.
Max Order Amount Call (available from November 28, 2022)	Optional	Maximum order amount allowed during a call phase.
Max Order Amount Continuous (available from November 28, 2022)	Optional	Maximum order amount allowed during a continuous phase.
Max Order Quantity Call (available from November 28, 2022)	Optional	Maximum order quantity allowed during an uncrossing phase.
Max Order Quantity Continuous (available from November 28, 2022)	Optional	Maximum order quantity allowed during a continuous phase.
Pool Factor (available from November 28, 2022)	Optional	Allows to calculate how much of the original loans have yet to be repaid.
<emm> sequence starts</emm>		
NoEMM	Mandatory	Number of EMM.
EMM	Mandatory	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB) 5 – Cash On Exchange Off book
Pattern ID	Optional	Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message.
Tick Size Index ID	Optional	ID of the tick size table available in the Tick Table file.
Market Model	Optional	Market Model identifier. Always 1 – Order Driven.
Lot Size (available from September 9,2019)	Optional	Defines a multiple of the tradable quantity.

Standing Data Message – Euronext Paris Version 2 (from 2018)					
Field name	Presence	Description			
Instrument Unit Expression (available from September 9,2019)	Optional	Unit in which the instrument is quoted. Always 1 – Units.			
Anonymous (available from October 12, 2020)	Optional	Indicates if the Market Data notifications on the instrument are anonymous or not (0 – Non Anonymous Member Firm ID published, 1 – Anonymous Member Firm ID not published).			
<emm> sequence ends</emm>					

3.2. Technical notification file

File: TechnicalNotification_YYYYMMDD.csv (one file per day).

This file is used to notify the beginning of Start and End Retransmissions (one message per instrument).

Technical Notification Message – Euronext Paris Version 2 (from 2018)					
Field name	Presence	Description			
Market Data Sequence Number	Optional	Assigned by MDG for each message.			
Message Type	Mandatory	Always TechnicalNotification.			
Technical Notification Type	Mandatory	Indicates the technical notification sent. 1 – Instrument Book Retransmission End 10 – Trade Retransmission Start 11 – Trade Retransmission End			
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).			
Retransmission Start Time	Optional	Indicates when the retransmission starts. For trade retransmission, all the trades previously received by the clients that have an "Event time" strictly lower than this field are valid (Time in number of nanoseconds since 01/01/1970 UTC).			
Retransmission End Time	Optional	Indicates when the retransmission ends. For trade retransmission, all the trades previously received by the clients that have an "Event time" strictly higher than this field are valid (Time in number of nanoseconds since 01/01/1970 UTC).			
Symbol Index	Optional	Exchange identification code of the instrument.			

3.3. Timetable file

File: Timetable_YYYYMMDD.csv (one file per day).

This file indicates the instrument trading patterns (state change sequence) for the current trading day.

Timetable Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always Timetable.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).
EMM	Optional	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB) 5 – Cash On Exchange Off book
Pattern ID	Optional	Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message.
Symbol Index	Optional	Exchange identification code of the instrument.
<timetable> sequence starts</timetable>		
NoTimetable	Mandatory	Number of timetables.
Phase Time	Mandatory	Time of Phase start, hh:mm:ss (UTC).
Phase Id	Mandatory	Indicates the phase of the instrument. 1 – Inaccessible 2 – Closed 3 – Call 4 – Uncrossing 5 – Continuous
Phase Qualifier	Mandatory	Indicates the Phase Qualifier. 0 – No Qualifier 2 – Trading At Last 3 – Random Uncrossing 5 – Trading At Last and Random Uncrossing
Trading Period	Mandatory	Provides the current trading period. 1 – Opening 2 – Standard 3 – Closing
Order Entry Qualifier	Optional	Field indicating the state of the Order Entry for the current market state. 0 – Order Entry/Cancel/Modify Disabled 1 – Order Entry/Cancel/Modify Enabled 3 – Cancel Only
Session	Mandatory	Session of the trading phase. Always 1 – Session 1 Normal Trading Hours.

Timetable Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Scheduled Event (available from June 15, 2020)	Optional	Type of Scheduled Event. Notifies an event that will occur at the Scheduled Event Time. 0 - Cancel Previously Scheduled Event 1 - Reopening 3 - Resumption of trading 12 - Suspension 13 - Collars Normal 14 - Collars Wide 15 - Pre-Expiry 16 - Closing Price (from November 28, 2022)
<timetable> sequence ends</timetable>		

3.4. Market status change file

File: MarketStatusChange _YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides all market events and/or market phase transitions occurring at the instrument level.

Market Status Change Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always MarketStatusChange.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).
EMM	Mandatory	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB)
<marketstatuschange> sequence starts</marketstatuschange>		
NoMarketStatusChange	Mandatory	Number of market status changes.
Market Data Change Type	Mandatory	Type of scheduled change. 0 – Status Change(s) 1 – Scheduled Event Notification 2 – Status Change(s) and Scheduled Event Notification
Symbol Index	Mandatory	Exchange identification code of the instrument.
Event Time	Mandatory	Time when an event has been processed (Epoch Time in Nanoseconds, UTC).

Market Status Cha	nge Message	– Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Book State	Optional	Indicates the state of the book resulting of the
		current timetable phase, current
		contract/trading group state
		contract/trading group state. 1 – Inaccessible
		2 – Closed
		3 – Call
		4 – Uncrossing
		5 – Continuous
		6 - Halted
		8 – Suspended
		9 – Reserved
Status Reason	Optional	Provides the reason for Book State changes.
		0 – Scheduled
		4 – Collars Breach
		7 – Automatic Reopening
		8 – No Liquidity Provider
		11 – Knock-In by Issuer
		12 – Knock-Out by Exchange
		13 – Knock-Out by Issuer
		15 – Action by Market Operations
		20 – New Listing
		21 – Due to Underlying
		22 – Outside of LP quotes
Phase Qualifier	Mandatory	Indicates the Phase Qualifier.
		0 – No Qualifier
		1 – Call BBO Only
		2 – Trading At Last
		3 – Random Uncrossing
		5 – Trading At Last and Random Uncrossing
		6 – Stressed Market Conditions (from April 26, 2021)
		7 – Exceptional Market Conditions (from April 26,
		2021)
		9 – Random Uncrossing and Stressed Market
		Conditions
		11 – Trading At Last and Random Uncrossing and
Tue die - Devie d	0.541	Stressed Market Conditions
Trading Period	Optional	Provides the current trading period.
		1 – Opening
		2 – Standard
Trading Side	Ontional	3 - Closing
Trading Side	Optional	Indicates the Trading Side. 1 – Bid Only
		2 – Offer Only
		3 - PAKO
		4 – Both Sides
Price Limits	Optional	Always empty.
Quote Spread Multiplier	Optional	Always empty.
Quote spread Multiplier	Optional	Aiways empty.

Market Status Change Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
Order Entry Qualifier	Optional	Field indicating the state of the Order Entry for the current market state. 0 – Order Entry/Cancel/Modify Disabled 1 – Order Entry/Cancel/Modify Enabled 3 – Cancel Only	
Session	Mandatory	Current market session. Always 1 – Session 1 Normal Trading Hours.	
Scheduled Event	Optional	Type of Scheduled Event. Notifies an event that will occur at the Scheduled Event Time. 0 - Cancel Previously Scheduled Event 1 - Reopening 3 - Resumption of trading 12 - Suspension 13 - Collars Normal 14 - Collars Wide 15 - Pre-Expiry 16 - Closing Price (from November 28, 2022)	
Scheduled Event Time	Optional	Scheduled Time for the event to happen (time in number of nanoseconds since 01/01/1970 UTC).	
Instrument State (available from June 15, 2020)	Optional	Indicates the state of the instrument.	
<marketstatuschange> sequence starts</marketstatuschange>			

3.5. Market update file

File: MarketUpdate_YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides data to build the limits for the order book depth, trade prices and collars.

Market Update Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always MarketUpdate.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent,
		0 – otherwise).
EMM	Mandatory	Defines the Exchange Market Mechanism applied on each platform.
		1 – Cash and Derivative Central Order Book (COB)
		5 – Cash On Exchange Off book
Event Time	Mandatory	Time when an event has been processed (Epoch Time
		in Nanoseconds, UTC).
<marketupdate> sequence starts</marketupdate>		
NoMarketUpdate	Mandatory	Number of market updates.

Market Update Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Update Type	Mandatory	Type of market data update.
		1 – Best Bid
		2 – Best Offer
		3 – New Bid
		4 – New Offer
		5 – Updated Bid
		6 – Updated Offer
		12 – Request for Size
		14 – High Dynamic Collar
		15 – Low Dynamic Collar
		24 – Conventional Trade
		35 – Dark Trade
		46 – BoB Trade
		50 – Trade Cancellation
		51 – Out of Market Trade
		52 – Delta Neutral Trade - Underlying Cash Leg
		55 – Secondary Listing Trade
		63 – Low Static Collar
		64 – High Static Collar
		65 – Market VWAP Operation Trade
		66 – Request for Size Bid
		67 – Request for Size Offer
		79 – Guaranteed Cross – Negotiated deal NLIQ
		(Liquid)
		80 – Guaranteed Cross – Negotiated deal OILQ
		(illiquid)
		81 – Large in Scale (LIS) Trade
		90 – Bid Execution Summary
		97 – Offer Execution Summary
		101 – High Order Price Control Collar (from
		November 28, 2022)
		102 – Low Order Price Control Collar (from November
		28, 2022)
Symbol Index	Mandatory	254 – Clear Book Exchange identification code of the instrument.
Number Of Orders	-	<u> </u>
	Optional	Number of orders at the current price limit.
Price	Optional	Price per unit of quantity.
Quantity	Optional	Number of traded or ordered units.
<marketupdate> sequence ends</marketupdate>		

3.6. Order update file

File: OrderUpdate_YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides the information needed to build the order book.

Order Update	Message – Eu	ronext Paris Version 2 (from 2018)
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always OrderUpdate.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 –
		resent, 0 – otherwise).
EMM	Mandatory	Defines the Exchange Market Mechanism applied
		on each platform.
		1 – Cash and Derivative Central Order Book (COB)
Event Time	Mandatory	Time when an event has been processed (Epoch
		Time in Nanoseconds, UTC).
<orderupdate> sequence starts</orderupdate>	1	
NoOrderUpdate	Mandatory	Number of order updates.
Symbol Index	Mandatory	Exchange identification code of the instrument.
Market Data Action Type	Mandatory	Identifies if the order is a New Order, a Deletion, a
		Modification or a Retransmission.
		1 – New Order
		2 – Deletion of order identified by Previous Priority
		3 – Deletion of all orders for the given instrument
		(depending on the side. If side is not provided, it means both)
		4 – Modification of existing order Without Loss Of
		Priority
		5 – Retransmission of all orders for the given
		instrument
		6 – Modification of existing order With Loss Of
		Priority
		7 – RFQ Answer creation
		8 – RFQ Answer deletion
Order Priority	Optional	Rank giving the priority of the order. The order with
		the lowest value of Order Priority has the highest
		priority.
Previous Priority	Optional	Previous Priority is populated only when there is a
		"Modification of existing order With Loss Of Priority"
		or order deletions. Then clients have to remove from their market sheet the order identified with
		the field "Previous Priority" and add a new order
		with the field "Order Priority" newly provided.
Order Type	Optional	Type of Order.
	1	1 – Market
		2 – Limit
		5 – Primary Peg
		6 – Market to limit
		7 – Market Peg
		11 – Market On close (MOC)
Order Price	Optional	Instrument price per quantity unit.

Order Update Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
Order Side	Optional	Indicates the side of the order.	
		1 – Buy	
		2 – Sell	
		3 – Cross	
Order Quantity	Optional	Total order quantity, per quantity unit.	
Peg Offset	Optional	(Future Use) Tick offset for a pegged order.	
<orderupdate> sequence ends</orderupdate>			

3.7. Price update file

File: PriceUpdate_YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides reference prices.

Price Update Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.	
Message Type	Mandatory	Always PriceUpdate.	
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).	
EMM	Mandatory	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB)	
Event Time	Mandatory	Time when an event has been processed (Epoch Time in Nanoseconds, UTC).	
<prices> sequence starts</prices>			
NoPrices	Mandatory	Number of prices.	
Market Data Price Type	Mandatory	Type of price update. 12 - Adjusted Closing Price 13 - Subscription Price 14 - Indicative Matching Price 19 - Min Price Out of Session Trades 20 - Max Price Out of Session Trades 21 - Min Price Out of Session Block Trades 22 - Max Price Out of Session Block Trades 22 - Max Price Out of Session Block Trades 23 - Last Traded Price 27 - Last Traded Price 28 - Alternative Indicative Price (AIP) 31 - External Reference Price 33 - Closing Price (from November 28, 2022)	
Symbol Index	Mandatory	Exchange identification code of the instrument.	
Price	Optional	Price per unit of quantity.	
Quantity	Optional	Number of traded or ordered units.	
Imbalance Quantity	Optional	Imbalance volume quantity if Uncrossing occurs at this moment. This volume includes hidden quantity.	

Price Update Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Imbalance Quantity Side	Optional	Side of the imbalance volume if the Uncrossing occurs at this moment. 0 – No imbalance 1 – Buy 2 – Sell
Price Qualifier (available from November 28, 2022)	Optional	Represents a qualifier of the type of update being communicated to the market. 1 – Last Adjusted Closing Price 2 – Last Traded Price 3 – Volume Weighted Average Price 4 – Closing Uncrossing Price 5 – Valuation Price 6 – Average of BBO 7 – Average of Best Bid 8 – Updated by Market Operations
<prices> sequence ends</prices>		

3.8. Statistics file

File: _YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides statistics on prices and volumes on an instrument.

Statistics Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always Statistics.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).
Symbol Index	Mandatory	Exchange identification code of the instrument.
<newstats> sequence starts</newstats>		
NoNewStats	Mandatory	Number of statistics.
Stats Update Type	Mandatory	Indicates the type of published statistics update. 5 – Daily High 6 – Daily Low 14 – Variation Last Price 15 – Open Price 16 – Trade Count 17 – Last Traded Price 18 – Percent Variation Previous Close 19 – Off Book Cumulative Quantity 21 – On Book Auction Cumulative Quantity 22 – On Book Continuous Cumulative Quantity 23 – On and Off Book Cumulative Quantity
Stats Update Value	Optional	Indicates the value of the published statistics update.
<newstats> sequence ends</newstats>		

3.9. Full trade information file

File: FullTradeInformation_YYYYMMDD_ISIN.csv (one file per day and instrument).

This file provides a EU and UK MiFID II compliant trade summary.

Full Trade Information Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always FullTradeInformation.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).
EMM	Mandatory	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB) 5 – Cash On Exchange Off book
Event Time	Mandatory	Time when an event has been processed (Epoch Time in Nanoseconds, UTC).
Symbol Index	Optional	Exchange identification code of the instrument.
Trading Date Time	Mandatory	Date and time when the transaction was executed (YYYYMMDDThh:mm:ss.ddddddZ where YYYY is the year, MM is the month, DD is the day, T is used as separator between YYYYMMDD and hh:mm:ss.ddddddZ, hh is the hour, mm is the minute, ss.dddddd is the second and its fraction of a second, Z stands for UTC time).
Publication Date Time	Optional	Date and time when the transaction was published by a trading venue or Approved Publication Arrangement (APA) (YYYYMMDDThh:mm:ss.ddddddZ).

Full Trade Information Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
MiFID Instrument ID Type	Optional	price Code type used to identify the financial instrument. Always ISIN.	
MiFID Instrument ID	Optional	Code used to identify the financial instrument. This code has to be processed with the MiFID Instrument ID Type.	
MiFID Execution ID	Mandatory	MiFID Transaction Identification Code is a unique ID of the Execution per instrument, day and EMM. MiFID Transaction Identification Code is composed of the Symbol Index (on 10 characters), the EMM (on 3 characters) and the Execution ID (on 10 characters). It is a unique trade identifier by instrument per day on the different available EMM.	
MiFID Price	Optional	Traded price of the transaction excluding, where applicable, commission and accrued interest.	
MiFID Quantity	Mandatory	Number of units of the financial instrument.	
MiFID Price Notation	Optional	Indication as to whether the price is expressed in monetary value, in percentage or in yield. Always MONE – Monetary value.	

Full Trade Information Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
MiFID Currency	Optional	Currency in which the price is expressed (applicable if the price is expressed as monetary value) following ISO 4217 standard.	
MiFID Qty in Measurement Unit Notation	Optional	Always empty.	
MiFID Quantity Measurement Unit	Optional	Always empty.	
MiFID Notional Amount	Optional	Nominal amount or notional amount.	
Notional Currency	Optional	Currency in which the notional is denominated following ISO 4217 standard.	
MiFID Clearing Flag	Optional	Always empty or – Not Applicable.	
MMT Market Mechanism	Optional	Defines the fundamental functional market mechanism that has facilitated the trade following MMT level 1. 1 - Central Limit Order Book 2 - Quote Driven Market 3 - Dark Order Book 4 - Off Book (including Voice or Messaging Trading) 5 - Periodic Auction (= Uncrossing) 6 - Request for Quotes	
MMT Trading Mode	Optional	Differentiates transactions by defining the trading mode under which the trade was executed following MMT level 2. 1 - Undefined Auction (= Uncrossing) 2 - Continuous Trading 3 - At Market Close Trading 4 - Out of Main Session Trading 5 - Trade Reporting (On Exchange) 6 - Trade Reporting (Off Exchange) 7 - Trade Reporting (Systematic Internaliser) I - Scheduled Intraday Auction (= Uncrossing) K - Scheduled Closing Auction (= Uncrossing) O - Scheduled Auction (= Uncrossing) U - Unscheduled Auction (= Uncrossing)	
MMT Transaction Category	Optional	Defines the transaction category following MMT level 3.1. D – Dark Trade RPRI – Trade that has Received Price Improvement TPAC– Package Trade (excluding Exchange for Physicals) XFPH – Exchange for Physicals Trade - None apply (a standard trade for the Market Mechanism and Trading Mode)	

Full Trade Information Message – Euronext Paris Version 2 (from 2018)				
Field name	Presence	Description		
MMT Negotiation Indicator	Optional	Defines the negotiation indicator or pretrade transparency waiver following MMT level 3.2. Possible values – N – Negotiated Trade NLIQ – Negotiated Trade in Liquid Financial Instruments OILQ – Negotiated Trade in Illiquid Financial Instruments PRIC – Negotiated Trade Subject to Conditions Other Than The Current Market Price ILQD – PreTrade Transparency Waiver for illiquid instrument on an Side SIZE – PreTrade Transparency Waiver for above standard market size on an SI – No Negotiated Trade		
MMT Agency Cross Trade Indicator	Optional	Defines the agency cross trade indicator following MMT level 3.3. ACTX – Agency Cross Trade - No Agency Cross Trade		
MMT Modification Indicator	Optional	Defines the modification indicator following MMT level 3.4. CANC – Trade Cancellation AMND – Trade Amendment - – New Trade		
MMT Benchmark Indicator	Optional	Defines the benchmark indicator or the reference price indicator following MMT level 3.5. BENC – Benchmark Trade RFPT – Reference Price Trade - No Benchmark or Reference Price Trade		
MMT Special Dividend Indicator	Optional	Defines the special dividend indicator following MMT level 3.6. SDIV – Special Dividend Trade - No Special Dividend Trade		
MMT Off Book Automated Indicator	Optional	Defines the off book automated indicator following MMT level 3.7. M – Off Book NonAutomated Q – Off Book Automated Unspecified or does not apply		
MMT Contribution to Price	Optional	Defines the contribution to price or the price discovery process following MMT level 3.8. P – PlainVanilla Trade NPFT – NonPrice Forming Trade (formerly known as the Technical Trade) TNCP – Trade not Contributing to the Price Discovery Process		

Full Trade Information Message – Euronext Paris Version 2 (from 2018)				
Field name	Presence	Description		
MMT Algorithmic Indicator	Optional	Defines the algorithmic indicator following MMT level 3.9. ALGO – Algorithmic Trade - No Algorithmic Trade		
MMT Publication Mode	Optional	Defines the publication mode or posttrade deferral reason following MMT level 4.1. - Immediate Publication 1 - NonImmediate Publication LRGS - NonImmediate Publication - Deferral for "Large in Scale" ILQD - NonImmediate Publication - Deferral for "Illiquid Instrument" SIZE - NonImmediate Publication - Deferral for "Size Specific"		
MMT Post Trade Deferral	Optional	Defines the post trade deferral or enrichment type following MMT level 4.2. Possible values for the original trade: LMTF – Limited Details Trade DATF – Daily Aggregated Trade VOLO – Volume Omission Trade FWAF – Four Weeks Aggregation Trade IDAF – Indefinite Aggregation Trade VOLW – Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form Possible values for the subsequent enrichment trade: FULF – Full Details of Earlier "Limited Details Trade (LMTF)" FULA – Full Details of Earlier "Daily Aggregated Trade (DATF)" FULV – Full Details of Earlier "Volume Omission Trade (VOLO)" FULJ – Full Details of Earlier "Four Weeks Aggregation Trade (FWAF)" COAF – Full Details in Aggregated Form of Earlier "Volume Omission Trade, Eligible for Subsequent Enrichment in Aggregated Form (VOLW)" Possible values if neither apply: – Not Applicable / No Relevant Deferral or Enrichment Type		
MMT Duplicative Indicator	Optional	Defines the duplicative indicator following MMT level 5. DUPL – Duplicative Trade Report (reported to more than one APA) - Unique Trade Report		

Full Trade Informat	ion Message	– Euronext Paris Version 2 (from 2018)
Field name	Presence	Description
Trade Qualifier	Mandatory	Trade Qualifier. The 1st character refers to Uncrossing Trade: indicates whether the trade occurred during an Uncrossing (0: No; 1: Yes), the 2nd caracter to First Trade Price: indicates whether the price of the trade is the first trade price of the day (0: No; 1: Yes), the 3rd to Passive Order: indicates whether the buy order involved was passive (0: No; 1: Yes), the 4th to Aggressive Order: indicates whether the buy order involved was aggressive (0: No; 1: Yes), the 5th to Trade Creation by Market Operations: indicates whether the trade results from a creation by Market Operations (0: No; 1: Yes) (for future use), the 6th to NAV Trade expressed in bps: indicates whether the trade results from a NAV trade expressed in basis point on the ETF Access platform (0: No; 1: Yes), the 7th to NAV Trade expressed in price currency: indicates whether the trade is a NAV trade expressed in price currency: indicates whether the trade is a NAV trade expressed in basis point on the ETF Access platform) (0: No; 1: Yes), and the 8th to Deferred Publication: indicates whether the trade publication is deferred or immediate (0: Immediate Publication; 1: Deferred Publication). If all caracters are set to 0, then it means that no Trade Qualifier applies.
Transaction Type	Optional	Transaction type or publication type. 1 – Plain Vanilla Trade 2 – Dark Trade 3 – Benchmark Trade 4 – Technical Trade 5 – Giveup/Givein Trade 6 – Ex/Cum dividend Trade 7 – Trade With Condition 15 – Summary Report
Effective Date Indicator	Optional	Indicates if the trade is introduced on the trading
		session day or earlier (0 If the seller declaration is received on the current trading session day, 1 If seller declaration is received before the current trading session day).
Block Trade Code	Optional	received on the current trading session day, 1 lf seller declaration is received before the current

Full Trade Information Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Description	
Original Report Timestamp	Optional	Timestamp of trade reporting to the Exchange (Time in number of nanoseconds since 01/01/1970 UTC).	
Transparency Indicator	Optional	Used to define the transparency of the trade. 0 – Lit/Regular Trade 1 – Dark Trade and Immediate Publication 2 – Dark Trade and Deferred Publication	
Currency Coefficient	Optional	When an actual price is displayed in a different 'price expression' than the official instrument trading currency, the Currency Coefficient represents the ratio 'price expression' divided by 'official currency'.	
Price Multiplier	Optional	Number of units of the financial instrument that are contained in a trading lot. Price multiplier coefficient for instrument unit price.	
Price Multiplier Decimals	Optional	Number of decimals for the field Price Multiplier.	
Venue	Mandatory	Identification of the venue where the transaction was executed using the ISO 10383 segment MIC for transactions executed on a trading venue. Otherwise the BIC is sent following ISO 9362. For Approved Publication Arrangement (APA), possible values are: XOFF - OTC TRANSACTIONS - LISTED INSTRUMENTS XXXX - OTC TRANSACTION - UNLISTED INSTRUMENTS AFSI - AFS OTF INTEREST RATE DERIVATIVES AFSO - AFS OTF BONDS AFSL - AFS OTF STRUCTURED PRODUCTS AFSX - AFS OTF FX FORWARDS SINT - Systematic INTernaliser (This is a tag not in the ISO).	
Start Time Vwap	Optional	Start time for the Volume Weight Average price computation period Intraday Time in Seconds.	
End Time Vwap	Optional	End time for the Volume Weight Average price computation period Intraday Time in Seconds.	
MiFID Emission Allowance Type	Optional	Always empty.	
Market Of Reference MIC	Optional	Indicates the instrument Exchange of Reference by its MIC (Market Identification Code according to ISO 10383) (For Future Use).	
Evaluated Price (available from June 15, 2020)	Optional	Always empty.	
Message Price Notation (available from June 15, 2020)	Optional	Always empty.	
SettlementDate (available from October 12, 2020)	Optional	Date when a trade is final, and the buyer must make payment to the seller while the seller delivers the	

Full Trade Information Message – Euronext Paris Version 2 (from 2018)				
Field name	Presence	Description		
		assets to the buyer (number of days since the 1st of January 1970).		
RepoSettlementDate (available from October 12, 2020)	Optional	Date when the RepoSeller gets the assets back from the RepoBuyer. Used in case of a Repo (Repurchase Agreement) trade (number of days since the 1st of January 1970).		
Trade Unique Identifier (available from November 28, 2022)	Mandatory	Alphanumerical code unique, consistent and persistent per ISO10383 segment MIC and per trading day assigned by the trading venue to a transaction. Trade Unique Identifier (TUI) is a field aimed at identifying an individual transaction and used as Trading Venue Transaction Identification Code (TVTIC). This is a unique transaction identification code generated by trading venues and disseminated to both the buying and the selling parties, in accordance with Article 12 of the Commission Delegated Regulation (EU) 2017/580 Regulatory Technical Standards (RTS).		

3.10. How to read Euronext messages

3.10.1. Rules

Single variable

- Variables are comma-separated.
- If an optional variable is not given, the field corresponding to this variable is empty.

Sequence

- A sequence is a set of related variables.
- A sequence starts by [and ends by].
- The set of variables belonging to a sequence can be repeated more than once within this sequence. The first field in a sequence indicates the number of repetitions in the sequence. Each repetition within the sequence is delimited by { and }.

3.10.2. Example: Market update message

File: MarketUpdate_20240212_FR0000120271.csv

1040867,MarketUpdate,0,1,1707726653722575262,[2,{1,1110484,1,59.76,222},{3,1110484,1,59.76,222}]

Exam	ple: Market Up	odate Message – Euronext	Paris Version 2 (from 2018)			
Field name	Presence	Value	Description			
Market Data Sequence Number	Mandatory	1040867	Assigned by MDG for each message.			
Message Type	Mandatory	MarketUpdate	Always MarketUpdate.			
Rebroadcast Indicator	Mandatory	0	This message is new.			
EMM	Mandatory	1	Cash and Derivative Central Order Book (COB)			
Event Time	Mandatory	1707726653722575262	Time when an event has been processed (Epoch Time in Nanoseconds, UTC). Paris Time: Monday 12 February 2024 09:30:53.722575262			
<marketupdate> sequence starts</marketupdate>						
NoMarketUpdate	Mandatory	2	Number of market updates.			
First market update	starts					
Market Data Update Type	Mandatory	1	Type of market data update: Best Bid			
Symbol Index	Mandatory	1110484	Exchange identification code of the instrument.			
Number Of Orders	Optional	1	Number of orders at the current price limit.			
Price	Optional	59.76	Price per unit of quantity.			
Quantity	Optional	222	Number of ordered units.			
First market update	ends					
Second market upda	ite starts					
Market Data Update Type	Mandatory	3	Type of market data update: New Bid			
Symbol Index	Mandatory	1110484	Exchange identification code of the instrument.			
Number Of Orders	Optional	1	Number of orders at the current price limit.			
Price	Optional	59.76	Price per unit of quantity.			
Quantity	Optional	222	Number of ordered units.			
Second market upda	ite ends					
<marketupdate> sed</marketupdate>	quence ends					

Choe Europe BXE CXE DXE (formerly Bats Chi-X)

1. Overview

1.1. Versions

There are 2 versions of the BEDOFIH CBOE Europe database:

Version	Period	
1	Until February 14, 2019	
2	From February 15, 2019	

1.2. Data file

All messages related to a particular instrument are gathered in a single file (one file per day and per instrument):

- Symbol clear: clearing of the entire order book, sent at startup each day (available from May 10, 2013),
- Add order: new orders added during the trading day (excluding aggressive orders),
- Expanded add order message: systematic internalizer quotes (available before February 15, 2019),
- Executed order: order executions during the trading day,
- Canceled order: order cancelations during the trading day,
- Trade message: executions of non-disclosed orders and negotiated trades (such transactions do not alter the content of the order book),
- Trade extended message: details of trades reported to or executed by Cboe, includes privately negotiated trades brought "on-exchange" (available from May 10, 2013),
- Trade break message: sent whenever an execution is broken (available until April 29, 2016),
- Off-book trade break message: cancellation of trade extended message (available from May 10, 2013 to March 27, 2014),
- Trade message unknown symbol: provides details of trades reported to Cboe, but traded on a symbol not currently known to Cboe (available from July 14, 2017),
- Trade status message: trading status of the security, sent each time the status changes (available from October 2, 2013),
- Statistics message: individual price statistics (available from October 2, 2013),

- Auction update message: indicative price and size information during auctions (available from March 28, 2014),
- Auction summary message: results of an auction (available from March 28, 2014).

New added message, canceled message, executed message, and trade message come in two versions: a standard one and a long form version. Long form messages have longer fields for the Shares, Price and Symbol variables described below. The purpose of the long formatted message is to provide accurate information about larger order sizes (i.e., larger number of shares), order prices that involve more decimal places, and longer stock symbols (tickers).

Add order, order cancel, and order executed messages are used to re-build the order book. A complete view of all executions can be built by combining all order executed messages and trade messages

The data is presented with millisecond timestamps until February 14, 2019 and with microsecond timestamps after this date. All times are in London local time.

Reference data files are also available (one file per day).

1.3. Available instruments

File: Symbols.csv (one file per year)

This file provides the list of instruments available in the BEDOFIH database for the year under consideration.

Name	Field	Description
ISIN	1	ISIN code.
InstrumentID	2	Internal identifier of the instrument.
BegDate	3	First date of the year at which the ISIN code appears in the BEDOFIH CBOE
		Europe BXE CXE DXE database.
EndDate	4	Last date of the year at which the ISIN code appears in the BEDOFIH CBOE
		Europe BXE CXE DXE database.
NbDays	5	Number of days for which there is at least one message.

1.4. Sources and further readings

Further readings:

• MMT Initiative Mapping Matrix

2. Files

2.1. Message file

File: BATS_YYYYMMDD_InstrumentID.csv, CHIX_YYYYMMDD_InstrumentID.csv, or DXE_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

2.1.1. Version 1 (until February 14, 2019)

Bats Chi-X messages (until February 14, 2019)				
Name	Field	Description		
NumSeq	1	Increasing sequential integer number, unique for each message, to distinguish messages that arrive at the same millisecond.		
Time	2	Time of message entry in milliseconds after midnight, London		
		time. For example, 28800000 milliseconds correspond to 8:00 am.		
MessageType	3	Type of message.		
		s Symbol clear message (available from May 10, 2013)		
		A (c) Add order message (long form message)		
		t Expanded Add Order Message		
		E (e) Executed message (long form message)		
		X (x) Canceled message (long form message)		
		P (q) Trade message (long form message)		
		O Trade extended message (available from May 10, 2013)		
		B Trade break message (available before April 29, 2016)		
		b Off-book trade break message (available from May 10, 2013 to March 27, 2014)		
		k Trade message - unknown symbol (available from July 14, 2017)		
		H Trade status message (available from October 2, 2013)		
		Z Statistic message (available from October 2, 2013)		
		l Auction update message (available from March 28,		
		2014; new format from September 25, 2015)		
		j Auction summary message (available from March 28, 2014)		
	Sym	nbol clear message – MessageType = s		
Symbol	4	Bats Chi-X internal instrument identifier.		
	Add	order message – MessageType = A or c		
OrderID	4	Day-specific order ID.		
SideIndicator	5	B Buy order		
		S Sell order		
Shares	6	Number of shares added to the book. This variable is less or equal to the initial order size.		
Symbol	7	Bats Chi-X internal instrument identifier.		
Price	8	Order price.		
Display	9	Always Y, maintained for compatibility reasons.		
	Expand	ed Add Order Message – MessageType = t		
OrderID	4	Day-specific order ID.		
SideIndicator	5	B Buy order		
		S Sell order		
Quantity	6	Number of shares applicable to this quote.		
Symbol	7	Bats Chi-X internal instrument identifier.		
Price	8	Quote price.		
Туре	9	S SI quote		
ParticipantID	10	Attributes this quote to a particular participant.		

Bats	Chi-X messages (until February 14, 2019)			
Field	Description			
Order executed message – MessageType = E or e				
4	Order ID of a previously sent Add Order message.			
5	Number of shares executed.			
6	Day-unique execution ID.			
7	Type flags. From March 28, 2014, to July 13, 2017, 3-character flag based on MMT v2.2 standard. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), and the 3rd to ex/cum dividend indicator (MMT level 3.6). Implied MMT flags are "P" for level 3.1 and "-" for other levels. From July 14, 2017 to October 26, 2017, 4-character flag based on MMT v3.01 standard. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), the 3rd to ex/cum dividend indicator (MMT level 3.6), and the 4th to an algorithmic trade indicator (MMT level 3.9). Implied MMT flags are "P" for level 3.8 and "-" for other levels. From October 27, 2017, 4-character flag based on MMT v3.04. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), the 3rd to ex/cum dividend indicator (MMT level 3.6), and the 4th to an algorithmic trade indicator (MMT level 3.9). Implied MMT flags are "P" for level 3.8 and "-" for other levels.			
Orde	r cancel message – MessageType = X or x			
4	Order ID of a previously sent Add Order message.			
5	Number of shares canceled.			
Trade message – MessageType = P or q				
4	Obfuscated Order ID (by default) or Order ID of the invisible order or negotiated trade.			
5	Always B.			
6	Incremental number of shares executed.			
7	Bats Chi-X internal instrument identifier.			
8	Execution price.			
9	Day-unique execution ID. Before September 26, 2014, the 4th character of the Executionl can be used to differentiate type of execution. After, this information can be found in the TradeFlag. O BXE integrated order book 1 CXE integrated order book D BXE dark order book E CXE dark order book R Negotiated trade (until its replacement by the Trade extended message on May 10, 2013)			

Bats Chi-X messages (until February 14, 2019)					
Name	Field	Description			
TradeFlag (available from March 28, 2014)	10	Type flags. From March 28, 2014, to July 13, 2017, 4-character flag based on MMT v2.2 standard. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), the 3rd to the transaction category (MMT level 3.1), and the 4th to Ex/Cum dividend indicator (MMT level 3.6). Implied MMT flags are "-" for all other levels. From July 14, 2017 to October 26, 2017, 5-character flag based on MMT v3.01 standard. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), the 3rd to the transaction category (MMT level 3.1), the 4th to a Benchmark/Reference Price Indicator (MMT level 3.5), and the 5th to algorithmic trade (MMT level 3.9). Implied MMT flags are "P" for level 3.8 and "-" for other levels. From October 27, 2017, 5-character flag based on MMT v3.04. The 1st character refers to the market mechanism (MMT level 1), the 2nd to the trading mode (MMT level 2), the 3rd to the transaction category (MMT level 3.1), the 4th to a Benchmark/Reference Price Indicator (MMT level 3.5), and the 5th to algorithmic trade (MMT level 3.9). Implied MMT flags are "P" for level 3.8 and "-" for other			
			levels.		
Trade extended message – MessageType = O					
Shares	4	Number of shares executed.			
Symbol	5	Bats Chi-X internal instrument identifier.			
Price	6		n price. This may be zero if the price is pending for TRF		
TradeID	7	only (from October 27, 2017). Trade ID. Guaranteed to be unique for at least 7 calendar days.			
TradeDate	8	Date on which the trade occurred YYYYMMDD.			
TradeTime	9	Time at which the trade occurred in milliseconds after midnight, London time.			
ExecutionVenue	10	Venue (M	IIC) on which the trade executed, when applicable.		
		BATE	Bats Europe (BXE)		
		CHIX	Chi-X (CXE)		
		BCS	Broker Crossing System (before March 28, 2014)		
		AUT	OTC trades executed in an automated manner (from March 28, 2014 to September 25, 2015)		
		SINT	Systematic Internaliser (from April 29, 2016)		
		XOFF	OTC (from April 29, 2016)		
		LISX	Large-in-Scale (LIS) trades (from November 11, 2016)		
		BATF	BXE off-book (negociated) trades (from February 9, 2018)		
		CHIO	CXE off-book (negociated) trades (from February 9, 2018)		
		BARO	REGM off-book (negociated) trades (from February 9, 2018)		
Currency	11	Traded cu			

	Bats C	Chi-X messages (until February 14, 2019)		
Name	Field	Description		
TradeTimingIndicat	12 (from	1 The trade was reported "late"		
or (available from	March	2 The trade was reported out of the Main Session		
March 28, 2014)	28, 2014)	3 The trade was reported late and out of the Main		
		Session		
		- The trade was reported on time and in the Main		
		Session		
ExtendedTradeFlag	12 (before March 28, 2014) 13 (from March 28, 2014)	Type flags. Before March 28, 2014, 10-character flag based on MMT v2.2 standard. The first character is a Trade timing indicator (1 - The trade was reported late, 2 - The trade was reported out of the main session, Otherwise), the other 9 characters refer to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, and 4. From March 28, 2014, to July 13, 2017 10-character flag based on MMT v2.2 standard. The 10 characters refer to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4, and 3.7 (from September 24, 2014, before the last character reserved for future use). From July 14, 2017 to October 26, 2017, 14-character flag based on MMT v3.01. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5. From October 27, 2017, 14-character flag based on MMT v3.04. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2,		
	_	3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.		
	ı	de break message – MessageType = B		
ExecutionID	4	Bats Chi-X execution identifier of the execution that was broken. Refers to a previously sent Order Execution Message or Trade Message.		
	Off-bool	k trade break message – MessageType = b		
	4			
Trade message - unknown symbol – MessageType = k				
Shares	4	Number of shares traded.		
Symbol	5	ISIN.		
Price	6	Reported price of the trade (zero if the price is pending).		
TradeID	7	Trade ID. Guaranteed to be unique for at least 7 calendar days.		
TradeDate	8	Date on which the trade occurred YYYYMMDD.		
TradeTime	9	Time at which the trade occurred in milliseconds after midnight, London time.		
ExecutionVenue	10	Venue on which the trade executed, when applicable (either a MIC, SINT for Systematic Internaliser or XOFF for OTC).		
Currency	11	Reported currency.		
TradeTimingIndicat	12	1 The trade was reported "late"		
or		2 The trade was reported out of the Main Session		
		3 The trade was reported late and out of the Main Session		
		- The trade was reported on time and in the Main Session		

Bats Chi-X messages (until February 14, 2019)			
Name	Field	Description	
ExtendedTradeFlag	13	Type flags. From July 14, 2017 to October 26, 2017, 14-character flag based on MMT v3.01. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5. From October 27, 2017, 14-character flag based on MMT v3.04. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2,	
	Trac		8.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.
Symbol	4	de status message – MessageType = H Bats Chi-X internal instrument identifier.	
Status	5	T	Trading
Status	J	R	Off-Book Reporting
		C	Closed
		S	Suspended
		N	No Reference Price
		V	Volatility Interruption
		A	Auction (before March 28, 2014)
		0	Opening Auction (available from March 28, 2014)
		E	Closing Auction (available from March 28, 2014)
		Н	Halt (available from March 28, 2014)
		М	Market Order Imbalance (available from March 28, 2014)
		Р	Price Monitoring Extension (available from March 28, 2014)
Reserved	6	Always 0,	reserved.
	St	atistics me	ssage – MessageType = Z
Symbol	4	Bats Chi-X internal instrument identifier.	
Price	5	Price.	
StatisticType	6	С	Closing price
		Н	High price
		L	Low price
		0	Opening price
		Р	Previous opening price
Auction update mes	sage – Mess	ageType =	l (available from March 28, 2014 to September 24, 2015)
Symbol	4	Bats Chi-	X internal instrument identifier.
AuctionType	5	0	Opening auction
		С	Closing auction
		Н	Halt auction
		V	Volatility auction
ReferencePrice	6		e price used in tie-breaker situations.
BuyShares	7		of shares on the buy side at the Indicative Price.
SellShares	8		of shares on the sell side at the Indicative Price.
IndicativePrice	9	Price at which the auction would match if executed at the time of the message.	
Auction up	date messag	ge – Messa	geType = l (available from September 25, 2015)

Bats Chi-X messages (until February 14, 2019)				
Name	Field	Description		
Symbol	4	Bats Chi-X internal instrument identifier.		
AuctionType	5	O Opening auction		
		С	Closing auction	
		Н	Halt auction	
		V	Volatility auction	
		Р	Periodic auction	
ReferencePrice	6	Reference	e price used in tie-breaker situations.	
IndicativePrice	7	Price at w	which the auction would match if executed at the time of	
		the mess		
IndicativeShares	8		of shares at the Indicative Price.	
OutsideTolerance	9	Indicates whether the price on this update is outside the Bats Chi-		
		X EBBO collar.		
		0	Outside tolerance	
		I	Inside tolerance	
Includos Drimany	10	Indicator	Not specified	
IncludesPrimary	10	Indicates whether the Bats Chi-X EBBO used to collar this updat includes the Primary Market quotes.		
		P	Includes Primary	
		N	Excludes Primary	
		-	Not specified	
	Auctic	n summar	y message – MessageType = j	
Symbol	4	Bats Chi-X internal instrument identifier.		
AuctionType	5	0	Opening auction	
		С	Closing auction	
		Н	Halt auction	
		V	Volatility auction	
		Р	Periodic auction	
Price	6	Auction p	price.	
Shares	7	Cumulative number of shares executed during auction.		

2.1.2. Version 2 (from February 15, 2019)

CBOE Europe messages (since February 15, 2019)				
Name	Field	Description		
NumSeq	1	Increasing sequential integer number, unique for each message, to distinguish messages that arrive at the same microsecond.		
Timestamp	2	Time of message entry in microseconds after midnight, London time.		
MessageType	3	Type of message.		
		h Symbol clear message		
		K (M) Add order message (long form message)		
		N (g) Order executed message (long form message)		
		F (G) Order cancel message (long form message)		
		V (W)	Trade message (long form message)	

CBOE Europe messages (since February 15, 2019)					
Name	Name Field Description				
113.1110	1.0.0	V	Trade extended message		
		W	Trade message - unknown symbol		
		a	Trading status message		
		Y	Statistic message		
		b	Auction update message		
		f	Auction summary message		
	Sym		sage – MessageType = h		
Symbol	4		rument identifier.		
Symbol			e – MessageType = K or M		
OrderID	4	Day-specific	- · · ·		
SideIndicator	5	В	Buy order		
Sidemaleator		S	Sell order		
Shares	6	_	thares added to the book (may be less than the		
Shares	0		hares entered).		
Symbol	7		rument identifier.		
Price	8	Order price.			
Display	9		aintained for compatibility reasons.		
Order executed message – MessageType = N or g					
OrderID	4		a previously sent Add Order message.		
ExecutedShares	5		chares executed.		
ExecutionID	6	Day-unique execution ID.			
ExecutionFlag	7	4-character flag based on MMT v3.04. The 1st character refers to			
			mechanism (MMT level 1), the 2nd to the trading mode		
		(MMT level 2	2), the 3rd to ex/cum dividend indicator (MMT level		
			4th to an algorithmic trade indicator (MMT level 3.9).		
			T flags are "P" for level 3.8 and "-" for other levels.		
			ge – MessageType = F or G		
OrderID	4		a previously sent Add Order message.		
CancelledShares	5		hares canceled.		
	I		- MessageType = V or W		
OrderID	4		Order ID (by default) or Order ID of the invisible order		
Cidaladiaatas	5	or negotiate	d trade.		
SideIndicator		Always B.	with or of charge averaged		
Shares	6		number of shares executed.		
Symbol	7		rument identifier.		
Price	8	Execution pr			
ExecutionID	9	Day-unique execution ID.			
TradeFlag	10		flag based on MMT v3.04. The 1st character refers to mechanism (MMT level 1), the 2nd to the trading mode		
			the 3rd to the transaction category (MMT level 3.1),		
			Benchmark/Reference Price Indicator (MMT level 3.5),		
			to algorithmic trade (MMT level 3.9). Implied MMT		
			for level 3.8 and "-" for other levels.		
	Trade	extended me	essage – MessageType = v		

	CBOE E	urope messag	res (since February 15, 2019)		
Name	Field		Description		
Shares	4	Number of shares executed.			
Symbol	5	Internal instrument identifier.			
Price	6	Execution price. This may be zero if the price is pending as			
		denoted by level 3.8 of ExtendedTradeFlag.			
TradeID	7	Trade ID. Guaranteed to be unique for at least 7 calendar days.			
TradeDate	8	Date on which the trade occurred YYYYMMDD.			
TradeTime	9	Time at which the trade occurred in milliseconds since midnight,			
			epresented by TradeDate, London time.		
ExecutionVenue	10		on which the trade executed, when applicable.		
		BATE	Cboe UK Equities (BXE)		
		CHIX	Cboe UK Equities (CXE)		
		CEUX	Cboe NL Equities (DXE)		
		SINT	Systematic Internaliser		
		XOFF	ОТС		
		BATF	BXE off-book (negociated) trades		
		CHIO	CXE off-book (negociated) trades		
		CEUO	DXE off-book (negociated) trades		
		BARO	Cboe UK REGM off-book (negociated) trades (BXE)		
		BEUO	Cboe NL REGM off-book (negociated) trades (DXE)		
		LISX	Cboe UK Large-in-Scale (LIS) trades (CXE)		
		LISZ	Cboe NL Large-in-Scale (LIS) trades (DXE)		
Currency	11	Traded currency.			
TradeFlag	12	Before April 1, 2019 the only possible values are 1, 2, 3, or F			
			, 1, 2, 3, and - indicate that the trade was reported to		
		_	d entity UK and 4, 5, 6, and 7 indicate that the trade d to the regulated entity EU. From January 1, 2024, C,		
		•	ndicate that the trade was executed under an ESMA		
			sed third-country venue.		
		1 or 5 or D	The trade was reported "late"		
		2 or 6 or E	The trade was reported out of the Main Session		
		3 or 7 or F	The trade was reported late and out of the Main		
			Session		
		- or 4 or C	The trade was reported on time and in the Main		
			Session		
ExtendedTradeFlag	13		flag based on MMT v3.04 until December 31, 2023.		
			ter refers to a MMT level. In order, levels 1, 2, 3.1, 3.2,		
			3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.		
			flag based on MMT v4.1 from January 1, 2024. It is no ase that each character of the MMT string represents a		
		_	_ ·		
		single level i	n the MMT. The first character represents MMT level		
		single level in 1, the 2nd ch	n the MMT. The first character represents MMT level naracter represents level 2, the 3rd character encodes		
		single level in 1, the 2nd ch levels 3.1 an	n the MMT. The first character represents MMT level		
		single level in 1, the 2nd ch levels 3.1 and the 5th char	n the MMT. The first character represents MMT level naracter represents level 2, the 3rd character encodes d 3.13, the 4th character encodes levels 3.2 and 3.10,		
		single level in 1, the 2nd ch levels 3.1 and the 5th char- represents lo and 3.12, the	n the MMT. The first character represents MMT level naracter represents level 2, the 3rd character encodes d 3.13, the 4th character encodes levels 3.2 and 3.10, acter represents level 3.3, the 6th character		

	CBOE Eu	rope messag	es (since February 15, 2019)	
Name	Field	Description		
Nume	TICIU	levels 4.1, 4.3	er represents level 3.9, the 12th character encodes 3, and 4.4, the 13th character represents level 4.2 and racter encodes levels 5.1, 5.2, and 5.3.	
	Trade mes	sage - unknov	vn symbol – MessageType = w	
Shares	4	Number of s	hares traded.	
Symbol	5	ISIN.		
Price	6		ce of the trade (zero if the price is pending as denoted of ExtendedTradeFlag).	
TradeID	7	Trade ID. Gu	aranteed to be unique for at least 7 calendar days.	
TradeDate	8	Date on whic	ch the trade occurred YYYYMMDD.	
TradeTime	9		h the trade occurred in microseconds since midnight, epresented by TradeDate, London time.	
ExecutionVenue	10		nich the trade executed, when applicable (either a MIC, tematic Internaliser or XOFF for OTC).	
Currency	11	Reported cu	rrency.	
TradeFlag	12	April 1, 2019 the regulated was reported D, E, and F in	1, 2019 the only possible values are 1, 2, 3, or From , 1, 2, 3, and - indicate that the trade was reported to d entity UK and 4, 5, 6, and 7 indicate that the trade d to the regulated entity EU. From January 1, 2024, C, ndicate that the trade was executed under an ESMA sed third-country venue. The trade was reported "late" The trade was reported out of the Main Session The trade was reported late and out of the Main Session The trade was reported on time and in the Main Session	
ExtendedTradeFlag	13	14-character flag based on MMT v3.04 until December 31, 2023. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5. 14-character flag based on MMT v4.1 from January 1, 2024. It is no longer the case that each character of the MMT string represents single level in the MMT. The first character represents MMT level 1, the 2nd character represents level 2, the 3rd character encodes levels 3.1 and 3.13, the 4th character encodes levels 3.2 and 3.10, the 5th character represents level 3.3, the 6th character represents level 3.4, the 7th character encodes levels 3.5, 3.11, and 3.12, the 8th character represents level 3.6, the 9th character represents level 3.7, the 10th character represents level 3.8, the 11th character represents level 3.9, the 12th character encodes levels 4.1, 4.3, and 4.4, the 13th character represents level 4.2 and the 14th character encodes levels 5.1, 5.2, and 5.3.		
	Tradi		ssage – MessageType = a	
Symbol	4	_	rument identifier.	
Status	5			
- 33.03.0		R	Off-Book Reporting	
		C	Closed	
		ر	Ciosea	

	CBOE E	urope messag	ges (since February 15, 2019)
Name	Field		Description
		S	Suspended
		N	No Reference Price
		V	Volatility Interruption
		0	Opening Auction
		Е	Closing Auction
		Н	Halt
		М	Market Order Imbalance
		Р	Price Monitoring Extension
		U	Choe closing cross
Reserved	6	Always 0, re	-
	Sta	atistics messa	age – MessageType = Y
Symbol	4	Internal inst	rument identifier.
Price	5	Price.	
StatisticType	6	С	Closing price
		Н	High price
		L	Low price
		0	Opening price
		Р	Previous opening price
PriceDetermination	7	0	Normal
		1	Manual (price override by market supervision)
	Auctio	on update me	essage – MessageType = b
Symbol	4	Internal inst	rument identifier.
AuctionType	5	0	Opening auction
		С	Closing auction
		Н	Halt auction (reserved for future use)
		V	Volatility auction (reserved for future use)
		Р	Periodic auction
		U	Cboe closing cross
ReferencePrice	6	Reference p	rice used in tie-breaker situations.
IndicativePrice	7	Price at whice	ch the auction would match if executed at the time of
		the message	
IndicativeShares	8		shares at the Indicative Price.
OutsideTolerance	9		nether the price on this update is outside the CBOE
		EBBO collar.	Outside tolerance
		0	
		I	Inside tolerance
IncludosPrimany	10	Indicator	Not specified nether the CBOE EBBO used to collar this update
IncludesPrimary	10		Primary Market quotes.
		P	Includes Primary
		N	Excludes Primary
		-	Not specified
	Auctio	n summarv n	nessage – MessageType = f
	Auctio	ıı summaly H	nessage messagerype - i

CBOE Europe messages (since February 15, 2019)				
Name	Field	Description		
Symbol	4	Internal instrument identifier.		
AuctionType	5	0	Opening auction	
		С	Closing auction	
		Н	Halt auction (reserved for future use)	
			Volatility auction (reserved for future use)	
		Р	Periodic auction	
		U	Cboe closing cross	
Price	6	Auction price.		
Shares	7	Cumulative number of shares executed during auction.		

2.2. Reference data file

File: BATS_YYYYMMDD.csv, CHIX_YYYYMMDD.csv, or DXE_YYYYMMDD.csv (one file per day). See Section 2.2 in <u>CBOE Europe Reference Data Specification</u> for details.

London Stock Exchange

1. Overview

1.1. Versions

There are 2 versions of the BEDOFIH London Stock Exchange database:

Version	Period
1	Until March 10, 2017
2	From March 11, 2017

1.2. Data files

1.2.1. LSE Version 1 (until March 10, 2017)

Version 1 consists of 4 files:

- Instrument reference file,
- Order detail file: details of new orders entering the trading system,
- Order history file: history of changes (execution, deletion, expiration, etc.) to each order,
- Trade report file: details of every automatic and manual trade that has taken place.

The data is presented with seconds or milliseconds timestamp. All times are in London local time.

1.2.2. LSE Version 2 (from March 11, 2017)

Version 2 consists of 3 files:

- Instrument reference file,
- Execution report file: details for orders and for each automatically executed trade,
- Trade report file: off book and over-the-counter (OTC) trades.

The data is presented with microseconds timestamp until December 2022 (at the beginning of Version 2 fractional seconds are only accurate to 3 decimal places but with the MIFID II changes in 2018 increased accuracy becomes gradually available and further decimal places are used). The data is presented with nanoseconds timestamp from January 2023. All times are in London local time.

1.3. Available instruments

File: Symbols.csv (one file per year)

This file provides the list of instruments available in the BEDOFIH database for the year under consideration.

Name	Field	Description
ISIN	1	ISIN code.
InstrumentID	2	LSE internal instrument identifier.
BegDate	3	First date of the year at which the ISIN code appears in the BEDOFIH LSE database.
EndDate	4	Last date of the year at which the ISIN code appears in the BEDOFIH LSE database.
NbDays	5	Number of days for which there is at least one message.

1.4. Sources and further readings

Sources:

- LSE Rebuild Order Book Service, Service and Technical Specification February 2011
- LSE Rebuild OrderBook Service, Technical Specifications Launch March 11th 2017

Further readings:

- Millennium Exchange Business Parameters
- 2. Version 1 (until March 10, 2017)

2.1. Instrument reference file

File:

- until December 31, 2013 Reference_Files_YYYMMDD_YYYMMDD.csv in reference_files folder (two files per month),
- from January 2, 2014 InstrumentRef_YYYYMMDD.csv (one file per day).

This file contains reference information about the instruments traded on LSE.

Instrument Reference – LSE Version 1 (until March 10, 2017)				
Name	Field Description			
InstrumentID	1	LSE internal instrument identifier.		
ISIN	2	ISIN code.		
MarketSegmentCode	3	Market Segment Code.		
CountryOfRegister	4	Country Of Register.		
CurrencyCode	5	Currency for the trading instrument.		

2.2. Order detail file

File:

- until December 31, 2013 OD_InstrumentID.csv (two files per month and per instrument),
- from January 1, 2014 to December 31, 2015 OrderDetail_InstrumentID_YYYYMMDD.csv (one file per day and per instrument),
- from January 1, 2016 to March 10, 2017 OrderDetail_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

This file contains information about order messages that enter the order book.

Order Detail – LSE Version 1 (until March 10, 2017)				
Name	Field	Description		
OrderID	1	Unique ID corresponding to each order message.		
InstrumentID	2	LSE internal instrument identifier.		
MarketSectorCode	3	Market :	sector code.	
Participant code	4		s an investor, an intermediary or a subscriber. For investors	
			ermediaries, this will be the Bank Identifier Code (BIC). It will	
			except for Mechanism type CP and where the Segment rules	
	_		e Participant code to be disseminated on Infolect.	
Side	5	В	Buy order	
		S	Sell order	
OrderType	6	Type of	the order.	
		CP	Committed Principal Order	
		LO	Limit Order	
		MO	Market Order	
		IB	Iceberg Order (not disseminated to the market, iceberg	
			peak always shown as a Limit Order)	
		ST Stop Order		
		SL Stop Limit		
		EQ	Executable Quote (market making)	
		FQ	Firm Quote (market making)	
OrderPrice	7	Price of the order.		
AggregatedSize	8		he order when it enters the trading system for the first time.	
			iable can be equal or less than the initial order size. The	
			case may occur when the order is involved in a transaction	
			me of entry.	
SingleFill	9		s that an order already submitted into the system will	
			against an incoming order, only if there is a total match (it	
Drandenet Indata Action	10		t apply to hit orders).	
BroadcastUpdateAction	10		s whether the order message corresponds to the start of the	
		trading day or the regular trading session (pre-open, main session,		
		close). The start of the trading day is, essentially, a period preceding the pre-open, during which all active orders from previous days are		
		loaded.		
		F	Orders already on the book at the start of the trading day	
		A or N Orders added during the rest of the trading day		
Date	11		at the order was first added ddMMyyyy.	

Order Detail – LSE Version 1 (until March 10, 2017)				
Name	Field	Description		
Time	12	Time that the order was first added in millisecond accuracy hh:mm:ss.SSS where hh denotes the hour, mm denotes the minute, ss denotes the second and SSS denotes the millisecond.		
SequenceNumber	13	Increasing sequential integer number, unique for each message, to distinguish messages that arrive at the same millisecond. < 0 Messages that pertain to active orders from previous trading days > 0 Messages that arrive on the current trading day		
CFD	14	N Cash/pure equity Y Contract for Difference (financial futures derivative)		

2.3. Order history file

File:

- until December 31, 2013 OH_InstrumentID.csv (two files per month and per instrument),
- from January 1, 2014 to December 31, 2015 OrderHistory_InstrumentID_YYYYMMDD.csv (one file per day and per instrument),
- from January 1, 2016 to March 10, 2017 OrderHistory_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

This file contains information about executed, deleted, added or expired orders during the trading day. This file is used for the re-construction of the LSE order book.

Order History – LSE Version 1 (until March 10, 2017)				
Name	Field	Description		
OrderID	1	Unique ID	O corresponding to each order message.	
MessageType	2	Type of the event.		
		D	Order deletion	
		Е	Order expiration	
		Р	Partial execution	
		М	Full match	
		Z Modification		
			Maximum limit of transactions (150). In case of a T, because the maximum limit of transactions per order is reached (i.e., 150), the remaining unexecuted order size (if any) is rejected by the system.	
MatchingOrder	3	Unique ID that identifies the order that is matched against the current order message.		
TradeSize	4	Quantity traded (if any).		
TradeCode	5	Unique ID that identifies each trade.		
InstrumentID	6	LSE internal instrument identifier.		

	Order History – LSE Version 1 (until March 10, 2017)				
Name	Field	Description			
AggregatedSize	7		r of shares currently available (to buy or sell). Since the order		
		_	sult in partial execution, this variable may be less or equal to the		
			rder size. For a full match, the number of shares left is zero.		
Side	8	В	Buy order		
		S	Sell order		
OrderType	9	Type of	the order.		
		CP	Committed Principal Order		
		LO	Limit Order		
		MO	Market Order		
		IB	Iceberg Order (not disseminated to the market, iceberg peak		
			always shown as a Limit Order for each refresh)		
		ST	Stop Order		
		SL	Stop Limit		
		EQ	Executable Quote (market making)		
		FQ	Firm Quote (market making)		
SequenceNumber	10	Increas	ing sequential integer number, unique for each message, to		
		distingu	iish messages that arrive at the same millisecond.		
Date	11	Trading	day ddMMyyyy.		
Time	12	Time of	message entry in millisecond accuracy hh:mm:ss.SSS where hh		
		denotes	s the hour, mm denotes the minute, ss denotes the second and		
		SSS der	notes the millisecond		

2.4. Trade report file

2.4.1. Trade report file (2011 – 2013 & 2016 – 10/03/2017)

File:

- until December 2013 Trade_InstrumentID.csv (two files per month and per instrument),
- from January 4, 2016 to March 10, 2017 TradeReport_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

This file contains information about all trades that take place during the trading day (e.g., price, time and quantity).

Trade Report – LSE Version 1.1 (2011 – 2013 & 2016 – 10/03/2017)			
Name	Field	Description	
SequenceNumber	1	Increasing sequential integer number, unique for each message, to	
		distinguish messages that arrive at the same millisecond.	
InstrumentID	2	LSE internal instrument identifier.	
TradeCode	3	Unique ID that identifies each trade.	
TradePrice	4	Price of the transaction.	
TradeSize	5	Quantity of the instrument traded.	
TradeDate	6	Date of the trade ddMMyyyy.	
TradeTime	7	Time of the trade hh:mm:ss.	

Tra	ade Rep	ort – LSE Version 1.1 (2011 – 2013 & 2016 – 10/03/2017)		
Name	Field	Description		
BroadcastUpdateA	8	Type of action to be taken by customers when they receive the message.		
ction		E Automatic executions		
		A Manual trade additions		
		D Manual trade cancellations		
TradeType	9	Type of trade.		
		AT Automatic trade		
		UT Uncrossing trade		
		PT Closing price crossing session trade		
		CT Contra trade		
		PC Previous day contra trade		
		O Ordinary trade		
		OK Ordinary trade - delayed publication requested		
		NT Negociated trade		
		NK Negociated trade - delayed publication requested		
		GC Cancellation of GILT & UKGT segment trades after date of		
		submission		
		OT OTC Trade		
		TK OTC trade - delayed publication requested		
		IF Inter fund cross - delayed publication requested		
		OC Cancellation of OTC trade after date of publication		
		SI SI trade		
ReportTime	10	Indicates the time when the trade was reported.		
		N Normal trade period report		
		L Late report		
		O Overnight report		
Bargain	11	Indicates whether the trade includes bargain conditions.		
		Y Yes		
		N No		
ConvertedPrice	12	Each trade is recorded at a specific price and currency. The purpose of		
		this variable is to indicate if the aforementioned parameters are those		
		entered into the trade report (N), or if they have been converted		
- 111 - 1		according to the valid currency for the particular instrument (stock) (Y).		
PublicationDate	13	Date of publication of the particular transaction ddMMyyyy.		
PublicationTime	14	Time of publication of the particular transaction hh:mm:ss.		
CFDBuy	15	Indicates if the order concerns a cash/pure equity (N) or a Contract for		
CFDSell	16	Difference (Y) Indicates if the order concerns a cash/pure equity (N) or a Contract for		
CLDSGII	10	Indicates if the order concerns a cash/pure equity (N) or a Contract for Difference (Y)		
	<u> </u>	Difference (1)		

2.4.2. Trade report file (2014 – 2015)

File: TradeReport_InstrumentID_YYYYMMDD.csv (one file per day and per instrument),

This file contains information about all trades that take place during the trading day (e.g., price, time and quantity).

		Trade Report – LSE Version 1.2 (2014 – 2015)		
Name	Field	Description		
TradeDate	1	Date of the trade yyyyMMdd.		
TradeTime	2	Time of the trade hh:mm:ss.		
SequenceNumber	3	Increasing sequential integer number, unique for each message, to		
,		distinguish messages that arrive at the same millisecond.		
InstrumentID	4	LSE internal instrument identifier.		
TradeCode	5	Unique ID that identifies each trade.		
TradePrice	6	Price of the transaction.		
TradeSize	7	Quantity of the instrument traded.		
BroadcastUpdateA	8	Type of action to be taken by customers when they receive the message.		
ction		E Automatic executions		
		A Manual trade additions		
		D Manual trade cancellations		
TradeType	9	Type of trade.		
		AT Automatic trade		
		UT Uncrossing trade		
		PT Closing price crossing session trade		
		CT Contra trade		
		PC Previous day contra trade		
		O Ordinary trade		
		OK Ordinary trade - delayed publication requested		
		NT Negociated trade		
		NK Negociated trade - delayed publication requested		
		GC Cancellation of GILT & UKGT segment trades after date of		
		submission		
		OT OTC Trade		
		TK OTC trade - delayed publication requested		
		IF Inter fund cross - delayed publication requested		
		OC Cancellation of OTC trade after date of publication		
		SI SI trade		
ReportTime	10	Indicates the time when the trade was reported.		
'		N Normal trade period report		
		L Late report		
		O Overnight report		
Bargain	11	Indicates whether the trade includes bargain conditions.		
2686		Y Yes		
		N No		
ConvertedPrice	12	Each trade is recorded at a specific price and currency. The purpose of		
		this variable is to indicate if the aforementioned parameters are those		
		entered into the trade report (N), or if they have been converted		
		according to the valid currency for the particular instrument (stock) (Y).		
PublicationDate	13	Date of publication of the particular transaction ddMMyyyy.		

Trade Report – LSE Version 1.2 (2014 – 2015)			
Name	Field	Description	
PublicationTime	14	Time of publication of the particular transaction hh:mm:ss.	
CFDBuy	15	Indicates if the order concerns a cash/pure equity (N) or a Contract for Difference (Y)	
CFDSell	16	Indicates if the order concerns a cash/pure equity (N) or a Contract for Difference (Y)	

3. Version 2 (from March 11, 2017)

3.1. Instrument reference file

File: InstrumentRef_YYYYMMDD.csv (one file per day).

This file contains reference information about the instrument traded.

Instrument Reference – LSE Version 2 (from March 11, 2017)			
Name	Field	Description	
InstrumentID	1	The Instrument Identifier allocated by the Millennium Trading system.	
PartitionID	2	Trading Partition.	
ISIN	3	ISIN code.	
MarketSegmentCode	4	Market Segment Code.	
CountryOfRegister	5	Country Of Register.	
CurrencyCode	6	Currency for the trading instrument.	
TIDM	7	Instrument display Mnemonic.	

3.2. Execution report file

File: ExecutionReport_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

This file provides details for orders and for each automatically executed trade related to the current business day.

Execution Report – LSE Version 2 (from March 11, 2017)			
Name	Field	Description	
ActionType	1	The acti	on on the order and reason for this row.
		N	New, a new order added to the orderbook
		Н	Bust, a contra trade
		D	Delete, a deletion initiated by the order owner
		Е	Expired, a deletion initiated by the Trading system
		М	Matched, a removal of an order through execution
		Р	Partial, a removal of part of the volume of an order through
			execution
		U	Update, an update to the price or size
		Т	Trade, trade details only

	Execution	on Report	t – LSE Version 2 (from March 11, 2017)	
Name	Field	Description		
TransactTime	2	hh:mm:	this event stamped by the Trading system YYYYMMDD ss.000000 until December 2022 and YYYYMMDD ss.000000000 from January 2023.	
Sequencenumber	3		ce number, unique to an instrument.	
InstrumentID	4	The Inst	rument Identifier allocated by the Millennium Trading can be referenced in the InstrumentRef table.	
BuySellInd	5	В	Buy	
		S	Sell	
OrderCode	6	Code ur	nique to the order, this field is case sensitive.	
MemberID	7	Member ID, only populated if the order is named.		
OrderType	8	LO	Limit order, Visible part of an Iceberg order, Stop Order or Stop Limit Order once it has been elected to the orderbook	
		MO	Market Order	
		EQ	Executable Quotes	
		FQ	Firm Quote (Not eligible for automatic Execution)	
OrderPrice	9	Price of	the order in the currency for the instrument.	
RemainingVisibleSize	10	Numbe	r of shares for the order.	
MatchingOrderCode	11	Order c	ode for the other side of the execution.	
TradeCode	12	Unique	Trade Code for the execution.	
TradePrice	13	Price fo	r the execution.	
ExecutedSize	14	Number of shares traded.		
Reserved1	15	Empty until December 2022, Currency of the transaction from January 2023.		
Reserved2	16	Reserve	ed for future use.	

3.3. Trade report file

File: TradeReport_YYYYMMDD_InstrumentID.csv (one file per day and per instrument).

This file contains information about off book and over-the-counter (OTC) trades that are not generated from automatic execution or orders, but are reported to the Exchange. There are no order details for them.

Trade Report – LSE Version 2 (from March 11, 2017)				
Name	Field	Description		
Sequencenumber	1	Sequence number, unique to an instrument.		
InstrumentID	2	The Instrument Identifier allocated by the Millennium Trading system,		
		can be referenced in the InstrumentRef table.		
TradeCode	3	Unique Trade Code for the execution.		
TradePrice	4	Price for the execution.		
TradeSize	5	Number of Shares traded.		
TradeDateTime	6	Date Time of execution YYYYDDMM hh:mm:ss.000000 until December		
		2022 and YYYYMMDD hh:mm:ss.000000000 from January 2023.		
	7	A Add		

Trade Report – LSE Version 2 (from March 11, 2017)				
Name	Field	Description		
BroadcastUpdateA ction		D	Delete	
TradeTypeInd	8	Type of Trade. For a full list see the Millennium Exchange Business Parameters.		
		0	Ordinary trade, off book – on exchange.	
		OT	OTC trade.	
		SI	SI trade.	
TradeTimeInd	9	Time Indicator.		
		N	Normal	
		L	Late	
		0	Overnight	
BargainConditions	10	Υ	Yes	
Ind		N	No	
ConvertedPriceInd	11	Υ	Yes	
		N	No	
PublicationDateTi	12		ime Of Publication YYYYDDMM hh:mm:ss.000000 until December	
me		2022 and YYYYMMDD hh:mm:ss.000000000 from January 2023.		
Reserved1	13	Reserved for future use.		
Reserved2	14	Reserved for future use.		

Turquoise

1. Overview

1.1. Data files

The data consist of the following files:

- Lit orders file: orders submitted on Turquoise Lit Order Books, as well as order updates, cancellations, and executions (available from June 5, 2017),
- Lit trades file: transactions related to Turquoise Lit Order Books (available from June 5, 2017),
- Lit auction trades file: transactions related to Turquoise Plato Lit Auctions Order Books (available from December 1, 2017),
- Plato trades file: transactions related to Turquoise Plato Order Books (available from June 5, 2017),
- Turquoise reference data files (available from January 2, 2023).

From November 19, 2018, following BREXIT, Turquoise operates its order books on two venues: Turquoise (TGHL) and Turquoise Europe (TGHE).

The data is presented with microseconds timestamp. All times are in London local time.

1.2. Available instruments

File: Symbols.csv (one file per year)

This file provides the list of instruments available in the BEDOFIH database for the year under consideration.

Name	Field	Description
ISIN	1	ISIN code.
InstrumentID	2	Turquoise instrument identifier.
BegDate	3	First date of the year at which the ISIN code appears in the BEDOFIH
		Turquoise database.
EndDate	4	Last date of the year at which the ISIN code appears in the BEDOFIH
		Turquoise database.
NbDays	5	Number of days for which there is at least one message.

2. Files

2.1. Order files

Files: TGHL_LitOrders_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHL) and TGHE_LitOrders_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHE).

Lit Orders – Turquoise					
Name	Description				
PartitionID	Trading partition, e.g. 1, 2, 3 or 4.				
TransactTime	Time of the event YYYYMMDD hh:mm:ss.000000.				
MITSequenceNumber	Sequence number.				
PublicOrderID	Code unique to the order, this field is case sensitive.				
Symbol	Instrument identifier.				
ISIN	International Security Identification Number (ISIN).				
Currency	Currency.				
MIC	Market Identifier Code.				
ActionType	Amend – Update to the price or size				
	Cancel – Order cancellation				
	Fill – Transaction (partial or full match)				
	Insert – New order added to the order book				
Orderbook	I – Turquoise Lit Order Book				
Side	B – Buy				
	S – Sell				
Venue (since	TGHE – Turquoise Global Holdings Europe B.V. (Turquoise)				
November 19, 2018)	TGHL – Turquoise Global Holdings Limited (Turquoise Europe)				
Price	Price of the order in the currency for the instrument.				
VisibleQuantity	Number of (remaining) shares for the order.				
OrderType	Limit – Limit order				
TradeReportID	Unique trade code for the execution.				

Lit Orders – Turquoise					
Name Description					
ExecutedQuantity	Number of shares traded.				

2.2. Trade files

Files:

- TGHL_LitTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHL) and TGHE_LitTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHE) for trades related to Turquoise Lit Order Books,
- TGHL_PlatoTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHL) and TGHE_PlatoTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHE) for trades related to Turquoise Plato Order Books,
- TGHL_LitAuctionTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHL) and TGHE_LitAuctionTrades_YYYYMMDD_Symbol.csv (one file per day and per instrument, if traded on TGHE) for trades related to Turquoise Plato Lit Auctions Order Books.

Trades – Turquoise					
Name	Description				
PartitionID	Trading partition, e.g. 1, 2 or 3.				
TransactTime	Time of the event YYYYMMDD hh:mm:ss.000000.				
MITSequenceNumber	Sequence number.				
Symbol	Instrument identifier.				
ISIN	International Security Identification Number (ISIN).				
Currency	Currency.				
MIC	Market Identifier Code.				
ActionType	Fill – Transaction (partial or full match)				
Orderbook	I – Turquoise Lit Order Book				
	M – Turquoise Plato Order Book				
	A – Turquoise Plato Lit Auctions Order Book				
Side	B – Buy				
	S – Sell				
Venue (since	TGHE – Turquoise Global Holdings Europe B.V. (Turquoise)				
November 19, 2018)	TGHL – Turquoise Global Holdings Limited (Turquoise Europe)				
ExecutedPrice	Price for the execution.				
ExecutedQuantity	Number of shares traded.				
TradeReportID	Unique trade code for the execution.				
PublicOrderID	Code unique to the order, this field is case sensitive.				
TradeSession	Continuous or Uncross.				

2.3. Reference data files

Files: TGHL_YYYYMMDD.csv for instruments traded on Turquoise and TGHE_YYYYMMDD.csv for instruments traded on Turquoise Europe (one file per day). See Section 3.2.2 in <u>TQ501 – Guide to Reference Data Services</u> for details.

Xetra

1. Overview

1.1. Versions

There are multiple versions of the BEDOFIH Xetra database:

Version	Period					
EnBS 12	28/11/2011	-	22/11/2012			
EnBS 13	23/11/2012	-	25/10/2013			
EnBS 14	28/10/2013	-	28/11/2014			
EnBS 15	01/12/2014	-	27/11/2015			
EnBS 16	30/11/2015	-	30/06/2017			
T7 5.0	03/07/2017	-	01/12/2017			
T7 6.0	04/12/2017	-	15/06/2018			
T7 6.1	18/06/2018	-	30/11/2018			
T7 7.0	03/12/2018	-	24/05/2019			
T7 7.1	27/05/2019	-	15/11/2019			
T7 8.0	18/11/2019	-	26/06/2020			
T7 8.1	29/06/2020	-	20/11/2020			
T7 9.0	23/11/2020	-	25/06/2021			
T7 9.1	28/06/2021	-	19/11/2021			
T7 10.0	22/11/2021	-	24/06/2022			
T7 10.1	27/06/2022	-	18/11/2022			
T7 11.0	21/11/2022	-	19/05/2023			
T7 11.1	22/05/2023	-	17/11/2023			
T7 12.0	20/11/2023	-	10/05/2024			
T7 12.1	13/05/2024	-	15/11/2024			
T7 13.0	18/11/2024	-	16/05/2024			

1.2. Data files

1.2.1. Xetra EnBS (28/11/2011 - 30/06/2017)

Xetra EnBS Versions 12 to 16 consist of 4 files:

- Instrument reference data file: instrument reference information,
- Order book snapshot file: complete order book information at the start of the trading day,
- Order book delta / incremental file: all updates of the order book within the trading day, and
- All trade price file: trade price information excluding OTC trade prices.

The data is presented with milliseconds timestamp until Version 12 and microseconds timestamp from Version 13. All times are in Frankfurt local time.

1.2.2. Xetra T7 (from 03/07/2017)

Xetra T7 Versions consists of:

- Reference data files: product snapshot and instrument snapshot
- Trading state data files: product state change, mass instrument state change, and instrument state change
- Market data files:
 - Depth snapshot: snapshot of all price levels of the order book and statistical information about on-exchange trades,
 - o Depth incremental: updates on the initial order book,
 - Quote request: requests to market makers to enter quotes for specified instruments, and
 - Cross request: sent once a participant announces the intention to enter a cross trade.

Timestamps are in UTC, and represented as nanoseconds past the UNIX epoch (00:00:00 UTC on 1 January 1970).

1.3. Available instruments

File: Symbols.csv (one file per year)

This file provides the list of instruments available in the BEDOFIH database for the year under consideration.

1.3.1. Until June 2017

Name	Field	Description
ISIN	1	ISIN code.
InstrumentID	2	Xetra internal instrument identifier.
BegDate	3	First date of the year at which the ISIN code appears in the BEDOFIH Xetra database.
EndDate	4	Last date of the year at which the ISIN code appears in the BEDOFIH Xetra database.
NbDays	5	Number of days for which there is at least one message.

1.3.2. From July 2017

Name	Field	Description			
ISIN	1	ISIN code.			
MarketSegmentID	2	Product identifier.			

Name	Field	Description
SecurityID	3	Xetra internal instrument identifier.
BegDate	4	First date of the year at which the ISIN code appears in the BEDOFIH Xetra database.
EndDate	5	Last date of the year at which the ISIN code appears in the BEDOFIH Xetra database.
NbDays	6	Number of days for which there is at least one message.

1.4. Sources and further readings

Sources:

- Xetra Release 12.0, Enhanced Broadcast Solution Interface Specification
- Xetra Release 13.0, Enhanced Broadcast Solution Interface Specification
- Xetra Release 14.0, Enhanced Broadcast Solution Interface Specification
- Xetra Release 15.0, Enhanced Broadcast Solution Interface Specification
- Xetra Release 16.0, Enhanced Broadcast Solution Interface Specification
- Xetra T7 trading architecture, System documentation

2. Xetra EnBS (28/11/2011 - 30/06/2017)

2.1. Instrument reference data file, versions 12 – 16 (28/11/2011 – 30/06/2017)

File: IRD_YYYYMMDD.csv (one file per day in the reference_files folder).

This file provides instrument data reference information. Which fields are actually sent depends on the instrument type.

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)				
Name	Optional	Description		
seqNum	N	Sequen	ce number.	
srcId	N	Identifie	er of the message disseminating source.	
exchId	N	Market	Identifier Code (ISO 10383) of the trading market on	
		Xetra, e.	g. XETR Xetra Deutsche Börse.	
instGrp	N	Instrument group, e.g. DAX1.		
<mdfeedtypes> sequence starts</mdfeedtypes>				
noOfStreams (available from 2015)	N	Number of streams.		
streamService	N	Service class of the stream.		
		Α	Service A	
		В	Service B	
streamType	N	Type of stream.		

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)				
Name	Optional	Description		
		1	Snapshot	
		2	Delta / Incremental	
		3	All Trade Price	
		4	Maintenance Stream	
		5	External Ticker	
		6	Snapshots / Deltas	
		7	Maintenance Stream	
		8	All Trade Price/Price Without Turnover	
inetAddr	N	Multicas	st address of the stream.	
port	N	Port nu	mber.	
mktDepth	Υ	Defined	order book depth for the stream.	
mdBookType	Υ	Book ty	pe. Always 2 = Price depth.	
<mdfeedtypes> sequ</mdfeedtypes>	ience ends			
<seclistgroup> seque</seclistgroup>	ence starts			
NoRelatedSym	N	Numbe	r of instruments.	
(available from				
2015)				
isix	N		ternal instrument identifier.	
isin	N		de of the instrument.	
instMnem	Y	Abbreviated form of the instrument name, e.g. DB1 for Deutsche Börse AG.		
instShtNam	Υ	Instrument Long Name.		
wknNo	Υ	Wertpapierkennnummer.		
setId	N	Set identifier (technical grouping of instruments).		
currCode	N	Currency code of the instrument, e.g. EUR for Euro.		
instTypCod	N	Type of	instrument.	
		BAS	Basis Instrument	
		BON	Bond	
		EQU	Equity	
		WAR	Warrant	
instSubTypCode	Υ	Instrum	ent Subtype, e.g. ANL, VAR.	
lglMktSeg	N	Type of	market admission (code for a legal market segment).	
		3	Open Market	
		5	European Energy Exchange	
		6	Eurex Bonds	
		14	Open Market – Prädikatsmarkt	
		15	Open Market – Newex, NX.one	
		16	Open Market – Newex,NX.plus	
		17	Open Market – Newex,NX. Other	
		38	Open Market – Deutsche Boerse SMART TRADING	
		39	Open Market – Entry Standard	
		42	Open Market – Electronic Trading	
		43	Regulated Market – Electronic Trading	

Instrument	reference da	ata file – X	Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)
Name	Optional		Description
		44	Regulated Market
		45	Regulated Market – Prime Standard
		46	Regulated Market – General Standard
		47	Official Market
		48	Unofficial Market
		60	Budapest Stock Exchange MTF (available from V16)
		80	STRUCTURED PRODUCTS Regulated Market
		81	STRUCTURED PRODUCTS Open Market
		82	Xetra Frankfurt 2 – Regulated Market, Prime Standard
		83	Xetra Frankfurt 2 – Regulated Market, General Standard
		84	Xetra Frankfurt 2 – Open Market, Entry Standard
		85	Xetra Frankfurt 2 – Open Market
		86	Xetra Frankfurt 2 – Regulated Market General Quoted
		87	Official List Main Security Market Xetra
		88	Irish Enterprise Security Market Xetra
		97	Eurex
		98	Eurex Repo
		99	Global Exchange Market Xetra
		318	Budapest Stock Exchange Regulated Market (available from V16)
		437	WBAG Dritter Markt (MTF)
		568	LJSE Official Market
		735	Prague Stock Exchange Official Market (available from V16)
		736	Prague Stock Exchange MTF (available from V16)
		738	Prague Stock Exchange Free Market (available from V16)
		930	WBAG – Wiener Wertpapierbörse
		931	WBAG – Amtlicher Handel
		934	WBAG – Geregelter Freiverkehr
mktSegCod	Υ	Market	Segment code.
		BGA	Market A
		BGB	Market B
		DED	US Stars
		DEE	European Stars
		DEL	XTF Exchange Traded Funds
		DER	Structured products Qualitätsstandard
		DES	Deutschland – Fonds
		DEX	Boerse Frankfurt (Fonds)
		DEZ	Exchange Traded Commodities, ETC
		DE0	Structured products Select
		DE1	Structured products
		DE2	Select Bonds
		DE3	Prime Bonds

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
		DE4	Deutsche Boerse REITs
		DE5	Deutsche Boerse First Quotation Board
		DE7	Structured products Asia
		DE8	Structured products Premium Asia
		DE9	Structured products Sec
		DX1	Structured products Currency
		DX2	Structured products North
		DX3	Structured products East
		DX7	Xetra Bonds
		DX8	Exchange Traded Notes (ETN)
		DX9	Open Market Plus
		LJA	LJSE Prime Market
		LJB	LJSE Standard Market
		LJC	LJSE Entry Market
		LJD	LJSE Bonds
		LJE	LJSE Fund Market
		LJG	LJSE Closed-end Fund Shares
		LJL	LJSE T-Bills
		PRX	PSE Qualified investors funds (available from V16)
		PRY	PSE Collective investment funds (available from V16)
		VIB	WBAG Bonds Financial Sector
		VIC	WBAG Equities Standard Market Auction
		VIE	WBAG ETFs
		VIG	WBAG Bonds Public Sector
		VIK	WBAG Bonds Corporate Sector
		VIL	WBAG Performance Linked Bonds
		VIM	WBAG Mid Market
		VIO	WBAG Other Securities
		VIP	WBAG Equities Prime Market
		VIS	WBAG Equities Standard Market Continuous
		VIW	WBAG Warrants
		VIZ	WBAG Certificates
<tickrules> sequence</tickrules>	starts	1	
NoTickRules (available from 2015)	N	Numbe	r of tick rules.
TickIncrement	N	Tick Inc	rement.
EndTickPriceRange	Y	End of Tick range for each Tick increment.	
<tickrules> sequence</tickrules>			
trdmdl	N	Trading	Model identifier.
		01	Multiple Auctions, M
		02	Continuous Trading, C
		03	One Auction Only, O
L			1

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)					
Name	Optional		Description		
		08	Continuous Auction, X		
optGwLoc	N	Optimal performance gateway location for trading a respective instrument.			
referencePrice	N	Referen	Reference price.		
frstTrdDat	Y		ding date, earliest date for which an instrument becomes e YYYYMMDD.		
lstTrdDat	Y	Last trac	ding date, last date on which an instrument may be traded MDD.		
bonMrtyDat	Υ	Maturity	y date YYYYMMDD.		
minOrdrSiz	N	Minimu	m Order Size for this instrument.		
minTrdbUnt	N	Minimu	m Tradable Unit of this instrument.		
rondLotQty	N	Round L	ot quantity, in number of units of the instrument.		
tradCal	N	Trading	Calendar, e.g. XCAL for Standard calendar.		
untOfQotn	N	The uni	t, in which an instrument is quoted / stated.		
		1	Pieces (EQU/WAR)		
		2	Percent (BON/BAS)		
		4	Points (Indices)		
indicators N		Array of supported order types and other flags. The values can be added together to form combinations of the values. If Closed Book Indicator, Iceberg Order Indicator, Limit Order Indicator and Matching instruction Cross Id are sent then 1 + 8 + 16 + 8192 = 8217 is received. 2^0 Closed Book Indicator			
		2^1	Discretionary Order Indicator		
		2^2	Hidden Order Indicator		
		2^3	Iceberg Order Indicator		
		2^4	Limit Order Indicator		
		2^5	Midpoint Order Indicator		
		2^6	Market Imbalance Indicator		
		2^7	Market Order Indicator		
		2^8	Market-to-Limit Order Indicator		
		2^9	Quote Book Indicator		
		2^10	Market maker protection flag (available from V14)		
		2^11	Liquidity Interruption Indicator (available from V15)		
		2^12	Mini Auction Indicator (available from V15)		
		2^13	Matching Instruction Cross Id (available from V16)		
minHiddOrdrVal	Υ		m Hidden Order Value, specified as cash amount.		
minMidPntOrdrVal	Υ		m Midpoint Order Value.		
minIceQty	Υ		m Iceberg Order Quantity.		
minPeakQty	Υ		m Iceberg Order Peak Quantity.		
maxordrvalbest	Y	Maximum value that may apply to a Xetra BEST order, specified as a cash amount.			
vdoMinExec (available from V16)	Y	Volume Discovery Minimum Execution Quantity. 0 means not available.			

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)					
Name	Optional		Description		
clgloc	Υ	Clearing	Clearing Location, e.g. BOFRA, BECCP.		
postTrdAty	N	trade ar	Post Trade Anonymity indicator. Field indicating, whether post trade anonymity is enabled (P), the central counterpart is used (C) or not (blank).		
stlPeriodFlag	N		r of business days from trade execution after which ent is to be effected.		
stlCurrCod	N		ent is to be effected. ent Currency Code.		
stlCal	N		ent Calrency Code. ent Calendar, e.g. XCAL for Standard calendar.		
homeMkt	N		Identifier Code (ISO 10383) of the market where the IPO		
Homewikt	IN	took pla	ice.		
refMkt	N		he market from which the reference price is derived.		
reportMarket	N		uired for reporting to supervisory authority		
cmexind	Υ	Indicato	r for CUM/EX events or capital adjustment.		
		С	Cum Capital Adjustment or Dividend		
		А	Change of price determination frequency in Continuous Auction		
		Е	Ex Capital Adjustment or Dividend		
<subscription> (option</subscription>	nal) group st				
issueDate	N	Date on which a security is issued;			
inSubscription	N		or for subscription trading (primary market);		
		Y	instrument in subscription trading. Only provided for		
			instruments that are currently in subscription trading.		
		N	Instrument is not in subscription period		
<subscription> group ends</subscription>					
<bond> (optional) gro</bond>	up starts				
bonCpnRatWss	Υ	The coupon rate of a bond.			
bonCurPoolFact	Υ	Bond Cu	urrent Pool Factor.		
bonYldTrdInd	Υ	Bond Yi	eld Trading Indicator, indicates whether the		
		corresp	onding price contains a yield. Always Y = Yes.		
bonCrtCpnDat	Υ	Ŭ	ng of current coupon period YYYYMMDD.		
bonNxtCpnDat	Υ	End of o	current coupon period YYYYMMDD.		
dnomCurrCod	N		nation Currency.		
bonFlatInd	N	Bond Fl	at Indicator.		
		0	Accrued interest calculation and pool factoring enabled		
		1	flat, no accrued interest calculation		
		2	x-flat, no accrued interest calculation and no pool		
			factoring		
bonAcrIntCalcMd	Y		l interest calculation method.		
(available from V13)		0	No interest calculation		
		1	German (30/360)		
		2	English (ACT./365/6)		
		3	French (ACT./360)		
		4	US TRSY 2		
		5	ACT/365 (no leap year)		

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)				
Name	Optional		Description	
	- 1	6	ISMA: 30/360	
		7	ACT/365	
		8	US TRSY 4	
		9	ISMA: ACT/ACT	
		10	ISDA: ACT/365(6)	
		11	France: COMPND METH	
		12	Italy: TRSY BONDS	
		13	Poland	
		14	Hungary	
		15	ACT/365(6)	
		16	Bond Basis	
xetralssrMnem	Υ		suer, e.g. BUND.	
(available from V15)	'	Dona is.	3de1, e.g. bollb.	
<pre><bond> group ends</bond></pre>				
<pre><warrant> (optional) {</warrant></pre>	group starts			
warSeg	N	Warrant	t Segment.	
		WA	Plain Vanilla Warrants	
		КО	Knock Out without Stop Loss	
		KL	Knock Out with Stop Loss	
		EL	Exotic Leverage Products	
		RV	Reverse Convertibles	
		BA	Basket Certificates	
		ВО	Bonus Certificates	
		DS	Discount Certificates	
	C	GC	Guarantee Certificates	
		IX	Index Certificates	
		OP	Out Performance Certificates	
		MS	Misc. Investment Products	
		blank	Other	
warStrPrc	Υ		t Strike Price.	
warTyp	N	Warrant		
		С	Call	
		P	Put	
		R	Range	
		F	Certificate	
		0	Others	
warUnd	Υ		t underlying.	
<pre><warrant> (optional) {</warrant></pre>	·	1 1 2 1 1 2 1 1 1		
<continuousauction></continuousauction>	•	oup start	rs	
exchangeSegment	N	Exchange Segment code in which the instrument is traded, e.g. XEXC XEXD.		
issrMembld	N	Membe	r ID of the issuer (Quote Provider) comprising institution acters) and branch (2 characters).	

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)					
Name	Optional	Description			
issrSubGrp	N	Trader subgroup to which a user of an issuer (Quote Provider) has been assigned to.			
specMembld	Υ	Member ID of the Specialist.			
specSubGrp	Υ	The Specialist's subgroup; its users are authorized to act as			
		Specialists for the instrument.			
knockOutInd	Υ	Indicator for knocked-out instruments.			
		blank Default			
		R Reversed			
		K Knocked out			
		L Locked knock out			
singleAuctionIndicat	Υ	Single auction indicator, a flag to indicate whether the			
or (available from V13)		information is there or not. Always Y = Yes.			
specialAuctionIndica	Υ	Special auction indicator, a flag to indicate whether the			
tor (available from V13)		information is there or not. Always Y = Yes.			
<continuousauction></continuousauction>	group ends				
<marketmaker> (option</marketmaker>	onal) group s	starts			
license> sequence st	arts				
nooflicenses	Ν	Number of Licenses.			
licensetype	Ν	License type.			
		M Designated Sponsor License			
		E BEST Executor License			
		Q Liquidity Manager License			
sprdtypecode	Ν	Quote Spread Type for license.			
		A Absolute value			
		P Percentage value			
sprdFact	Υ	Maximum Spread permissible for the license.			
sprdminqty	Ν	Minimum allowable size of a Quote by license.			
license> sequence en	license> sequence ends				
maxsrpqty		Maximum surplus quantity which can be taken by a member in the Betreuer OBB phase.			
<marketmaker> group</marketmaker>	o ends				
<basisinstrument> (or</basisinstrument>	<pre><basisinstrument> (optional) group starts</basisinstrument></pre>				
basund	Υ	Underlying ISIN of a basis instrument.			
<pre><basisinstrument> group ends</basisinstrument></pre>					
<seclistgroup> sequence ends</seclistgroup>					

2.2. Order book snapshot file

File: IMSI_InstrumentID_YYYYMMDD.csv (one file per day and per instrument)

This file contains complete order book information up to the depth indicated in the reference information. It should be used only for the creation of the market picture at the beginning of a trading day and for its recovery in case of a data loss.

2.2.1. Order book snapshot file, version 12 (28/11/2011 – 22/11/2012)

Order book snapshot file – Xetra Version 12 (28/11/2011 – 22/11/2012)						
Name	Optional	Description				
timestamp	N		Timestamp when the message was created, in milliseconds since midnight CET/CEST.			
srcId	N	Identifier of the message disseminating source.				
isix	N	Xetra int	ternal instrument identifier.			
<noofchannels< td=""><td>eqNum> s</td><td>equence</td><td>starts</td></noofchannels<>	eqNum> s	equence	starts			
consolSeqNum	N	•	te number for the last "consolidated" <u>delta</u> message for this ent in order to be able to position the snapshot among the delta es.			
<noofchannels< td=""><td>eqNum> s</td><td>equence</td><td>ends</td></noofchannels<>	eqNum> s	equence	ends			
lastTpSeqNum	N	Referen	ce to the last All Trade Price sequence number for that instrument.			
instrStatus	N	Identifie	r of a trading phase or fast market status.			
		0	Start			
		1	Pre-trading			
		5	Opening auction call			
		6	Intra day auction call			
		7	Closing auction call			
		10	Opening Auction IPO Call			
		11	Opening Auction IPO Freeze			
		12	Intra Day Auction IPO Call			
		13	Intra Day Auction IPO Freeze			
		26	Continuous trading			
		28	Post trading			
		29	End of trade			
		30	Halt			
		31	Suspended			
		32	Volatility interruption of continuous trading			
		36	Delete			
		39	Continuous Auction Pre-Call			
		41	Continuous Auction Freeze			
		43	Hol			
moilnd	Υ	Market	order interruption indicator.			
		Р	Potential market order interruption			
		М	Market order interruption			
		Χ	Volatility interruption after market order interruption			
volInd	Υ	Volatility	indicator type.			
		Е	Extended volatility interruption			
		F	Freeze			
		Р	Potential volatility interruption			

	Order bool	k snapsho	ot file – Xetra Version 12 (28/11/2011 – 22/11/2012)		
Name	Optional		Description		
		V	Volatility interruption		
		Х	Expired		
cmexInd	Υ	Capital a	djustment indicator.		
		C	Cum dividend		
		А	Capital adjustment		
		E	Ex dividend		
<entriesprcqty></entriesprcqty>	sequence		nt when a potential auction price is generated		
entryType	N	12	Potential auction price		
		13	Matching range ask		
		14	Matching range bid		
entryPrc	N	Potentia	l auction price or matching range bid/ask price.		
entryQty	N		l auction quantity, matching range BID/ASK quantity or surplus		
, ,			quantity.		
<entriesprcqty></entriesprcqty>	sequence	ends			
	•		whenever there is a new daily high, daily low, opening price,		
closing price, va					
entryType	N	5	Opening price		
		7	Valuation price		
		8	Closing price		
		20	Daily high price		
		21	Daily low price		
entryPrc	N	Price.			
<entriesprc> sec</entriesprc>	•				
<entriesqty> se</entriesqty>	quence sta	rts, filled	when there is a surplus, either bid or ask side		
entryType	N	15	Surplus bid		
		16	Surplus ask		
entryQty	N	Surplus ask/bid quantity.			
<entriesqty> se</entriesqty>	•				
•	•		when there is any information on last trade price, last best trade		
•			price, last midpoint trade, last BEST price.		
entryType	N	4	Last trade price		
		6	Last auction price		
		10	Last BEST trade price		
		11	Last midpoint trade price		
		25	Last best trade price with Bundesbank (currently not in use)		
entryPrc	N	Traded p			
entryQty	N	Traded quantity (shares).			
totTrdQty	N		ded quantity (shares).		
entryTime	N	Time of entry HHMMSSCC, for instance 15535900 represents the time 15:53:59.00.			
numTrades					
	-		day in a given instrument.		
<entriesatp> sec</entriesatp>	quence en	ds			

Order book snapshot file – Xetra Version 12 (28/11/2011 – 22/11/2012)					
Name	Optional		Description		
<entriesdepth></entriesdepth>	sequence :	starts, fill	ed when orderbook entries are sent		
entryType	N	1	Ask price		
		2	Bid price		
		3	Empty Order book		
		23	Ask market order		
		24	Bid market order		
entryPrc	N	Price for	Price for the level below (price = 0 and entryType = 23 or 24 for market		
		orders).	orders).		
entryQty	N	Quantity	Quantity offered at above price.		
numOrders	N	Number of orders.			
entryPrcLvl	N	Level of price in OB, 1 is for top-of-book for instance.			
<entriesdepth> sequence ends</entriesdepth>					

2.2.2. Order book snapshot file, versions 13 – 16 (23/11/2012 – 30/06/2017)

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)				
Name	Optional	Description		
entryTime	N		of the last order book update, in microseconds since	
		midnight CET/CEST.		
srcld	N		fier of the message disseminating source.	
isix	N	Xetra i	internal instrument identifier.	
consolSeqNum	N		nce number for the last "consolidated" <u>delta</u> message for	
			strument in order to be able to position the snapshot	
			g the delta messages.	
instrStatus	N		fier of a trading phase or fast market status.	
		0	Start	
		1	Pre-trading	
		5	Opening auction call	
		6	Intra day auction call	
		7	Closing auction call	
		10	Opening Auction IPO Call	
		11	Opening Auction IPO Freeze	
		12	Intra Day Auction IPO Call	
		13	Intra Day Auction IPO Freeze	
		26	Continuous trading	
		28	Post trading	
		29	End of trade	
		30	Halt	
		31	Suspended	
		32	Volatility interruption of continuous trading	
		36	Delete	
		39	Continuous Auction Pre-Call	
		41	Continuous Auction Freeze	

Name Optional 43 Hol	Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
SentriesAtp> sequence starts, filled when there is any information on last trade price, in subscription price, last auction price, last midpoint trade, last BEST price or last trade price with Bundesbank participation NoEntriesAtp	Name	Optional		Description
price, last auction price, last midpoint trade, last BEST price or last trade price with Bundesbank participation no.EntriesAtp (available from 2015) entryType N 4 Last trade price 6 Last auction price 9 Price from subscription period 10 Last BEST trade price 11 Last midpoint trade price 11 Last midpoint trade price 12 Last best trade price with Bundesbank (currently not in use) entryPrc N Traded price. entryQty N Traded quantity (shares). totTrdQty Y Total traded quantity (shares). entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchIdNo Y Internal transaction matching identifier. *EntriesAtp* sequence ends *EntriesDepth* sequence ends *EntriesDepth* sequence ends 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrtVI N Level of price in OB, 1 is for top-of-book for instance. *EntriesDepth> sequence ends *auctionGroup> (optional) group starts, only active in an auction M Market order interruption M Market order interruption M Market order interruption X Volatility indicator type. E E Extended volatility interruption F F Freeze			43	Hol
(available from 2015) entryType Record From Subscription period From Subscription From Su	price, last auction price			
6 Last auction price 9 Price from subscription period 10 Last BEST trade price 11 Last midpoint trade price 25 Last best trade price with Bundesbank (currently not in use) 10 Last midpoint trade price 25 Last best trade price with Bundesbank (currently not in use) 10 Last midpoint trade price with Bundesbank (currently not in use) 10 Last midpoint trade price with Bundesbank (currently not in use) 10 Last midpoint trade price with Bundesbank (currently not in use) 10 Last midpoint trade price with Bundesbank (currently not in use) 10 Last midpoint midp	·	N		
Price from subscription period 10 Last BEST trade price 11 Last midpoint trade price 25 Last best trade price with Bundesbank (currently not in use)	entryType	N	4	Last trade price
10 Last BEST trade price 11 Last midpoint trade price 25 Last best trade price with Bundesbank (currently not in use u			6	Last auction price
11			9	Price from subscription period
entryPrc N Traded price. entryQty N Traded quantity (shares). entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchIdNo Y Internal transaction matching identifier. **EntriesAtp> sequence ends** **EntriesBepth's sequence starts, filled when orderbook entries are sent noEntryType N I Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryPrctvl N Level of price in OB, 1 is for top-of-book for instance. **EntriesDepth> sequence ends** **EntriesDepth of orders.** entryPrctvl N Level of price in OB, 1 is for top-of-book for instance. **EntriesDepth> sequence ends** **auctionGroup> (optional) group starts, only active in an auction moilnd Y Market order interruption M Market order interruption M Market order interruption Vollind Y Volatility indicator type. E Extended volatility interruption F Preeze			10	Last BEST trade price
entryPrc N Traded price. entryQty N Traded puntity (shares). totTrdQty Y Total traded quantity (shares). entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Internation matching identifier. EntriesAtp> sequence ends EntriesDepth> sequence ends EntryType N Ask price 2 Bid price 3 Empty Order book 23 Ask market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. entryPrctvl N Level of price in OB, 1 is for top-of-book for instance. EntriesDepth> sequence ends			11	Last midpoint trade price
entryQty N Traded quantity (shares). totTrdQty Y Total traded quantity (shares). entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchIdNo Y Internal transaction matching identifier. <entriesatp> sequence ends <entriesdepth> sequence starts, filled when orderbook entries are sent noEntriesDepth (available from 2015) entryType N I Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <entriesdepth> sequence ends <a #"="" href="activativativativativativativativativativa</td><td></td><td></td><td>25</td><td>,</td></tr><tr><td>totTrdQty Y Total traded quantity (shares). entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchldNo Y Internal transaction matching identifier. <EntriesDepth> sequence ends <EntriesDepth> sequence starts, filled when orderbook entries are sent noEntriesDepthh (available from 2015) entryType N 1 Ask price 2 Bid price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <EntriesDepth> sequence ends </entriesdepth></entriesdepth></entriesatp>	entryPrc	N	Trade	d price.
entryTime N Match time, in microseconds since midnight CET/CEST. numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchldNo Y Internal transaction matching identifier. <entriesatp> sequence ends <entriesdepth> sequence starts, filled when orderbook entries are sent noEntriesDepth (available from 2015) entryType N I Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <entriesdepth> sequence ends <</entriesdepth></entriesdepth></entriesatp>	entryQty	N	Trade	d quantity (shares).
numTrades Y Number of trades, cumulative total of the number of trades for the current day in a given instrument. tranMtchldNo Y Internal transaction matching identifier. <entriesatp> sequence ends <entriesdepth> sequence starts, filled when orderbook entries are sent NoEntriesDepth (available from 2015) entryType N 1 Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <entriesdepth> sequence ends <a href="</td><td>totTrdQty</td><td>Υ</td><td>Total t</td><td>raded quantity (shares).</td></tr><tr><td>tranMtchIdNo Y Internal transaction matching identifier. <EntriesAtp> sequence ends <EntriesDepth> sequence starts, filled when orderbook entries are sent noEntriesDepth (available from 2015) entryType N 1 Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryPrctvl N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <EntriesDepth> sequence ends square Ask market order 24 Bid market order entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <entriesdepth> sequence ends square Market order interruption indicator. P Potential market order interruption M Market order interruption Vollnd Y Volatility interruption after market order interruption Vollnd Y Volatility indicator type. E Extended volatility interruption F Freeze</entriesdepth></entriesdepth></entriesdepth></entriesatp>	entryTime	N	Match	time, in microseconds since midnight CET/CEST.
tranMtchIdNo Y Internal transaction matching identifier. <entriesatp> sequence ends <entriesdepth> sequence starts, filled when orderbook entries are sent noEntriesDepth (available from 2015) entryType N 1 Ask price 2 Bid price 3 Empty Order book 23 Ask market order 24 Bid market order 24 Bid market order entryPrc N Price for the level below (price = 0 and entryType = 23 or 24 for market orders). entryQty N Quantity offered at above price. numOrders N Number of orders. entryPrcLvl N Level of price in OB, 1 is for top-of-book for instance. <entriesdepth> sequence ends </entriesdepth></entriesdepth></entriesatp>				

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description	
		V	Volatility interruption
		Х	Expired
<entriesauction> seque</entriesauction>	ence starts		
noEntriesAuction (available from 2015)	N		
entryType	Ν	12	Potential auction price
		13	Matching range ask
		14	Matching range bid
		15	Surplus bid
		16	Surplus ask
entryPrc	Υ	Potent	ial auction price or matching range bid/ask price.
entryQty	Υ		ial auction quantity, matching range BID/ASK quantity or
		surplu	s BID/ASK quantity.
<entriesauction> seque</entriesauction>			
<auctiongroup> group</auctiongroup>			
•		whenev	ver there is a new daily high, daily low, opening price,
closing price, valuation noEntriesPrc	price N		
(available from 2015)	IN		
entryType	N	5	Opening price
		7	Valuation price
		8	Closing price
		20	Daily high price
		21	Daily low price
entryPrc	N	Price.	- 3y
<pre><entriesprc> sequence ends</entriesprc></pre>			

2.3. Order book delta / incremental file

File: IMDI_InstrumentID_YYYYMMDD.csv (one file per day and per instrument)

This file involves all messages that affect the state of the order book within the trading day (e.g. changes in limits and depths). Users can treat this information to continuously update the global picture of the order book.

2.3.1. Order book delta / incremental file, version 12 (28/11/2011 - 22/11/2012)

Order book delta / incremental file – Xetra Version 12 (28/11/2011 – 22/11/2012)				
Name	Optional	Description		
timestamp	N	Timestamp when the message was created, in milliseconds since midnight CET/CEST.		
srcId	N	Identifier of the message disseminating source.		
isix	N	Xetra internal instrument identifier.		
seqNum	N	Sequence number for synchronization purposes when comparing messages coming from the same source.		

Order	book delta /	increm	ental file – Xetra Version 12 (28/11/2011 – 22/11/2012)		
Name	Optional		Description		
lastTpSeqNum	N	Reference to the last All Trade Price sequence number for that			
		instrument.			
instrStatus	N	Identifier of a trading phase or fast market status.			
		0	Start		
		1	Pre-trading		
		5	Opening auction call		
		6	Intra day auction call		
		7	Closing auction call		
		10	Opening Auction IPO Call		
		11	Opening Auction IPO Freeze		
		12	Intra Day Auction IPO Call		
		13	Intra Day Auction IPO Freeze		
		26	Continuous trading		
		28	Post trading		
		29	End of trade		
		30	Halt		
		31	Suspended		
		32	Volatility interruption of continuous trading		
		36	Delete		
		39	Continuous Auction Pre-Call		
		41	Continuous Auction Freeze		
moilnd	Υ	Marke	t order interruption indicator.		
		Р	Potential market order interruption		
		М	Market order interruption		
		Х	Volatility interruption after market order interruption		
volInd	Υ	Volatil	ity indicator type.		
		Е	Extended volatility interruption		
		F	Freeze		
		Р	Potential volatility interruption		
		V	Volatility interruption		
		Χ	Expired		
cmexInd	Υ	Capita	l adjustment indicator.		
		C	Cum dividend		
		Α	Capital adjustment		
		Е	Ex dividend		
gapIndicator	Υ	Always	S Y, indicates that the Xetra interface may have missed some of		
			est orderbook changes.		
<entriesprcqty> s</entriesprcqty>	sequence sta		it when a last traded or potential auction price is generated		
entryType	N	4	Last traded price		
		12	Potential auction price		
		13	Matching range ask		
		14	Matching range bid		
entryPrc	N	Potent	ial auction price or matching range bid/ask price.		

Order	book delta /	incremental file – Xetra Version 12 (28/11/2011 – 22/11/2012)				
Name	Optional		Description			
entryQty	N		tial auction quantity, matching range BID/ASK quantity or is BID/ASK quantity.			
<entriesprcqty> sequence ends</entriesprcqty>						
<pre><entriesprc> seq closing price, valuation price</entriesprc></pre>	uence starts	, filled w	whenever there is a new daily high, daily low, opening price,			
entryType	N	4	Last trade price			
		5	Opening price			
		6	Last auction price			
		7	Valuation price			
		8	Closing price			
		20	Daily high price			
		21	Daily low price			
entryPrc	N	Price.				
<entriesprc> seq</entriesprc>	uence ends					
<entriesqty> seq</entriesqty>	uence starts	, filled v	vhen there is a surplus, either bid or ask side			
entryType	N	15	Surplus bid			
		16	Surplus ask			
		22	Total traded quantity			
entryQty	N	Surplus ask/bid quantity.				
<entriesqty> seq</entriesqty>	uence ends					
<entriesdepth> s</entriesdepth>	equence sta	rts, fille	d when orderbook entries are sent			
entryType	N	1	Ask price			
		2	Bid price			
		3	Empty Order book			
		23	Ask market order			
		24	Bid market order			
entryPrc	N	Price f orders	for the level below (price = 0 and entryType = 23 or 24 for market s).			
entryQty	N	Quant	ity offered at above price.			
numOrders	N	Numb	er of orders.			
entryPrcLvl	N	Level	of price in OB, 1 is for top-of-book for instance.			
updateAction	N	What o	operation will be performed with this entry to know in what way			
			late the order book.			
			delete actions (delete, delete from, delete thru) the fields			
		entryPrc, entryQty and numOrders have to be ignored in the repeating group noEntriesDepth.				
		1	New: creating a price level, adds the new price at the specified entryPrcLvl say x. All price levels y where y >= x are shifted to y + 1.			
		2	Change: changing a price level, replaces the quantity of the price level specified by the entryPrcLvl with the information sent in the message.			

Order book delta / incremental file – Xetra Version 12 (28/11/2011 – 22/11/2012)				
Name	Optional	Description		
		3	Delete: deleting a price level, removes the price at the level specified by entryPrcLvl say x. All price levels y where $y > x$ are shifted to $y - 1$.	
		4 Delete From: deletes all price levels from entryPrcLvl >= x to maximum price levels maintained in the order book for the instrument.		
		5	Delete Through: deletes all price levels from price level = '1' to entryPrcLvl = 'x'. All price levels y where $y > x$ are shifted to $y - x$.	
<entriesdepth> sequence ends</entriesdepth>				

2.3.2. Order book delta / incremental file, version 13 (23/11/2012 - 25/10/2013)

Orde	r book delta	/ incre	mental file – Xetra Version 13 (23/11/2012 – 25/10/2013)		
Name	Optional		Description		
entryTime	N	messa In case	In case of an order: Time of last order book update of all updates in the message, in microseconds since midnight CET/CEST. In case of a trade: Match time, in microseconds since midnight CET/CEST.		
srcId	N	Identif	Identifier of the message disseminating source.		
isix	N	Xetra i	nternal instrument identifier.		
seqNum	N		nce number for synchronization purposes when comparing ges coming from the same source.		
instrStatus	N	Identif	fier of a trading phase or fast market status.		
		1	Pre-trading		
		5	Opening auction call		
		6	Intra day auction call		
		7	Closing auction call		
		10	Opening Auction IPO Call		
		11	Opening Auction IPO Freeze		
		12	Intra Day Auction IPO Call		
		13 Intra Day Auction IPO Freeze			
		26	Continuous trading		
		28	Post trading		
		29	End of trade		
		30	Halt		
		31	Suspended		
		32	Volatility interruption of continuous trading		
		39	Continuous Auction Pre-Call		
		41	Continuous Auction Freeze		
gapIndicator	Y	_	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.		
trdgapIndicat or	Y	Always Y, indicates that all trade prices can't be delivered within this message (if more than 20 trade prices only the 20 latest are sent). In			

Order book delta / incremental file – Xetra Version 13 (23/11/2012 – 25/10/2013)						
Name	Optional		Description			
			ny trade price is not included in the delta message the full view of les may be obtained from the All Trade Price stream.			
<entriestrades< td=""><td colspan="6">Trades> sequence starts, sent if a trade occurs</td></entriestrades<>	Trades> sequence starts, sent if a trade occurs					
entryType	N	4	Last trade price			
		10	Last BEST trade price			
		11	Last midpoint trade price			
		26	List of trade prices			
aggressorTim	Υ	Entry time of the incoming order that triggered the trade. This time				
е			stamp is only available in case of a trade. The aggressorTime is empty if the trade resulted from an auction.			
totTrdQty	N		raded quantity, cumulated quantity of the instrument for the			
_			t business day.			
numTrades	N	Numbe	er of trades.			
prcTypCod	N	Price ty	ype code.			
		C	Continuous Trading			
		0	Opening Auction			
		Α	Auction			
		F	Closing Auction			
		Е	End-of-day Auction			
		V	Volatility Interruption in Continuous Trading			
<entriestradep< td=""><td>rices> seque</td><td>nce star</td><td>ts</td></entriestradep<>	rices> seque	nce star	ts			
entryType	N	4	Last trade price			
		9	Price from subscription period			
		25	Last best trade price with Bundesbank (currently not in use)			
		29	Special auction, for Federal Bonds the Special Auction indicator			
			is used for prices determined with Bundesbank participation.			
entryPrc	N	Tradeo	·			
entryQty	Y		l quantity.			
entryTime	N	Match				
actnCod	N		code, indicates what type of action should be performed in case trade price information.			
		4	Add			
		5	Update			
		6	Delete			
tranMtchIdNo	N	Interna	al transaction matching identifier.			
<entriestradep< td=""><td>rices> seque</td><td>nce end</td><td>s</td></entriestradep<>	rices> seque	nce end	s			
<entriestrades></entriestrades>	> sequence e	ends				
<entriesdepth></entriesdepth>	sequence st	arts, fill	ed when order book entries are sent			
entryType	N	1	Ask price			
		2	Bid price			
		3	Empty Order book			
		23	Ask market order			
		24	Bid market order			

Orde	r book delta	/ incremental file – Xetra Version 13 (23/11/2012 – 25/10/2013)
Name	Optional	Description
entryPrc	N	Price for the level below.
		price = 0 and entryType = 23 or 24 for market orders
entryQty	Ν	Quantity offered at above price.
numOrders	N	Number of orders.
entryPrcLvl	N	Level of price in the order book (1 = top of book, 120 = depth level).
updateAction	N	What operation will be performed with this entry to know in what way
		to update the order book.
		For all delete actions (delete, delete from, delete thru) the fields
		entryPrc, entryQty and numOrders have to be ignored in the repeating
		group noEntriesDepth. 1 New: creating a price level, adds the new price at the specified
		1 New: creating a price level, adds the new price at the specified entryPrcLvl say x. All price levels y where y >= x are shifted to y +
		1.
		2 Change: changing a price level, replaces the quantity of the price
		level specified by the entryPrcLvl with the information sent in
		the message.
		3 Delete: deleting a price level, removes the price at the level
		specified by entryPrcLvl say x. All price levels y where $y > x$ are
		shifted to y – 1.
		4 Delete From: deletes all price levels from entryPrcLvl >= x to
		maximum price levels maintained in the order book for the instrument.
		5 Delete Through: deletes all price levels from price level = '1' to
		entryPrcLvI = 'x'. All price levels y where $y > x$ are shifted to $y - x$.
<entriesdepth></entriesdepth>	sequence e	
	•	group starts, only active in an auction
moilnd	Υ	Market order interruption indicator.
		P Potential market order interruption
		M Market order interruption
		X Volatility interruption after market order interruption
volInd	Υ	Volatility indicator type.
		E Extended volatility interruption
		F Freeze
		P Potential volatility interruption
		V Volatility interruption
		X Expired
<entriesauction< td=""><td>> sequence</td><td></td></entriesauction<>	> sequence	
entryType	N	12 Potential auction price
		13 Matching range ask
		14 Matching range bid
		15 Surplus bid
		16 Surplus ask
entryPrc	Υ	Potential auction price or matching range bid/ask price.
entryQty	Υ	Potential auction quantity, matching range bid/ask quantity or surplus
		bid/ask quantity.

Order book delta / incremental file – Xetra Version 13 (23/11/2012 – 25/10/2013)							
Name	Optional	Description					
<entriesauction> sequence ends</entriesauction>							
<auctiongroup< td=""><td colspan="7"><auctiongroup> group ends</auctiongroup></td></auctiongroup<>	<auctiongroup> group ends</auctiongroup>						
<entriesprc> se</entriesprc>	quence start	s, filled	whenever there is a new daily high, daily low, opening price,				
closing price, va	luation price	2					
entryType	N	4	Last trade price				
		5	Opening price				
		7	Valuation price				
		8	Closing price				
		20	Daily high price				
		21	Daily low price				
entryPrc	N	Price.					
<entriesprc> se</entriesprc>	<entriesprc> sequence ends</entriesprc>						

2.3.3. Order book delta / incremental file, versions 14 – 16 (28/10/2013 – 30/06/2017)

Order book delta / incremental file – Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)			
Name	Optional		Description
entryTime	N	update CET/CI In case CET/CI	e of a trade: Match time, in microseconds since midnight EST.
srcId	N		fier of the message disseminating source.
isix	N	Xetra i	internal instrument identifier.
seqNum	N	compa	nce number for synchronization purposes when aring messages coming from the same source.
instrStatus	N	Identif	fier of a trading phase or fast market status.
		0	Start
		1	Pre-trading Pre-trading
		5	Opening auction call
		6	Intra day auction call
		7	Closing auction call
		10	Opening Auction IPO Call
		11	Opening Auction IPO Freeze
		12	Intra Day Auction IPO Call
		13	Intra Day Auction IPO Freeze
		26	Continuous trading
		28	Post trading
		29	End of trade
		30	Halt
		31	Suspended
		32	Volatility interruption of continuous trading

Order book del	ta / increme	ntal file	– Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)
Name	Optional		Description
		36	Delete
		39	Continuous Auction Pre-Call
		41	Continuous Auction Freeze
gapIndicator	Υ	Always	s Y, indicates that the Xetra interface may have missed
		some	of the latest orderbook changes.
trdgapIndicator	Y	-	s Y, indicates that all trade prices cannot be delivered
			this message (if more than 20 trade prices only the 20
			are sent). In case any trade price is not included in the nessage the full view of all trades may be obtained from
			Trade Price stream.
<entriestrades> seque</entriestrades>	nce starts, se		
noEntriesTrade	N		
(available from 2015)			
entryType	N	4	Last trade price
		10	Last BEST trade price
		11	Last midpoint trade price
		26	List of trade prices
aggressorTime	Υ	Entry t	ime of the incoming order that triggered the trade. This
		time s	tamp is only available in case of a trade. The
			sorTime is empty if the trade resulted from an auction.
totTrdQty	N		raded quantity, cumulated quantity of the instrument for
			rrent business day.
numTrades	N		er of trades.
<entriestradeprices> s</entriestradeprices>		ts	
noEntriesTradePrices (available from 2015)	N		
entryType	N	4	Last trade price
		9	Price from subscription period
			The second secon
İ		10	Best trade price (available from V16)
		10 11	·
			Best trade price (available from V16)
		11	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in
		11 25	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use)
		11 25 29	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation
		11 25	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order
		11 25 29	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available
		11 25 29 30	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16)
		11 25 29 30	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16) Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16)
		11 25 29 30	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16) Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to
		11 25 29 30	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16) Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to SMP reason (available from V16)
preTypCod	N	11 25 29 30 31 32 33	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16) Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to SMP reason (available from V16) Cancelled quantity of resting ask market order due to SMP reason (available from V16)
prcTypCod	N	11 25 29 30 31 32 33	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in use) Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16) Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to SMP reason (available from V16) Cancelled quantity of resting bid market order due to SMP reason (available from V16)

Order book del	ta / increme	ntal file	– Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)
Name	Optional		Description
		0	Opening Auction
		Α	Auction
		F	Closing Auction
		Е	End-of-day Auction
		V	Volatility Interruption in Continuous Trading
entryPrc	N	Tradeo	d price.
entryQty	Υ	Tradeo	d quantity.
entryTime	N	Match	time.
actnCod	N	Action	code, indicates what type of action should be performed
			e of last trade price information.
		4	Add
		5	Update
		6	Delete
tranMtchldNo	N	Intern	al transaction matching identifier.
<entriestradeprices> s</entriestradeprices>	equence end	ds	
<entriestrades> seque</entriestrades>	nce ends		
<entriesdepth> sequer</entriesdepth>	nce starts, fill	led whe	n order book entries are sent
noEntriesDepth	N		
(available from 2015)			
entryType	N	1	Ask price
		2	Bid price
		3	Empty Order book
		23	Ask market order
		24	Bid market order
entryPrc	N	Price f	or the level below.
		price =	= 0 and entryType = 23 or 24 for market orders
entryQty	N	Quant	ity offered at above price.
numOrders	N	Numb	er of orders.
entryPrcLvl	N	Level (of price in the order book (1 = top of book, 120 = depth
updateAction	N	-	operation will be performed with this entry to know in
apaatertetion			vay to update the order book.
			delete actions (delete, delete from, delete thru) the fields
			rc, entryQty and numOrders have to be ignored in the
		repeat	ting group noEntriesDepth.
		1	New: creating a price level, adds the new price at the
			specified entryPrcLvl say x. All price levels y where $y \ge x$
		_	are shifted to y + 1.
		2	Change: changing a price level, replaces the quantity of
			the price level specified by the entryPrcLvl with the
		3	information sent in the message. Delete: deleting a price level, removes the price at the
			level specified by entryPrcLvl say x. All price levels y
			where $y > x$ are shifted to $y - 1$.

Order book del	ta / increme	ntal file	- Xetra Versions 14 - 16 (28/10/2013 - 30/06/2017)		
Name	Optional		Description		
		4	Delete From: deletes all price levels from entryPrcLvl >= x to maximum price levels maintained in the order book for the instrument.		
		5	Delete Through: deletes all price levels from price level = '1' to entryPrcLvl = 'x'. All price levels y where y > x are		
<entriesdepth> sequer</entriesdepth>	re ends		shifted to y – x.		
<auctiongroup> (optional) group starts, only active in an auction</auctiongroup>					
moilnd	Y		t order interruption indicator.		
monna	'	P	Potential market order interruption		
		M	Market order interruption		
		X	Volatility interruption after market order interruption		
volInd	Υ		ity indicator type.		
VOIIIIU	1	E	Extended volatility interruption		
		F	Freeze		
		P	Potential volatility interruption		
		V	Volatility interruption		
		X	Expired		
<pre></pre>	nco starts		Expired		
<entriesauction> sequence noEntriesAuction</entriesauction>		Τ			
(available from 2015)	N				
entryType	N	12	Potential auction price		
		13	Matching range ask		
		14	Matching range bid		
		15	Surplus bid		
		16	Surplus ask		
entryPrc	Υ	Potent	tial auction price or matching range bid/ask price.		
entryQty	Y		tial auction quantity, matching range bid/ask quantity or		
<entriesauction> seque</entriesauction>	nco onde	surpiu	s bid/ask quantity.		
<auctiongroup> group</auctiongroup>					
		whone	ver there is a new daily high daily low ananing arise		
closing price, valuation			ver there is a new daily high, daily low, opening price,		
noEntriesPrc	N N	. 10.0101	nee price		
(available from 2015)	.,				
entryType	N	4	Last trade price		
		5	Opening price		
		7	Valuation price		
		8	Closing price		
		20	Daily high price		
		21	Daily low price		
entryPrc	N	Price.			
<entriesprc> sequence</entriesprc>	<entriesprc> sequence ends</entriesprc>				

2.4. All trade price file

File: ATP_InstrumentID_YYYYMMDD.csv (one file per day and per instrument)

This file provides trade price information excluding OTC trade prices. The complete trade price information is also sent via the delta stream.

2.4.1. All trade price file, version 12 (28/11/2011 - 22/11/2012)

	All trade price file – Xetra Version 12 (28/11/2011 – 22/11/2012)					
Name	Optional		Description			
timestamp	N	Timestamp when the message was created, in milliseconds since midnight CET/CEST.				
srcId	N	Identifier of the message disseminating source.				
isix	N	Xetra int	Xetra internal instrument identifier.			
gapIndicator	Y	-	, indicates that some intermediate trades had occurred for the ent which may not be reported due to heavy processing load.			
<entriesatp> se</entriesatp>	quence sta	rts				
entryType	N	4	Last trade price			
		9	Price from subscription period			
		10	Last BEST trade price			
		11	Last midpoint trade price			
		25	Last best trade price with Bundesbank (currently not in use)			
prcTypCod	N	Price typ	oe.			
		С	Continuous Trading			
		0	Opening Auction			
		Α	Auction			
		F	Closing Auction			
		Е	End-of-day Auction			
		V	Volatility Interruption in Continuous Trading			
entryPrc	N	Traded	orice.			
entryQty	N	Traded o	quantity.			
entryTime	N	Time of	entry HHMMSSCC.			
tranMtchldNo	N	Internal	transaction matching identifier.			
tpSeqNum	N	Sequenc	te number.			
actnCod	N		ode, indicates what type of action should be performed in case of			
			e price information.			
		4	Add (default)			
		5	Update			
		6	Delete (trade reversal)			
<entriesatp> se</entriesatp>	quence en	ds				

2.4.2. All trade price file, versions 13 – 16 (23/11/2012 – 30/06/2017)

	All trade p	rade price file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)				
Name	Optional		Description			
timestamp	N		Timestamp when the message was created, in microseconds since midnight CET/CEST.			
srcId	N	Identifier of the message disseminating source.				
isix	N	Xetra inte	Xetra internal instrument identifier.			
seqNum	N	Sequence number.				
prcTypCod	N	Price type	2.			
		С	Continuous Trading			
		0	Opening Auction			
		Α	Auction			
		F	Closing Auction			
		Е	End-of-day Auction			
		V	Volatility Interruption in Continuous Trading			
		М	Mini Auction (since version 15)			
		L	Liquidity Interruption (since version 15)			
entryType	N	4	Last trade price			
		9	Price from subscription period			
		10	Last BEST trade price			
		11	Last midpoint trade price			
		29	Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation			
entryPrc	N	Traded p				
entryQty	Υ	Traded q	uantity.			
entryTime	N	Match tin	ne, in microseconds since midnight CET/CEST.			
tranMtchIdNo	N	Internal t	ransaction matching identifier, corresponds to the field in the			
		delta and snapshot message.				
actnCod	N		de, indicates what type of action should be performed in case of			
			price information.			
		4	Add (default)			
		5 6	Update			
			Delete (trade reversal)			

3. Xetra T7 (from 03/07/2017)

3.1. Reference data files

3.1.1. Product snapshot

File: PS_YYYYMMDD.csv (one file per day)

The product snapshot message sends the collapsed view of the market, market segment and product. One message per product is sent.

3.1.1.1. Product snapshot, T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)

Product Snapshot Message – Xetra T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)				
Field name	Optional	Description		
MsgType	N	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383. XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	N	Current business date, e.g. 20131128.		
NextEffectiveBusinessDate	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active 4 or 2 Published (2 since Release 6.1)		
PartitionID	N	Partition of the product.		
<pre><derivativesdescriptor> (optional) group starts, always empty {}</derivativesdescriptor></pre>				
<pre><derivativesdescriptor> (optional) group ends</derivativesdescriptor></pre>				
<underlyingdescriptor> (optional) group starts, always empty {}</underlyingdescriptor>				
<underlyingdescriptor> (optional) group ends</underlyingdescriptor>				
<pre><instrumentscopes> (optional) se</instrumentscopes></pre>	<pre><instrumentscopes> (optional) sequence starts, always empty []</instrumentscopes></pre>			
<pre><instrumentscopes> sequence er</instrumentscopes></pre>	nds			
<relatedmarketsegments> (option</relatedmarketsegments>	nal) sequer	ice starts, always empty []		
<relatedmarketsegments> seque</relatedmarketsegments>	ence ends			
<pre><basetradingrules> group starts</basetradingrules></pre>				
<tickrules> (optional) sequence s</tickrules>	starts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		
TickRuleID	Y	Table identifier, only for cash. Used in field RefTickTableID from the Instrument Snapshot message.		
TickRuleProductComplex	N	Defines the instrument type for the tick rule. 0 Simple Instrument		
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).		

Product Snapshot Message – Xetra T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)			
Field name	Optional	Description	
EndTickPriceRange	N	Ending price range for the specified tick increment (noninclusive).	
TickIncrement	N	Tick increment for stated price range. Specifies the valid price increments at which instrument of the product can be quoted and traded.	
<tickrules> sequence ends</tickrules>			
<pricerangerules> (optional) sec</pricerangerules>	uence start	S	
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier	
PriceRangeProductComplex	N	0 Simple Instrument	
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<pricerangerules> sequence end</pricerangerules>	ds		
QuoteSideIndicator	N	Defines if one sided quotes are allowed.	
		0 One-sided quote not allowed	
		1 One-sided quote allowed	
FastMarketPercentage	Y	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets (since T7 Release 6.0): 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
<pre><basetradingrules> group ends</basetradingrules></pre>			
<pre><basetradingrulesderivatives> (</basetradingrulesderivatives></pre>			
<basetradingrulesderivatives> (</basetradingrulesderivatives>		·	
<basetradingrulescash> (option</basetradingrulescash>		egins	
<auctiontyperulegrp> sequence</auctiontyperulegrp>	starts		
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0 Any Auction	
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0 No. Applicable for cash market products only.	
		1 Yes	
MarketImbalanceIndicator	N	Controls if during auction call/volatility interruption/extended volatility interruption/market	

Product Snapshot Message – Xetra T		T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)
Field name	Optional	Description
		order interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense when ClosedBookIndicator = Y.
		1 Yes. Applicable for cash market products only.
<pre><auctiontyperulegrp> sequence</auctiontyperulegrp></pre>	ends	Tes. Applicable for casiffinance: products offly.
<pre><basetradingrulescash> (option</basetradingrulescash></pre>		nds
<matchrules> sequence starts, u</matchrules>		
NoMatchRules	N	Number of match rules.
MatchRuleProductComplex	N	Indicates the instrument type.
, ,		0 Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.
		0 Price-time
		1 Pro-rata
		2 Time pro-rata
MatchType	Υ	If MatchType is not filled the same matching algorithm
J.		is used for continuous trading and auction trades.
		0 Auto Match (for continuous trading)
		1 Call Auction (for auction trades)
<matchrules> sequence ends</matchrules>		
<feeds> sequence starts</feeds>	1	
NoMDFeedTypes	N	Number of feeds.
MDFeedType	N	Type of feed.
		0 High Incremental (unnetted feed)
		1 High Snapshot (unnetted feed)
		2 Low (netted feed)
MDBookType	N	Type of book data.
		1 Price Depth
		2 Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no
		netting).
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).
PrimaryServiceLocationID	N	IP Address for Service A.
PrimaryServiceLocationSubID	N	Port number for IP address Service A.
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubl D	Y	Port number for IP address Service B.
<feeds> sequence ends</feeds>		

3.1.1.2. Product snapshot, T7 Release 7.0 (03/12/2018 – 24/05/2019)

napshot Me	ssage – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)		
Optional	Description		
N	Always BU = Market Definition.		
N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
N	Market Identifier Code as specified in ISO 10383.		
	XETR Xetra		
N	Product identifier, e.g. 89. Can also be a product pool id.		
N	Current business date, e.g. 20131128.		
N	Next business date.		
Ν	Product ISIN, e.g. DE0009653147.		
N	Defines if on-exchange trading on T7 is available for a product		
	(=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading.		
	0 Active		
	2 Published		
N	Partition of the product.		
r> (optional)	group starts, always empty {}		
r> (optional)	group ends		
r> (optional)	group starts, always empty {}		
	, , , , , , ,		
<instrumentscopes> (optional) sequence starts, always empty []</instrumentscopes>			
InstrumentScopes> sequence ends			
	nal) sequence starts, always empty []		
	,		
·			
•	tarts		
N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		
Υ	Table identifier, only for cash. Used in field RefTickTableID from the Instrument Snapshot message.		
N	Defines the instrument type for the tick rule.		
	0 Simple Instrument		
N	Starting price range for specified tick increment (inclusive).		
N	Ending price range for the specified tick increment (noninclusive).		
N	Tick increment for stated price range. Specifies the valid price increments at which instrument of the product can be quoted an traded.		
	N N N N N N N N N N N N N N N N N N N		

Product S	Snapshot Me	ssage – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional	Description		
<tickrules> sequence</tickrules>	ends			
<pricerangerules> (o</pricerangerules>	ptional) seq	uence starts		
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference,		
DricoDangoDuloID	N	Table identif	e Range Table Basics.	
PriceRangeRuleID				
PriceRangeProductC omplex	N	0	Simple Instrument	
StartPriceRange	N	Start of price	e range (inclusive).	
EndPriceRange	N	End of price	range (non-inclusive).	
PriceRangeValue	Υ		llowable quote spread (absolute value). Conditionally PriceRangePercentage is absent.	
PriceRangePercenta	Υ		llowable quote spread (percentage value).	
ge			y required if PriceRangeValue is absent.	
<pricerangerules> se</pricerangerules>	quence end	S		
QuoteSideIndicator	N	Defines if or	ne sided quotes are allowed.	
		0	One-sided quote not allowed	
		1	One-sided quote allowed	
QuoteSideModelTyp	N		single sided quote rejection leads to a double sided	
е		quote rejection or cancellation.		
			Single-sided quotes not supported Rejection of just	
			one quote side leads to rejection or cancellation of	
			both quote sides	
		1	Single-sided quotes supported Rejection may affect	
			only one quote side in a double sided quote	
FastMarketPercenta	Υ	Percentage by which range resulting from PriceRangeValue and		
ge			Percentage has to be extended to obtain the valid	
			during Fast Market (for all Releases) or Stressed	
			ditions in derivatives markets:	
			ge to normal range, e.g. 80->80	
			e by half, e.g. 80->120	
		_	to be doubled, e.g. 80->160 s are available in the T7 Functional Reference.	
<basetradingrules> g</basetradingrules>	roun ends	iviore details	s are available in the 17 Fullchorlai Reference.	
	•	ntional) group	p starts, always empty {}	
<basetradingrulesde< td=""><td></td><td></td><td></td></basetradingrulesde<>				
<basetradingrulesca< td=""><td></td><td></td><td>IIS</td></basetradingrulesca<>			IIS	
<auctiontyperulegrp< td=""><td></td><td></td><td></td></auctiontyperulegrp<>				
NoAuctionTypeRule s	N	Number of r	rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.		
		0 Any Auction		
ClosedBookIndicato	N	Indicates whether the order book is closed during auction tra		
r		· · · · · · · · · · · · · · · · · · ·	No. Applicable for cash market products only.	
			Yes	
MarketImbalanceIn	N	L	luring auction call/volatility interruption/extended	
dicator	IN	volatility interruption/market order interruption phase a surpl		
		volacinty interruption/market order interruption phase a surpit		

Product Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description		
	·	(side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense when ClosedBookIndicator = Y.		
		0 No		
		1 Yes. Applicable for cash market products only.		
<auctiontyperulegrp< td=""><td>> sequence</td><td>ends</td></auctiontyperulegrp<>	> sequence	ends		
<basetradingrulesca< td=""><td>sh> (optiona</td><td>ıl) group ends</td></basetradingrulesca<>	sh> (optiona	ıl) group ends		
<matchrules> sequer</matchrules>	ice starts, us	ed to convey allocation rules for matching		
NoMatchRules	Ν	Number of match rules.		
MatchRuleProductC	Ν	Indicates the instrument type.		
omplex		0 Simple Instrument		
MatchAlgorithm	Ν	Defines the order allocation method.		
		0 Price-time		
		1 Pro-rata		
		2 Time pro-rata		
MatchType	Υ	If MatchType is not filled the same matching algorithm is used for		
		continuous trading and auction trades.		
		0 Auto Match (for continuous trading)		
		1 Call Auction (for auction trades)		
<matchrules> sequence ends</matchrules>				
<feeds> sequence sta</feeds>	arts			
NoMDFeedTypes	N	Number of feeds.		
MDFeedType	N	Type of feed.		
		0 High Incremental (unnetted feed)		
		1 High Snapshot (unnetted feed)		
		2 Low (netted feed)		
MDBookType	N	Type of book data.		
		1 Price Depth		
		2 Order Depth		
MarketDepth	Υ	Maximum number of available price levels (order book depth) for the product.		
MarketDepthTimeIn terval	Y	Netting interval for low bandwidth feeds (0=no netting).		
MDRecoveryTimeInt	Υ	Recovery interval (duration of one cycle).		
erval				
PrimaryServiceLocat	N	IP Address for Service A.		
ionID				
PrimaryServiceLocat ionSubID	N	Port number for IP address Service A.		
SecondaryServiceLo cationID	Y	IP Address Service B.		
SecondaryServiceLo cationSubID	Y	Port number for IP address Service B.		
<feeds> sequence en</feeds>	ds			
1 ccas, sequence en	4J			

3.1.1.3. Product snapshot, T7 Release 7.1 (27/05/2019 – 15/11/2019)

Product Sna	pshot Messa	age – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)		
Field name	Optional	Description		
MsgType	N	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383. XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	N	Current business date, e.g. 20131128.		
NextEffectiveBusiness Date	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	N	Partition of the product.		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup starts, always empty {}		
<pre><derivativesdescriptor></derivativesdescriptor></pre>				
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts, always empty {}		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup ends		
<instrumentscopes> (op</instrumentscopes>	nstrumentScopes> (optional) sequence starts, always empty []			
<instrumentscopes> seq</instrumentscopes>	uence ends			
<relatedmarketsegment< td=""><td>s> (optional)</td><td>sequence starts, always empty []</td></relatedmarketsegment<>	s> (optional)	sequence starts, always empty []		
<relatedmarketsegment< td=""><td>s> sequence</td><td>e ends</td></relatedmarketsegment<>	s> sequence	e ends		
<basetradingrules> grou</basetradingrules>	up starts			
<tickrules> sequence sta</tickrules>	arts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules that belong to the same price step table alias tick rule table. A price step table may consist of one or more tick rules with the same TickRuleID. For cash market products for on book trading it is also used to reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.		
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).		

Product Sna	pshot Messa	age – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)		
Field name	Optional	Description		
EndTickPriceRange	N	Ending price range for the specified tick increment		
T: 11	N 1	(noninclusive).		
TickIncrement	N	Tick increment for stated price range. Specifies the valid price		
		increments at which quotes or trades for an instrument of the product can be entered.		
<tickrulesscopes> sequ</tickrulesscopes>	ence starts	product can be entered.		
NoTickRuleScopes	N	Number of tick rule scope definitions.		
Notickitalescopes	I V	Each combination of TickRuleProductComplex and TrdType		
		defines a valid scope for which this tick rule is used for.		
		Please note, that for cash market products a tick rule with a		
		TickRuleID may additionally be referenced by the same		
		RefTickTableID for on book trading as well (see Instrument		
		snapshot message).		
TickRuleProductCompl	N	Defines the instrument type for the tick rule.		
ex		0 Simple Instrument		
TrdType	N	Defines the (TES) trade type for this tick rule scope.		
		1 Block Trade / Large in Scale (LIS)		
		3 Exchange For Swap (EFS)		
		4 OTC		
		6 Vola Trade		
		7 EFP-Fin Trade		
		8 EFP-Index Futures Trade		
		9 Block Trade At Market		
		10 Xetra / Eurex Enlight triggered Trade		
<tickrulesscopes> sequ</tickrulesscopes>	ence ends	3 30		
<tickrules> sequence er</tickrules>	nds			
<pre><pricerangerules> sequ</pricerangerules></pre>	ence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference,		
		section Price Range Table Basics.		
PriceRangeRuleID	N	Table identifier.		
PriceRangeProductCo	N	0 Simple Instrument		
mplex				
StartPriceRange	N	Start of price range (inclusive).		
EndPriceRange	N	End of price range (non-inclusive).		
PriceRangeValue	Υ	Maximum allowable quote spread (absolute value).		
		Conditionally required if PriceRangePercentage is absent.		
PriceRangePercentage	Υ	Maximum allowable quote spread (percentage value).		
D. D. D.		Conditionally required if PriceRangeValue is absent.		
<pricerangerules> sequ</pricerangerules>	I			
QuoteSideIndicator	Y	Defines if one sided quotes are allowed.		
		0 One-sided quote not allowed		
		1 One-sided quote allowed		
QuoteSideModelType	Υ	Defines if a single sided quote rejection leads to a double sided		
		quote rejection or cancellation.		

Product Sna	pshot Messa	age – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description			
		O Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides			
		1 Single-sided quotes supported Rejection may affect only one quote side in a double sided quote			
FastMarketPercentage	Υ	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.			
<basetradingrules> grou</basetradingrules>					
·		onal) group starts, always empty {}			
<basetradingrulesderiva< td=""><td>atives> (opti</td><td>onal) group ends</td></basetradingrulesderiva<>	atives> (opti	onal) group ends			
<basetradingrulescash></basetradingrulescash>	· (optional) g	roup begins			
<auctiontyperulegrp> s</auctiontyperulegrp>	equence sta	rts			
NoAuctionTypeRules	N	Number of rules. Always 1.			
AuctionType	N	Defines the type of auction. Always 0.			
		0 Any Auction			
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.			
		0 No. Applicable for cash market products only.			
		1 Yes			
MarketImbalanceIndica tor	N	Controls if during auction call/volatility interruption/extended volatility interruption/market order interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense when ClosedBookIndicator = Y. O No 1 Yes. Applicable for cash market products only.			
<auctiontyperulegrp> s</auctiontyperulegrp>	equence end	ds			
<basetradingrulescash></basetradingrulescash>	optional) g	roup ends			
<matchrules> sequence</matchrules>	starts, used	to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.			
MatchRuleProductCom	N	Indicates the instrument type.			
plex		0 Simple Instrument			
MatchAlgorithm	N	Defines the order allocation method.			
		0 Price-time			
		1 Pro-rata			
		2 Time pro-rata			
MatchType	Υ	If MatchType is not filled the same matching algorithm is used for continuous trading and auction trades.			

Product Sna	pshot Messa	age – Xetr	ra T7 Release 7.1 (27/05/2019 – 15/11/2019)
Field name	Optional	Description	
		0	Auto Match (for continuous trading)
		1	Call Auction (for auction trades)
<matchrules> sequence</matchrules>	ends		
<feeds> sequence starts</feeds>			
NoMDFeedTypes	N	Numbe	r of feeds.
MDFeedType	Ν	Type of	feed.
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of	book data.
		1	Price Depth
		2	Order Depth
MarketDepth	Υ	Maximu	um number of available price levels (order book depth)
			product.
MarketDepthTimeInter val	Υ	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterv	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocatio nID	N	IP Address for Service A.	
PrimaryServiceLocatio nSubID	N	Port number for IP address Service A.	
SecondaryServiceLocat ionID	Y	IP Addr	ess Service B.
SecondaryServiceLocat ionSubID	Y	Port number for IP address Service B.	
<feeds> sequence ends</feeds>			

3.1.1.4. Product snapshot, T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)

Product Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)					
Field name	Optional		Description		
MsgType	N	Always BU	= Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.			
MarketID	N	Market Identifier Code as specified in ISO 10383.			
		XETR 2	Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.			
EffectiveBusinessDate	N	Current business date, e.g. 20131128.			
NextEffectiveBusiness Date	N	Next business date.			
MarketSegment	N	Product ISI	N, e.g. DE0009653147.		

Product Snapsh	ot Message	- Xetra T7 Releases 8.0 - 8.1 (18/11/2019 - 20/11/2020)		
Field name	Optional	Description		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	N	Partition of the product.		
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup starts, always empty {}		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup ends		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts, always empty {}		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup ends		
<instrumentscopes> (op</instrumentscopes>	tional) seque	ence starts, always empty []		
<instrumentscopes> seq</instrumentscopes>	uence ends			
<relatedmarketsegment< td=""><td>s> (optional</td><td>) sequence starts, always empty []</td></relatedmarketsegment<>	s> (optional) sequence starts, always empty []		
<relatedmarketsegment< td=""><td>s> sequence</td><td>e ends</td></relatedmarketsegment<>	s> sequence	e ends		
<basetradingrules> grou</basetradingrules>	up starts			
<tickrules> sequence sta</tickrules>	arts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules that belong to the same price step table alias tick rule table. A price step table may consist of one or more tick rules with the same TickRuleID. For cash market products for on book trading it is also used to reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.		
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).		
EndTickPriceRange	N	Ending price range for the specified tick increment (noninclusive).		
TickIncrement	N	Tick increment for stated price range. Specifies the valid price increments at which quotes or trades for an instrument of the product can be entered.		
<tickrulesscopes> (option</tickrulesscopes>	nal) sequen			

Product Snapsh	not Message	– Xetra T7	Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)
Field name	Optional	Description	
NoTickRuleScopes	N	Number of tick rule scope definitions. Each combination of TickRuleProductComplex and TrdType defines a valid scope for which this tick rule is used for. Please note, that for cash market products a tick rule with a TickRuleID may additionally be referenced by the same RefTickTableID for on book trading as well (see Instrument snapshot message).	
TickRuleProductCompl	N	Defines the instrument type for the tick rule.	
ex		0	Simple Instrument
TrdType	N	Defines the (TES) trade type for this tick rule scope.	
		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	OTC
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index Futures Trade
		9	Block Trade At Market
		10	Xetra / Eurex Enlight triggered Trade
		11	Block QTPIP (Qualified Third Party Information
			Provider) Trade (since 8.1)
<tickrulesscopes> sequ</tickrulesscopes>	ence ends		
<tickrules> sequence er</tickrules>	nds		
<pricerangerules> (option</pricerangerules>			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference,	
PriceRangeRuleID	N	section Price Range Table Basics. Table identifier.	
PriceRangeProductCo	N	0	Simple Instrument
mplex	11		Simple instrument
	N	Start of price range (inclusive).	
EndPriceRange	N	End of pr	ice range (non-inclusive).
PriceRangeValue	Υ		n allowable quote spread (absolute value).
		Condition	nally required if PriceRangePercentage is absent.
PriceRangePercentage	Υ		n allowable quote spread (percentage value).
D: D		Condition	nally required if PriceRangeValue is absent.
<pricerangerules> sequ</pricerangerules>	•		
QuoteSideIndicator	Y		f one sided quotes are allowed.
		0	One-sided quote not allowed
		1	One-sided quote allowed
QuoteSideModelType	Y		f a single sided quote rejection leads to a double sided
		quote rej 0	ection or cancellation.
			Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of
			both quote sides
		1	Single-sided quotes supported Rejection may affect
			only one quote side in a double sided quote

Product Snapsh	ot Message	– Xetra T7	Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)	
Field name	Optional	Description		
FastMarketPercentage	Y	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.		
<basetradingrules> grou</basetradingrules>	up ends			
<basetradingrulesderiva< td=""><td>atives> (opti</td><td>onal) group</td><td>o starts, always empty {}</td></basetradingrulesderiva<>	atives> (opti	onal) group	o starts, always empty {}	
<basetradingrulesderivation< td=""><td>atives> (opti</td><td>onal) group</td><td>o ends</td></basetradingrulesderivation<>	atives> (opti	onal) group	o ends	
<basetradingrulescash></basetradingrulescash>	optional) g	roup begir	ns	
<auctiontyperulegrp> s</auctiontyperulegrp>	equence sta	rts		
NoAuctionTypeRules	N	Number (of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.		
		0	Any Auction	
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.		
		0	No. Applicable for cash market products only.	
		1	Yes	
MarketImbalanceIndica tor	N	Controls if during auction call/volatility interruption/extended volatility interruption/market order interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only make sense when ClosedBookIndicator = Y.		
		1	117	
AuctionTypeRuleGrp> s	oguanco on	· ·	Yes. Applicable for cash market products only.	
<pre><basetradingrulescash></basetradingrulescash></pre>	•			
		•	allocation rules for matching	
NoMatchRules	N		of match rules.	
MatchRuleProductCom	N			
plex	IN	Indicates the instrument type.		
MatchAlgorithm	N.I.	0 Defines t	Simple Instrument he order allocation method.	
MatchAigorithin	N		Price-time	
		0		
		1	Pro-rata	
–	.,	2	Time pro-rata	
MatchType	Y	If MatchType is not filled the same matching algorithm is used for continuous trading and auction trades.		
		0	Auto Match (for continuous trading)	
		1	Call Auction (for auction trades)	
<match puloc=""> coguesco</match>	ands	<u> </u>	Can Auction (for auction trades)	
<matchrules> sequence</matchrules>				
<feeds> sequence starts</feeds>		Ni rook a c	of foods	
NoMDFeedTypes	N	Number	or reeas.	

Product Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Υ	Maximum number of available price levels (order book depth)	
		for the product.	
MarketDepthTimeInter	Υ	Netting interval for low bandwidth feeds (0=no netting).	
val			
MDRecoveryTimeInterv al	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocatio	N	IP Address for Service A.	
nID			
PrimaryServiceLocatio	N	Port number for IP address Service A.	
nSubID	.,		
SecondaryServiceLocat	Υ	IP Address Service B.	
ionID	.,		
SecondaryServiceLocat	Υ	Port number for IP address Service B.	
ionSubID			
<feeds> sequence ends</feeds>			

3.1.1.5. Product snapshot, T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)			
Field name	Optional	Description	
MsgType	N	Always BU = Market Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
MarketID	N	Market Identifier Code as specified in ISO 10383. XETR Xetra	
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.	
EffectiveBusinessDate	N	Current business date, e.g. 20131128.	
NextEffectiveBusiness Date	N	Next business date.	
MarketSegment	N	Product ISIN, e.g. DE0009653147.	
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product	

Field name	Optional			
Ticia Harric	Орионаі	Description		
		is setup on the current T7 platform for Off-book trading w		
			ion for on-exchange trading.	
		0	Active	
		2	Published	
PartitionID	N	Partition of the product.		
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup starts,	, always empty {}	
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup ends		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts,	always empty {}	
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup ends		
<lnstrumentscopes> (op</lnstrumentscopes>			, always empty []	
<pre><instrumentscopes> (op</instrumentscopes></pre>	•		, , , , , , , , , , , , , , , , , , , ,	
<relatedmarketsegment< td=""><td>•</td><td></td><td>starts, always empty []</td></relatedmarketsegment<>	•		starts, always empty []	
<relatedmarketsegment< p=""></relatedmarketsegment<>			Starter, arrays stripty []	
<related p="" segment<="" walket=""> <basetrdgrules> group</basetrdgrules></related>		. Crius		
<tickrules> sequence st</tickrules>	1	Ni vasta au afitial, un la adafinia a tha unia atau talala fauth a		
NoTickRules	N	Number of tick rules defining the price step table for t product. See T7 Functional Reference, section Limit Pr		
TickRuleID	N	•	o Table identifier. This is used to identify all tick rules	
TICKNUICID	IN	that belong to the same price step table alias tick rule table. A		
		price step table may consist of one or more tick rules with the		
		same TickRuleID.		
		For cash market products for on book trading it is also used reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.		
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).		
EndTickPriceRange	N	Ending price range for the specified tick increment		
T'		(noninclusive).		
TickIncrement	N	Tick increment for stated price range. Specifies the valid price		
			increments at which quotes or trades for an instrument of the	
<tickpulosscopes (ontic<="" td=""><td>anal) coguen</td><td colspan="2">product can be entered.</td></tickpulosscopes>	anal) coguen	product can be entered.		
<tickrulesscopes> (option</tickrulesscopes>			of tiel, well accord definitions	
NoTickRuleScopes	N		of tick rule scope definitions.	
		Each combination of TickRuleProductComplex and TrdType defines a valid scope for which this tick rule is used for.		
		Please note, that for cash market products a tick rule with a		
		TickRuleID may additionally be referenced by the same		
			ableID for on book trading as well (see Instrument	
			message).	
TickRuleProductCompl	N	Defines the instrument type for the tick rule.		
ex		0	Simple Instrument	
TrdType	N	Defines t	he (TES) trade type for this tick rule scope.	
<i>3</i> 1		1 Block Trade / Large in Scale (LIS)		
		3	Exchange For Swap (EFS)	

•		– Xetra T7	Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)	
Field name	Optional	Description		
		4	Portfolio Compression Trade	
		5	OTC	
		7	Vola Trade	
		8	EFP-Fin Trade	
		9	EFP-Index Futures Trade	
		10	Block Trade At Market	
		11	Xetra / Eurex Enlight triggered Trade	
		12	Block QTPIP (Qualified Third Party Information Provider) Trade	
<tickrulesscopes> seque</tickrulesscopes>	ence ends		,	
<tickrules> sequence er</tickrules>	nds			
<pricerangerules> (option</pricerangerules>	onal) sequer	ice starts		
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference,		
Drice Depare Dude ID	N.I		Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.		
PriceRangeProductCo mplex	N	0	Simple Instrument	
StartPriceRange	N	Start of price range (inclusive).		
EndPriceRange	N	End of price range (non-inclusive).		
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.		
PriceRangePercentage	Υ	Maximum allowable quote spread (percentage is absent.		
Thechanger erechage		Conditionally required if PriceRangeValue is absent.		
<pricerangerules> sequ</pricerangerules>	ence ends			
		f one sided quotes are allowed.		
(0	One-sided quote not allowed	
		1	One-sided quote allowed	
QuoteSideModelType	Υ	Defines if a single sided quote rejection leads to a double sided		
QuotesideModerrype	'	quote rejection or cancellation.		
		0	Single-sided quotes not supported Rejection of just	
			one quote side leads to rejection or cancellation of	
			both quote sides	
		1	Single-sided quotes supported Rejection may affect	
Footh Applicat Days and an	V	Davasanta	only one quote side in a double sided quote	
FastMarketPercentage	Y		ge by which range resulting from PriceRangeValue	
		and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or		
		Stressed Market Conditions in derivatives markets:		
		0 = no change to normal range, e.g. 80->80		
			50 = increase by half, e.g. 80->120	
			100 = range to be doubled, e.g. 80->160	
		More details are available in the T7 Functional Reference.		
<basetrdgrules> group</basetrdgrules>	ends			
<basetrdgrulesderivativ< td=""><td></td><td>al) group s</td><td>tarts, always empty {}</td></basetrdgrulesderivativ<>		al) group s	tarts, always empty {}	
<basetrdgrulesderivativ< p=""></basetrdgrulesderivativ<>	·		- · · · ·	

Product Snapsh	ot Message	– Xetra T7	Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)	
Field name	Optional		Description	
<basetrdgrulescash> (optional) group begins</basetrdgrulescash>				
<auctiontyperulegrp> s</auctiontyperulegrp>		. •		
NoAuctionTypeRules	N		of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.		
		0	Any Auction	
ClosedBookIndicator	N	Indicates	whether the order book is closed during auction	
		trading.	Ç	
		0	No. Applicable for cash market products only.	
		1	Yes	
MarketImbalanceIndica	N	Controls	if during auction call/volatility interruption/extended	
tor		volatility	interruption/market order interruption phase a	
			side and volume) at the indicative price (if crossed	
			ok) or the best bid/best ask limit and quantity (if	
			d order book) is displayed to the market. Only makes	
		sense wh	en ClosedBookIndicator = Y.	
		0	No	
		1	Yes. Applicable for cash market products only.	
<auctiontyperulegrp> s</auctiontyperulegrp>				
<basetrdgrulescash> (o</basetrdgrulescash>	ptional) grou	up ends		
•	starts, used		allocation rules for matching	
NoMatchRules	N	Number	of match rules.	
MatchRuleProductCom	Ν	Indicates	the instrument type.	
plex		0	Simple Instrument	
MatchAlgorithm	Ν	Defines t	he order allocation method.	
		0	Price-time	
		1	Pro-rata	
		2	Time pro-rata	
MatchType	Υ	If MatchT	ype is not filled the same matching algorithm is used	
		for contir	nuous trading and auction trades.	
		0	Auto Match (for continuous trading)	
		1	Call Auction (for auction trades)	
<matchrules> sequence</matchrules>	ends			
<feeds> sequence starts</feeds>				
NoMDFeedTypes	N	Number	of feeds.	
MDFeedType	N	Type of feed.		
		0	High Incremental (unnetted feed)	
		1	High Snapshot (unnetted feed)	
		2	Low (netted feed)	
MDBookType	N	Type of b	ook data.	
		1	Price Depth	
		2	Order Depth	
MarketDepth	Υ	Maximur	n number of available price levels (order book depth)	
		for the pi	•	

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)				
Field name	Optional Description			
MarketDepthTimeInter val	Υ	Netting interval for low bandwidth feeds (0=no netting).		
MDRecoveryTimeInterv al	Υ	Recovery interval (duration of one cycle).		
PrimaryServiceLocatio nID	N	IP Address for Service A.		
PrimaryServiceLocatio nSubID	N	Port number for IP address Service A.		
SecondaryServiceLocat ionID	Y	IP Address Service B.		
SecondaryServiceLocat ionSubID	Y	Port number for IP address Service B.		
<feeds> sequence ends</feeds>				

3.1.1.6. Product snapshot, T7 Release 10.0 (22/11/2021 – 24/06/2022)

Product Snap	shot Messa	ge – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)		
Field name	Optional	Description		
MsgType	N	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383.		
		XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	Ν	Current business date, e.g. 20131128.		
NextEffectiveBusiness Date	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	Ν	Partition of the product.		
NegotiationDuration	Υ	Contains the default and maximum duration of negotiation event in seconds.		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup starts, always empty {}		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup ends		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts, always empty {}		

Product Snap	shot Messa	ge – Xetra	T7 Release 10.0 (22/11/2021 – 24/06/2022)		
Field name	Optional				
<underlyingdescriptor> (</underlyingdescriptor>		,			
<pre><instrumentscopes> (opt</instrumentscopes></pre>			, always empty []		
<pre><instrumentscopes> (opt</instrumentscopes></pre>			7 7 13 112		
<relatedmarketsegments< td=""><td>•</td><td></td><td>starts, always empty []</td></relatedmarketsegments<>	•		starts, always empty []		
<relatedmarketsegments< td=""><td>•</td><td>•</td><td></td></relatedmarketsegments<>	•	•			
<basetrdgrules> group s</basetrdgrules>					
<tickrules> sequence sta</tickrules>					
NoTickRules	N	Number	of tick rules defining the price step table for the		
			See T7 Functional Reference, section Limit Price.		
TickRuleID	N	that below price step same Tick For cash reference	o Table identifier. This is used to identify all tick rules ing to the same price step table alias tick rule table. A table may consist of one or more tick rules with the kRuleID. market products for on book trading it is also used to the applicable tick rule table by RefTickTableID from tument Snapshot message.		
StartTickPriceRange	N	Starting p	price range for specified tick increment (inclusive).		
EndTickPriceRange	N	Ending price range for the specified tick increment (noninclusive).			
TickIncrement	N	Tick increment for stated price range. Specifies the valid price increments at which quotes or trades for an instrument of the product can be entered.			
<tickrulesscopes> (optio</tickrulesscopes>	nal) sequen	ice starts			
NoTickRuleScopes	N	Each com defines a Please no TickRulell RefTickTa	of tick rule scope definitions. Abination of TickRuleProductComplex and TrdType valid scope for which this tick rule is used for. Ote, that for cash market products a tick rule with a D may additionally be referenced by the same ableID for on book trading as well (see Instrument message).		
TickRuleProductCompl	N	Defines t	he instrument type for the tick rule.		
ex		0	Simple Instrument		
TrdType	N	Defines t	he (TES) trade type for this tick rule scope.		
		1	Block Trade / Large in Scale (LIS)		
		3	Exchange For Swap (EFS)		
		4	Portfolio Compression Trade		
		5	отс		
		7	Vola Trade		
		8	EFP-Fin Trade		
		9	EFP-Index Futures Trade		
		10	EFP-Index Futures Trade Block Trade At Market		

Product Snap	shot Messa	ge – Xetra	T7 Release 10.0 (22/11/2021 – 24/06/2022)
Field name	Optional		Description
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
<tickrulesscopes> seque</tickrulesscopes>	ence ends		
<tickrules> sequence en</tickrules>	ıds		
<pricerangerules> (option</pricerangerules>	onal) sequen	ice starts	
NoPriceRangeRules	N		of price range tables. See T7 Functional Reference, rice Range Table Basics.
PriceRangeRuleID	N	Table ide	ntifier.
PriceRangeProductCo mplex	N	0	Simple Instrument
StartPriceRange	N	Start of p	rice range (inclusive).
EndPriceRange	N	End of pr	ice range (non-inclusive).
PriceRangeValue	Υ		n allowable quote spread (absolute value). nally required if PriceRangePercentage is absent.
PriceRangePercentage	Υ		n allowable quote spread (percentage value). nally required if PriceRangeValue is absent.
<pricerangerules> seque</pricerangerules>	ence ends		
QuoteSideIndicator	Υ	Defines if	one sided quotes are allowed.
		0	One-sided quote not allowed
		1	One-sided quote allowed
QuoteSideModelType	Υ		a single sided quote rejection leads to a double sided ection or cancellation.
		0	Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides
		1	Single-sided quotes supported Rejection may affect only one quote side in a double sided quote
FastMarketPercentage	Y	and Price valid price Stressed 0 = no ch 50 = incre 100 = ran	ge by which range resulting from PriceRangeValue RangePercentage has to be extended to obtain the e range during Fast Market (for all Releases) or Market Conditions in derivatives markets: ange to normal range, e.g. 80->80 ease by half, e.g. 80->120 ge to be doubled, e.g. 80->160 ails are available in the T7 Functional Reference.
CheckMarketOrder	Υ	Always er	npty.
<basetrdgrules> group @</basetrdgrules>	ends		
<basetrdgrulesderivativ< td=""><td>es> (optiona</td><td>al) group st</td><td>arts, always empty {}</td></basetrdgrulesderivativ<>	es> (optiona	al) group st	arts, always empty {}
<basetrdgrulesderivativ< td=""><td>es> (optiona</td><td>al) group er</td><td>nds</td></basetrdgrulesderivativ<>	es> (optiona	al) group er	nds
<basetrdgrulescash> (o</basetrdgrulescash>	ptional) grou	up begins	
<auctiontyperulegrp> sequence starts</auctiontyperulegrp>			
<auctiontyperulegrp> s</auctiontyperulegrp>	equence sta	1 (3	
<auctiontyperulegrp> s NoAuctionTypeRules</auctiontyperulegrp>	N		of rules. Always 1.

Product Snag	shot Messa	ge – Xetra	T7 Release 10.0 (22/11/2021 – 24/06/2022)		
Field name	Optional		Description		
	•	0	Any Auction		
ClosedBookIndicator	N	Indicates	whether the order book is closed during auction		
		trading.			
		0	No. Applicable for cash market products only.		
		1	Yes		
MarketImbalanceIndica tor	N	volatility surplus (s order bo- uncrosse	if during auction call/volatility interruption/extended interruption/market order interruption phase a side and volume) at the indicative price (if crossed ok) or the best bid/best ask limit and quantity (if ed order book) is displayed to the market. Only makes nen ClosedBookIndicator = Y.		
		1	Yes. Applicable for cash market products only.		
<auctiontyperulegrp> s</auctiontyperulegrp>	equence en	ds			
<basetrdgrulescash> (o</basetrdgrulescash>	ptional) grou	up ends			
<matchrules> sequence</matchrules>	starts, used	to convey	allocation rules for matching		
NoMatchRules	Ν	Number	of match rules.		
MatchRuleProductCom	Ν	Indicates	the instrument type.		
plex		0	Simple Instrument		
MatchAlgorithm	Ν	Defines t	he order allocation method.		
		0	Price-time		
		1	Pro-rata		
		2	Time pro-rata		
MatchType	Υ		If MatchType is not filled the same matching algorithm is used		
			nuous trading and auction trades.		
		0	Auto Match (for continuous trading)		
«Match Duloc», cocuonac	anda	1	Call Auction (for auction trades)		
<matchrules> sequence</matchrules>					
<pre><feeds> sequence starts</feeds></pre>	N	Number	of foods		
NoMDFeedTypes MDFeedType	N	Number of feeds. Type of feed.			
MDreedType	IN	0	High Incremental (unnetted feed)		
		1	High Snapshot (unnetted feed)		
		2	Low (netted feed)		
MDBookType	N		pook data.		
MIDDOOKType	IN	1 1	Price Depth		
		2	Order Depth		
MarketDepth	Υ		n number of available price levels (order book depth)		
магкесьерит	'	for the pi	•		
MarketDepthTimeInter	Y		nterval for low bandwidth feeds (0=no netting).		
val	V	Darri	internal (direction of a second		
MDRecoveryTimeInterv al	Υ	Kecovery	interval (duration of one cycle).		
PrimaryServiceLocatio nID	N	IP Addres	ss for Service A.		

Product Snapshot Message – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)				
Field name	Optional	Description		
PrimaryServiceLocatio nSubID	N	Port number for IP address Service A.		
SecondaryServiceLocat ionID	Y	IP Address Service B.		
SecondaryServiceLocat ionSubID	Y	Port number for IP address Service B.		
<feeds> sequence ends</feeds>				

3.1.1.7. Product snapshot, T7 Release 10.1 (27/06/2022 – 18/11/2022)

Product Snap	shot Messa	ge – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)		
Field name	Optional	Description		
MsgType	N	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383.		
		XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	Ν	Current business date, e.g. 20131128.		
NextEffectiveBusinessD ate	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	Ν	Partition of the product.		
NegotiationDuration	Υ	Contains the default and maximum duration of negotiation event in seconds.		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup starts, always empty {}		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup ends		
	•	oup starts, always empty {}		
<underlyingdescriptor> (optional) group ends</underlyingdescriptor>				
<pre><instrumentscopes> (optional) sequence starts, always empty []</instrumentscopes></pre>				
<instrumentscopes> (opt</instrumentscopes>	•			
<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>				
<relatedmarketsegments> sequence ends</relatedmarketsegments>				
<basetrdgrules> group starts</basetrdgrules>				

Product Snap	shot Messa	ge – Xetra	T7 Release 10.1 (27/06/2022 – 18/11/2022)
Field name	Optional		Description
<tickrules> sequence sta</tickrules>	irts		
NoTickRules	N		of tick rules defining the price step table for the See T7 Functional Reference, section Limit Price.
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules that belong to the same price step table alias tick rule table. A price step table may consist of one or more tick rules with the same TickRuleID. For cash market products for on book trading it is also used to reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.	
StartTickPriceRange	N	Starting	price range for specified tick increment (inclusive).
EndTickPriceRange	N		rice range for the specified tick increment
TickIncrement	N	Tick increment for stated price range. Specifies the valid price increments at which quotes or trades for an instrument of the product can be entered.	
<tickrulesscopes> (optio</tickrulesscopes>	nal) sequen	ce starts	
NoTickRuleScopes	N	Each con defines a Please n TickRule RefTickT	of tick rule scope definitions. nbination of TickRuleProductComplex and TrdType a valid scope for which this tick rule is used for. ote, that for cash market products a tick rule with a ID may additionally be referenced by the same ableID for on book trading as well (see Instrument t message).
TickRuleProductComple	N	Defines t	the instrument type for the tick rule.
X		0	Simple Instrument
TrdType	N	Defines t	the (TES) trade type for this tick rule scope.
		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	Portfolio Compression Trade
		5	OTC
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index Futures Trade
		10	Block Trade At Market
		11	Xetra / Eurex Enlight triggered Trade
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
<tickrulesscopes> seque</tickrulesscopes>	ence ends		
<tickrules> sequence en</tickrules>	ds		
<pricerangerules> (option</pricerangerules>	nal) sequen	ce starts	
NoPriceRangeRules	N		of price range tables. See T7 Functional Reference, Price Range Table Basics.

Product Snap	shot Messa	ge – Xetra	T7 Release 10.1 (27/06/2022 – 18/11/2022)
Field name	Optional		Description
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductCom plex	N	0	Simple Instrument
StartPriceRange	N	Start of p	rice range (inclusive).
EndPriceRange	N	End of pr	ice range (non-inclusive).
PriceRangeValue	Y		n allowable quote spread (absolute value). nally required if PriceRangePercentage is absent.
PriceRangePercentage	Υ		n allowable quote spread (percentage value). nally required if PriceRangeValue is absent.
<pricerangerules> seque</pricerangerules>	ence ends		
QuoteSideIndicator	Υ	Defines if	fone sided quotes are allowed.
		0	One-sided quote not allowed
		1	One-sided quote allowed
QuoteSideModelType	Υ		f a single sided quote rejection leads to a double sided ection or cancellation.
		0	Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides
		1	Single-sided quotes supported Rejection may affect only one quote side in a double sided quote
FastMarketPercentage	Y	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Υ	Always er	mpty.
<basetrdgrules> group 6</basetrdgrules>	ends		
<basetrdgrulesderivativ< td=""><td>es> (optiona</td><td>ıl) group st</td><td>arts, always empty {}</td></basetrdgrulesderivativ<>	es> (optiona	ıl) group st	arts, always empty {}
<basetrdgrulesderivativ< td=""><td>es> (optiona</td><td>ıl) group eı</td><td>nds</td></basetrdgrulesderivativ<>	es> (optiona	ıl) group eı	nds
<basetrdgrulescash> (o)</basetrdgrulescash>	otional) grou	ıp begins	
<auctiontyperulegrp> se</auctiontyperulegrp>	equence sta	rts	
NoAuctionTypeRules	N	Number	of rules. Always 1.
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auctio trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketlmbalanceIndicat or	N		if during auction call/volatility interruption/extended interruption/market order interruption phase a

Product Snap	shot Messa	ge – Xetra	T7 Release 10.1 (27/06/2022 – 18/11/2022)	
Field name	Optional	Description		
	- p	surplus (side and volume) at the indicative price (if crosse		
		•	ok) or the best bid/best ask limit and quantity (if	
		uncrossed order book) is displayed to the market. Only ma		
		sense wh	en ClosedBookIndicator = Y.	
		0	No	
		1	Yes. Applicable for cash market products only.	
<auctiontyperulegrp> se</auctiontyperulegrp>	equence enc	ls		
DisableOnBookTrading	Υ	Defines if	On Book trading is disabled.	
		0	No	
		1	Yes	
<basetrdgrulescash> (or</basetrdgrulescash>	otional) grou	ıp ends		
<matchrules> sequence s</matchrules>	starts, used	to convey a	allocation rules for matching	
NoMatchRules	N	Number o	of match rules.	
MatchRuleProductCom	N	Indicates	the instrument type.	
plex		0	Simple Instrument	
MatchAlgorithm	N	Defines th	ne order allocation method.	
o o		0	Price-time	
		1	Pro-rata	
		2	Time pro-rata	
MatchType	Υ		ype is not filled the same matching algorithm is used	
Materrype	•	for continuous trading and auction trades.		
		0	Auto Match (for continuous trading)	
		1	Call Auction (for auction trades)	
<matchrules> sequence @</matchrules>	ends	·	- Call Flaction (16) duction addesy	
<feeds> sequence starts</feeds>				
NoMDFeedTypes	N	Number o	of feeds.	
MDFeedType	N	Type of fe		
Wibi cearype	14	0	High Incremental (unnetted feed)	
		1	High Snapshot (unnetted feed)	
		2	Low (netted feed)	
MDDaaltina	N.I.		1 ,	
MDBookType	N	Type of b		
		1	Price Depth	
		2	Order Depth	
MarketDepth	Υ	Maximum for the pr	n number of available price levels (order book depth) oduct.	
MarketDepthTimeInterv al	Υ	Netting in	iterval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterv	Υ	Recovery	interval (duration of one cycle).	
PrimaryServiceLocationI D	N	IP Addres	s for Service A.	
PrimaryServiceLocation SubID	N	Port num	ber for IP address Service A.	
SecondaryServiceLocati onID	Υ	IP Addres	s Service B.	

Product Snap	Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)				
Field name	Optional	Description			
SecondaryServiceLocati onSubID					
<feeds> sequence ends</feeds>					

3.1.1.8. Product snapshot, T7 Releases 11.0 - 11.1 (21/11/2022 - 17/11/2023)

Product Snapsho	t Message –	Xetra T7 Releases 11.0 - 11.1 (21/11/2022 - 17/11/2023)		
Field name	Optional	Description		
MsgType	Ν	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383.		
		XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	N	Current business date, e.g. 20131128.		
NextEffectiveBusinessD ate	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	N	Partition of the product.		
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup starts, always empty {}		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup ends		
<underlyingdescriptor> (</underlyingdescriptor>	optional) gr	oup starts, always empty {}		
<underlyingdescriptor> (</underlyingdescriptor>	optional) gr	oup ends		
<pre><instrumentscopes> (opt</instrumentscopes></pre>	ional) seque	ence starts, always empty []		
<pre><instrumentscopes> (opt</instrumentscopes></pre>	<instrumentscopes> (optional) sequence ends</instrumentscopes>			
<relatedmarketsegments< td=""><td colspan="4"><relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments></td></relatedmarketsegments<>	<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>			
<relatedmarketsegments< td=""><td colspan="4"><relatedmarketsegments> sequence ends</relatedmarketsegments></td></relatedmarketsegments<>	<relatedmarketsegments> sequence ends</relatedmarketsegments>			
<basetrdgrules> group s</basetrdgrules>	<basetrdgrules> group starts</basetrdgrules>			
<tickrules> sequence sta</tickrules>	ırts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		

Product Snapsho	t Message –	Xetra T7 F	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)
Field name	Optional	Description	
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules that belong to the same price step table alias tick rule table. A price step table may consist of one or more tick rules with the same TickRuleID. For cash market products for on book trading it is also used to reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.	
StartTickPriceRange	N	Starting p	price range for specified tick increment (inclusive).
EndTickPriceRange	N	Ending pr	rice range for the specified tick increment isive).
TickIncrement	N	incremen	ement for stated price range. Specifies the valid price at which quotes or trades for an instrument of the can be entered.
<tickrulesscopes> (optio</tickrulesscopes>	nal) sequen	ce starts	
NoTickRuleScopes	N	Number of tick rule scope definitions. Each combination of TickRuleProductComplex and TrdType defines a valid scope for which this tick rule is used for. Please note, that for cash market products a tick rule with a TickRuleID may additionally be referenced by the same RefTickTableID for on book trading as well (see Instrument snapshot message).	
TickRuleProductComple	N	Defines t	he instrument type for the tick rule.
X		0	Simple Instrument
TrdType	N	Defines the (TES) trade type for this tick rule scope.	
, , , , , , , , , , , , , , , , , , ,		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	Portfolio Compression Trade
		5	ОТС
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index Futures Trade
		10	Block Trade At Market
		11	Xetra / Eurex Enlight triggered Trade
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
<tickrulesscopes> seque</tickrulesscopes>	nce ends		
<tickrules> sequence en</tickrules>			
<pricerangerules> (option</pricerangerules>		ce starts	
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table ide	
PriceRangeProductCom plex	N	0	Simple Instrument

Product Snapsho	t Message –	Xetra T7 R	eleases 11.0 – 11.1 (21/11/2022 – 17/11/2023)	
Field name	Optional		Description	
StartPriceRange	N	Start of price range (inclusive).		
EndPriceRange	N	End of price range (non-inclusive).		
PriceRangeValue	Y		n allowable quote spread (absolute value).	
Tricendinge value			ally required if PriceRangePercentage is absent.	
PriceRangePercentage	Υ		n allowable quote spread (percentage value).	
			ally required if PriceRangeValue is absent.	
<pricerangerules> seque</pricerangerules>	ence ends			
QuoteSideIndicator	Υ	Defines if	one sided quotes are allowed.	
		0	One-sided quote not allowed	
		1	One-sided quote allowed	
QuoteSideModelType	Υ	Defines if	a single sided quote rejection leads to a double sided	
			ection or cancellation.	
		0	Single-sided quotes not supported Rejection of just	
			one quote side leads to rejection or cancellation of	
			both quote sides	
		1	Single-sided quotes supported Rejection may affect	
Fact Mandard Davis and and		D	only one quote side in a double sided quote	
FastMarketPercentage	Υ	_	ge by which range resulting from PriceRangeValue and	
		_	gePercentage has to be extended to obtain the valid ge during Fast Market (for all Releases) or Stressed	
			onditions in derivatives markets:	
		0 = no change to normal range, e.g. 80->80		
			ase by half, e.g. 80->120	
			ge to be doubled, e.g. 80->160	
		More deta	ails are available in the T7 Functional Reference.	
CheckMarketOrder	Υ	Always en	npty.	
<hhiintervals> (optional)</hhiintervals>	<hhiintervals> (optional) sequence starts</hhiintervals>			
NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.		
HHIIndicator	N	The HHIIn	iterval value.	
HHIIntervalEnd	N	The HHIIn	nterval upper boundary (incl.), e.g. HHIIndicator = 1 for	
		_	ervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ;	
		HHIIntervalEnd _n], for $n > 1$.		
<hhiintervals> (optional)</hhiintervals>	•	nds		
<basetrdgrules> group 6</basetrdgrules>				
<basetrdgrulesderivativ< td=""><td></td><td></td><td></td></basetrdgrulesderivativ<>				
<basetrdgrulesderivativ< td=""><td>•</td><td>· · · ·</td><td>nds</td></basetrdgrulesderivativ<>	•	· · · ·	nds	
<basetrdgrulescash> (o)</basetrdgrulescash>		<u> </u>		
<auctiontyperulegrp> se</auctiontyperulegrp>	•			
NoAuctionTypeRules	N		of rules. Always 1.	
AuctionType	N		ne type of auction. Always 0.	
		0	Any Auction	
ClosedBookIndicator	N		whether the order book is closed during auction	
		trading.		
		0	No. Applicable for cash market products only.	
		1	Yes	

Product Snapsho	t Message –	Xetra T7 F	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)
Field name	Optional		Description
MarketlmbalanceIndicat or	N	Controls if during auction call/volatility interruption/extend-volatility interruption/market order interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only malesense when ClosedBookIndicator = Y.	
		0	No
<auctiontyperulegrp> se</auctiontyperulegrp>	nationed one	1	Yes. Applicable for cash market products only.
DisableOnBookTrading	Y		f On Book trading is disabled.
DisableOfibookfrading		0	No
		1	Yes
<pre><basetrdgrulescash> (or</basetrdgrulescash></pre>	ntional) grou		165
		•	allocation rules for matching
NoMatchRules	N		of match rules.
MatchRuleProductCom	N		the instrument type.
plex		0	Simple Instrument
MatchAlgorithm	N	Defines t	he order allocation method.
Ü		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Υ	If MatchT	ype is not filled the same matching algorithm is used
		for contir	nuous trading and auction trades.
		0	Auto Match (for continuous trading)
		1	Call Auction (for auction trades)
<matchrules> sequence</matchrules>	ends		
<feeds> sequence starts</feeds>			
NoMDFeedTypes	N	Number	
MDFeedType	N	Type of fe	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of b	ook data.
		1	Price Depth
		2	Order Depth
MarketDepth	Υ	Maximun for the pr	n number of available price levels (order book depth) roduct.
MarketDepthTimeInterv al	Υ	Netting ir	nterval for low bandwidth feeds (0=no netting).
MDRecoveryTimeInterv al	Υ	Recovery interval (duration of one cycle).	
PrimaryServiceLocationI D	N	IP Address for Service A.	
PrimaryServiceLocation SubID	N	Port num	ber for IP address Service A.

Product Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)				
Field name	Optional	Description		
SecondaryServiceLocati onID	Υ	IP Address Service B.		
SecondaryServiceLocati onSubID	Υ	Port number for IP address Service B.		
<feeds> sequence ends</feeds>				

3.1.1.9. Product snapshot, T7 Release 12.0 (20/11/2023 – 10/05/2024)

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)					
Field name	Optional	Description			
MsgType	N	Always BU = Market Definition.			
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.			
MarketID	Ν	Market Identifier Code as specified in ISO 10383.			
		XETR Xetra			
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.			
EffectiveBusinessDate	Ν	Current business date, e.g. 20131128.			
NextEffectiveBusinessD ate	N	Next business date.			
MarketSegment	N	Product ISIN, e.g. DE0009653147.			
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published			
PartitionID	N	Partition of the product.			
CapacityGroupID	N	Capacity group identifier of the product.			
NegotiationDuration	Υ	Contains the default and maximum duration of negotiation event in seconds.			
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gro	oup starts, always empty {}			
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>		·			
, , ,		oup starts, always empty {}			
	<underlyingdescriptor> (optional) group ends</underlyingdescriptor>				
<pre><instrumentscopes> (optional) sequence starts, always empty []</instrumentscopes></pre>					
<pre><instrumentscopes> (optional) sequence ends</instrumentscopes></pre>					
<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>					
<relatedmarketsegments> sequence ends</relatedmarketsegments>					
<basetrdgrules> group s</basetrdgrules>					
<tickrules> sequence sta</tickrules>	< lickRules > sequence starts				

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description		
NoTickRules	N	product.	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.	
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules that belong to the same price step table alias tick rule table. A price step table may consist of one or more tick rules with the same TickRuleID. For cash market products for on book trading it is also used to reference the applicable tick rule table by RefTickTableID from any Instrument Snapshot message.		
StartTickPriceRange	N	Starting	price range for specified tick increment (inclusive).	
EndTickPriceRange	N	Ending p (noninclu	rice range for the specified tick increment usive).	
TickIncrement	N	incremer	ement for stated price range. Specifies the valid price nts at which quotes or trades for an instrument of the can be entered.	
<tickrulesscopes> (optio</tickrulesscopes>	nal) sequen	ce starts		
NoTickRuleScopes	N	Number of tick rule scope definitions. Each combination of TickRuleProductComplex and TrdType defines a valid scope for which this tick rule is used for. Please note, that for cash market products a tick rule with a TickRuleID may additionally be referenced by the same RefTickTableID for on book trading as well (see Instrument snapshot message).		
TickRuleProductComple	N	Defines the instrument type for the tick rule.		
x		0	Simple Instrument	
TrdType	N	Defines t	the (TES) trade type for this tick rule scope.	
		1	Block Trade / Large in Scale (LIS)	
		3	Exchange For Swap (EFS)	
		4	Portfolio Compression Trade	
		5	ОТС	
		7	Vola Trade	
		8	EFP-Fin Trade	
		9	EFP-Index Futures Trade	
		10	Block Trade At Market	
		11	Xetra / Eurex Enlight triggered Trade	
		12	Block QTPIP (Qualified Third Party Information Provider) Trade	
<tickrulesscopes> seque</tickrulesscopes>	nce ends			
<tickrules> sequence en</tickrules>	ds			
<pricerangerules> (option</pricerangerules>	nal) sequen	ce starts		
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.		
PriceRangeRuleID	N	Table identifier.		

Field name	Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
PriceRangeProductCom plex StartPriceRange N Start of price range (inclusive). EndPriceRange N End of price range (inclusive). EndPriceRangeValue Y Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent. PriceRangePercentage Y Maximum allowable quote spread (percentage value). Conditionally required if PriceRangePercentage value). Conditionally required if PriceRangeValue is absent. PriceRangeRules> sequence ends QuoteSideIndicator Y Defines if one sided quotes are allowed. QuoteSideModelType Y Defines if one sided quote allowed QuoteSideModelType Y Defines if one sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if one sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if one sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if one sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Single-sided quote supported Rejection of just one quote side leads to rejection or cancellation one quote side leads to rejection or cancellation one quote side leads to rejection or cancellation one one cancellation one quote side leads to rejection or cancellation one quote side leads to rejection or cancellation one one cancellation one one supported Rejection may affect only one quote side in a double sided quote rejection or cancellation one one cancellation one one supported Rejection one one cancellation one one supported Rejection of just one quote side leads to rejection or cancellation one one cancellation one one cancellation one one cancellation one one supported Rejection one one cancellation Arket Conditional one one cancellation one cancellation one cancellation. All thintervals (price are	·				
Define N Start of price range (inclusive).	PriceRangeProductCom	•	,		
End PriceRange N End of price range (non-inclusive). PriceRangeValue Y Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent. PriceRangePercentage Y Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent. PriceRangeRules> sequence ends Defines if one sided quotes are allowed. QuoteSideModelType Y Defines if a single sided quote allowed. QuoteSideModelType Y Defines if a single sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if a single sided quote supported Rejection of just one quote side leads to rejection or cancellation of both quote sides. 1 Single-sided quotes supported Rejection may affect only one quote side leads to rejection or cancellation of both quote sides. FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRangeVercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets:					
PriceRangeValue Y Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent. PriceRangePercentage Y Maximum allowable quote spread (percentage value). Conditionally required if PriceRangePercentage value). Conditionally required if PriceRangePercentage value). PriceRangeRules> sequence ends QuoteSideIndicator Y Defines if one sided quotes are allowed. QuoteSideModelType Y Defines if a single sided quote not allowed Quote side quote allowed Quote rejection or cancellation. QuoteSideModelType Y Defines if a single sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if a single sided quote rejection or cancellation of both quote side leads to rejection or cancellation of both quote side leads to rejection or cancellation of both quote sides Single-sided quotes supported Rejection may affect only one quote side in a double sided quote FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: QuoteSideModelType Y Percentage Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: QuoteSideModelType Y Always empty. QuoteSideModelType Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: QuoteSideModelType Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: QuoteSideModelType Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: QuoteSideModelType Percentage has to be extended to obtain the valid price range during Fast M	StartPriceRange	Ν	Start of price range (inclusive).		
Conditionally required if PriceRangePercentage is absent.	EndPriceRange	N	End of price range (non-inclusive).		
PriceRangePercentage	PriceRangeValue	Υ	Maximum allowable quote spread (absolute value).		
Conditionally required if PriceRangeValue is absent.					
Percentage Per	PriceRangePercentage	Υ			
QuoteSideIndicator Y Defines if one-sided quotes are allowed. QuoteSideModelType Y Defines if a single sided quote not allowed. QuoteSideModelType Y Defines if a single sided quote rejection leads to a double sided quote rejection or cancellation. Quote SideModelType Y Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides. I Single-sided quotes supported Rejection may affect only one quote side in a double sided quote. FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRange Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be double			Conditionally required if PriceRangeValue is absent.		
One-sided quote not allowed			Define if any side develope any allowed		
QuoteSideModelType Y Defines if a single sided quote rejection leads to a double sided quote rejection or cancellation. QuoteSideModelType Y Defines if a single sided quote rejection reduction or cancellation. 0 Single-sided quotes not supported Rejection or fjust one quote side leads to rejection or cancellation of both quote sides 1 Single-sided quotes supported Rejection may affect only one quote side in a double sided quote FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRange-Percentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hhiintervals> (optional) sequence starts NoHHIIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HHIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1); HIIntervalEnd_(n-1);</hhiintervals>	QuoteSideIndicator	Y	· · · · · · · · · · · · · · · · · · ·		
QuoteSideModelType Y a Defines if a single sided quote rejection leads to a double sided quote rejection or cancellation. 0 single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides. FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRange during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hillintervals> (optional) sequence starts NoHHlIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEndi-], HHIIndicator = n for (HHIIntervalEndi-); HHIIntervalEndi-], HIIndicator = n for (HHIIntervalEndi-); HHIIntervalEndi-], for n > 1. < BaseTrdgRules> group ends < BaseTrdgRulesDerivatives> (optional) group begins < BaseTrdgRulesCash> (optional) group begins < AuctionTypeRuleGrp> sequence starts NoAuctionTypeRuleGrp> sequence starts NoauctionTypeRuleGrp> sequence starts NoauctionTypeRuleGrp> sequence starts NoauctionTypeRuleGrp> sequence starts</hillintervals>			·		
Quote rejection or cancellation. O Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides					
O Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote side leads to rejection or cancellation of both quote sides Single-sided quotes supported Rejection may affect only one quote side in a double sided quote	QuoteSideModelType	Y	, , ,		
one quote side leads to rejection or cancellation of both quote sides Total quote side leads to rejection or cancellation of both quote sides			· · · · · · · · · · · · · · · · · · ·		
Both quote sides					
Single-sided quotes supported Rejection may affect only one quote side in a double sided quote			•		
FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80-80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hr/>					
FastMarketPercentage Y Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hhiintervals> (optional) sequence starts NOHHIIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIndicator N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for (0; HHIIntervalEnd₁), HHIIndicator = n for (HHIIntervalEnd_(n-1); HHIIntervalEnd_n), for n > 1. <hhiintervals> (optional) sequence ends SaseTrdgRules> group ends SaseTrdgRulesDerivative>> (optional) group starts, always empty {} SaseTrdgRulesCash> (optional) group begins AuctionTypeRuleGrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionTypeRules N Defines the type of auction. Always 0.</hhiintervals></hhiintervals>			1		
price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hhiintervals> (optional) sequence stats NoHHIIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIndicator N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd₁], HHIIndicator = n for (HHIIntervalEnd_(n-1); HHIIntervalEnd_n], for n > 1. <hhiintervals> (optional) sequence etaseaserIrdgRules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></hhiintervals></hhiintervals>	FastMarketPercentage	Υ			
Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder Y Always empty. <hhiintervals> (optional) sequence starts NoHHIIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIndicator N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd₁], HHIIndicator = n for (HHIIntervalEnd_(n-1); HHIIntervalEnd_n], for n > 1. <hhiintervals> (optional) sequence embs <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionType Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals></hhiintervals>			PriceRangePercentage has to be extended to obtain the valid		
0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder			1.		
So = increase by half, e.g. 80->120					
100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference. CheckMarketOrder					
CheckMarketOrder Y Always empty. Y Always empty. <hhiintervals> (optional) sequence states N Number of Herfindahl-Hirschman Index (HHI) intervals. NHHIIntervals N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd₁], HHIIndicator = n for (HHIIntervalEnd_(n-1); HHIIntervalEnd_n], for n > 1. <hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group begins <auctiontyperulegrp> sequence states NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals></hhiintervals>			I = = = = = = = = = = = = = = = = = = =		
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<td></td><td></td><td> More details are available in the 17 Functional Reference.</td></a<>			More details are available in the 17 Functional Reference.		
<td></td><td></td><td></td></a<>					
<td></td><td></td><td></td></a<>					
NoHHIIntervals N Number of Herfindahl-Hirschman Index (HHI) intervals. HHIIndicator N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ; HHIIntervalEnd _n], for n > 1. <hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals>	CheckMarketOrder	Υ	Always empty.		
HHIIndicator N The HHIInterval value. HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ; HHIIntervalEnd _n], for n > 1. <hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals>	<hhiintervals> (optional)</hhiintervals>	sequence st	tarts		
HHIIntervalEnd N The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ; HHIIntervalEnd _n], for n > 1. <hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals>	NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.		
[0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ; HHIIntervalS> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules>	HHIIndicator	N	The HHIInterval value.		
HHIIntervalEnd _n], for n > 1. <hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals>	HHIIntervalEnd	Ν	The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for		
<hhiintervals> (optional) sequence ends <basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules></hhiintervals>			[0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ;		
<basetrdgrules> group ends <basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives></basetrdgrules>					
<basetrdgrulesderivatives> (optional) group starts, always empty {} <basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives></basetrdgrulesderivatives>	•		nds		
<basetrdgrulesderivatives> (optional) group ends <basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash></basetrdgrulesderivatives>					
<basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.</auctiontyperulegrp></basetrdgrulescash>					
<auctiontyperulegrp> sequence starts</auctiontyperulegrp> NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.					
NoAuctionTypeRules N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0.					
AuctionType N Defines the type of auction. Always 0.	<auctiontyperulegrp> se</auctiontyperulegrp>	equence star	rts		
	NoAuctionTypeRules	N	-		
0 Any Auction	AuctionType	Ν	Defines the type of auction. Always 0.		
			0 Any Auction		

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional		Description	
ClosedBookIndicator	N	Indicates w trading.	whether the order book is closed during auction	
		0	No. Applicable for cash market products only.	
		1	Yes	
MarketImbalanceIndicat	N	Controls if	during auction call/volatility interruption/extended	
or		_	terruption/market order interruption phase a	
			de and volume) at the indicative price (if crossed	
			() or the best bid/best ask limit and quantity (if	
			order book) is displayed to the market. Only makes n ClosedBookIndicator = Y.	
		-	No	
			Yes. Applicable for cash market products only.	
AuctionTypeRuleGrp> se	anianca anc		res. Applicable for cash market products only.	
DisableOnBookTrading	Y	ı	On Book trading is disabled.	
Disable Officer I duling	'		No	
			Yes	
<bacatrdapulaccach> (or</bacatrdapulaccach>	ntional) grou		165	
<pre><basetrdgrulescash> (optional) group ends </basetrdgrulescash></pre> <pre><matchrules> sequence starts, used to convey allocation rules for matching</matchrules></pre>				
NoMatchRules	N		-	
MatchRuleProductCom	N	Number of match rules. Indicates the instrument type.		
plex	IN		Simple Instrument	
MatchAlgorithm	N	· ·		
MatchAigorithin	IN		Price-time	
			Pro-rata	
MatchType	Υ		Time pro-rata pe is not filled the same matching algorithm is used	
Matchrype	Ţ	,	ious trading and auction trades.	
			Auto Match (for continuous trading)	
			Call Auction (for auction trades)	
<matchrules> sequence</matchrules>	ends	•		
<feeds> sequence starts</feeds>				
NoMDFeedTypes	N	Number of	f feeds.	
MDFeedType	N	Type of fee		
) I' -			High Incremental (unnetted feed)	
			High Snapshot (unnetted feed)	
			Low (netted feed)	
MDBookType	N	Type of bo	· · · · · · · · · · · · · · · · · · ·	
71.5			Price Depth	
			Order Depth	
MarketDepth	Υ	L	number of available price levels (order book depth)	
,	•	for the product.		
MarketDepthTimeInterv al	Υ	Netting interval for low bandwidth feeds (0=no netting).		

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description		
MDRecoveryTimeInterv al	Υ	Recovery interval (duration of one cycle).		
PrimaryServiceLocationI D	Ν	IP Address for Service A.		
PrimaryServiceLocation SubID	N	Port number for IP address Service A.		
SecondaryServiceLocati onID	Y	IP Address Service B.		
SecondaryServiceLocati onSubID	Y	Port number for IP address Service B.		
<feeds> sequence ends</feeds>				

3.1.1.10. Product snapshot, T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)				
Field name	Optional	Description		
MsgType	N	Always BU = Market Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
MarketID	N	Market Identifier Code as specified in ISO 10383.		
		XETR Xetra		
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.		
EffectiveBusinessDate	Ν	Current business date, e.g. 20131128.		
NextEffectiveBusinessD ate	N	Next business date.		
MarketSegment	N	Product ISIN, e.g. DE0009653147.		
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. O Active Published		
PartitionID	N	Partition of the product.		
CapacityGroupID	N	Capacity group identifier of the product.		
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	<pre><derivativesdescriptor> (optional) group starts, always empty {}</derivativesdescriptor></pre>			
<pre><derivativesdescriptor> (optional) group ends</derivativesdescriptor></pre>				
<underlyingdescriptor> (</underlyingdescriptor>	optional) gr	oup starts, always empty {}		
<underlyingdescriptor> (</underlyingdescriptor>	optional) gr	oup ends		

Product Snapsho	t Message -	- Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description			
	•	ence starts, always empty []			
<pre><instrumentscopes> (optional) sequence ends</instrumentscopes></pre>					
) sequence starts, always empty []			
<relatedmarketsegments< td=""><td></td><td></td></relatedmarketsegments<>					
<pre><basetrdgrules> group s</basetrdgrules></pre>	· · · · · · · · · · · · · · · · · · ·	. Crids			
<tickrules> sequence sta</tickrules>					
NoTickRules					
NotickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.			
TickRuleID	N	Price Step Table identifier. This is used to identify all tick rules			
Tiekkareib	11	that belong to the same price step table alias tick rule table. A			
		price step table may consist of one or more tick rules with the			
		same TickRuleID.			
		For cash market products for on book trading it is also used to			
		reference the applicable tick rule table by RefTickTableID from			
		any Instrument Snapshot message.			
StartTick Drice Dange	N	Starting price range for specified tick increment (inclusive).			
StartTickPriceRange					
EndTickPriceRange	N	Ending price range for the specified tick increment (noninclusive).			
TickIncrement	N	Tick increment for stated price range. Specifies the valid price			
Hekinerement	IN	increments at which quotes or trades for an instrument of the			
		product can be entered.			
<tickrulesscopes> (optio</tickrulesscopes>	nal) sequen				
NoTickRuleScopes	N	Number of tick rule scope definitions.			
		Each combination of TickRuleProductComplex and TrdType			
		defines a valid scope for which this tick rule is used for.			
		Please note, that for cash market products a tick rule with a			
		TickRuleID may additionally be referenced by the same			
		RefTickTableID for on book trading as well (see Instrument			
		snapshot message).			
TickRuleProductComple	N	Defines the instrument type for the tick rule.			
x		0 Simple Instrument			
TrdType	N	Defines the (TES) trade type for this tick rule scope.			
		1 Block Trade / Large in Scale (LIS)			
		3 Exchange For Swap (EFS)			
		4 OTC			
		6 Vola Trade			
		7 EFP-Fin Trade			
		8 EFP-Index Futures Trade			
		9 Block Trade At Market			
		10 Xetra / Eurex Enlight triggered Trade			
		11 Block QTPIP (Qualified Third Party Information Provider) Trade			
<tickrulesscopes> seque</tickrulesscopes>	nce ends				
Tickhalesscopes/ seque	ince enus				

Product Snapsho	t Message –	Xetra T7 F	Releases 12.1 – 13.0 (13/05/2024 <i>–</i> 16/05/2024)		
Field name	Optional		Description		
<tickrules> sequence en</tickrules>	ds		·		
<pricerangerules> (option</pricerangerules>	nal) sequen	ce starts			
NoPriceRangeRules	N		of price range tables. See T7 Functional Reference, rice Range Table Basics.		
PriceRangeRuleID	N	Table ide			
PriceRangeProductCom plex	N	0	Simple Instrument		
StartPriceRange	N	Start of p	rice range (inclusive).		
EndPriceRange	N	End of pr	ice range (non-inclusive).		
PriceRangeValue	Y		n allowable quote spread (absolute value). nally required if PriceRangePercentage is absent.		
PriceRangePercentage	Y		n allowable quote spread (percentage value). nally required if PriceRangeValue is absent.		
<pricerangerules> seque</pricerangerules>	ence ends				
QuoteSideIndicator	Υ	Defines if	f one sided quotes are allowed.		
		0	One-sided quote not allowed		
		1	One-sided quote allowed		
QuoteSideModelType	Υ		f a single sided quote rejection leads to a double sided ection or cancellation.		
		0	Single-sided quotes not supported Rejection of just one quote side leads to rejection or cancellation of both quote sides		
		1	Single-sided quotes supported Rejection may affect only one quote side in a double sided quote		
FastMarketPercentage	Y	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.			
CheckMarketOrder	Υ	Always er	mpty.		
<hhiintervals> (optional) sequence starts</hhiintervals>					
NoHHIIntervals	N	Number	of Herfindahl-Hirschman Index (HHI) intervals.		
HHIIndicator	N	The HHIIr	nterval value.		
HHIIntervalEnd	N	The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ; HHIIntervalEnd _n], for $n > 1$.			
<hhiintervals> (optional)</hhiintervals>	sequence e	nds			
<basetrdgrules> group e</basetrdgrules>	nds				
<basetrdgrulesderivative< td=""><td>es> (optiona</td><td>l) group st</td><td>arts, always empty {}</td></basetrdgrulesderivative<>	es> (optiona	l) group st	arts, always empty {}		
<basetrdgrulesderivatives> (optional) group ends</basetrdgrulesderivatives>					

Field name	Product Snapsho	t Message –	Xetra T7 F	Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
<basetrdgrulescash> (optional) group begins <auctiontyperulegrp> sequence starts NoAuctionTypeRuleS N Number of rules. Always 1. AuctionType N Defines the type of auction. Always 0. 0 Any Auction ClosedBookIndicator N Indicates whether the order book is closed during auction trading. 0 No. Applicable for cash market products only. 1 Yes MarketImbalanceIndicat or N Controls if during auction call/volatility interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense when ClosedBookIndicator = Y. <auctiontyperulegrp> sequence ends <auctiontyperulegrp> sequence ends <basetrdgrulescash> (optional) group ends <basetrdgrulescash> (opti</basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></basetrdgrulescash></auctiontyperulegrp></auctiontyperulegrp></auctiontyperulegrp></basetrdgrulescash>							
<a of="" process="" standard="" td="" the="" the<=""><td></td><td></td><td colspan="5"></td>							
No AuctionTypeRules							
AuctionType				of rules. Always 1			
Defines if On Book trading is disabled.	- '						
ClosedBookIndicator	raciontype	14					
Price traing	ClosedBookIndicator	N		1 -			
MarketImbalanceIndicat or	Closeabookmaleator	14		whether the order book is closed during adetion			
MarketImbalanceIndicat or				No. Applicable for cash market products only.			
volatility interruption/market order interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense whthe ClosedBookIndicator = Y. Q No 1 Yes. Applicable for cash market products only. <auctiontyperulegrp> sequence end Defines if On Book trading is disabled. 0 No 1 Yes <basetrdgrulescash> (optional) group ends <matchrules> sequence starts, used to convey allocation rules for matching NoMatchRules N Number of match rules. MatchRuleProductCom plex Indicates the instrument type. MatchAlgorithm Defines the order allocation method. MatchAlgorithm Defines the order allocation method. MatchType Pro-rata 1 Pro-rata 2 Time pro-rata MatchType If MatchType is not filled the same matching algorithm is used for continuous trading) 1 Call Auction (for auction trades) <matchpredtype< td=""> N Number of feeds. MDFeedType N Number of feeds. MDFeedType N Number of feeds. MD</matchpredtype<></matchrules></basetrdgrulescash></auctiontyperulegrp>			1				
surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market. Only makes sense wh— ClosedBookIndicator = Y. Q No No 4AuctionTypeRuleGrp> sequence ends Defines if On Book trading is disabled. 0 No 1 Yes. 4AuctionTypeRuleSCash> (optional) grouper ends <basetrdgrulescash> (optional) grouper ends <abactionrules allocation="" convey="" for="" matching<="" rules="" sequence="" starts,="" td="" to="" used=""> NoMatchRules N N Number of match rules. MatchRuleProductCom plex N Indicates the instrument type. MatchAlgorithm Defines the order allocation method. MatchAlgorithm Price-time 1 Pro-rata 2 Time pro-rata MatchType If MatchType is not filled the same matching algorithm is used for contitus trading and auction trades. 0 Auto Match (for continuous trading) 1 Call Auction (for auction trades) <matchrules> sequence ends <feeds> sequence starts MOMDFeedType N Number of feeds. MDFeedType N High Incremental (unnetted feed) <td>MarketImbalanceIndicat</td><td>N</td><td></td><td>if during auction call/volatility interruption/extended</td></feeds></matchrules></abactionrules></basetrdgrulescash>	MarketImbalanceIndicat	N		if during auction call/volatility interruption/extended			
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uncrossed order book) is displayed to the market. Only makes sense when ClosedBookIndicator = Y. 0 No 1 Yes. Applicable for cash market products only. <auctiontyperulegrp> sequence entermore placed in part of the products only. Defines if On Book trading is disabled. 0 No 1 Yes <basetrdgrulescash> (optional) group ents Ves <matchrules> sequence starts, used to convey allocation rules for matching NoMatchRules N Number of match rules. MatchRuleProductComplex N Indicates the instrument type. 0 Simple Instrument MatchAlgorithm N Defines the order allocation method. 0 Price-time 1 Pro-rata 2 Time pro-rata MatchType Y If MatchTye is not filled the same matching algorithm is used for continuous trading and auction trades. 0 Auto Match (for continuous trading) 1 Call Auction (for auction trades) <matchrules> sequence entermore <feeds> sequence starts NoMDFeedTypes N Number of feeds. MDFeedType N Number of feeds. MDFeedType N High Incremental (unnetted feed) 1 High Incremental (unnetted feed)</feeds></matchrules></matchrules></basetrdgrulescash></auctiontyperulegrp>				· · · · · · · · · · · · · · · · · · ·			
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AuctionTypeRuleGrp> sequence ends DisableOnBookTrading DisableOnBookTrading Programment (a) Programment (b) Programment (c) Programment (c							
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for continuous trading and auction trades. 0 Auto Match (for continuous trading) 1 Call Auction (for auction trades) <matchrules> sequence ends <feeds> sequence starts NoMDFeedTypes N Number of feeds. MDFeedType N Type of feed. 0 High Incremental (unnetted feed) 1 High Snapshot (unnetted feed)</feeds></matchrules>			2	Time pro-rata			
0 Auto Match (for continuous trading) 1 Call Auction (for auction trades) <matchrules> sequence ends <feeds> sequence starts NoMDFeedTypes N Number of feeds. MDFeedType N Type of feed. 0 High Incremental (unnetted feed) 1 High Snapshot (unnetted feed)</feeds></matchrules>	MatchType	Υ					
1 Call Auction (for auction trades) <matchrules> sequence ends <feeds> sequence starts NoMDFeedTypes N Number of feeds. MDFeedType N Type of feed. 0 High Incremental (unnetted feed) 1 High Snapshot (unnetted feed)</feeds></matchrules>							
<pre><matchrules> sequence ends <feeds> sequence starts NoMDFeedTypes</feeds></matchrules></pre>							
NoMDFeedTypes N Number of feeds. MDFeedType N Type of feed. O High Incremental (unnetted feed) 1 High Snapshot (unnetted feed) 1 O High Snapshot (unnetted feed)			1	Call Auction (for auction trades)			
NoMDFeedTypes N Number of feeds. MDFeedType N Type of feed. O High Incremental (unnetted feed) 1 High Snapshot (unnetted feed)		ends					
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0 High Incremental (unnetted feed) 1 High Snapshot (unnetted feed)	NoMDFeedTypes	N					
1 High Snapshot (unnetted feed)	MDFeedType	N	Type of fe				
			0				
			1	High Snapshot (unnetted feed)			
2 Low (netted feed)			2	Low (netted feed)			
MDBookType N Type of book data.	MDBookType	N	Type of b	ook data.			
1 Price Depth			1	Price Depth			
2 Order Depth			2	Order Depth			

Product Snapsho	Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)				
Field name	Optional	Description			
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.			
MarketDepthTimeInterv al	Υ	Netting interval for low bandwidth feeds (0=no netting).			
MDRecoveryTimeInterv al	Y	Recovery interval (duration of one cycle).			
PrimaryServiceLocationI D	N	IP Address for Service A.			
PrimaryServiceLocation SubID	N	Port number for IP address Service A.			
SecondaryServiceLocati onID	Y	IP Address Service B.			
SecondaryServiceLocati onSubID	Y	Port number for IP address Service B.			
<feeds> sequence ends</feeds>					

3.1.2. Instrument snapshot

File: IS_YYYYMMDD.csv (one file per day)

The instrument snapshot message is used to describe instruments. Consult Xetra website for a list of <u>all tradable instruments</u>.

3.1.2.1. Instrument snapshot, T7 Release 5.0 (03/07/2017 – 01/12/2017)

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional		Description		
MsgType	N	Always	d = Security Definition.		
MsgSeqNum	N	snapsho and Ref	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N		rument identifier uniquely identifies an instrument, 57800196358145.		
SecurityIDSource	Ν	Always	Always M = Marketplace-assigned identifier.		
<securityalt> (optional) sequence starts</securityalt>					
NoSecurityAltID	Ν	Number of alternate identifiers.			
SecurityAltID	Ν	Alternate instrument identifier.			
SecurityAltIDSource	N	4	ISIN		
		8	Exchange symbol		
		В	Wertpapier		
<securityalt> (optional) sequence ends</securityalt>					
SecurityType	N	Type of security.			
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		

Instrument Sna	pshot Messa	age – Xetr	ra T7 Release 5.0 (03/07/2017 – 01/12/2017)		
Field name	Optional		Description		
		10	Exchange traded note		
		11	Other		
SecurityStatus	N	trading. instrum the exce after the	ents may be published prior to becoming active for Status is identical to the product level, i.e. all ents of a product are either published or active with eption of those that expire one or more business days ey stop trading. These will still be distributed until pire but as inactive.		
		which is	nstruments can also expire intra-day or be suspended s conveyed with the same field but only within y state change messages.		
		0	Active		
		1	Inactive		
		4	Published		
SecurityDesc	Υ		ent's long name.		
SecurityExchange	Y		Identifier Code (ISO 10383). For cash this is the		
SecurityExchange	1		ge where the IPO took place.		
ProductComplex	N		instrument.		
Troducteomplex	14	0	Simple Instrument		
<pre><derivativesdescriptor> (c)</derivativesdescriptor></pre>	entional) grou				
·		•	aiways empty {		
<pre><derivativesdescriptor> (c)</derivativesdescriptor></pre>	·				
<cashdescriptor> (optional</cashdescriptor>	, ,		and a distriction to the desired and the second sec		
RefTickTableID	N	messag	ce to tick size table identifier from product level e.		
Currency	N	Currenc	ry as published in ISO 4217		
SettlCurrency	N	Settlement currency.			
<pre><instrumentparties> (option)</instrumentparties></pre>	onal) sequen	ce starts			
NoInstrumentParties	N	Numbe	r of parties.		
InstrumentPartyID	N	Identifie	es a party associated with an instrument.		
InstrumentPartyIDSourc e	N	0	Proprietary		
InstrumentPartyRole	N	0	Clearing Organization		
		1	Market Maker		
InstrumentPartyRoleQua lifier	Υ	0	Designated Sponsor		
<instrumentparties> (option</instrumentparties>	onal) sequen	ce ends			
<instrumentattributes> (optional) sequence starts</instrumentattributes>					
NoInstrAttrib	N	Numbe	r of instrument attributes.		
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		

Instrument Sna	pshot Messa	age – Xeti	ra T7 Release 5.0 (03/07/2017 – 01/12/2017)
Field name	Optional	7.00	Description
Trefe flame	орего пол	7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
InstrAttribValue	N		f instrument attribute.
<instrumentattributes> (o</instrumentattributes>			
<cashdescriptor> (optional</cashdescriptor>			
<events> (optional) seque</events>			
NoEvents	N	Numbe	r of events.
EventType	N	1	First Eligible Trade Date
		2	Capital Adjustment Date
		3	Dividend Payment Date
EventDate	N		event YYYYMMDD.
<events> (optional) seque</events>		Date of	CVCIIC TTTTWINDE.
InstrumentPricePrecisio	Y	Display	decimals.
n	1	Display	decimals.
MinPriceIncrement	Υ	Defines	the minimum increment for trade prices (tick size).
			ue is identical for all simple instruments of a product.
		Trading	and clearing tick sizes, i.e. increments for trade prices
		in tradii	ng and clearing notation are the same unless
			elncrementClearing is present.
MinPriceIncrementCleari	Υ	Defines the minimum increment for trade prices in clearing	
ng			n (clearing tick size). Used for products to distinguish
			n tick sizes for trading and clearing notation, e.g. Total
MinPriceIncrementAmou	Υ		Futures.
nt	Y		the minimum price movement in the respective ty (tick value). This value is identical for all instruments
TIL TIL			oduct. Amounts are only relevant for clearing tick
			e. to be multiplied with MinPriceIncrement unless
			elncrementClearing is present.
<marketsegmentgrp> seq</marketsegmentgrp>	uence starts		Ü İ
NoMarketSegments	N	Always	1.
MarketSegmentID	N	Product	t identifier or product pool identifier, e.g. 89.
ImpliedMarketIndicator	Υ	Always empty.	
MultilegModel	Υ	Always empty.	
PriceType	Υ		t in which an instrument is quoted/stated when
			or selling. Only for cash.
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Υ	0	Disabled
		1	Enabled
		2	Central counterparty
SettlBusinessDays	Υ		es the number of business days from trade execution
<i>y</i> -			nich settlement is to be effected.

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)							
Field name	Optional	Description					
<quotesizerules> (option</quotesizerules>	<quotesizerules> (optional) sequence starts</quotesizerules>						
NoQuoteSizeRules	N	Always	1.				
MinBidSize	N	Bid side	minimum quote quantity.				
MinOfferSize	N	Offer sid	de minimum quote quantity.				
<quotesizerules> (option</quotesizerules>	al) sequence	ends					
<pricerangerules> (option</pricerangerules>	nal) sequenc	e starts					
NoPriceRangeRules	N	N Always 1.					
PriceRangeRuleID	N Reference to table identifier from product level messages.						
<pricerangerules> (optional) sequence ends</pricerangerules>							
<tradingsessionrules> (o)</tradingsessionrules>	otional) sequ	ience stai	rts				
NoTradingSessionRules	N	Always	1.				
TradingSessionID	N	Always	O = Day.				
TradingSessionSubID	N	0	Continuous Trading				
		1	One Auction				
2 Multiple Auctions							
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>							
<marketsegmentgrp> sequence ends</marketsegmentgrp>							

3.1.2.2. Instrument snapshot, T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)

Instrument Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
Field name	Optional		Description		
MsgType	N	Always d	= Security Definition.		
MsgSeqNum	Ν		us across all messages on the reference data snapshot feed		
		_	s of message type. See T7 Market and Reference Data		
			s – Manual, section General structure of the snapshot cycle.		
SecurityID	N		ument identifier uniquely identifies an instrument, e.g.		
			0196358145.		
SecurityIDSource	N	Always M	= Marketplace-assigned identifier.		
<securityalt> (optional) sequence starts</securityalt>					
NoSecurityAltID	Ν	Number	of alternate identifiers.		
SecurityAltID	Ν	Alternate	Alternate instrument identifier.		
SecurityAltIDSou	N	4	ISIN		
rce		8	Exchange symbol		
		В	Wertpapier		
<securityalt> (option</securityalt>	onal) sequer	nce ends			
SecurityType	N	Type of security.			
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		
		10	Exchange traded note		
		11	Other		

Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire on or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. 0 Active 1 Inactive 4 Published 5 Pending deletion (since Release 6.1), used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. SecurityDesc Y Description of security. SecurityExchang Y Market Identifier Code (ISO 10383). For cash this is the exchange e where the IPO took place. ProductComplex N Type of instrument. O Simple Instrument *OerivativesDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group ends *CashDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group starts, always empty {} *OerivativesDescriptor> (optional) group starts *CashDescriptor> (optional) group starts *SettlCurrency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. *OeristDepositType Y O Auslandskassenverein *I Girosammelverwahrung 3 Wertpapierrechnung *InstrumentParties> (optional) sequence starts Number of parties. *ries *InstrumentPartyl N Identifies a party associated with an instrument. *Descriptor of parties. *Titles *InstrumentPartyl N O Clearing Organization *InstrumentPartyl N O Designated Sponsor *InstrumentPartyl N O Designated Sponsor	Instrument	: Snapshot M	lessage – X	Getra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)		
Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. 0	Field name	Optional		Description		
SecurityDesc Y Description of security. SecurityExchang e	Field name SecurityStatus		Status is in product a that expire will still be Active inside its convey messages 0 1 4	nts may be published prior to becoming active for trading. dentical to the product level, i.e. all instruments of a are either published or active with the exception of those re one or more business days after they stop trading. These re distributed until they expire but as inactive. truments can also expire intra-day or be suspended which red with the same field but only within intraday state change s. Active Inactive Published Pending deletion (since Release 6.1), used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active		
SecurityExchang e						
e where the IPO took place. ProductComplex N Type of instrument. 0 Simple Instrument <derivativesdescriptor> (optional) group starts, always empty {} <derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to tick size table identifier from product level message. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentParties> (optional) sequence starts NoInstrumentPartyl D Identifies a party associated with an instrument. D InstrumentPartyl D Proprietary DSource InstrumentPartyl N 0 Clearing Organization Role InstrumentPartyl N Identifies a Designated Sponsor RoleQualifier V 0 Designated Sponsor</instrumentparties></cashdescriptor></derivativesdescriptor></derivativesdescriptor>	SecurityDesc	Υ	Description	on of security.		
ProductComplex N Type of instrument. O Simple Instrument	SecurityExchang	Υ				
O Simple Instrument	e			•		
	ProductComplex	N				
<derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to tick size table identifier from product level message. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentPartyl InstrumentPartyl D InstrumentPartyl D InstrumentPartyl D InstrumentPartyl D Clearing Organization Role InstrumentPartyl N O Clearing Organization Market Maker InstrumentPartyl Role InstrumentPartyl Q Designated Sponsor Designated Sponsor</instrumentparties></cashdescriptor></derivativesdescriptor>						
CashDescriptor> (optional) group starts RefTickTableID N Reference to tick size table identifier from product level message. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentParties N umber of parties. rties Identifies a party associated with an instrument. D InstrumentPartyl DSource N InstrumentPartyl N Role 1 InstrumentPartyl Y O Designated Sponsor</instrumentparties>		·		, ,		
RefTickTableID N Reference to tick size table identifier from product level message. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung InstrumentParties> (optional) sequence starts NoInstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl D Proprietary DSource InstrumentPartyl N 0 Clearing Organization Role InstrumentPartyl N D Clearing Organization Market Maker InstrumentPartyl N Designated Sponsor O Designated Sponsor		•		ends		
Currency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung InstrumentParties N Number of parties. V Number of parties.	-		-			
SettlCurrency DepositType Y O Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung InstrumentParties> (optional) sequence starts NoInstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl DSource InstrumentPartyl Role InstrumentP			· · · · · · · · · · · · · · · · · · ·			
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2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentPartyl N Number of parties. rties InstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl DSource InstrumentPartyl N O Proprietary DSource InstrumentPartyl N O Clearing Organization Role InstrumentParty Ro</instrumentparties>	DepositType	Y				
3 Wertpapierrechnung				<u> </u>		
InstrumentParties> (optional) sequence starts NoInstrumentPa rties InstrumentPartyl D InstrumentPartyl DSource InstrumentPartyl DSource InstrumentPartyl DSource InstrumentPartyl N O Clearing Organization Role Market Maker InstrumentPartyl N Designated Sponsor RoleQualifier				<u> </u>		
NoInstrumentPa rties InstrumentPartyl D InstrumentPartyl DSource InstrumentPartyl Role InstrumentParty Role Instr	dia aku wa a 15 di	-> (a-ti-				
rties InstrumentPartyI D InstrumentPartyI DSource InstrumentParty Role			•			
D InstrumentPartyl N O Proprietary DSource InstrumentParty Role N O Clearing Organization InstrumentParty Y O Designated Sponsor RoleQualifier Role R	rties		Number of parties.			
DSource InstrumentParty Role InstrumentParty Y Designated Sponsor N Designated Sponsor	InstrumentPartyl D	N	Identifies a party associated with an instrument.			
Role 1 Market Maker InstrumentParty Y 0 Designated Sponsor RoleQualifier	InstrumentPartyl DSource	N	0	Proprietary		
InstrumentParty Y 0 Designated Sponsor RoleQualifier	InstrumentParty	N	0	Clearing Organization		
RoleQualifier	Role		1	Market Maker		

Instrument	: Snapshot M	1essage –)	Ketra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)		
Field name	Optional	_	Description		
NoInstrAttrib	N	Number of instrument attributes.			
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	VDO Minimum Execution Quantity		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Eligible For Systematic Internaliser		
		17	Multi CCP-eligibility (since Release 6.1)		
InstrAttribValue	N	Value of instrument attribute.			
<instrumentattribu< td=""><td>•</td><td></td><td>nce ends</td></instrumentattribu<>	•		nce ends		
<events> (optional</events>) sequence s				
NoEvents	N		of events.		
EventType	N	1	First Eligible Trade Date		
		2	Capital Adjustment Date		
		3	Dividend Payment Date		
EventDate	N	Date of event YYYYMMDD.			
<events> (optional</events>	•	ı			
InstrumentPriceP recision	Y	Display d	lecimals.		
MinPriceIncreme	Υ		he minimum increment for trade prices (tick size).		
nt			e is identical for all simple instruments of a product.		
		_	and clearing tick sizes, i.e. increments for trade prices in		
		_	nd clearing notation are the same unless IncrementClearing is present.		
MinPriceIncreme	Υ		he minimum increment for trade prices in clearing notation		
ntClearing	1		tick size). Used for products to distinguish between tick		
		_	trading and clearing notation, e.g. Total Return Futures.		
MinPriceIncreme	Υ	Defines t	he minimum price movement in the respective currency		
ntAmount		(tick value). This value is identical for all instruments of a product			
		Amounts are only relevant for clearing tick sizes, i.e. to be multiplied			
		with MinPriceIncrement unless MinPriceIncrementClearing is			
<marketsegmentg< td=""><td>rn> seguena</td><td>present.</td><td></td></marketsegmentg<>	rn> seguena	present.			
-warketsegmentd	b seduelle	Le starts			

Instrument	: Snapshot M	1essage - >	(etra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)		
Field name	Optional		Description		
NoMarketSegme nts	N	Always 1.	Always 1.		
MarketSegmentl D	N	Product i	dentifier or product pool identifier, e.g. 89.		
lmpliedMarketIn dicator	Υ	Always e	mpty.		
MultilegModel	Υ	Always ei	npty.		
PriceType	Υ	The unit i selling.	in which an instrument is quoted/stated when buying or		
		0	Percent		
		1	Shares		
		2	Points		
PostTradeAnony	Υ	0	Disabled (no)		
mity		1	Enabled (yes)		
		2	Central counterparty		
SettlBusinessDay	Υ	Indicates	Indicates the number of business days from trade execution after		
s which settlement is to be effected.					
<quotesizerules> (optional) sequence starts</quotesizerules>					
NoQuoteSizeRul es	N	Always 1.			
MinBidSize	N	Bid side r	minimum quote quantity.		
MinOfferSize	N	Offer side	e minimum quote quantity.		
<quotesizerules> (optional) sequence ends</quotesizerules>					
<pricerangerules></pricerangerules>	(optional) s	equence s	tarts		
NoPriceRangeRul es	N	Always 1.			
PriceRangeRulel D	N	Reference to table identifier from product level messages.			
<pricerangerules></pricerangerules>	optional) s	equence e	nds		
<tradingsessionrules> (optional) sequence starts</tradingsessionrules>					
NoTradingSessio nRules	N	Always 1.			
TradingSessionID	N	Always 0 = Day.			
TradingSessionS	N	1	Continuous		
ubID		4	Scheduled Intraday Auction		
		6	Any Auction		
<tradingsessionru< td=""><td colspan="4"><tradingsessionrules> (optional) sequence ends</tradingsessionrules></td></tradingsessionru<>	<tradingsessionrules> (optional) sequence ends</tradingsessionrules>				
<marketsegmentgrp> sequence ends</marketsegmentgrp>					

3.1.2.3. Instrument snapshot, T7 Release 7.0 (03/12/2018 – 24/05/2019)

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional Description			
MsgType	N	Always d = Security Definition.		

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)					
Field name	Optional	Description			
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.			
SecurityID	N		ument identifier uniquely identifies an instrument, e.g. 0196358145.		
SecurityIDSource	N	Always M	1 = Marketplace-assigned identifier.		
<securityalt> (optional)</securityalt>	sequence s	tarts			
NoSecurityAltID	N	Number	of alternate identifiers.		
SecurityAltID	N	Alternate	e instrument identifier.		
SecurityAltIDSource	N	4	ISIN		
		8	Exchange symbol		
		В	Wertpapier		
<securityalt> (optional)</securityalt>	sequence e	nds			
SecurityType	Ν	Type of s	ecurity.		
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		
		10 Exchange traded note			
		12 Other			
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. O Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date. 1 Inactive 7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again			
			intraday via Market Data intraday State Change messages.		
SecurityDesc	Y		ent's long name.		
SecurityExchange	Υ	Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place.			
ProductComplex	N	Type of instrument.			
		0	Simple Instrument		
<derivativesdescriptor?< td=""><td>> (optional) ફ</td><td>group start</td><td>ts, always empty {}</td></derivativesdescriptor?<>	> (optional) ફ	group start	ts, always empty {}		
<derivativesdescriptor?< td=""><td>> (optional) g</td><td>group ends</td><td>S</td></derivativesdescriptor?<>	> (optional) g	group ends	S		

Instrument S	Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description			
<cashdescriptor> (opti</cashdescriptor>	onal) group :	·			
RefTickTableID	N	Reference to tick size table identifier from product level message.			
Currency	N	Currency as published in ISO 4217.			
SettlCurrency	N	Settlem	ent currency.		
DepositType	Υ	0 Auslandskassenverein			
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	Girosammelverwahrung		
		2	Streifbandverwahrung		
		3	Wertpapierrechnung		
Issuer	Υ	Issuer o	if instrument. Always empty.		
IssueDate	Υ	Issue da	ate of instrument. Always empty.		
<instrumentparties> (o</instrumentparties>	ptional) sequ	I.			
NoInstrumentParties	N	Numbe	r of parties.		
InstrumentPartyID	N	Identifie	es a party associated with an instrument.		
InstrumentPartyIDSo urce	N	0	Proprietary		
InstrumentPartyRole	N	0	Clearing Organization		
			Market Maker		
InstrumentPartyRole Qualifier	Y	0 Designated Sponsor			
<pre><instrumentparties> (optional) sequence ends</instrumentparties></pre>					
<bonddescriptor> (opt</bonddescriptor>	ional) group	starts, al	ways empty {}		
<bonddescriptor> (opti</bonddescriptor>					
<cashdescriptor> (opti</cashdescriptor>					
<instrumentattributes></instrumentattributes>	optional) s				
NoInstrAttrib	N	Number of instrument attributes.			
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	Pre Trade LIS Value		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Eligible For Systematic Internaliser		

Instrument S	Snapshot Me	essage – >	Ketra T7 Release 7.0 (03/12/2018 – 24/05/2019)		
Field name	Optional	Description			
		17	Multi CCP-eligibility		
		18	Pool Factor		
		19	Indexation Coefficient		
		20	Traded Before Issue Date		
		21	Issuer Business Unit		
		22	Allow Knock Out		
		23	Has PLP		
		24	PLP Deferral Time		
		25	Warrant Strike		
InstrAttribValue	N	Value of	f instrument attribute.		
<instrumentattributes></instrumentattributes>	· (optional) s	equence	ends		
<events> (optional) seq</events>					
NoEvents	N	Numbe	r of events.		
EventType	N	1	First Eligible Trade Date		
		2	Capital Adjustment Date		
		3	Dividend Payment Date		
EventDate	N	Date of	event YYYYMMDD.		
<events> (optional) seq</events>	<events> (optional) sequence ends</events>				
InstrumentPricePreci	Υ	Display	decimals.		
sion					
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size).			
			ue is identical for all simple instruments of a product.		
		_	and clearing tick sizes, i.e. increments for trade prices in		
		_	and clearing notation are the same unless eIncrementClearing is present.		
MinPriceIncrementCl	Υ	Defines the minimum increment for trade prices in clearing			
earing		notation (clearing tick size). Used for products to distinguish			
			n tick sizes for trading and clearing notation, e.g. Total		
		Return l			
MinPriceIncrementA	Υ		the minimum price movement in the respective		
mount			y (tick value). This value is identical for all instruments of		
		-	ct. Amounts are only relevant for clearing tick sizes, i.e.		
			ultiplied with MinPriceIncrement unless eIncrementClearing is present.		
MaturityDate	Y	Always	- ,		
MaturityMonthYear	Y	Always	• •		
SecuritySubType	Y	-			
<marketsegmentgrp> :</marketsegmentgrp>		Always empty.			
NoMarketSegments	N	Always 1.			
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.			
ImpliedMarketIndicat	Y	Always empty.			
or	'	/ ways chipty.			
MultilegModel	Υ	Always empty.			
PriceType	Υ	The unit in which an instrument is quoted/stated when buying			
		or sellin	,		

Instrument S	Snapshot Me	essage – >	(etra T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional	Description		
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Y	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Y		s the number of business days from trade execution	
		l .	nich settlement is to be effected.	
<quotesizerules> (optional) sequence starts</quotesizerules>				
NoQuoteSizeRules	N	Always		
MinBidSize	N	Bid side minimum quote quantity.		
MinOfferSize	N	Offer side minimum quote quantity.		
<quotesizerules> (opti</quotesizerules>	onal) sequer	nce ends		
<pricerangerules> (optional) sequence starts</pricerangerules>				
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence ends	5	
<tradingsessionrules></tradingsessionrules>	(optional) se	equence	starts	
NoTradingSessionRul	N	Always 1.		
es TradingSessionID	N	Always 0 = Day.		
TradingSessionSubID	N	1 Continuous		
	, ,	4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
<tradingsessionrules></tradingsessionrules>	(optional) se	,		
<marketsegmentgrp> s</marketsegmentgrp>				
marketsegmentarps :	Jequerice en	45		

3.1.2.4. Instrument snapshot, T7 Release 7.1 (27/05/2019 – 15/11/2019)

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)				
Field name	Optional	Description		
MsgType	N	Always d = Security Definition.		
MsgSeqNum	Z	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.		
SecurityIDSource	Ν	Always M = Marketplace-assigned identifier.		
<securityalt> (optional) sequence starts</securityalt>				
NoSecurityAltID	Ν	Number of alternate identifiers.		
SecurityAltID	N	Alternate instrument identifier.		
SecurityAltIDSource	N	4	ISIN	

SecurityAlt> (optional) sequence ends	Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)				
SecurityAlt> (optional) sequence volves SecurityType N	Field name	Optional	I Total Control of the Control of th		
SecurityType Name			8	Exchange symbol	
SecurityType			В	Wertpapier	
SecurityStatus	<securityalt> (optional)</securityalt>	sequence e	nds		
SecurityStatus Sec	SecurityType	N	Type of secu	rity.	
9 Exchange traded commodity 10 Exchange traded note 12 Other SecurityStatus N Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. O Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date. 1 Inactive 7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages. SecurityDesc Y Instrument's long name. SecurityExchange Y Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place. ProductComplex N Type of instrument. O Simple Instrument <-DerivativesDescriptor> (optional) group starts, always empty {} -DerivativesDescriptor> (optional) group starts. always empty {} -DerivativesDescriptor> (optional) group starts. always empty {} -DerivativesDescriptor> (optional) group starts. always empty {} -DerivativesDescriptor> (optional) group starts. always empty {} -DerivativesDescriptor> (optional) group starts as the reference to the default tick rule table for TES.			5	Common stock	
To be product the content of the c			8	Exchange traded fund	
SecurityStatus			9	Exchange traded commodity	
SecurityStatus			10	Exchange traded note	
trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is converted with the same field but only within intraday state change messages. O Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date. 1 Inactive 7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages. SecurityDesc Y Instruments long name. SecurityExchange Y Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place. ProductComplex N Type of instrument. O Simple Instrument <derivativesdescriptor> (optional) group starts, always empty {} CashDescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency s published in ISO 4217. SettlCurrency N Settlement currency. DepositType</derivativesdescriptor>			12		
SecurityDesc Y Instrument's long name. SecurityExchange Y Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place. ProductComplex N Type of instrument. O Simple Instrument <derivativesdescriptor> (optional) group starts, always empty {} <derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y O Auslandskassenverein</cashdescriptor></derivativesdescriptor></derivativesdescriptor>	SecurityStatus	Z	trading. Stat instruments exception of they stop trabut as inactive instruwhich is constate changes	us is identical to the product level, i.e. all of a product are either published or active with the those that expire one or more business days after iding. These will still be distributed until they expire we. ments can also expire intra-day or be suspended veyed with the same field but only within intraday messages. Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date. Inactive Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State	
Where the IPO took place. ProductComplex N Type of instrument. 0 Simple Instrument <derivativesdescriptor> (optional) group starts, always empty {} <derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein</cashdescriptor></derivativesdescriptor></derivativesdescriptor>	SecurityDesc	Υ	Instrument's		
O Simple Instrument <derivativesdescriptor> (optional) group starts, always empty {} <derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y O Auslandskassenverein</cashdescriptor></derivativesdescriptor></derivativesdescriptor>	SecurityExchange	Y			
<derivativesdescriptor> (optional) group starts, always empty {} <derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein</cashdescriptor></derivativesdescriptor></derivativesdescriptor>	ProductComplex	N	Type of instr	ument.	
<derivativesdescriptor> (optional) group ends <cashdescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein</cashdescriptor></derivativesdescriptor>			0	Simple Instrument	
CashDescriptor> (optional) group starts RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein	<derivativesdescriptor< td=""><td>> (optional) و</td><td>group starts, a</td><td>lways empty {}</td></derivativesdescriptor<>	> (optional) و	group starts, a	lways empty {}	
RefTickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein	<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) و	group ends		
TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES. Currency N Currency as published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein		onal) group			
SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein	RefTickTableID	N	TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for		
SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein	Currency	N			
DepositType Y 0 Auslandskassenverein		N			
	-	Υ			
			1	Girosammelverwahrung	

Instrument S	Snapshot Me	essage – Xetra	T7 Release 7.1 (27/05/2019 – 15/11/2019)
Field name	Optional		Description
		2	Streifbandverwahrung
		3	Wertpapierrechnung
Issuer	Υ	Issuer of instrument. Always empty.	
IssueDate	Υ	Issue date of instrument. Always empty.	
RoundLot	Υ	Minimum Tr	
MinTradeVol	Υ	Minimum Order Quantity.	
<lnstrumentparties> (o</lnstrumentparties>	ptional) sequ	, , ,	
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a p	party associated with an instrument.
InstrumentPartyIDSo urce	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRole Qualifier	Y	0	Designated Sponsor
<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	uence ends	
<bonddescriptor> (opt</bonddescriptor>	ional) group	starts, always	empty {}
<bonddescriptor> (opt</bonddescriptor>	ional) group	ends	
<cashdescriptor> (opti</cashdescriptor>	onal) group	ends	
<instrumentattributes></instrumentattributes>	optional) s	equence start	S
NoInstrAttrib	N	Number of i	nstrument attributes.
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		13	Market Making Obligation
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Eligible For Systematic Internaliser
		17	Multi CCP-eligibility
		18	Pool Factor
		19	Indexation Coefficient
		20	Traded Before Issue Date
		21	Issuer Business Unit

Instrument S	Snapshot Me	ssage – Xetra	T7 Release 7.1 (27/05/2019 – 15/11/2019)	
Field name	Optional	0 - 1 - 1	Description	
		22	Allow Knock Out	
		23	Has PLP	
		24	PLP Deferral Time	
		25	Warrant Strike	
		26	Reporting Market TES	
InstrAttribValue	N		rument attribute.	
<pre><instrumentattributes></instrumentattributes></pre>				
<events> (optional) seq</events>	• •	<u> </u>		
NoEvents	N	Number of e	events.	
EventType	N	1	First Eligible Trade Date	
		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	Date of ever	nt YYYYMMDD.	
<events> (optional) seq</events>	uence ends			
InstrumentPricePreci	Υ	Display deci	mals.	
sion				
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size).		
		This value is identical for all simple instruments of a product.		
		Trading and clearing tick sizes, i.e. increments for trade prices in		
		trading and clearing notation are the same unless		
Mi - Dei - de - de - de de de de de de de de de de de de de		MinPriceIncrementClearing is present. Defines the minimum increment for trade prices in clearing		
MinPriceIncrementCl	Υ		·	
earing			aring tick size). Used for products to distinguish sizes for trading and clearing notation, e.g. Total	
		Return Futu		
MinPriceIncrementA	Υ	Defines the minimum price movement in the respective		
mount			k value). This value is identical for all instruments of	
		a product. A	mounts are only relevant for clearing tick sizes, i.e.	
		to be multip	lied with MinPriceIncrement unless	
			rementClearing is present.	
MaturityDate	Υ	Always emp		
MaturityMonthYear	Υ	Always emp	ty.	
SecuritySubType	Υ	Always emp	ty.	
<marketsegmentgrp> :</marketsegmentgrp>	sequence sta	arts		
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicat	Υ	Always empty.		
or				
MultilegModel	Υ	Always empty.		
PriceType	Υ	The unit in which an instrument is quoted/stated when buying		
		or selling.		
		0	Percent	
		1	Shares	
DestTee L.A.		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)				
Field name	Optional	Description		
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Υ		number of business days from trade execution	
			settlement is to be effected.	
<quotesizerules> (opti</quotesizerules>	onal) sequei			
NoQuoteSizeRules	N	Always 1.		
MinBidSize	N	Bid side min	imum quote quantity.	
MinOfferSize	N	Offer side m	inimum quote quantity.	
<quotesizerules> (optional) sequence ends</quotesizerules>				
<pricerangerules> (optional) sequence starts</pricerangerules>				
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to	table identifier from product level messages.	
<pricerangerules> (optional) sequence ends</pricerangerules>				
<tradingsessionrules></tradingsessionrules>	(optional) se	equence starts	S	
NoTradingSessionRul	N	Always 1.		
es				
TradingSessionID	N	Always 0 = D	ay.	
TradingSessionSubID	N	1	Continuous	
		4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
<tradingsessionrules></tradingsessionrules>	(optional) se	equence ends		
<marketsegmentgrp> sequence ends</marketsegmentgrp>				

3.1.2.5. Instrument snapshot, T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)				
Field name	Optional		Description	
MsgType	N	Always d = Security Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.		
SecurityIDSource	N	Always M = Marketplace-assigned identifier.		
<securityalt> (optional) sequence starts</securityalt>				
NoSecurityAltID	N	Number of alternate identifiers.		
SecurityAltID	Ν	Alternate instrument identifier.		
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	
<securityalt> (optional) sequence ends</securityalt>				
SecurityType	N	Type of security.		

Instrument Sna	pshot Messa	age – Xetra T7	Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)
Field name	Optional	Description	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
CocurityCtatus	N		
SecurityStatus	IN		may be published prior to becoming active for us is identical to the product level, i.e. all
		_	of a product are either published or active with the
			those that expire one or more business days after
			iding. These will still be distributed until they expire
		but as inacti	-
		Active instru	ments can also expire intra-day or be suspended
		which is con	veyed with the same field but only within intraday
		state change	messages.
		0	Active, is used when the first trading date is in
			future and the product state is Active. The
			SecurityStatus switches to Active as soon the first
			trading date is equal or later than current business
		4	date.
		1	Inactive
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted
			soon. Those instruments might become 0 = Active
			again intraday via Market Data intraday State
			Change messages.
SecurityDesc	Υ	Instrument's	
SecurityExchange	Υ		tifier Code (ISO 10383) of the exchange where the
			ce ("Primary Market").
ProductComplex	N	Type of instr	
·		0	Simple Instrument
<pre><derivativesdescriptor3< pre=""></derivativesdescriptor3<></pre>	> (optional) g	group starts, a	· · · · · · · · · · · · · · · · · · ·
<pre><derivativesdescriptor3< pre=""></derivativesdescriptor3<></pre>			, , , ,
<cashdescriptor> (opti</cashdescriptor>	- 1	<u> </u>	
RefTickTableID	N		price step table alias tick rule table identifier
		TickTableID from product snapshot message.	
			d as the reference to the default tick rule table for
		TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Υ	0 Auslandskassenverein	
' '		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		,	Tre tpapier cerniang

Sisuer	Instrument Sna	pshot Messa	age – Xetra T7	Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)	
Issuer					
Issue Date			4	NCSC via T2S	
RoundLot Y Minimum Tradable Unit. MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy P O Default 1 Single Auction 2 Special Auction InstrumentParties N Number of parties. InstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyIDS N O Clearing Organization InstrumentPartyRole N O Clearing Organization InstrumentPartyRole N Designated Sponsor Qualifier Soptional) sequence ends InstrumentPartyRole Optional) group ends InstrumentParties (optional) group ends InstrumentPartribus (optional) group ends InstrumentPartribus (optional) group ends InstrumentAttributes (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrumentAttributes N Number of instrument att	Issuer	Υ	Issuer of instrument. Always empty.		
MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period End Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y Quoting Period End Time (HH:mm:ss). InstrumentParties Y Quoting Period End Time (HH:mm:ss). InstrumentParties> (optional) sequence starts Northogonal Auction NoinstrumentParties N Number of parties. InstrumentPartyIDD N Identifies a party associated with an instrument. InstrumentPartyRole urce N Quoting Period End Auction InstrumentPartyRole urce Y Quoting Period End Auction InstrumentPartyRole urce Y Quoting Period End Auction InstrumentPartyRole urce Y Quoting Period End Sponsor SendsAndWarrantsGroup (optional) sequence ends Secialist InstrumentParty (optional) group ends Secia	IssueDate	Υ			
QuotingStartTime Y Quoting Period End Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y 0 Default InstrumentParties> (optional) sequence starts Single Auction InstrumentParties N Number of parties. InstrumentPartyID N Identifies a party associated with an instrument. InstrumentParty associated with an instrument. InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole qualifier Y 0 Designated Sponsor Qualifier 1 Market Maker InstrumentParties> (optional) sequence ends <bondsandwarrantsgroup> (optional) sequence ends <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrumentAttributes N Number of instrument attributes. InstrumentAttri</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup>	RoundLot	Υ	· , ·		
QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y 0 Default 1 Single Auction 2 Special Auction InstrumentParties> (optional) sequence starts NoInstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyIDSO urce N 0 Proprietary InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor Qualifier 1 Market Maker InstrumentParties> (optional) sequence ends <8ondsAndWarrantsGroup> (optional) group starts, always empty {} <8ondsAndWarrantsGroup> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. NonstrAttrib N Number of instrument attributes. InstrAttribType N Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Name 4 Market Type Supplement 6</instrumentattributes>	MinTradeVol	Υ	Minimum O	rder Quantity.	
InstrumentAuctionTy pe 1	QuotingStartTime	Υ	Quoting Per	iod Start Time (HH:mm:ss).	
pe 1 Single Auction 2 Special Auction 3 Special Auctio	QuotingEndTime	Υ	Quoting Per	iod End Time (HH:mm:ss).	
Special Auction	InstrumentAuctionTy	Υ	0	Default	
InstrumentParties N	ре		1	Single Auction	
NoInstrumentPartyID N Identifies a party associated with an instrument.			2	Special Auction	
InstrumentPartyID N Identifies a party associated with an instrument.	<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	uence starts		
InstrumentPartyIDSo urce InstrumentPartyRole InstrumentPartyRole Qualifier InstrumentPartyRole Qualifier InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) group starts, always empty {} InstrumentAttributes> (optional) group ends InstrumentAttributes> (optional) sequence starts InstrumentAttrib InstrAttrib	NoInstrumentParties	N	Number of p	parties.	
urce N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor <modular length="" specialist<="" td="" =""> 1 Specialist <modular length="" specialist<="" td="" =""> Specialist</modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular></modular>	InstrumentPartyID	N	Identifies a p	party associated with an instrument.	
InstrumentPartyRole Qualifier InstrumentParties> (optional) sequence ends SendsAndWarrantsGroup> (optional) group starts, always empty {} SendsAndWarrantsGroup> (optional) group ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. NoInstrAttribType N Minimum Reserve Order Volume Minimum Display Volume Issuer Name Issuer Number Market Type Market Type Market Type Market Type Supplement Reporting Market Cum-Ex Indicator Reporting Market Product Assignment Group Description Domestic Indicator 10 Domestic Indicator 11 Pre Trade LIS Value Illiquid As Defined By Exchange	•	N	0	Proprietary	
InstrumentPartyRole Qualifier 1 Specialist	InstrumentPartyRole	N	0	Clearing Organization	
Qualifier InstrumentParties> (optional) sequence ends SondsAndWarrantsGroup> (optional) group starts, always empty {} SondsAndWarrantsGroup> (optional) group ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N Minimum Reserve Order Volume I Minimum Display Volume I Ssuer Name I Ssuer Number Market Type Market Type Market Type Market Type Supplement Reporting Market Cum-Ex Indicator Reporting Market Product Assignment Group Product Assignment Group Description Domestic Indicator In Pre Trade LIS Value Illiquid As Defined By Exchange			1	Market Maker	
<instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>	InstrumentPartyRole	Υ	0	Designated Sponsor	
<bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup>	Qualifier		1	Specialist	
	<instrumentparties> (o</instrumentparties>	ptional) sequ	uence ends		
<cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange</instrumentattributes></cashdescriptor>	<bondsandwarrantsgr< td=""><td>oup> (optio</td><td>nal) group sta</td><td>rts, always empty {}</td></bondsandwarrantsgr<>	oup> (optio	nal) group sta	rts, always empty {}	
✓InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange	<bondsandwarrantsgr< td=""><td>oup> (optio</td><td>nal) group end</td><td>ds</td></bondsandwarrantsgr<>	oup> (optio	nal) group end	ds	
NoInstrAttrib InstrAttribType N O Minimum Reserve Order Volume I Minimum Display Volume I Issuer Name Issuer Number Market Type Market Type Market Type Supplement Reporting Market TCum-Ex Indicator Reporting Market Product Assignment Group Product Assignment Group Description Domestic Indicator In Pre Trade LIS Value It Illiquid As Defined By Exchange	<cashdescriptor> (opti</cashdescriptor>	onal) group	ends		
InstrAttribType N Minimum Reserve Order Volume I Minimum Display Volume Issuer Name Issuer Number Market Type Market Type Supplement Reporting Market Cum-Ex Indicator Reporting Market Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange	<instrumentattributes></instrumentattributes>	(optional) s	equence start	rs	
1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange	NoInstrAttrib	N	Number of i	nstrument attributes.	
2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange	InstrAttribType	N	0	Minimum Reserve Order Volume	
3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			1	Minimum Display Volume	
4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			2	Issuer Name	
5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			3	Issuer Number	
6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			4	Market Type	
7 Cum-Ex Indicator 8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			5	Market Type Supplement	
8 Product Assignment Group 9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			6	Reporting Market	
9 Product Assignment Group Description 10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			7	Cum-Ex Indicator	
10 Domestic Indicator 11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			8	Product Assignment Group	
11 Pre Trade LIS Value 12 Illiquid As Defined By Exchange			9	Product Assignment Group Description	
12 Illiquid As Defined By Exchange			10	Domestic Indicator	
			11	Pre Trade LIS Value	
13 Market Making Obligation			12	Illiquid As Defined By Exchange	
 			13	Market Making Obligation	
14 Liquid As Defined By Regulator			14	Liquid As Defined By Regulator	
15 Eligible For Stressed Market Conditions			15	Eligible For Stressed Market Conditions	
17 Multi CCP-eligibility			17	Multi CCP-eligibility	
18 Pool Factor			18	Pool Factor	

Instrument Sna	pshot Messa	age – Xetra T7	Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)		
Field name	Optional	Description			
		19	Indexation Coefficient		
		20	Trading On Terms Of Issue		
		21	Issuer Business Unit		
		22	Allow Knock Out		
		23	Has PLP		
		24	PLP Deferral Time		
		25	Warrant Strike		
		26	Reporting Market TES		
		27			
		28	Liquidity Provider User Group		
InstrAttrib\/alus	NI NI		Specialist User Group trument attribute.		
InstrAttribValue	N (antianal) a	L			
<instrumentattributes></instrumentattributes>			S		
<events> (optional) seq</events>					
NoEvents	N	Number of e			
EventType	N	1	First Eligible Trade Date		
		2	Capital Adjustment Date		
		3	Dividend Payment Date		
EventDate	N	Date of ever	nt YYYYMMDD.		
	Events> (optional) sequence ends				
InstrumentPricePreci	Y	Display decimals.			
sion					
MinPriceIncrement	Y	Defines the minimum increment for trade prices (tick size).			
		This value is identical for all simple instruments of a product. Trading and clearing tick sizes, i.e. increments for trade prices in			
		_	clearing notation are the same unless		
		_	rementClearing is present.		
MinPriceIncrementCl	Υ	Defines the minimum increment for trade prices in clearing			
earing		notation (cle	earing tick size). Used for products to distinguish		
		between ticl	k sizes for trading and clearing notation, e.g. Total		
		Return Futu			
MinPriceIncrementA	Υ		minimum price movement in the respective		
mount			k value). This value is identical for all instruments of		
		•	mounts are only relevant for clearing tick sizes, i.e.		
			lied with MinPriceIncrement unless		
MaturityDate	Υ	MinPriceIncrementClearing is present. Always empty.			
MaturityMonthYear	Y	Always empty.			
SecuritySubType	Y	Always empty.			
<pre><marketsegmentgrp>:</marketsegmentgrp></pre>	1				
NoMarketSegments	N				
	N	Always 1.			
MarketSegmentID		Product identifier or product pool identifier, e.g. 89.			
ImpliedMarketIndicat or	Y	Always empty.			
MultilegModel	Υ	Always amn	tv		
Mainegimodel	ı	Always empty.			

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)				
Field name	Optional		Description	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.		
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Υ		e number of business days from trade execution settlement is to be effected.	
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce starts		
NoQuoteSizeRules	N	Always 1.		
MinBidSize	N	Bid side min	imum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.		
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce ends		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence starts		
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence starts	S	
NoTradingSessionRul es	N	Always 1.		
TradingSessionID	N	Always 0 = D	ay.	
TradingSessionSubID	N	1	Continuous	
		4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
		8	Continuous Auction Specialist	
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>				
<marketsegmentgrp> sequence ends</marketsegmentgrp>				

3.1.2.6. Instrument snapshot, T7 Releases 9.0 – 9.1 (23/11/2020–19/11/2021)

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)				
Field name	Optional	Description		
MsgType	N	Always d = Security Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.		
SecurityIDSource	N	Always M = Marketplace-assigned identifier.		
<securityalt> (optional)</securityalt>	sequence s	tarts		

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)					
Field name	Optional	Description			
NoSecurityAltID	N	Number of alternate identifiers.			
SecurityAltID	N	Alternate ins	strument identifier.		
SecurityAltIDSource	N	4	ISIN		
		8	Exchange symbol (mnemonic)		
		В	Wertpapier		
<securityalt> (optional)</securityalt>	sequence e	nds			
SecurityType	N	Type of secu	rity.		
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		
		10	Exchange traded note		
		12	Other		
		13	Subscription Right		
		14	Investment Funds		
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. O			
SecurityDesc	Υ	Instrument's	s long name.		
SecurityExchange	Y	Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market").			
ProductComplex	N	Type of instrument.			
		0 Simple Instrument			
<pre><derivativesdescriptor> (optional) group starts, always empty {}</derivativesdescriptor></pre>					
<pre><derivativesdescriptor> (optional) group ends</derivativesdescriptor></pre>					
<cashdescriptor> (optional) group starts</cashdescriptor>					
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message.			

Field name	Instrument Sna	Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)				
TES.	Field name	Optional	Description			
SettlCurrency						
DepositType	Currency	N	Currency as	published in ISO 4217.		
1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung 3 Wertpapierrechnung 4 NCSC via T2S 1 Susuer 1 Susuer of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument. Always empty. 1 Susue date of instrument.	SettlCurrency	N	Settlement o	currency.		
2 Streifbandverwahrung 3 Wertpapierrechnung 4 NCSC via T2S	DepositType	Υ	0	Auslandskassenverein		
Sisuer			1	Girosammelverwahrung		
Issuer Y Issuer of instrument. Always empty. IssueDate Y Issue of instrument. Always empty. RoundLot Y Minimum Tradable Unit. MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy P O Default 1 Single Auction 2 Special Auction 3 Special Auction 4 InstrumentParties N Number of parties. InstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyRole N O Clearing Organization InstrumentPartyRole N O Designated Sponsor Qualifier Soptional) sequence ands SendsAndWarrantsGroup> (optional) group starts, always empty {} SendsAndWarrantsGroup> (optional) group ends ClashDescriptor> (optional) sequence starts NoInstrumentAttributes> (optional) sequence starts Nolnstrattrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NolnstrAttrib Name 3 Issuer Name 4 Market Type 5 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group			2	Streifbandverwahrung		
Issuer Y Issuer of instrument. Always empty. IssueDate Y Issue date of instrument. Always empty. RoundLot Y Minimum Tradable Unit. MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy Y 0 Default pe 1 Single Auction InstrumentParties> (optional) sequence starts NoInstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyRole ource N 0 Proprietary urce InstrumentPartyRole ource N 0 Clearing Organization InstrumentPartyRole ource Y 0 Designated Sponsor Qualifier 1 Specialist InstrumentPartyRole optional) sequence ends SendsAndWarrantsGroup> (optional) group ends <ahref cash="" of="" part="" parties.<="" td="" the=""> NoinstrAttrib N Number of instrument attributes. NoinstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) sequence starts NoinstrAttrib N Minimum Reserve Order Volume 1</ahref>			3	Wertpapierrechnung		
IssueDate Y Issue date of instrument. Always empty. RoundLot Y Minimum Tradable Unit. MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period Start Time (HH:mm:ss). InstrumentAuctionTy P O Default 1 Single Auction 2 Special Auction InstrumentParties N Number of parties. InstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyRole N O Clearing Organization InstrumentPartyRole N O Designated Sponsor Qualifier 1 Specialist InstrumentParties (optional) sequence ends SendsAndWarrantsGroup> (optional) group ends InstrumentAttributes> InstrumentAttributes> (optional) group ends Ins			4	NCSC via T2S		
RoundLot Y Minimum Tradable Unit.	Issuer	Υ	Issuer of ins	trument. Always empty.		
MinTradeVol Y Minimum Order Quantity. QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy Pe	IssueDate	Υ	Issue date of	f instrument. Always empty.		
QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y Quoting Period End Time (HH:mm:ss). InstrumentParties Y Quoting Period End Time (HH:mm:ss). InstrumentParties N Default InstrumentParties N Number of parties. InstrumentPartylDS N Identifies a party associated with an instrument. InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole validier Y 0 Designated Sponsor Qualifier 1 Market Maker InstrumentParties> (optional) sequence ends Specialist <instrumentparties> (optional) sequence ends <cashdescriptor> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. NonstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) group ends Instrument attributes. InstrumentParty (optional) group ends InstrumentParty (op</instrumentattributes></bondsandwarrantsgroup></cashdescriptor></instrumentparties>	RoundLot	Υ				
QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y 0 Default 1 Single Auction 2 Special Auction InstrumentParties> (optional) sequence starts NoInstrumentPartyID N Number of parties. InstrumentPartyIDSO urce N 0 Proprietary InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor Qualifier 1 Market Maker InstrumentParties> (optional) sequence ends Specialist <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) group ends Instrument attributes. InstrumentParties> (optional) group ends InstrumentParties (optional) group ends <instrumentparties< td=""> Insum thim thim thim thim thim thim thim thi</instrumentparties<></instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>	MinTradeVol	Υ	Minimum Oı	rder Quantity.		
QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTy pe Y 0 Default 1 Single Auction 2 Special Auction InstrumentParties> (optional) sequence starts NoInstrumentPartyID N Number of parties. InstrumentPartyIDSO urce N 0 Proprietary InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor Qualifier 1 Market Maker InstrumentParties> (optional) sequence ends Specialist <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrumentAttributes> (optional) group ends Instrument attributes. InstrumentParties> (optional) group ends InstrumentParties (optional) group ends <instrumentparties< td=""> Insum thim thim thim thim thim thim thim thi</instrumentparties<></instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>	QuotingStartTime	Υ				
InstrumentAuctionTy pe 1	· •	Υ				
Pe	· •	Υ				
Special Auction			1	Single Auction		
InstrumentParties N Number of parties. InstrumentPartylD N Identifies a party associated with an instrument. InstrumentPartylDSo urce N 0 Proprietary InstrumentPartyRole urce N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor InstrumentParties> (optional) sequence ends Specialist InstrumentParties> (optional) sequence ends Specialist InstrumentParties> (optional) group ends Specialist InstrumentAntries (optional) group ends InstrumentAttributes> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group			2			
NoInstrumentParties N Number of parties. InstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyIDSo urce N 0 Proprietary InstrumentPartyRole Qualifier N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></instrumentparties>	<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	I '			
InstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyIDSo		-	1			
InstrumentPartyIDSo urce InstrumentPartyRole	InstrumentPartyID	N				
InstrumentPartyRole N 0 Clearing Organization InstrumentPartyRole Qualifier Y 0 Designated Sponsor Qualifier 1 Specialist <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>	InstrumentPartyIDSo	N				
InstrumentPartyRole Qualifier The product Assignment Party Poly		N	0	Clearing Organization		
Qualifier 1 Specialist <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>			1			
Qualifier 1 Specialist <instrumentparties> (optional) sequence ends <bondsandwarrantsgroup> (optional) group starts, always empty {} <bondsandwarrantsgroup> (optional) group ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. NoInstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group</instrumentattributes></cashdescriptor></bondsandwarrantsgroup></bondsandwarrantsgroup></instrumentparties>	InstrumentPartyRole	Υ	0	Designated Sponsor		
	Qualifier		1			
	<instrumentparties> (o</instrumentparties>	ptional) sequ	uence ends	· ·		
<cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib InstrAttribType Nound in the property of</instrumentattributes></cashdescriptor>		•		rts, always empty {}		
<cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib InstrAttribType Nound in the property of</instrumentattributes></cashdescriptor>	<bondsandwarrantsgr< td=""><td>oup> (option</td><td>nal) group end</td><td>ds</td></bondsandwarrantsgr<>	oup> (option	nal) group end	ds		
NoInstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group						
NoInstrAttrib InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group	· · · · · · · · · · · · · · · · · · ·			S		
InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group			,			
1 Minimum Display Volume 2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group	InstrAttribType	N				
2 Issuer Name 3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group	,		1	Minimum Display Volume		
3 Issuer Number 4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group			2			
4 Market Type 5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group						
5 Market Type Supplement 6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group						
6 Reporting Market 7 Cum-Ex Indicator 8 Product Assignment Group			5			
7 Cum-Ex Indicator 8 Product Assignment Group			6			
8 Product Assignment Group			7			
9 Product Assignment Group Description			9	Product Assignment Group Description		

Instrument Sna	pshot Messa	age – Xetra T7	Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)	
Field name	Optional	Description		
		10	Domestic Indicator	
		11	Pre Trade LIS Value	
		12	Illiquid As Defined By Exchange	
		13	Market Making Obligation	
		14	Liquid As Defined By Regulator	
		15 Eligible For Stressed Market Conditions		
		16	Multi CCP-eligibility	
		17	Pool Factor	
		18	Indexation Coefficient	
		19	Trading On Terms Of Issue	
		20	Issuer Business Unit	
		21	Allow Knock Out	
		22	Has PLP	
		23	PLP Deferral Time	
		24	Warrant Strike	
		25	Reporting Market TES	
		26	Liquidity Provider User Group	
		27	Specialist User Group	
		28	Liquidity Class	
InstrAttribValue	N	Value of instrument attribute.		
<pre><instrumentattributes></instrumentattributes></pre>	nentAttributes> (optional) sequence ends			
<events> (optional) seq</events>				
NoEvents	N	Number of e	events.	
EventType	N	1 First Eligible Trade Date		
21		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	Date of event YYYYMMDD.		
<events> (optional) seq</events>	uence ends			
InstrumentPricePreci	Υ	Display deci	mals.	
sion		, ,		
MinPriceIncrement	Υ	Defines the	minimum increment for trade prices (tick size).	
			identical for all simple instruments of a product.	
		_	clearing tick sizes, i.e. increments for trade prices in	
		_	clearing notation are the same unless	
MinDricolnersmantCl	V	MinPriceIncrementClearing is present.		
MinPriceIncrementCl earing	Y		minimum increment for trade prices in clearing	
Caring		notation (clearing tick size). Used for products to distinguish between tick sizes for trading and clearing notation, e.g. Total		
		Return Futures.		
MinPriceIncrementA	Y	Defines the minimum price movement in the respective		
mount		currency (tick value). This value is identical for all instruments of		
		a product. Amounts are only relevant for clearing tick sizes, i.e.		
		to be multiplied with MinPriceIncrement unless		
l .	I	MinPriceIncrementClearing is present.		

Instrument Sna	pshot Messa	age – Xetra T7	Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)		
Field name	Optional		Description		
MaturityDate	Υ	Always emp	ty.		
MaturityMonthYear	Υ	Always emp	ty.		
SecuritySubType	Υ	Always emp	ty.		
<marketsegmentgrp> s</marketsegmentgrp>	sequence sta	arts			
NoMarketSegments	N	Always 1.			
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicat or	Υ	Always emp	ty.		
MultilegModel	Υ	Always emp	ty.		
PriceType	Y	The unit in wor selling.	which an instrument is quoted/stated when buying		
		0	Percent		
		1	Shares		
		2	Points		
PostTradeAnonymity	Υ	0	Disabled (no)		
		1	Enabled (yes)		
		2	Central counterparty		
SettlBusinessDays	Υ	Indicates the	Indicates the number of business days from trade execution		
		after which settlement is to be effected.			
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce starts			
NoQuoteSizeRules	N	Always 1.			
MinBidSize	N		Bid side minimum quote quantity.		
MinOfferSize	N	Offer side minimum quote quantity.			
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce ends			
<pricerangerules> (op</pricerangerules>	tional) seque	ence starts			
NoPriceRangeRules	N	Always 1.			
PriceRangeRuleID	N	Reference to	table identifier from product level messages.		
<pricerangerules> (op</pricerangerules>	tional) seque	ence ends			
<tradingsessionrules></tradingsessionrules>	(optional) se	equence start	S		
NoTradingSessionRul es	N	Always 1.			
TradingSessionID	N	Always 0 = Day.			
TradingSessionSubID	N	1 Continuous			
		4	Scheduled Intraday Auction		
		6	Any Auction		
		7	Continuous Auction Issuer		
		8	Continuous Auction Specialist		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence ends			
<marketsegmentgrp> :</marketsegmentgrp>	sequence en	ids			

3.1.2.7. Instrument snapshot, T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)

Instrument Snap	oshot Messag	ge – Xetra T7 I	Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)	
Field name	Optional		Description	
MsgType	N	Always d = Security Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrum 7205780019	ent identifier uniquely identifies an instrument, e.g. 96358145.	
SecurityIDSource	N	Always M =	Marketplace-assigned identifier.	
<securityalt> (optional</securityalt>) sequence s	tarts		
NoSecurityAltID	N	Number of a	alternate identifiers.	
SecurityAltID	N	Alternate in:	strument identifier.	
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	
		102	Redundant To SecurityID, the SecurityAltID will point to the instrument with the same SecurityID which "replaces" this inactivated instrument.	
<securityalt> (optional</securityalt>) sequence e	nds		
SecurityType N		Type of secu	urity.	
		5	Common stock	
		8	Exchange traded fund	
		9	Exchange traded commodity	
		10	Exchange traded note	
		12	Other	
		13	Subscription Right	
		14	Investment Funds	
		15	Digital Assets	
SecurityStatus	N		s may be published prior to becoming active for	
			tus is identical to the product level, i.e. all sof a product are either published or active with the f those that expire one or more business days after ading. These will still be distributed until they expire ive.	
		Active instru	uments can also expire intra-day or be suspended oveyed with the same field but only within intraday emessages.	
		0	Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date.	
		1	Inactive	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted	

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)				
Field name	Optional		Description	
			soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages.	
SecurityDesc	Υ	Instrument's long name.		
SecurityExchange	Y		tifier Code (ISO 10383) of the exchange where the ce ("Primary Market").	
ProductComplex	N	Type of instr	rument.	
		0	Simple Instrument	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) §	group starts, a	always empty {}	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) ខ្	group ends		
<cashdescriptor> (opti</cashdescriptor>	onal) group	starts		
RefTickTableID	N	TickTableID	price step table alias tick rule table identifier from product snapshot message. d as the reference to the default tick rule table for	
Currency	N	Currency as	published in ISO 4217.	
SettlCurrency	N	Settlement of	currency.	
DepositType	Υ	0	Auslandskassenverein	
		1	Girosammelverwahrung	
		2	Streifbandverwahrung	
			Wertpapierrechnung	
		4	NCSC via T2S	
Issuer	Υ	Issuer of instrument. Always empty.		
IssueDate	Υ	Issue date of instrument. Always empty.		
RoundLot	Υ	Minimum Tradable Unit.		
MinTradeVol	Υ	Minimum Order Quantity.		
QuotingStartTime	Υ	Quoting Per	iod Start Time (HH:mm:ss).	
QuotingEndTime	Υ	Quoting Per	iod End Time (HH:mm:ss).	
InstrumentAuctionTy	Υ	0	Default	
pe		1	Single Auction	
		2	Special Auction	
<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	uence starts		
NoInstrumentParties	N	Number of p	parties.	
InstrumentPartyID	N		party associated with an instrument.	
InstrumentPartyIDSo urce	N	0 Proprietary		
InstrumentPartyRole	N	0 Clearing Organization		
-		1	Market Maker	
InstrumentPartyRole	Υ	0 Designated Sponsor		
Qualifier		1 Specialist		
<instrumentparties> (optional) sequence ends</instrumentparties>				
<bondsandwarrantsgr< td=""><td>·</td><td></td><td>rts, always empty {}</td></bondsandwarrantsgr<>	·		rts, always empty {}	
<bondsandwarrantsgr< td=""><td></td><td></td><td></td></bondsandwarrantsgr<>				
<volacorridorgroup> (optional) group starts</volacorridorgroup>				
~voiaCorridor Group> (optionar) group starts				

Instrument Snap	shot Messag	ge – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional		Description		
VolatilityCorridorOpe ningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments			
VolatilityCorridorIntra dayAuction	Y	Reference to Volatility Corridor Table for Intraday Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments			
VolatilityCorridorClosi ngAuction	Y	mapping of	o Volatility Corridor Table for Closing Auction. The integer values to the corresponding corridor table is www.xetra.com > Instruments > All tradable		
VolatilityCorridorCont inuous	Y	mapping of	Volatility Corridor Table in Continuous. The integer values to the corresponding corridor table is www.xetra.com > Instruments > All tradable		
<volacorridorgroup> (</volacorridorgroup>	optional) gro	oup ends			
<cashdescriptor> (opti</cashdescriptor>	onal) group	ends			
<pre><instrumentattributes></instrumentattributes></pre>	optional) s	equence start	S		
NoInstrAttrib	N	Number of i	nstrument attributes.		
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	Pre Trade LIS Value		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Multi CCP-eligibility		
		17	Pool Factor		
		18	Indexation Coefficient		
		19	Trading On Terms Of Issue		
		20	Issuer Business Unit		
		21	Allow Knock Out		
		22	Has PLP		
		23	PLP Deferral Time		
I	İ	L	1		

Instrument Snap	shot Messag	ge – Xetra T7 F	Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)	
Field name	Optional	Description		
		24	Warrant Strike	
		25	Reporting Market TES	
		26	Liquidity Provider User Group	
		27	Specialist User Group	
		28	Liquidity Class	
InstrAttribValue	N		rument attribute.	
<pre><instrumentattributes></instrumentattributes></pre>				
<events> (optional) seq</events>				
NoEvents	N	Number of e	events.	
EventType	N	1	First Eligible Trade Date	
		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	_	nt YYYYMMDD.	
<events> (optional) seq</events>		2 6.00 0.000		
InstrumentPricePreci	Υ	Display deci	mals	
sion	'	Display accil	Tidis.	
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size).		
		This value is	identical for all simple instruments of a product.	
		_	clearing tick sizes, i.e. increments for trade prices in	
		_	clearing notation are the same unless	
			rementClearing is present.	
MinPriceIncrementCl	Υ	Defines the minimum increment for trade prices in clearing		
earing		notation (clearing tick size). Used for products to distinguish between tick sizes for trading and clearing notation, e.g. Total		
		Return Futures.		
MinPriceIncrementA	Υ	Defines the minimum price movement in the respective		
mount	·		k value). This value is identical for all instruments of	
			mounts are only relevant for clearing tick sizes, i.e.	
			lied with MinPriceIncrement unless	
		MinPriceIncr	ementClearing is present.	
MaturityDate	Υ	Always emp	ty.	
MaturityMonthYear	Υ	Always emp	ty.	
SecuritySubType	Υ	Always emp	ty.	
<marketsegmentgrp> s</marketsegmentgrp>	sequence sta			
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicat	Υ	Always empty.		
or				
MultilegModel	Υ	Always empty.		
PriceType	Υ	The unit in which an instrument is quoted/stated when buying		
		or selling.		
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)				
Field name	Optional	Description		
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Υ	Indicates the	number of business days from trade execution	
		l	settlement is to be effected.	
<quotesizerules> (opti</quotesizerules>	onal) sequer	nce starts		
NoQuoteSizeRules	Ν	Always 1.		
MinBidSize	N	Bid side min	imum quote quantity.	
MinOfferSize	N	Offer side m	inimum quote quantity.	
<quotesizerules> (opti</quotesizerules>	onal) sequer	nce ends		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence starts		
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence starts	5	
NoTradingSessionRul	N	Always 1.		
es				
TradingSessionID	N	Always 0 = D	ay.	
TradingSessionSubID	N	1	Continuous	
		4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
		8	Continuous Auction Specialist	
<tradingsessionrules></tradingsessionrules>	<tradingsessionrules> (optional) sequence ends</tradingsessionrules>			
<marketsegmentgrp> sequence ends</marketsegmentgrp>				

3.1.2.8. Instrument snapshot, T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)				
Field name	Optional		Description	
MsgType	N	Always d = Se	ecurity Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.		
SecurityIDSource	N	Always M = Marketplace-assigned identifier.		
<securityalt> (optional)</securityalt>	sequence st	arts		
NoSecurityAltID	N	Number of alternate identifiers.		
SecurityAltID	N	Alternate instrument identifier.		
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	

of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. O Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date. 1 Inactive 7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted	Instrument Snap	shot Messag	Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)			
SecurityAlt> (optional) sequence ends SecurityType N Type of security. 5 Common stock 8 Exchange traded fund 9 Exchange traded note 12 Other 13 Subscription Right 14 Investment Funds 15 Digital assets SecurityStatus N Instruments may be published prior to becoming active for trading, Status is identical to the product level, i.e. all instrumen of a product are either published or active with the exception of those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages. 0 Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is exceeded and the instrument will be deleted soon. Those instruments might become or Active again intraday via Market Data intraday State (Change messages. SecurityDesc Y Instrument's long name. SecurityExchange Y Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market"). 1 Instrument 0 Simple Instrument SecurityExchange Y Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market"). 2 ServativesDescriptor> (optional) group starts, always empty {} PerivativesDescriptor> (optional) group starts, always empty {} PerivativesDescriptor> (optional) group starts. ReffickTableID N Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	Field name	Optional		Description		
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13 Subscription Right 14 Investment Funds 15 Digital assets			10	Exchange traded note		
14			12	Other		
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Currency N Currency as published in ISO 4217.	RefTickTableID	N	TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for			
	Currency	N	Currency as	published in ISO 4217.		

SettlCurrency DepositType PolyositType Polyo	Field name	Optional		Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023) Description			
DepositType Y O Auslandskassenverein 1 Girosammehverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung 4 NCSC via T2S IssueDate RoundLot Y Minimum Tradable Unit. MinTradeVol QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTyp e InstrumentParties> (optional) sequence starts NonstrumentParties> (optional) sequence starts NonstrumentPartyID N Identifies a party associated with an instrument. InstrumentPartyRole InstrumentPartyRole N O Clearing Organization I Market Maker InstrumentPartyRole InstrumentPartyRole VolaCorridorGroup> (optional) group starts, always empty {} SondsAndWarrantsGroup> (optional) group starts, always empty {} SondsAndWarrantsGroup> (optional) group starts VolatilityCorridorOpen ingAuction Y Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorIntra dayAuction Y Reference to Volatility Corridor Table for Closing Auction. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorClosi N Reference to Volatility Corridor Table for Closing Auction. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorCortion Y Reference to Volatility Corridor Table for Closing Auction. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorCortion Y Reference to Volatility Corridor Table for Closing Auction. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorCortion Y Reference to Volatility Corridor Table in Continuous. The mapping of integer values to the corresponding corridor table instruments VolatilityCorridorCortion integer values to the corresponding corridor table in available at: wwww.xetra.com > Instruments > All tradable instruments VolatilityCorridorCortion in							
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2 Streifbandverwahrung 3 Wertpapierrechnung 4 NCSC via T2S	-1 21		1				
3 Wertpapierrechnung			2				
A NCSC via T2S							
Issue Date				<u> </u>			
RoundLot	IssueDate	V					
Miniman Order Quantity.				• • • •			
QuotingStartTime Y Quoting Period Start Time (HH:mm:ss). QuotingEndTime Y Quoting Period End Time (HH:mm:ss). InstrumentAuctionTyp e Y 0 Default e 1 Single Auction Special Auction <instrumentparties> (optional) sequence starts NonstrumentPartylD N Identifies a party associated with an instrument. InstrumentPartyIDSou rce N 0 Proprietary InstrumentPartyRole rce N 0 Clearing Organization InstrumentPartyRoleQ rce Y 0 Designated Sponsor InstrumentPartyRoleQ valifier 1 Specialist <instrumentpartyroleq td="" valifier<=""> 1 Specialist <instrumentparties= (optional)="" ends<="" sequence="" td=""> SeandsAndWarrantsGroup Valifier <</instrumentparties=></instrumentpartyroleq></instrumentpartyroleq></instrumentpartyroleq></instrumentpartyroleq></instrumentpartyroleq></instrumentpartyroleq></instrumentparties>							
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InstrumentAuctionTyp e 1 Single Auction							
Single Auction 2 Special Auction 2 Special Auction 2 Special Auction 3							
2 Special Auction		ľ					
InstrumentParties	C		-	_			
Number of parties Number of parties		/* IS		Special Auction			
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InstrumentPartyIDSou rce InstrumentPartyRole InstrumentPartyRole InstrumentPartyRole InstrumentPartyRoleQ InstrumentPartyRoleQ InstrumentPartyRoleQ InstrumentPartyRoleQ InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentParties> (optional) sequence ends InstrumentSunday empty {} InstrumentSun				•			
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<volacorridorgroup> (optional) group ends</volacorridorgroup>		Y	mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable				
Total Control of Copyright (Optional) Stoup Clies	<volacorridorgroup> (c</volacorridorgroup>	ptional) gro	up ends				

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)					
Field name	Optional	Description			
<instrumentattributes></instrumentattributes>	(optional) se	quence starts			
NoInstrAttrib	N	Number of ir	Number of instrument attributes.		
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	Pre Trade LIS Value		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Multi CCP-eligibility		
		17	Pool Factor		
		18	Indexation Coefficient		
		19	Trading On Terms Of Issue		
		20	Issuer Business Unit		
		21	Allow Knock Out		
		22	Has PLP		
		23	PLP Deferral Time		
		24	Warrant Strike		
		25	Reporting Market TES		
		26	Liquidity Provider User Group		
		27	Specialist User Group		
		28	Liquidity Class		
InstrAttribValue	N		rument attribute.		
<pre><instrumentattributes></instrumentattributes></pre>	(optional) se	equence ends			
<events> (optional) seq</events>	uence starts				
NoEvents	N	Number of e	vents.		
EventType	N	1	First Eligible Trade Date		
		2	Capital Adjustment Date		
		3	Dividend Payment Date		
EventDate	N	Date of even	t YYYYMMDD.		
<events> (optional) seq</events>	<events> (optional) sequence ends</events>				
InstrumentPricePrecisi	Υ	Display decimals.			
on					

Instrument Snap	shot Messag	ge – Xetra T7 I	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)		
Field name	Optional		Description		
MinPriceIncrement	Y	Defines the minimum increment for trade prices (tick size). This value is identical for all simple instruments of a product. Trading and clearing tick sizes, i.e. increments for trade prices in trading and clearing notation are the same unless MinPriceIncrementClearing is present.			
MinPriceIncrementCle aring	Υ	Defines the notation (cle	minimum increment for trade prices in clearing earing tick size). Used for products to distinguish a sizes for trading and clearing notation, e.g. Total		
MinPriceIncrementAm ount	Y	(tick value). ⁻ Amounts are multiplied w	minimum price movement in the respective currency This value is identical for all instruments of a product. e only relevant for clearing tick sizes, i.e. to be with MinPriceIncrement unless rementClearing is present.		
MaturityDate	Υ	Always emp	ty.		
MaturityMonthYear	Υ	Always emp	ty.		
SecuritySubType	Υ	Always emp	ty.		
<marketsegmentgrp> s</marketsegmentgrp>	equence sta	rts			
NoMarketSegments	N	Always 1.			
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicato r	Y	Always empty.			
MultilegModel	Υ	Always empty.			
PriceType	Υ	The unit in v selling.	which an instrument is quoted/stated when buying or		
		0	Percent		
		1	Shares		
		2	Points		
PostTradeAnonymity	Υ	0	Disabled (no)		
		1	Enabled (yes)		
		2	Central counterparty		
SettlBusinessDays	Υ		e number of business days from trade execution settlement is to be effected.		
<quotesizerules> (option</quotesizerules>	onal) sequer	nce starts			
NoQuoteSizeRules	N	Always 1.			
MinBidSize	N	Bid side min	imum quote quantity.		
MinOfferSize	N	Offer side minimum quote quantity.			
<quotesizerules> (option</quotesizerules>	onal) sequer	nce ends			
<pricerangerules> (opt</pricerangerules>	PriceRangeRules> (optional) sequence starts				
NoPriceRangeRules	N	Always 1.			
PriceRangeRuleID	N	Reference to table identifier from product level messages.			
<pricerangerules> (opt</pricerangerules>	ional) seque	uence ends			
<tradingsessionrules></tradingsessionrules>	(optional) se	sequence starts			
NoTradingSessionRule	N	Always 1.			

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)				
Field name	Optional	Description		
TradingSessionID	N	Always 0 = D	ay.	
TradingSessionSubID	N	1	Continuous	
		4 Scheduled Intraday Auction 6 Any Auction		
		7 Continuous Auction Issuer		
		8 Continuous Auction Specialist		
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>				
<marketsegmentgrp> sequence ends</marketsegmentgrp>				

3.1.2.9. Instrument snapshot, T7 Release 12.0 (20/11/2023 – 10/05/2024)

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description		
MsgType	N	Always d = Security Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrum 7205780019	ent identifier uniquely identifies an instrument, e.g. 6358145.	
SecurityIDSource	N	Always M =	Marketplace-assigned identifier.	
<securityalt> (optional)</securityalt>	sequence st	tarts		
NoSecurityAltID	N	Number of a	alternate identifiers.	
SecurityAltID	N	Alternate in	strument identifier.	
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	
		102	Redundant To SecurityID, the SecurityAltID will point to the instrument with the same SecurityID which "replaces" this inactivated instrument.	
<securityalt> (optional)</securityalt>	sequence e	nds		
SecurityType	N	Type of security.		
		5	Common stock	
		8	Exchange traded fund	
		9	Exchange traded commodity	
		10	Exchange traded note	
		12	Other	
		13	Subscription Right	
		14	Investment Funds	
		15	Digital assets	
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop		

Instrument S	Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional		Description		
		trading. These will still be distributed until they expire but as inactive.			
		Active instruments can also expire intra-day or be suspended			
		which is conveyed with the same field but only within intraday			
		state change			
		O Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current busin date.			
		1	Inactive		
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages.		
SecurityDesc	Υ	Instrument's	s long name.		
SecurityExchange	Y	Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market").			
ProductComplex	N	Type of instrument.			
		0 Simple Instrument			
<derivativesdescriptor></derivativesdescriptor>	(optional) g	roup starts, a	ılways empty {}		
<derivativesdescriptor></derivativesdescriptor>	optional) g	roup ends			
<cashdescriptor> (option</cashdescriptor>	onal) group s	starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.			
Currency	Ν	Currency as published in ISO 4217.			
SettlCurrency	Ν	Settlement of	currency.		
DepositType	Υ	0	Auslandskassenverein		
		1	Girosammelverwahrung		
		2	Streifbandverwahrung		
		3	Wertpapierrechnung		
		4	NCSC via T2S		
IssueDate	Υ		f instrument. Always empty.		
RoundLot	Υ	Minimum Tr			
MinTradeVol	Υ		rder Quantity.		
QuotingStartTime	Υ	Quoting Period Start Time (HH:mm:ss).			
QuotingEndTime	Υ	Quoting Period End Time (HH:mm:ss).			
InstrumentAuctionTyp	Υ	0	Default		
е		1	Single Auction		
		2	Special Auction		
<instrumentparties> (or</instrumentparties>	,				
NoInstrumentParties	N	Number of p	parties.		

Instrument S	napshot Me	ssage – Xetra	T7 Release 12.0 (20/11/2023 – 10/05/2024)	
Field name	Optional		Description	
InstrumentPartyID	N	Identifies a party associated with an instrument.		
InstrumentPartyIDSou rce	N	0	Proprietary	
InstrumentPartyRole	N	0	Clearing Organization	
		1	Market Maker	
InstrumentPartyRoleQ	Υ	0	Designated Sponsor	
ualifier		1	Specialist	
<pre><instrumentparties> (op)</instrumentparties></pre>	otional) sequ	ience ends		
<bondsandwarrantsgro< td=""><td>oup> (optior</td><td>nal) group stai</td><td>rts, always empty {}</td></bondsandwarrantsgro<>	oup> (optior	nal) group stai	rts, always empty {}	
<bondsandwarrantsgro< td=""><td>oup> (option</td><td>nal) group end</td><td>ls</td></bondsandwarrantsgro<>	oup> (option	nal) group end	ls	
<volacorridorgroup> (c</volacorridorgroup>	ptional) gro	up starts		
VolatilityCorridorOpen ingAuction	Y	mapping of i	Volatility Corridor Table for Opening Auction. The nteger values to the corresponding corridor table is www.xetra.com > Instruments > All tradable	
VolatilityCorridorIntra dayAuction	Y	mapping of i	Volatility Corridor Table for Intraday Auction. The nteger values to the corresponding corridor table is www.xetra.com > Instruments > All tradable	
VolatilityCorridorClosi	Υ	Reference to	Volatility Corridor Table for Closing Auction. The	
ngAuction		available at:	nteger values to the corresponding corridor table is www.xetra.com > Instruments > All tradable	
Valatility Carridar Capti	Υ	instruments Reference to Volatility Corridor Table in Continuous. The		
VolatilityCorridorConti nuous	ı	mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments		
<volacorridorgroup> (c</volacorridorgroup>	ontional) gro			
<cashdescriptor> (option</cashdescriptor>		•		
<pre><instrumentattributes></instrumentattributes></pre>			<u> </u>	
NoInstrAttrib	N		nstrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume	
modification ype	14	1	Minimum Display Volume	
		2	Issuer Name	
		3	Issuer Number	
		4	Market Type	
		5		
		6	Market Type Supplement Reporting Market	
		7	Cum-Ex Indicator	
		8	Product Assignment Group Description	
		9	Product Assignment Group Description Domestic Indicator	
		10		
		11	Pre Trade LIS Value	
		12	Illiquid As Defined By Exchange	
		13	Market Making Obligation	

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)					
Field name	Optional		Description		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Multi CCP-eligibility		
		17	Pool Factor		
		18	Indexation Coefficient		
		19	Trading On Terms Of Issue		
		20	Issuer Business Unit		
		21	Allow Knock Out		
		22	Has PLP		
		23	PLP Deferral Time		
		24	Warrant Strike		
		25	Reporting Market TES		
		26	Liquidity Provider User Group		
		27	Specialist User Group		
		28	Liquidity Class		
InstrAttribValue	N	Value of inst	rument attribute.		
<instrumentattributes></instrumentattributes>	(optional) s	equence ends			
<events> (optional) seq</events>					
NoEvents	N	Number of e	vents.		
EventType	N	1	First Eligible Trade Date		
		2	Capital Adjustment Date		
		3	Dividend Payment Date		
EventDate	N	Date of event YYYYMMDD.			
<events> (optional) seq</events>	uence ends				
InstrumentPricePrecisi on	Y	Display decimals.			
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size).			
		This value is	identical for all simple instruments of a product.		
			clearing tick sizes, i.e. increments for trade prices in		
		_	clearing notation are the same unless		
14: D: 1			ementClearing is present.		
MinPriceIncrementCle	Y		minimum increment for trade prices in clearing		
aring			aring tick size). Used for products to distinguish sizes for trading and clearing notation, e.g. Total		
		Return Futur			
MinPriceIncrementAm	Υ		minimum price movement in the respective currency		
ount		(tick value). This value is identical for all instruments of a product. Amounts are only relevant for clearing tick sizes, i.e. to be multiplied with MinPriceIncrement unless			
		MinPriceIncrementClearing is present.			
MaturityDate	Y	Always empty.			
MaturityMonthYear	Y	Always empty.			
SecuritySubType	Y	Always empty.			
<relatedinstrumentgrp< td=""><td>> (optional)</td><td>group starts</td><td></td></relatedinstrumentgrp<>	> (optional)	group starts			

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)					
Field name	Optional		Description		
RelatedSecurityID	N	The instrument identifier uniquely identifies the related instrument.			
RelatedSecurityIDSour ce	N	Always M = N	Marketplace-assigned identifier.		
<relatedinstrumentgrp< td=""><td>> (optional)</td><td>group ends</td><td></td></relatedinstrumentgrp<>	> (optional)	group ends			
<marketsegmentgrp> s</marketsegmentgrp>	equence sta	irts			
NoMarketSegments	N	Always 1.	Always 1.		
MarketSegmentID	N	Product iden	itifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicato r	Y	Always empt	y.		
MultilegModel	Υ	Always empt	y.		
PriceType	Y	The unit in was selling.	hich an instrument is quoted/stated when buying or		
		0	Percent		
		1	Shares		
		2	Points		
PostTradeAnonymity	Υ	0	Disabled (no)		
		1	Enabled (yes)		
		2	Central counterparty		
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.			
<quotesizerules> (option</quotesizerules>	<quotesizerules> (optional) sequence starts</quotesizerules>				
NoQuoteSizeRules	N	Always 1.			
MinBidSize	Ν	Bid side minimum quote quantity.			
MinOfferSize	Ν	Offer side minimum quote quantity.			
<quotesizerules> (option</quotesizerules>	onal) sequer	nce ends			
<pricerangerules> (opt</pricerangerules>	•	nce starts			
NoPriceRangeRules	Ν	Always 1.			
PriceRangeRuleID	N	Reference to	table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	ional) seque	nce ends			
<tradingsessionrules></tradingsessionrules>	(optional) se	equence starts	5		
NoTradingSessionRule s	N	Always 1.			
TradingSessionID	N	Always 0 = Day.			
TradingSessionSubID	N	1	Continuous		
		4	Scheduled Intraday Auction		
		6	Any Auction		
		7	Continuous Auction Issuer		
		8	Continuous Auction Specialist		
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>					
<marketsegmentgrp> s</marketsegmentgrp>	equence en	ds			

3.1.2.10. Instrument snapshot, T7 Release 12.1 (13/05/2024 – 15/11/2024)

Instrument S	napshot Me	ssage – Xetra	T7 Release 12.1 (13/05/2024 – 15/11/2024)	
Field name	Optional	Description		
MsgType	N	Always d = S	ecurity Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.		
SecurityID	N	The instrume 7205780019	ent identifier uniquely identifies an instrument, e.g. 6358145.	
SecurityIDSource	N	Always M = N	Marketplace-assigned identifier.	
<securityalt> (optional)</securityalt>	sequence st	arts		
NoSecurityAltID	N	Number of a	lternate identifiers.	
SecurityAltID	N	Alternate ins	strument identifier.	
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	
		102	Redundant To SecurityID, the SecurityAltID will point to the instrument with the same SecurityID which "replaces" this inactivated instrument.	
<securityalt> (optional)</securityalt>	sequence ei	nds		
SecurityType	N	Type of secu	rity.	
		5	Common stock	
		8	Exchange traded fund	
		9	Exchange traded commodity	
		10	Exchange traded note	
		12	Other	
		13	Subscription Right	
		14	Investment Funds	
		15	Digital assets	
SecurityStatus	N	Instruments	Digital assets may be published prior to becoming active for us is identical to the product level, i.e. all instruments	
		of a product are either published or active with the exception those that expire one or more business days after they stop trading. These will still be distributed until they expire but as inactive.		
			ments can also expire intra-day or be suspended veyed with the same field but only within intraday messages.	
		0	Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date.	
		1	Inactive	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted	

Instrument S	napshot Me	ssage – Xetra	T7 Release 12.1 (13/05/2024 – 15/11/2024)
Field name	Optional		Description
			soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages.
SecurityDesc	Υ	Instrument's long name.	
SecurityExchange	Υ		tifier Code (ISO 10383) of the exchange where the ce ("Primary Market").
ProductComplex	N	Type of instr	ument.
		0	Simple Instrument
<derivativesdescriptor></derivativesdescriptor>	(optional) g	group starts, a	lways empty {}
<derivativesdescriptor></derivativesdescriptor>	· (optional) g	group ends	
<cashdescriptor> (option)</cashdescriptor>	nal) group s	starts	
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as	published in ISO 4217.
SettlCurrency	N	Settlement c	urrency.
DepositType	Υ	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Υ	Issue date of	f instrument. Always empty.
RoundLot	Υ	Minimum Tradable Unit.	
MinTradeVol	Υ	Minimum Or	der Quantity.
MaxTradeVol	Υ	This field contains the maximum quantity of a regular order or quote, which is allowed to be traded in a given instrument.	
MaxTradeVal	Υ	This field cor	ntains the maximum value of a regular order or n is allowed to be traded in a given instrument.
QuotingStartTime	Υ	† ·	od Start Time (HH:mm:ss).
QuotingEndTime	Υ	_	od End Time (HH:mm:ss).
InstrumentAuctionTyp	Υ	0	Default
е		1	Single Auction
		2	Special Auction
<pre><instrumentparties> (or</instrumentparties></pre>	otional) segu	<u> </u>	'
NoInstrumentParties	N	Number of p	parties.
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSou	N	0	Proprietary
rce			
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQ	Υ	0	Designated Sponsor
ualifier		1	Specialist
<instrumentparties> (or</instrumentparties>	ntional) segu	ience ends	

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)					
Field name	Field name Optional Description				
<pre><bondsandwarrantsgroup> (optional) group starts, always empty {}</bondsandwarrantsgroup></pre>					
<bondsandwarrantsgr< td=""><td>oup> (optior</td><td>nal) group end</td><td>s</td></bondsandwarrantsgr<>	oup> (optior	nal) group end	s		
<volacorridorgroup> (d</volacorridorgroup>	ptional) gro	up starts			
VolatilityCorridorOpen ingAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments			
VolatilityCorridorIntra dayAuction	Y	mapping of i	Reference to Volatility Corridor Table for Intraday Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable		
VolatilityCorridorClosi ngAuction	Y	mapping of i	Reference to Volatility Corridor Table for Closing Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable		
VolatilityCorridorConti nuous	Y	Reference to Volatility Corridor Table in Continuous. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments			
<volacorridorgroup> (d</volacorridorgroup>	<volacorridorgroup> (optional) group ends</volacorridorgroup>				
<cashdescriptor> (option)</cashdescriptor>	onal) group (ends			
<instrumentattributes></instrumentattributes>	(optional) so	equence start	S		
NoInstrAttrib	N	Number of ir	nstrument attributes.		
InstrAttribType	N	0	Minimum Reserve Order Volume		
		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	Pre Trade LIS Value		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
		14	Liquid As Defined By Regulator		
		15	Eligible For Stressed Market Conditions		
		16	Multi CCP-eligibility		
		17	Pool Factor		
		18	Indexation Coefficient		
		19	Trading On Terms Of Issue		
		20	Issuer Business Unit		
I	ļ				

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
Treid Harrie	Optional	21	Allow Knock Out
		22	Has PLP
		23	PLP Deferral Time
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N		rument attribute.
<pre><instrumentattributes></instrumentattributes></pre>	(optional) so	l	
<events> (optional) sequ</events>	<u> </u>		
NoEvents	N	Number of e	events.
EventType	N	1	First Eligible Trade Date
31		2	Capital Adjustment Date
		3	Dividend Payment Date
EventDate	N	Date of ever	nt YYYYMMDD.
<events> (optional) seq</events>	uence ends		
InstrumentPricePrecisi	Υ	Display deci	mals.
on			
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size). This value is identical for all simple instruments of a product.	
		_	clearing tick sizes, i.e. increments for trade prices in
		•	clearing notation are the same unless ementClearing is present.
MinPriceIncrementCle	Y		minimum increment for trade prices in clearing
aring	1	notation (clearing tick size). Used for products to distinguish	
8		between tick sizes for trading and clearing notation, e.g. Total	
		Return Futures.	
MinPriceIncrementAm	Υ	Defines the minimum price movement in the respective currency	
ount			This value is identical for all instruments of a product.
			e only relevant for clearing tick sizes, i.e. to be
			ith MinPriceIncrement unless
MaturityDate	Υ	Always emp	rementClearing is present.
MaturityMonthYear	Y	Always emp	
SecuritySubType	Y	Always emp	-
<relatedinstrumentgrp< td=""><td></td><td></td><td>· · · · · · · · · · · · · · · · · · ·</td></relatedinstrumentgrp<>			· · · · · · · · · · · · · · · · · · ·
RelatedSecurityID	N	<u> </u>	ent identifier uniquely identifies the related
	1,	instrument.	and a serial and a serial seri
RelatedSecurityIDSour	N		Marketplace-assigned identifier.
ce		-	
<relatedinstrumentgrp< td=""><td>> (optional)</td><td>group ends</td><td></td></relatedinstrumentgrp<>	> (optional)	group ends	
<marketsegmentgrp> s</marketsegmentgrp>	equence sta	irts	
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	

Instrument S	napshot Me	ssage – Xetra	T7 Release 12.1 (13/05/2024 – 15/11/2024)	
Field name	Optional		Description	
ImpliedMarketIndicato r	Y	Always empty.		
MultilegModel	Υ	Always emp	ty.	
PriceType	Υ	The unit in v	which an instrument is quoted/stated when buying or	
		selling.		
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Υ	Indicates the	e number of business days from trade execution	
		after which	settlement is to be effected.	
<quotesizerules> (optional) sequence starts</quotesizerules>				
NoQuoteSizeRules	Ν	Always 1.		
MinBidSize	Ν	Bid side min	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.		
<quotesizerules> (option</quotesizerules>	onal) sequer	nce ends		
<pricerangerules> (opt</pricerangerules>	ional) seque	ence starts		
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to	table identifier from product level messages.	
<pricerangerules> (opt</pricerangerules>	ional) seque	ence ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence start	S	
NoTradingSessionRule	N	Always 1.		
S		-		
TradingSessionID	Ν	Always 0 = D	Pay.	
TradingSessionSubID	N	1	Continuous	
		4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
		8	Continuous Auction Specialist	
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>				
<marketsegmentgrp> s</marketsegmentgrp>	equence en	ds		

3.1.2.11. Instrument snapshot, T7 Release 13.0 (from 18/11/2024)

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional Description		
MsgType	N	Always d = Security Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)					
Field name	Optional	Description			
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.			
SecurityIDSource	N	Always M = Marketplace-assigned identifier.			
<securityalt> (optional)</securityalt>	sequence st				
NoSecurityAltID	N		Number of alternate identifiers.		
SecurityAltID	N	Alternate ins	trument identifier.		
SecurityAltIDSource	N	4	ISIN		
		8	Exchange symbol (mnemonic)		
		В	Wertpapier		
		102	Redundant To SecurityID, the SecurityAltID will		
			point to the instrument with the same SecurityID		
			which "replaces" this inactivated instrument.		
<securityalt> (optional)</securityalt>	sequence ei	nds			
SecurityType	N	Type of secu	rity.		
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		
		10	Exchange traded note		
		12	Other		
		13	Subscription Right		
		14	Investment Funds		
		15	Digital assets		
SecurityStatus	N	Instruments	may be published prior to becoming active for		
		_	us is identical to the product level, i.e. all instruments		
			are either published or active with the exception of		
			cpire one or more business days after they stop		
			se will still be distributed until they expire but as		
		inactive.	ments can also expire intra-day or be suspended		
			veyed with the same field but only within intraday		
		state change			
		0	Active, is used when the first trading date is in		
			future and the product state is Active. The		
			SecurityStatus switches to Active as soon the first		
			trading date is equal or later than current business		
		_	date.		
		1	Inactive		
		7	Pending deletion, used when the last trading date		
			is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active		
			again intraday via Market Data intraday State		
			Change messages.		
SecurityDesc	Υ	Instrument's	•		
SecurityExchange	Υ		ifier Code (ISO 10383) of the exchange where the		
		IPO took place ("Primary Market").			
ProductComplex	N	Type of instrument.			

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)					
Field name	Optional	Description			
		0	Simple Instrument		
<derivativesdescriptor></derivativesdescriptor>	optional) g	group starts, always empty {}			
<pre><derivativesdescriptor> (optional) group ends</derivativesdescriptor></pre>					
<cashdescriptor> (optional) group starts</cashdescriptor>					
RefTickTableID	N	Reference to price step table alias tick rule table identifier			
		TickTableID from product snapshot message.			
		It is also use	It is also used as the reference to the default tick rule table for		
		TES.			
Currency	N	Currency as	published in ISO 4217.		
SettlCurrency	Ν	Settlement c	urrency.		
DepositType	Υ	0	Auslandskassenverein		
		1	Girosammelverwahrung		
		2	Streifbandverwahrung		
		3	Wertpapierrechnung		
		4	NCSC via T2S		
IssueDate	Υ	Issue date of	f instrument. Always empty.		
RoundLot	Υ	Minimum Tradable Unit.			
MinTradeVol	Υ	Minimum Order Quantity.			
MaxTradeVol	Υ	This field contains the maximum quantity of a regular order or			
		quote, which is allowed to be traded in a given instrument.			
MaxTradeVal	Υ	This field contains the maximum value of a regular order or			
		quote, which is allowed to be traded in a given instrument.			
QuotingStartTime	Υ	Quoting Period Start Time (HH:mm:ss).			
QuotingEndTime	Υ	Quoting Period End Time (HH:mm:ss).			
InstrumentAuctionTyp	Υ	0 Default			
е		1	Single Auction		
		2	Special Auction		
MidpointTrading	Υ	Indicates wh	ether the instrument is enabled for Midpoint		
		trading.	·		
		0	Disabled		
		1	Enabled		
MidpointExecVenueID	Υ	Market Ident	tifier Code (ISO 10383) used for reporting midpoint		
		trades to the	e supervisory authority.		
<instrumentparties> (or</instrumentparties>	otional) sequ	ience starts			
NoInstrumentParties	N	Number of p	parties.		
InstrumentPartyID	N	Identifies a p	party associated with an instrument.		
InstrumentPartyIDSou	N	0	Proprietary		
rce					
InstrumentPartyRole	N	0	Clearing Organization		
		1	Market Maker		
InstrumentPartyRoleQ	Υ	0	Designated Sponsor		
ualifier		1	Specialist		
<pre><instrumentparties> (optional) sequence ends</instrumentparties></pre>					
<bondsandwarrantsgr< td=""><td>oup> (option</td><td>nal) group star</td><td>rts, always empty {}</td></bondsandwarrantsgr<>	oup> (option	nal) group star	rts, always empty {}		

Instrume	ment Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)				
Field name	Optional	Description			
<bondsandwarrantsgr< td=""><td>oup> (optior</td><td>nal) group end</td><td>s</td></bondsandwarrantsgr<>	oup> (optior	nal) group end	s		
<volacorridorgroup> (c</volacorridorgroup>	ptional) gro	up starts			
VolatilityCorridorOpen ingAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments			
VolatilityCorridorIntra dayAuction	Y	mapping of i	Reference to Volatility Corridor Table for Intraday Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments		
VolatilityCorridorClosi ngAuction	Y	mapping of i	Volatility Corridor Table for Closing Auction. The nteger values to the corresponding corridor table is www.xetra.com > Instruments > All tradable		
VolatilityCorridorConti nuous	Y	mapping of i	Reference to Volatility Corridor Table in Continuous. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable		
<volacorridorgroup> (d</volacorridorgroup>	ptional) gro	up ends			
<securityclassificationg< td=""><td>irp> (optiona</td><td>al) sequence s</td><td>tarts</td></securityclassificationg<>	irp> (optiona	al) sequence s	tarts		
NoSecurityClassificatio ns	N	Always 1.			
SecurityClassificationR eason	N	Always 3 = Entitlement / Eligibility.			
SecurityClassificationV	N	0	Eligible for all trading activities		
alue		1	Not eligible for OTC Trade Upload		
		2	Eligible only for OTC Trade Upload		
<securityclassificationg< td=""><td>irp> (optiona</td><td>al) sequence e</td><td>nds</td></securityclassificationg<>	irp> (optiona	al) sequence e	nds		
<cashdescriptor> (option</cashdescriptor>	onal) group e	ends			
<instrumentattributes></instrumentattributes>			S		
NoInstrAttrib	N	•	nstrument attributes.		
InstrAttribType	N	0	Minimum Reserve Order Volume		
31		1	Minimum Display Volume		
		2	Issuer Name		
		3	Issuer Number		
		4	Market Type		
		5	Market Type Supplement		
		6	Reporting Market		
		7	Cum-Ex Indicator		
		8	Product Assignment Group		
		9	Product Assignment Group Description		
		10	Domestic Indicator		
		11	Pre Trade LIS Value		
		12	Illiquid As Defined By Exchange		
		13	Market Making Obligation		
I	l	_	0 0		

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)				
Field name	Optional		Description	
		14	Liquid As Defined By Regulator	
		15	Eligible For Stressed Market Conditions	
		16	Multi CCP-eligibility	
		17	Pool Factor	
		18	Indexation Coefficient	
		19	Trading On Terms Of Issue	
		20	Issuer Business Unit	
		21	Allow Knock Out	
		22	Has PLP	
		23	PLP Deferral Time	
		24	Warrant Strike	
		25	Reporting Market TES	
		26	Liquidity Provider User Group	
		27	Specialist User Group	
		28	Liquidity Class	
InstrAttribValue	N	Value of inst	rument attribute.	
<instrumentattributes></instrumentattributes>	(optional) se			
<events> (optional) sequence starts</events>				
NoEvents	N	Number of e	vents.	
EventType	N	1	First Eligible Trade Date	
		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	Date of even	t YYYYMMDD.	
<events> (optional) seq</events>	uence ends			
InstrumentPricePrecisi	Υ	Display decimals.		
on				
MinPriceIncrement	Υ		minimum increment for trade prices (tick size).	
			identical for all simple instruments of a product.	
		_	clearing tick sizes, i.e. increments for trade prices in	
		_	clearing notation are the same unless ementClearing is present.	
MinPriceIncrementCle	Υ		minimum increment for trade prices in clearing	
aring	•		aring tick size). Used for products to distinguish	
			sizes for trading and clearing notation, e.g. Total	
		Return Futur	res.	
MinPriceIncrementAm	Υ		minimum price movement in the respective currency	
ount			This value is identical for all instruments of a product.	
		Amounts are only relevant for clearing tick sizes, i.e. to be multiplied with MinPriceIncrement unless MinPriceIncrementClearing is present.		
MaturityDate	Υ	Always empt		
MaturityMonthYear	Y	Always empt		
SecuritySubType	Y	Always empty.		
			y·	
<relatedinstrumentgrp> (optional) group starts</relatedinstrumentgrp>				

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)				
Field name	Optional	Description		
RelatedSecurityID	N	The instrument identifier uniquely identifies the related instrument.		
RelatedSecurityIDSour ce	N	Always M = N	Marketplace-assigned identifier.	
<relatedinstrumentgrp< td=""><td>> (optional)</td><td>group ends</td><td></td></relatedinstrumentgrp<>	> (optional)	group ends		
<marketsegmentgrp> s</marketsegmentgrp>		·		
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicato	Υ	Always empt	ty.	
MultilegModel	Υ	Always empt	ty.	
PriceType	Y	The unit in was selling.	hich an instrument is quoted/stated when buying or	
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.		
<quotesizerules> (option</quotesizerules>	onal) sequer	nce starts		
NoQuoteSizeRules	N	Always 1.		
MinBidSize	Ν	Bid side minimum quote quantity.		
MinOfferSize	Ν	Offer side minimum quote quantity.		
<quotesizerules> (option</quotesizerules>	onal) sequer	nce ends		
<pricerangerules> (opt</pricerangerules>	•	nce starts		
NoPriceRangeRules	Ν	Always 1.		
PriceRangeRuleID	N	Reference to	table identifier from product level messages.	
<pricerangerules> (opt</pricerangerules>	ional) seque	nce ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence starts	5	
NoTradingSessionRule s	N	Always 1.		
TradingSessionID	N	Always 0 = Day.		
TradingSessionSubID	N	1	Continuous	
		4	Scheduled Intraday Auction	
		6	Any Auction	
		7	Continuous Auction Issuer	
		8	Continuous Auction Specialist	
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>				
<marketsegmentgrp> s</marketsegmentgrp>	equence en	ds		

3.2. Trading state data files

3.2.1. Product state change

File:

- from July 7, 2017 to December 29, 2017 PSC_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 PSC_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

The product state change message provides permanent updates on the trading state for a particular product.

3.2.1.1. Product state change, T7 Release 5.0 (03/07/2017 – 01/12/2017)

Product State	e Change M	lessage – X	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)	
Field name	Optional	Description		
MsgType	N	Always h = Trading Session Status.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N		Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.		
TradingSessionID	N	0	Day	
		1	Morning	
		2	Evening	
		3	After Hours	
		4	Holiday	
TradingSessionSubID	N	0	Pre-Trading	
		1	Trading	
		2	Closing	
		3	Post-Trading	
		4	Quiescent	
		Only for quiescent product states, the field TradingSessionID		
		must be evaluated additionally to determine the actual product		
			adingSessionSubID=4 and TradingSessionID = 1 indicates	
		the product state Start of Day, TradingSessionID = 2 End of Day,		
TradSesStatus	N	0	SessionID = 0 Halt and TradingSessionID = 3 Holiday. Halted	
Tradsessialus	IN	1	Open	
		2	Closed	
FastMarketIndicator	N	_	s if product is in the state Fast Market.	
i astiviai ketii luitatul	I N	0	No	
		1	Yes	
TransactTime	N	(nanoseconds)		
TESTradSesStatus	Y	0	Halted	
12311au3e33tatus	'	1	Open	
		ı	Open	

Product State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
		2	Closed
		3	Pre-Close

3.2.1.2. Product state change, T7 Releases 6.0 – 13.0 (from 04/12/2017)

Product State Change Message – Xetra T7 Releases 6.0 – 13.0 (from 04/12/2017)				
Field name	Optional		Description	
MsgType	N	Always h = Trading Session Status.		
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
TradingSessionID	N	0	Day	
		1	Morning	
		2	Evening	
		3	After Hours	
		4	Holiday	
TradingSessionSubID	N	0	Pre-Trading	
		1	Continuous	
		2	Closing	
		3	Post-Trading	
		5	Quiescent	
			quiescent product states, the field TradingSessionID	
		must be evaluated additionally to determine the actual product		
			adingSessionSubID=5 and TradingSessionID = 1 indicates	
			uct state Start of Day, TradingSessionID = 2 End of Day,	
		TradingSessionID = 0 Halt, TradingSessionID = 3 Post End of Day		
T IS SUIT	N.1		ingSessionID = 4 Holiday.	
TradSesStatus	N	0	Halted	
		1	Open	
		2	Closed	
MarketCondition	Υ	0	Normal	
		1	Stressed	
FastMarketIndicator	N	Indicates if product is in the state Fast Market.		
		0	No	
		1	Yes	
TransactTime	N	(nanoseconds)		
TESTradSesStatus	Υ	0	Halted	
		1	Open	
		2	Closed	
		3	Pre-Close	

3.2.2. Mass instrument state change

File:

- from July 7, 2017 to December 29, 2017 MISC_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 MISC_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

The mass instrument state change message provides the state information for all instruments of a certain instrument type within a product. Where not all indicated instruments are affected by the new state, the exception list (SecurityTradingStatus) is populated with one entry for each such instrument.

3.2.2.1. Mass instrument state change, T7 Release 5.0 (03/07/2017 – 01/12/2017)

Mass Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional	Description		
MsgType	N	Always CO = Security Mass Status.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product	identifier, e.g. 89.	
InstrumentScopeProd	N	Instrument type of affected instruments.		
uctComplex		0	Simple Instrument	
SecurityMassTradingS	Υ	0	Trading Halt	
tatus		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
SecurityMassTradingE	Υ	Identifies an event related to a SecurityMassTradingStatus.		
vent			le for cash market products only.	
		0	None	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	

Mass Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator	
		refers to	a product but is provided on instrument level.
		0	No
		1	Yes
TransactTime	N	Time wh	en request was processed by the matcher
		(nanose	<u>, </u>
<pre><secmassstatgrp> (opt new state</secmassstatgrp></pre>	ional) seque	ence starts	, when not all indicated instruments are affected by the
NoRelatedSym	N	Number	of instruments in the exception list of instruments that
			ifferent instrument state.
SecurityID	N	Instrume	ent identifier, e.g. 8852.
SecurityIDSource	N	Always N	/I = Marketplace-assigned identifier.
SecurityStatus	N	0	Active
		1	Inactive
		2	Expired
		3	Suspended
SecurityTradingStatus	Υ	0	Trading Halt
, ,		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
			IPO Auction Freeze
CognitiveTradingFrent	V	14	
SecurityTradingEvent	Y	Identifies an event related to a SecurityTradingStatus. Applicable for cash market products only.	
		0	None
		1	Price volatility, auction is extended
		2	
TESSACURITY/Status	Y	0	Price volatility, auction is extended again Active
TESSecurityStatus	i i		Inactive
		1	
		2	Expired
(C - M - C) C		3	Suspended
<secmassstatgrp> sequ</secmassstatgrp>	uence ends		

3.2.2.2. Mass instrument state change, T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)

Mass Instrument	State Chang	e Message	– Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description				
MsgType	N	Always CO = Security Mass Status.				
MsgSeqNum	N	The seque	ence number is incremented per product across all			
		message types on a particular feed.				
SenderCompID	N	Unique id of a sender.				
MarketSegmentID	N	Product ic	Product identifier, e.g. 89.			
InstrumentScopeP	N	Instrumer	nt type of affected instruments.			
roductComplex		0	Simple Instrument			
SecurityMassTradi	Υ	0	Trading Halt			
ngStatus		1	Closed			
		2	Restricted			
		3	Book			
		4	Continuous			
		5	Opening Auction			
		6	Opening Auction Freeze			
		7	Intraday Auction			
		8	Intraday Auction Freeze			
		9	Circuit Breaker Auction			
		10	Circuit Breaker Auction Freeze			
		11	Closing Auction			
		12	Closing Auction Freeze			
		13	IPO Auction			
		14	IPO Auction Freeze			
MassMarketCondit	N	0	Normal			
ion		1 Stressed				
FastMarketIndicat	N	Indicates	if product is in the state Fast Market. This indicator refers			
or			uct but is provided on instrument level.			
		0	No			
		1	Yes			
SecurityMassTradi	Υ	Identifies	an event related to a SecurityMassTradingStatus.			
ngEvent		Applicable	e for cash market products only.			
		0	None			
		1	Price volatility, auction is extended			
		2	Price volatility, auction is extended again			
TransactTime	N	Time whe	n request was processed by the matcher (nanoseconds).			
<secmassstatgrp> (in new state</secmassstatgrp>	optional) sed	quence star	rts, when not all indicated instruments are affected by the			
NoRelatedSym	N	Number of instruments in the exception list of instruments				
		have a different instrument state.				
SecurityID	N	Instrumer	nt identifier, e.g. 8852.			
SecurityIDSource	N	Always M = Marketplace-assigned identifier.				
SecurityStatus	N	0	Active			

Mass Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)						
Field name	Optional		Description			
		1	Inactive			
		2	Expired			
		3	Suspended			
		5	Pending deletion (since Release 6.1), used when the			
			last trading date is exceeded and the instrument will be			
			deleted soon. Those instruments might become 0 =			
			Active again intraday via Market Data intraday State			
SocurityTradingSta	Υ	0	Change essages. Trading Halt			
SecurityTradingSta tus	T	1	Closed			
143						
		2	Restricted			
		3	Book			
		4	Continuous			
		5	Opening Auction			
		6	Opening Auction Freeze			
		7	Intraday Auction			
		8	Intraday Auction Freeze			
		9	Circuit Breaker Auction			
		10	Circuit Breaker Auction Freeze			
		11	Closing Auction			
		12	Closing Auction Freeze			
		13	IPO Auction			
		14	IPO Auction Freeze			
MarketCondition	N	0	Normal			
		1	Stressed			
SecurityTradingEv	Υ		an event related to a SecurityTradingStatus. Applicable			
ent			narket products only.			
			None			
		1	Price volatility, auction is extended			
		2	Price volatility, auction is extended again			
TESSecurityStatus	Y	0	Active			
		1	Inactive			
		2	Expired			
		3	Suspended			
<secmassstatgrp> s</secmassstatgrp>	sequence en	ds				

3.2.2.3. Mass instrument state change, T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)

Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)					
Field name	Optional Description				
MsgType	N	Always CO = Security Mass Status.			

Mass Instrument State Cl	nange Mess	age – Xetı	ra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)	
Field name	Optional		Description	
MsgSeqNum	N	The sequence number is incremented per product across		
		all message types on a particular feed.		
SenderCompID	Ν	Unique id of a sender.		
MarketSegmentID	Ν	Product identifier, e.g. 89.		
InstrumentScopeProductC	Ν	Instrum	ent type of affected instruments.	
omplex		0	Simple Instrument	
SecurityMassTradingStatu	Υ	0	Trading Halt	
S		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre Call	
		16	Call	
MassMarketCondition	N	0	Normal	
		1	Stressed	
FastMarketIndicator	N		es if product is in the state Fast Market. This	
T d Stivial Rectificated	14		or refers to a product but is provided on instrument	
		level.	· ·	
		0	No	
		1	Yes	
SecurityMassTradingEvent	Υ	Identifie	es an event related to a SecurityMassTradingStatus.	
		Applical	ble for cash market products only.	
		0	None	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
TransactTime	N	Time wl	nen request was processed by the matcher	
		(nanose	•	
<secmassstatgrp> (optiona new state</secmassstatgrp>	l) sequence	starts, wh	nen not all indicated instruments are affected by the	
NoRelatedSym	N	Numbe	r of instruments in the exception list of instruments	
	. •		ve a different instrument state.	
SecurityID	N		nent identifier, e.g. 8852.	
SecurityIDSource	N		M = Marketplace-assigned identifier.	
SecurityStatus	N	0	Active	
222411924443	. •		7.00.0	

Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)				
Field name	Optional		Description	
		3	Knocked-Out	
		4	Knock-Out Revoked	
		5	Suspended	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.	
		8	Knocked-Out And Suspended	
SecurityTradingStatus	Y	0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre Call	
		16	Call	
MarketCondition	N	0	Normal	
		1	Stressed	
SecurityTradingEvent	Υ	Identifie	es an event related to a SecurityTradingStatus.	
		Applical	ole for cash market products only.	
		0	None	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
SoldOutIndicator	Y		es the sold out status (applicable for Continuous	
			Issuer trading model only).	
		0	Not sold out	
		1	Sold out	
TESSecurityStatus	Υ	0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
<secmassstatgrp> sequence ends</secmassstatgrp>				

3.2.2.4. Mass instrument state change, T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)

Mass Instrument State Change Message – Xetra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)				
Field name	Optional	Description		
MsgType	N	Always CO = Security Mass Status.		
MsgSeqNum	N	The sequence number is incremented per product across		
CondonComplD	N I	all message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
InstrumentScopeProductC	N		ent type of affected instruments.	
omplex		0	Simple Instrument	
SecurityMassStatus	N		rument status of all affected instruments.	
		0	Active	
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer.	
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer.	
		5	Suspended	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.	
		8	Knocked-Out And Suspended, only applicable in	
			trading model Continuous Auction Issuer.	
SecurityMassTradingStatu	Υ	0	Trading Halt	
s		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre Call, applicable for trading model Continuous	
		16	Auction Issuer and Specialist only. Call, applicable for trading model Continuous Auction Issuer only.	
		17	Freeze, applicable for trading model Continuous Auction Specialist only.	

Mass Instrument State Ch	nange Messa	age – Xetr	a T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)
Field name	Optional		Description
	·	18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
MassMarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	indicato level.	s if product is in the state Fast Market. This r refers to a product but is provided on instrument
		0	No
G 11 14 T 11 T		1	Yes
SecurityMassTradingEvent	Υ		s an event related to a SecurityMassTradingStatus.
		1	ole for cash market products only. Price volatility, auction is extended
		2	Price volatility, auction is extended again
MassSoldOutIndicator	Y	_	s the sold out status (applicable for Continuous
iviassoluOutiliulcatoi	'		Issuer trading model only).
		1	Sold out
TransactTime	N	Time wh	nen request was processed by the matcher
		(nanose	•
TESSecurityMassStatus	Υ	Status o	f all affected instruments for TES trading.
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
<secmassstatgrp> (optiona new state</secmassstatgrp>) sequence	starts, wh	en not all indicated instruments are affected by the
NoRelatedSym	N	Number	of instruments in the exception list of instruments
		that hav	e a different instrument state.
SecurityID	N		ent identifier, e.g. 8852.
SecurityIDSource	N	Always I	M = Marketplace-assigned identifier.
SecurityStatus	Ν	0	Active
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer.
			Knock-Out Revoked, only applicable in trading
		4	model Continuous Auction Issuer.
		5	Suspended
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted
			soon. Those instruments might become 0 = Active
			again intraday via Market Data intraday State
			Change essages.
		8	Knocked-Out And Suspended, only applicable in
			trading model Continuous Auction Issuer.
SecurityTradingStatus	Υ	0	Trading Halt
		1	Closed

Mass Instrument State Cl	nange Messa	age – Xetı	ra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)
Field name	Optional		Description
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre Call, applicable for trading model Continuous
			Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous
			Auction Issuer only.
		17	Freeze, applicable for trading model Continuous
			Auction Specialist only.
		18	Trade At Close, used for trades resulting from
			Trade At Close security trading phase and is
			applicable for cash market instruments only (applicable since 9.0 only).
MarketCondition	N	0	Normal
Warketeorialion	14	1	Stressed
SecurityTradingEvent	Υ	•	es an event related to a SecurityTradingStatus.
Security HadingEvent	'	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
SoldOutIndicator	Υ	_	es the sold out status (applicable for Continuous
SoldOdtillalcator	'		Issuer trading model only).
		1	Sold out
TESSecurityStatus	Υ	0	Active
		1	Inactive
		2	Expired
		5	Suspended
<secmassstatgrp> sequenc</secmassstatgrp>	e ends		p
LastFragment	N	Indicate	es whether this message is the last in a sequence of
2030.108.110.110			es that together convey a joint exception list of
		SecMassStatGrp. All messages up to the last with LastFragment = Y share the same root level content and an application first needs to combine all single exception lists before the Mass State Change message could be applied with the form	
		joint	te a
		exception	on list.

Mass Instrument State Change Message – Xetra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)			
Field name	Optional	Description	
		0 Not Last Message	
		1 Last Message	

3.2.2.5. Mass instrument state change, T7 Releases 10.0 – 13.0 (from 22/11/2021)

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)				
Field name	Optional	Description		
MsgType	Ν	Always CO = Security Mass Status.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	ļ	id of a sender.	
MarketSegmentID	N	Product	identifier, e.g. 89.	
InstrumentScopeProductC	Ν	Instrum	ent type of affected instruments.	
omplex		0	Simple Instrument	
SecurityMassStatus	Ν	The inst	rument status of all affected instruments.	
		0	Active	
		3	Knocked-Out, only applicable in trading model	
			Continuous Auction Issuer.	
			Knock-Out Revoked, only applicable in trading	
		4	model Continuous Auction Issuer.	
		5	Suspended	
		7	Pending deletion, used when the last trading date	
			is exceeded and the instrument will be deleted	
			soon. Those instruments might become 0 = Active	
			again intraday via Market Data intraday State Change essages.	
		8	Knocked-Out And Suspended, only applicable in	
			trading model Continuous Auction Issuer.	
SecurityMassTradingStatus	Υ	0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		'-	II O / Idealoff Freeze	

Mass Instrument State	Change Me	essage – >	Ketra T7 Releases 10.0 – 13.0 (from 22/11/2021)
Field name	Optional		Description
	•	15	Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
		19	Circuit Breaker Auction Triggered By Static Limit Breach (since 12.1, 13/05/2024)
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze (since 12.1, 13/05/2024)
MassMarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N		s if product is in the state Fast Market. This indicator of a product but is provided on instrument level.
		0	No
		1	Yes
SecurityMassTradingEvent	Υ	Identifie	es an event related to a SecurityMassTradingStatus.
Security Mass Trading Everit	'		ple for cash market products only.
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
MassSoldOutIndicator	Υ	Identifies the sold out status (applicable for Continuous	
			Issuer trading model only).
		1	Sold out
TransactTime	N	Time wh	nen request was processed by the matcher
		(nanose	conds).
TESSecurityMassStatus	Υ	Status o	f all affected instruments for TES trading.
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
<secmassstatgrp> (optional new state</secmassstatgrp>) sequence s	starts, wh	en not all indicated instruments are affected by the
NoRelatedSym	N		r of instruments in the exception list of instruments re a different instrument state.
SecurityID	N	Instrum	ent identifier, e.g. 8852.
SecurityIDSource	N	Always I	M = Marketplace-assigned identifier.
SecurityStatus	N	0	Active
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer.
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer.
		5	Suspended
		_	j '

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)				
Field name	Optional		Description	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State	
		8	Change essages. Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer.	
SecurityTradingStatus	Υ	0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only.	
		16	Call, applicable for trading model Continuous Auction Issuer only.	
		17	Freeze, applicable for trading model Continuous Auction Specialist only.	
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).	
		19	Circuit Breaker Auction Triggered By Static Limit Breach (since 12.1, 13/05/2024)	
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze (since 12.1, 13/05/2024)	
MarketCondition	N	0	Normal	
		1	Stressed	
SecurityTradingEvent	Υ	Identifie	es an event related to a SecurityTradingStatus.	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
SoldOutIndicator	Y		es the sold out status (applicable for Continuous Issuer trading model only).	
		1	Sold out	

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)					
Field name	Optional		Description		
HighPx	Y	auction) = Price v may be s value is	oundary price. For scheduled auctions (e.g. opening , it may be set together with SecurityTradingEvent 1 rolatility, auction is extended. For volatility auctions it set immediately without SecurityTradingEvent. If the absent, any previous upper boundary price is not y longer.		
LowPx	Y	auction) = Price v may be s value is	oundary price. For scheduled auctions (e.g. opening , it may be set together with SecurityTradingEvent 1 rolatility, auction is extended. For volatility auctions it set immediately without SecurityTradingEvent. If the absent, any previous lower boundary price is not y longer.		
TESSecurityStatus	Υ	0	Active		
		1	Inactive		
		2	Expired		
		5	Suspended		
<secmassstatgrp> sequence</secmassstatgrp>	e ends				
LastFragment	N	Indicates whether this message is the last in a sequence messages that together convey a joint exception list of SecMassStatGrp. All messages up to the last with LastFragment = Y share the same root level content and an application needs to combine all single exception lists before the M State Change message could be applied with the fully jo exception list. O Not Last Message			
		1	Last Message		

3.2.3. Instrument state change

File:

- from July 7, 2017 to December 29, 2017 ISC_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 ISC_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

The instrument state change message provides state information for a single instrument.

3.2.3.1. Instrument state change, T7 Release 5.0 (03/07/2017 – 01/12/2017)

Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional Description			
MsgType	N	Always f = Security Status.		
MsgSeqNum	N The sequence number is incremented per product across all			
		message types on a particular feed.		

Instrument Sta	te Change M	essage – X	etra T7 Release 5.0 (03/07/2017 – 01/12/2017)	
Field name	Optional		Description	
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product	identifier, e.g. 89.	
SecurityID	N	Instrume	ent identifier, e.g. 8852.	
SecurityIDSource	N	Always N	Л = Marketplace-assigned identifier.	
SecurityStatus	N	0	Active	
		1	Inactive	
		2	Expired (intraday expiration of instrument)	
		3	Suspended	
SecurityTradingStatus	Υ	0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
FastMarketIndicator	N		Indicates if product is in the state Fast Market. This indicator	
			a product but is provided on instrument level.	
			No	
		L .	Yes	
SecurityTradingEvent	Υ		s an event related to a SecurityMassTradingStatus.	
			le for cash market products only.	
			None	
			Price volatility, auction is extended	
T 17	N.	ļL	Price volatility, auction is extended again	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).		
TESSecurityStatus	Υ		Active	
1235ccarity3tatus	'		Inactive	
			Expired	
			Suspended	
		ر	Juspenided	

3.2.3.2. Instrument state change, T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional		Description
MsgType	N	Always f = Security Status.	
MsgSeqNum	N	The sequence number is incremented per product across all	
		message types on a particular feed.	
SenderCompID	N		id of a sender.
MarketSegmentID	N	Produc	t identifier, e.g. 89.
SecurityID	N	Instrum	nent identifier, e.g. 8852.
SecurityIDSource	N	Always	M = Marketplace-assigned identifier.
SecurityStatus	N	0	Active
		1	Inactive
		2	Expired (intraday expiration of instrument)
		3	Suspended
		5	Pending deletion (since Release 6.1), used when the
			last trading date is exceeded and the instrument will
			be deleted soon. Those instruments might become 0
			= Active again intraday via Market Data intraday State
SecurityTradingStatus	Y	0	Change essages.
Security frauing status	Y	1	Trading Halt Closed
		-	Restricted
		2	
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
MarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N		es if product is in the state Fast Market. This indicator
			o a product but is provided on instrument level.
		0	No
		1	Yes
SecurityTradingEvent	Y		es an event related to a SecurityMassTradingStatus.
			ble for cash market products only.
		0	None
		1	Price volatility, auction is extended

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		2	Price volatility, auction is extended again
TransactTime	N	Time when request was processed by the matcher	
		(nanoseconds).	
TESSecurityStatus	Υ	0	Active
		1 Inactive2 Expired3 Suspended	

3.2.3.3. Instrument state change, T7 Releases 7.0 – 9.1 (03/12/2018 – 19/11/2021)

Instrument State Change Message – Xetra T7 Releases 7.0 – 9.1 (03/12/2018 – 19/11/2021)			
Field name	Optional	Description	
MsgType	N	Always f = Security Status.	
MsgSeqNum	N	The seq	uence number is incremented per product across all
			e types on a particular feed.
SenderCompID	N	Unique	id of a sender.
MarketSegmentID	Ν	Product	t identifier, e.g. 89.
SecurityID	N	Instrum	ent identifier, e.g. 8852.
SecurityIDSource	N	Always	M = Marketplace-assigned identifier.
SecurityStatus	N	0	Active
		3	Knocked-Out, only applicable in trading model
			Continuous Auction Issuer.
			Knock-Out Revoked, only applicable in trading model
		4	Continuous Auction Issuer.
		5	Suspended
		7	Pending deletion, used when the last trading date is
			exceeded and the instrument will be deleted soon.
			Those instruments might become 0 = Active again
			intraday via Market Data intraday State Change
			messages.
		8	Knocked-Out And Suspended, only applicable in
Coough Tue die eCtetue	Y	0	trading model Continuous Auction Issuer.
SecurityTradingStatus	Y	0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze

Field name	Optional		Description	
	·	11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre Call, applicable for trading model Continuous	
			Auction Issuer and Specialist only.	
		16	Call, applicable for trading model Continuous Auction Issuer only.	
		17	Freeze, applicable for trading model Continuous Auction Specialist only (applicable since 8.0 only).	
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).	
MarketCondition	N	0	Normal	
		1	Stressed	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.		
		0	No	
		1	Yes	
SecurityTradingEvent	Y		ies an event related to a SecurityMassTradingStatus. able for cash market products only.	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
SoldOutIndicator	Y		ies the sold out status (applicable for Continuous n Issuer trading model only).	
		0	Not sold out (applicable for 7.0 & 7.1 only)	
		1	Sold out	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).		
TESSecurityStatus	Υ	0	Active	
•		1	Inactive	
		2	Expired	
		5	Suspended	

3.2.3.4. Instrument state change, T7 Releases 10.0 – 13.0 (from 22/11/2021)

Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)				
Field name	Optional	Description		
MsgType	N	Always f = Security Status.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
SecurityID	N	Instrument identifier, e.g. 8852.		

Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)			
Field name	Optional		Description
SecurityIDSource	N	Always	M = Marketplace-assigned identifier.
SecurityStatus	N	0	Active
		3	Knocked-Out, only applicable in trading model
			Continuous Auction Issuer.
			Knock-Out Revoked, only applicable in trading model
		4	Continuous Auction Issuer.
		5	Suspended
		7	Pending deletion, used when the last trading date is
			exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again
			intraday via Market Data intraday State Change
			messages.
		8	Knocked-Out And Suspended, only applicable in
			trading model Continuous Auction Issuer.
SecurityTradingStatus	Υ	0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre Call, applicable for trading model Continuous
			Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction
		17	Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only (applicable since 8.0 only).
		18	Trade At Close, used for trades resulting from Trade At
			Close security trading phase and is applicable for cash
			market instruments only (applicable since 9.0 only).
		19	Circuit Breaker Auction Triggered By Static Limit
			Breach (since 12.1, 13/05/2024)
		20	Circuit Breaker Auction Triggered By Static Limit
		_	Breach Freeze (since 12.1, 13/05/2024)
MarketCondition	N	0	Normal
		1	Stressed

Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)				
Field name	Optional		Description	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.		
			No Yes	
SecurityTradingEvent	Y	Identifies	s an event related to a SecurityMassTradingStatus.	
			le for cash market products only.	
		-	Price volatility, auction is extended	
			Price volatility, auction is extended again	
SoldOutIndicator	Υ		s the sold out status (applicable for Continuous Auction ading model only).	
		0	Not sold out (applicable for 7.0 & 7.1 only)	
		1	Sold out	
HighPx	Y	Upper boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous upper boundary price is not valid any longer.		
LowPx	Y	Lower boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous lower boundary price is not valid any longer.		
TransactTime	N	Time when request was processed by the matcher (nanoseconds).		
TESSecurityStatus	Υ	 	Active	
		1	Inactive	
		2	Expired	
			Suspended	

3.3. Market data files

3.3.1. Depth snapshot

File:

- from July 7, 2017 to December 29, 2017 DS_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 DS_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

The depth snapshot provides periodic updates for orders and trades independent from any change of the order book.

3.3.1.1. Depth snapshot, T7 Release 5.0 (03/07/2017 - 01/12/2017)

Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional	Description			
MsgType	N	Always W = Market Data Snapshot Full Refresh.			
MsgSeqNum	Υ	Always empty.			
SenderCompID	N	Unique id of a sender.			
LastMsgSeqNumP rocessed	Y	Last me	essage sequence number sent regardless of message type.		
RefreshIndicator	Υ	Always	empty.		
MarketSegmentID	N	Produc	t identifier, e.g. 89.		
SecurityID	N	Instrum	nent identifier, e.g. 8852.		
SecurityIDSource	N	Source	Identification. Always M = Marketplace-assigned identifier.		
ProductComplex	N	Type of	instrument		
		0	Simple Instrument		
SecurityStatus	N	Status	of the instrument.		
-		0	Active		
		3	Suspended		
TESSecurityStatus	Υ	Status	of the instrument for TES trading.		
		0	Active		
		1	Inactive		
		2	Expired		
		3	Suspended		
LastUpdateTime	N	Time of	last change for SecurityID (nanoseconds).		
'			n be any trade, change of the orderbook on any price level,		
		or also a product or instrument state change information convey			
		in this message.			
<mdsshgrp> seque</mdsshgrp>	nce starts				
NoMDEntries	N				
MDOriginType	N	0	Book for on-exchange trading		
		1	Off-Book for TES trading only. Only applicable for		
			MDEntryType 2 = Trade or 7 = Trade Volume		
MDEntryType	N	0	Bid		
		1	Offer		
		2	Trade		
		3	Empty Book		
			Empty Book is sent during product states "Start-Of-Day"		
			and "Pre-Trading" or when no price levels exist. During		
			"Post-Trading" and "End-Of-Day" ToB prices are distributed.		
		4	Auction Clearing Price		
			Auction Clearing Price is sent as indicative information		
			during the auction.		
		7	Trade Volume		
			The total traded volume of units traded during the day		
			can be found in the MDEntrySize field. Please note that		

Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional	Description			
			the total traded volume may include coherent volume		
			(from direct matching of complex instruments) as well.		
		8	Market Bid		
		9	Market Offer		
MDBookType	Υ	1	Price Depth		
MDSubBookType	Y	Always empty.			
TrdType	Y		OriginType 0 = Book defines when the trade happens. Only		
		•	for MDEntryType=2 and TradeCondition=32. 8, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and		
			inType 1 = Off-Book.		
		0	Off-Book Block Trade		
		1	Exchange For Physical (EFP)		
		2	Exchange For Swap (EFS)		
		3	Exchange Basis Facility		
		4	Vola Trade		
		5	EFP-Fin Trade		
		6	EFP-Index-Futures Trade		
		7	Block Trade at Market		
		8	Opening Auction Trade		
		9	Intraday Auction Trade		
		10	Volatility Auction Trade		
		11	Closing Auction Trade		
		13	IPO Auction Trade		
TradingSessionID	Υ	Always attached to the first MDEntry.			
		0	Day		
		1	Morning		
		2	Evening		
		3	After-Hours		
		4	Holiday		
TradingSessionSu	Υ	0	Pre-Trading		
bID		1	Trading		
		2	Closing		
		3	Post-Trading		
		4	Quiescent		
TESTradSesStatus	Υ	0	Halted		
		1	Open		
		2	Closed		
		3	Pre-Close		
FastMarketIndicat	Υ	0	No		
or		1	Yes		
SecurityTradingSta	Υ	Trading	status of an instrument.		
tus		0	Trading Halt		
		1	Closed		
	i .	1	I.		

Depth	Snapshot M	essage –	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional		Description			
		2	Restricted			
		3	Book			
		4	Continuous			
		5	Opening Auction			
		6	Opening Auction Freeze			
		7	Intraday Auction			
		8	Intraday Auction Freeze			
		9	Circuit Breaker Auction			
		10	Circuit Breaker Auction Freeze			
		11	Closing Auction			
		12	Closing Auction Freeze			
		13	IPO Auction			
		14	IPO Auction Freeze			
SecurityTradingEv	Υ	0	None			
ent		1	Price volatility, auction is extended			
		2	Price volatility, auction is extended again			
PotentialSecurityT	Υ	0	None			
radingEvent		1	Price volatility, auction is extended			
TradeCondition	Υ	The values can be added together to form combinations of				
		values. If Exchange Last, High Price are sent then 1 + 4 = 5 is				
		receive				
		Last Au	ction Price cannot be combined with any other value and			
		has its own entry in order to convey the auction type through TrdType. Instrument state already changed to continuous wher				
			trade is reported.			
		1	Exchange Last			
		2	Opening Price			
		4	High Price			
		8	Low Price			
		16	Official Closing Price			
		32	Last Auction Price			
		128	Previous Closing Price			
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or 1 =			
MDEntryDy	Y	Price.	Offer to define a surplus			
MDEntryPx MDEntrySize	Y		y or trade volume when MDEntryType is 2 = Trade or 7 =			
MDEntrySize	, r	-	y or trade volume when MDEntryType is 2 = Trade or 7 = olume. TES disclosed quantity when MDOriginType is 1 =			
		Off-Book.				
NumberOfOrders	Υ					
MDPriceLevel	Υ	Book le	vel. Absent for implied bid/offer prices.			
MDEntryTime	Υ		entry (nanoseconds) for last trade entry (TradeCondition =			
		1 Exchange Last) and for one auction (TradeCondition 32				
		Auction Price) entry (e.g. when there are opening, intraday and				
			volatility auction trades, only for the last auction the time is given).			
		Statistic	Statistics do not have an official timestamp in the snapshot, even if			

Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional	Description		
		they happen to be identical to the last trade and be part of the same entry.		
NonDisclosedTrad eVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		
TotalNumberOfTr ades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.		
<mdsshgrp> sequence ends</mdsshgrp>				

3.3.1.2. Depth snapshot, T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)

Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)						
Field name	Optional		Description			
MsgType	N	Always	Always W = Market Data Snapshot Full Refresh.			
MsgSeqNum	Υ	Always empty.				
SenderCompID	N	Uniqu	e id of a sender.			
LastMsgSeqNum Processed	Y	Last m	essage sequence number sent regardless of message type.			
RefreshIndicator	Υ	Always	s empty.			
MarketSegmentl D	N	Produ	ct identifier, e.g. 89.			
SecurityID	N	Instrui	ment identifier, e.g. 8852.			
SecurityIDSource	N	Source	ldentification. Always M = Marketplace-assigned identifier.			
ProductComplex	N	Type c	f instrument			
		0	Simple Instrument			
SecurityStatus	N	Status	Status of the instrument.			
		0	Active			
		3	Suspended			
		5	Pending deletion (since Release 6.1), used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.			
TESSecurityStatu	Υ	Status	of the instrument for TES trading.			
S		0	Active			
		1	Inactive			
		2	Expired			
		3	Suspended			
LastUpdateTime	N	Time o	of last change for SecurityID (nanoseconds).			
		also a	an be any trade, change of the orderbook on any price level, or product or instrument state change information conveyed in essage.			
<mdsshgrp> sequ</mdsshgrp>	ence starts					
NoMDEntries	N					
MDOriginType	N	0	Book for on-exchange trading			

Peter Peter	Depth Sr	napshot Mes	sage –)	Ketra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)		
MDEntryType Nobleman	Field name	Optional	Description			
MDEntryType Noblem Nob			1			
1 Offer						
Part Part	MDEntryType	N	0			
Section Part			1	Offer		
Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" on when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed. 4			2	Trade		
### Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed. 4 Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction. 7 Trade Volume The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well. 8 Market Bid 9 Market Offer MDBookType Y Always empty. For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Index-Futures Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 Morning 2 Evening			3	Empty Book		
Trading" and "End-Of-Day" ToB prices are distributed. 4						
Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction. Trade Volume						
Auction Clearing Price is sent as indicative information during the auction. 7 Trade Volume The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well. 8 Market Bid 9 Market Offer MDBookType Y 11 Price Depth MDSubBookType Y Always empty. TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 13 IPO Auction Trade 14 Morning 2 Evening			4			
the auction. Trade Volume Trade Volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well. 8			4	-		
The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well. 8 Market Bid 9 Market Offer MDBookType Y 1 Price Depth MDSubBookType Y Always empty. TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening						
be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well. 8 Market Bid 9 Market Offer MDBookType Y 1 Price Depth MDSubBookType Y Always empty. TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 IMOrning 15 Evening			7	Trade Volume		
traded volume may include coherent volume (from direct matching of complex instruments) as well. 8 Market Bid 9 Market Offer MDBookType Y 1 Price Depth MDSubBookType Y Always empty. TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening				The total traded volume of units traded during the day can		
Market Bid Market Bid 9 Market Offer				-		
B Market Bid 9 Market Offer MDBookType						
Part			0			
MDBookType Y Always empty. TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening						
MDSubBookType Y Always empty. For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening	MDDaalatinaa	V				
TrdType Y For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0			•			
present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 0 Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 IPO Auction Trade 15 IPO Auction Trade 16 IPO Auction Trade 17 IPO Auction Trade 18 IPO Auction Trade 19 IPO Auction Trade 19 IPO Auction Trade 10 IPO Auction Trade 11 IPO Auction Trade 12 IPO Auction Trade						
O, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. O Off-Book Block Trade	iraiype	Y	1			
MDOriginType 1 = Off-Book.				- · · ·		
TradingSessionID O Off-Book Block Trade 1 Exchange For Physical (EFP) 2 Exchange For Swap (EFS) 3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. O Day 1 Morning 2 Evening				· ·		
2						
3 Exchange Basis Facility 4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			1	Exchange For Physical (EFP)		
4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 13 IPO Auction Trade 14 Volatility Auction Trade 15 IPO Auction Trade 16 EFP-Index-Futures Trade 17 Block Trade Auction Trade 18 Opening Auction Trade 19 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 IPO Auction Trade 15 IPO Auction Trade 16 IPO Auction Trade 17 IPO Auction Trade 18 IPO Auction Trade 19 Intraday Auction Trade 19 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 12 IPO Auction Trade 13 IPO Auction Trade 14 IPO Auction Trade 15 IPO Auction Trade 16 IPO Auction Trade 17 IPO Auction Trade 18 IPO Auction Trade 19 Intraday Auction Trade 10 Volatility Auction Trade 11 IPO Auction Trade 12 IPO Auction Trade 13 IPO Auction Trade 14 IPO Auction Trade 15 IPO Auction Trade 16 IPO Auction Trade 17 IPO Auction Trade 18 IPO Auction Trade 19 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 20 IPO Auction Trade 21 IPO Auction Trade 21 IPO Auction Trade 22 IPO Auction Trade 23 IPO Auction Trade 24 IPO Auction Trade			2 Exchange For Swap (EFS)			
4 Vola Trade 5 EFP-Fin Trade 6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 13 IPO Auction Trade 14 Vola Trade 15 EFP-Fin Trade 16 EFP-Index-Futures Trade 17 Block Trade at Market 18 Opening Auction Trade 19 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 Vola Trade 15 EFP-Fin Trade 16 EFP-Index-Futures Trade 17 Block Trade at Market 18 Opening Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 Vola Trade 15 EFP-Fin Trade 16 EFP-Index-Futures Trade 10 Day 11 Morning 12 Evening			3	Exchange Basis Facility		
6 EFP-Index-Futures Trade 7 Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade 14 Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			4	<u> </u>		
TradingSessionID Y Block Trade at Market 8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			5	EFP-Fin Trade		
8 Opening Auction Trade 9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			6	EFP-Index-Futures Trade		
9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			7	Block Trade at Market		
9 Intraday Auction Trade 10 Volatility Auction Trade 11 Closing Auction Trade 13 IPO Auction Trade TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			8	Opening Auction Trade		
TradingSessionID Y Always attached to the first MDEntry. Day Morning Evening				,		
TradingSessionID Y Always attached to the first MDEntry. Day Morning Evening						
TradingSessionID Y Always attached to the first MDEntry. O Day 1 Morning 2 Evening			11			
TradingSessionID Y Always attached to the first MDEntry. 0 Day 1 Morning 2 Evening			13	-		
0 Day 1 Morning 2 Evening	TradingSessionID	Υ	Always			
1 Morning 2 Evening						
2 Evening			1	Morning		
			2			
			3	-		

Depth Sr	Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)					
Field name	Optional		Description			
		4	Holiday			
TradingSessionS	Υ	0	Pre-Trading			
ubID		1	Continuous			
		2	Closing			
		3	Post-Trading			
		5	Quiescent			
TESTradSesStatu	Υ	0	Halted			
S		1	Open			
		2	Closed			
		3	Pre-Close			
SecurityTradingS	Υ	Tradin	g status of an instrument.			
tatus		0	Trading Halt			
		1	Closed			
		2	Restricted			
		3	Book			
		4	Continuous			
		5	Opening Auction			
		6	Opening Auction Freeze			
		7	Intraday Auction			
		8	Intraday Auction Freeze			
		9	Circuit Breaker Auction			
		10	Circuit Breaker Auction Freeze			
		11	Closing Auction			
		12	Closing Auction Freeze			
		13	IPO Auction			
ManhatCanalitian		14	IPO Auction Freeze			
MarketCondition	Y	0	Normal			
FastMarketIndica	Y	1	Stressed			
tor	Y	0	No			
	V	1	Yes			
SecurityTradingE vent	Y	1	Price volatility, auction is extended			
	Y	2	Price volatility, auction is extended again			
PotentialSecurity TradingEvent	Y		absent, there is no potential security trading event signalled.			
TradeCondition	Y	Tho ya	Price volatility, auction is extended lues can be added together to form combinations of the			
TradeCondition	ř		. If Exchange Last, High Price are sent then 1 + 4 = 5 is			
		receive	-			
			uction Price cannot be combined with any other value and has			
			n entry in order to convey the auction type through TrdType.			
		Instrument state already changed to continuous when the auction trade is reported.				
		1 Exchange Last				
		2	Opening Price			

Depth Sr	napshot Mes	ssage – 2	Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description				
		4	High Price			
		8	Low Price			
		16	Official Closing Price			
		32	Last Auction Price			
		128	Previous Closing Price			
		512	Systematic Internalizer, prices resulting from BEST executions			
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			
MultiLegReportin gType	Y	Always	s empty.			
MultiLegPriceMo del	Y	Always	Always empty.			
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus			
MDEntryPx	Υ	Price.	•			
MDEntrySize	Y	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.				
NumberOfOrder s	Y					
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.				
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot, even if they happen to be identical to the last trade and be part of the same entry.				
NonDisclosedTra deVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.				
TotalNumberOfT rades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.				
<mdsshgrp> sequ</mdsshgrp>	ence ends					

3.3.1.3. Depth snapshot, T7 Release 7.0 (03/12/2018 – 24/05/2019)

Depth Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description		
MsgType	N	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		
SenderCompID	N	Unique id of a sender.		
LastMsgSeqNumProcess	Υ	Last message sequence number sent regardless of message		
ed		type.		
RefreshIndicator	Υ	Always empty.		

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional		Description
MarketSegmentID	N	Product	t identifier, e.g. 89.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identifie	Identification. Always M = Marketplace-assigned er.
ProductComplex	N	Type of	instrument
		0	Simple Instrument
SecurityStatus	N	Status o	of the instrument.
		0	Active
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer
		5	Suspended
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
		8	Knocked-Out And Suspended, only applicable in
			trading model Continuous Auction Issuer
TESSecurityStatus	Υ	Status o	of the instrument for TES trading.
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	This car level, or	last change for SecurityID (nanoseconds). The beany trade, change of the orderbook on any price also a product or instrument state change ation conveyed in this message.
<mdsshgrp> sequence st</mdsshgrp>	arts		
NoMDEntries	N	Numbe	r of market data (MD) entries.
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book
			Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed.
		4	Auction Clearing Price
			Auction Clearing Price is sent as indicative information during the auction.

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional		Description
		7	Trade Volume
			The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include
			coherent volume (from direct matching of complex instruments) as well.
		8	Market Bid
		9	Market Offer
		10	Imbalance
			Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the
			imbalance side is not disclosed.
MDBookType	Υ	1	Price Depth
MDSubBookType	Y	Always	'
TrdType	Υ		OriginType 0 = Book defines when the trade happens.
, , , , , , , , , , , , , , , , , , ,			esent for MDEntryType=2 and TradeCondition=32.
		0, 1, 2, 3	3, 4, 5, 6, 7, and 8 only present for MDEntryType 2 =
		Trade a	nd MDOriginType 1 = Off-Book.
		0	Block Trade, used to report T7 Entry Service (TES)
			trades of TES Type Large in Scale (LIS)
		1	Exchange For Physical (EFP)
		2	Exchange For Swap (EFS)
		3	OTC applicable for T7 Entry Service (TES)
		4	Exchange Basis Facility
		5	Vola Trade
		6	EFP-Fin Trade
		7	EFP-Index-Futures Trade
		8	Block Trade at Market
		9	Opening Auction Trade
		10	Intraday Auction Trade
		11	Volatility Auction Trade
		12	Closing Auction Trade
		14	IPO Auction Trade
		15	Liquidity Improvement Cross
TradingSessionID	Y	Always	attached to the first MDEntry.
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Continuous
		2	Closing

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional		Description
		3	Post-Trading Post-Trading
		5	Quiescent
TESTradSesStatus	Υ	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ	Trading	status of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous
			Auction Issuer only
		16	Call applicable for trading model Continuous
N. 1 . 6 . 10.			Auction Issuer only
MarketCondition	Y	0	Normal
	.,	1	Stressed market conditions
FastMarketIndicator	Υ	0	No
	.,	1	Yes
SecurityTradingEvent	Υ	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTrading	Υ		bsent, there is no potential security trading event
Event		signalle 1	Price volatility, auction is extended
SoldOutIndicator	Υ		
JoidOddinalCatOl	ī	Identifies the sold out status (applicable for Continuous Auction Issuer trading model only).	
		0	Not sold out
		1	Sold out
TradeCondition	Υ	The valu	ues can be added together to form combinations of
	·		ues. If Exchange Last, High Price are sent then 1 + 4 = 5
		Last Au	ction Price cannot be combined with any other value its own entry in order to convey the auction type

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional		Description
		through	n TrdType. Instrument state already changed to
		continu	ous when the auction trade is reported.
		1	Exchange Last
		2	Opening Price
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		128	Previous Closing Price
		512	Systematic Internalizer, prices resulting from BEST executions
		1024	Midpoint price, prices resulting from Volume
			Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Υ	Always	empty.
MultiLegPriceModel	Υ	Always	empty.
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Υ	Price.	
MDEntrySize	Υ	Quantit	y or trade volume when MDEntryType is 2 = Trade or
		-	de Volume. TES disclosed quantity when
		MDOrig	ginType is 1 = Off-Book.
NumberOfOrders	Υ		
MDPriceLevel	Υ	Book le	vel. Absent for implied bid/offer prices.
MDEntryTime	Υ		entry (nanoseconds) for last trade entry
		(TradeC	Condition = 1 Exchange Last) and for one auction
			Condition 32 = Last Auction Price) entry (e.g. when
			re opening, intraday and volatility auction trades, only
			last auction the time is given).
			s do not have an official timestamp in the snapshot,
			they happen to be identical to the last trade and be
NonDisclosedTradeVolu	Υ		the same entry. Is the TES trade volume that is not displayed during
me	r		. Only present for MDEntryType 7 = Trade Volume.
THE STATE OF THE S		_	hen trade volume is finally disclosed and also for
		recover	•
TotalNumberOfTrades	Υ		umber of trades during the day. Only present for
			yType = 7.
<mdsshgrp> sequence er</mdsshgrp>	nds		

3.3.1.4. Depth snapshot, T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	e Optional Description			
MsgType	N	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	Optional	Description		
SenderCompID	N	Unique id of a sender.		
LastMsgSeqNumProcess	Υ	Last message sequence number sent regardless of message		
ed		type.		
RefreshIndicator	Υ	Always empty.		
MarketSegmentID	N	Product	t identifier, e.g. 89.	
SecurityID	N	Instrum	nent identifier, e.g. 8852.	
SecurityIDSource	N		Identification. Always M = Marketplace-assigned	
Due dough Course lavo	N.I.	identifie		
ProductComplex	N		instrument T. Green L. Landson	
		0	Simple Instrument	
SecurityStatus	N		of the instrument.	
		0	Active	
		3	Knocked-Out, only applicable in trading model	
			Continuous Auction Issuer	
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer	
		5	Suspended	
		7	Pending deletion, used when the last trading date is	
		,	exceeded and the instrument will be deleted soon.	
			Those instruments might become 0 = Active again	
			intraday via Market Data intraday State Change	
			essages.	
		8	Knocked-Out And Suspended, only applicable in	
TECC wit Chat	V	trading model Continuous Auction Issuer Status of the instrument for TES trading.		
TESSecurityStatus	Y			
		0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
LastUpdateTime	N		last change for SecurityID (nanoseconds).	
			n be any trade, change of the orderbook on any price	
			r also a product or instrument state change ation conveyed in this message.	
<mdsshgrp> sequence st</mdsshgrp>	l arts	IIIIOIIII	ation conveyed in this message.	
NoMDEntries	N	Numbe	r of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading	
m.b.onginiype	I N	1	Off-Book for TES trading only. Only applicable for	
		'	MDEntryType 2 = Trade or 7 = Trade Volume	
MDEntryType	N	0	Bid	
J J1 -		1	Offer	
		2	Trade	
		3	Empty Book	
			Empty Book is sent during product states "Start-Of-	
			Day" and "Pre-Trading" or when no price levels exist.	

Depth Snapshot	: Message – X	Xetra T7 I	Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)
Field name	Optional		Description
			During "Post-Trading" and "End-Of-Day" ToB prices are distributed.
		4	Auction Clearing Price
			Auction Clearing Price is sent as indicative information during the auction.
		7	Trade Volume
			The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well.
		8	Market Bid
		9	Market Offer
		10	Imbalance
			Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
MDBookType	Υ	1 Price Depth	
MDSubBookType	Υ	Always empty.	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happe Only present for MDEntryType 2 = Trade and TradeConditi 32 = Last Auction Price. 1, 2, 3, 4, 5, 6, 7, 8, and 9 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market
		10 Xetra Eurex Enlight Triggered Trade may be stogether with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.	
		11	Opening Auction Trade
		12	Intraday Auction Trade
		13	Volatility Auction Trade
		14	Closing Auction Trade
		16	IPO Auction Trade
		17	Liquidity Improvement Cross
TradingSessionID	Υ	Always	attached to the first MDEntry.

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	Optional	Description		
		0	Day	
		1	Morning	
		2	Evening	
		3	After-Hours	
		4	Holiday	
TradingSessionSubID	Υ	0	Pre-Trading	
		1	Continuous	
		2	Closing	
		3	Post-Trading	
		5	Quiescent	
TESTradSesStatus	Υ	0	Halted	
		1	Open	
		2	Closed	
		3	Pre-Close	
SecurityTradingStatus	Υ	Trading	s status of an instrument.	
		0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	
		6	Opening Auction Freeze	
		7	Intraday Auction	
		8	Intraday Auction Freeze	
		9	Circuit Breaker Auction	
		10	Circuit Breaker Auction Freeze	
		11	Closing Auction	
		12	Closing Auction Freeze	
		13	IPO Auction	
		14	IPO Auction Freeze	
		15	Pre-Call applicable for trading model Continuous	
			Auction Issuer only	
		16	Call applicable for trading model Continuous	
			Auction Issuer only	
		17	Freeze, applicable for trading model Continuous	
Maylot Canalities			Auction Specialist only (applicable since 8.0 only).	
MarketCondition	Y	0	Normal	
		1	Stressed market conditions	
FastMarketIndicator	Y	0	No	
	,,	1	Yes	
SecurityTradingEvent	Y	1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	

Depth Snapshot	Message – 2	Xetra T7	Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)	
Field name	Optional	Description		
PotentialSecurityTrading Event	Υ	When absent, there is no potential security trading event signalled.		
LVEIIC		1 Price volatility, auction is extended		
SoldOutIndicator	Υ	Identifies the sold out status (applicable for Continuous		
SoldOdtillalcator	'		Issuer trading model only).	
		0	Not sold out (applicable for 7.1 only)	
		1	Sold out	
TradeCondition	Y	The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = is received.		
			ction Price cannot be combined with any other value	
			s its own entry in order to convey the auction type	
		_	n TrdType. Instrument state already changed to	
			ous when the auction trade is reported.	
		1	Exchange Last	
		2	Opening Price	
		4	High Price	
		8	Low Price	
		16	Official Closing Price	
		32	Last Auction Price	
		128	Previous Closing Price	
		512	Systematic Internalizer, prices resulting from BEST executions (applicable for 7.1 only)	
		1024	Midpoint price, prices resulting from Volume	
		1024	Discovery Orders (VDO) executed at midpoint	
MultiLegReportingType	Υ	Always empty.		
MultiLegPriceModel	Υ	Always		
QuoteCondition	Υ	1 Order imbalance together with MDEntryType 0 = Bio		
•			or 1 = Offer to define a surplus	
MDEntryPx	Υ	Price.		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType is 2 = Trade or		
			de Volume. TES disclosed quantity when	
			ginType is 1 = Off-Book.	
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Υ	Time of entry (nanoseconds) for last trade entry		
		(TradeCondition = 1 Exchange Last) and for one auction		
		(TradeCondition 32 = Last Auction Price) entry (e.g. when		
		there are opening, intraday and volatility auction trades, only for the last auction the time is given).		
		Statistics do not have an official timestamp in the snapshot,		
			they happen to be identical to the last trade and be	
			the same entry.	
NonDisclosedTradeVolu	Υ	Contains the TES trade volume that is not displayed during		
me		the day. Only present for MDEntryType 7 = Trade Volume.		

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	Optional Description			
		Used when trade volume is finally disclosed and also for		
		recovery.		
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for		
		MDEntryType = 7.		
<mdsshgrp> sequence ends</mdsshgrp>				

3.3.1.5. Depth snapshot, T7 Release 8.1 (29/06/2020 – 20/11/2020)

Depth Snaps	hot Message	e – Xetra T	7 Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional	Description		
MsgType	N	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		
SenderCompID	N	Unique id	d of a sender.	
LastMsgSeqNumProcess	Υ	Last mes	sage sequence number sent regardless of message	
ed		type.		
RefreshIndicator	Υ	Always e		
MarketSegmentID	N	Product i	identifier, e.g. 89.	
SecurityID	N	Instrume	ent identifier, e.g. 8852.	
SecurityIDSource	N	Source lo	dentification. Always M = Marketplace-assigned ·.	
ProductComplex	N	Type of i	nstrument	
		0	Simple Instrument	
SecurityStatus	N	Status of	the instrument.	
		0	Active	
		3	Knocked-Out, only applicable in trading model	
			Continuous Auction Issuer	
			Knock-Out Revoked, only applicable in trading	
		4	model Continuous Auction Issuer	
		5	Suspended	
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted	
			soon. Those instruments might become 0 = Active	
			again intraday via Market Data intraday State	
			Change essages.	
		8	Knocked-Out And Suspended, only applicable in	
TEGG ': G: /		C:	trading model Continuous Auction Issuer	
TESSecurityStatus	Υ		the instrument for TES trading.	
		0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds).		
		This can be any trade, change of the orderbook on any price		
			also a product or instrument state change	
		information conveyed in this message.		

Depth Snaps	hot Message	e – Xetra T7	⁷ Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional	Description		
<mdsshgrp> sequence sta</mdsshgrp>	arts			
NoMDEntries	N	Number of market data (MD) entries.		
MDOriginType	N	0	Book for on-exchange trading	
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		3	Empty Book	
			Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed.	
		4	Auction Clearing Price	
			Auction Clearing Price is sent as indicative information during the auction.	
		7	Trade Volume	
			The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well.	
		8	Market Bid	
		9	Market Offer	
		10	Imbalance Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.	
MDBookType	Υ	1	Price Depth	
MDSubBookType	Υ	Always er	·	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens Only present for MDEntryType 2 = Trade and TradeCondition 32 = Last Auction Price. 1, 2, 3, 4, 5, 6, 7, 8, and 9 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book.		
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)	
		2	Exchange For Physical (EFP)	
		3	Exchange For Swap (EFS)	
		4	OTC applicable for T7 Entry Service (TES)	
		5	Exchange Basis Facility	
		6	Vola Trade	
		7	EFP-Fin Trade	
		8	EFP-Index-Futures Trade	

Depth Snaps	hot Message	e – Xetra T7	⁷ Release 8.1 (29/06/2020 – 20/11/2020)
Field name	Optional		Description
		9	Block Trade at Market
		10	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		11	Block QTPIP (Qualified Third Party Information Provider) Trade
		12	Opening Auction Trade
		13	Intraday Auction Trade
		14	Volatility Auction Trade
		15	Closing Auction Trade
		16	Cross Auction Trade
		17	IPO Auction Trade
		18	Liquidity Improvement Cross
TradingSessionID	Υ	Always at	tached to the first MDEntry.
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Υ	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Υ	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ	Trading s	tatus of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction

Depth Snaps	hot Message	e – Xetra T	7 Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional		Description	
		14	IPO Auction Freeze	
		15	Pre-Call applicable for trading model Continuous Auction Issuer only	
		16	Call applicable for trading model Continuous Auction Issuer only	
		17	Freeze, applicable for trading model Continuous Auction Specialist only.	
MarketCondition	Υ	0	Normal	
		1	Stressed market conditions	
FastMarketIndicator	Υ	0	No	
		1	Yes	
SecurityTradingEvent	Υ	1	Price volatility, auction is extended	
, ,		2	Price volatility, auction is extended again	
PotentialSecurityTrading Event	Y	When ab signalled	sent, there is no potential security trading event	
		1	Price volatility, auction is extended	
SoldOutIndicator	Y		the sold out status (applicable for Continuous ssuer trading model only).	
		1	Sold out	
TradeCondition	Y	the value		
			ion Price cannot be combined with any other value	
			ts own entry in order to convey the auction type	
		_	TrdType. Instrument state already changed to	
		continuous when the auction trade is reported. 1 Exchange Last		
		2	Opening Price	
		4	High Price	
		8	Low Price	
		16	Official Closing Price	
		32	Last Auction Price	
		128	Previous Closing Price	
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	
MultiLegReportingType	Υ	Always e		
MultiLegPriceModel	Υ	Always e		
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus	
MDEntryPx	Υ	Price.		
MDEntrySize	Y	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		

Depth Snaps	Depth Snapshot Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)					
Field name	Optional	Description				
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot, even if they happen to be identical to the last trade and be part of the same entry.				
NonDisclosedTradeVolu me	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.				
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.				
<mdsshgrp> sequence ends</mdsshgrp>						

3.3.1.6. Depth snapshot, T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)

Depth Snapsh	ot Message	– Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)		
Field name	Optional	Description		
MsgType	N	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		
SenderCompID	N	Unique id of a sender.		
LastMsgSeqNumProce ssed	Y	Last message sequence number sent regardless of message type.		
RefreshIndicator	Υ	Always empty.		
MarketSegmentID	N	Product identifier, e.g. 89.		
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source Identification. Always M = Marketplace-assigned identifier.		
ProductComplex	N	Type of instrument		
		0 Simple Instrument		
SecurityStatus	N	Status of the instrument.		
		0 Active		
		3 Knocked-Out, only applicable in trading model Continuous Auction Issuer		
		Knock-Out Revoked, only applicable in trading model		
		4 Continuous Auction Issuer		
		5 Suspended		
		7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.		
		8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer		

Depth Snapsh	ot Message ·	– Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
Field name	Optional	Description	
TESSecurityStatus	Υ	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of	last change for SecurityID (nanoseconds).
		This car	n be any trade, change of the orderbook on any price
			r also a product or instrument state change information
		convey	ed in this message.
<mdsshgrp> sequence s</mdsshgrp>		T	
NoMDEntries	N		er of market data (MD) entries.
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for
MDEntracture	N.I.	0	MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book
			Empty Book is sent during product states "Start-Of-
			Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices
			are distributed.
		4	Auction Clearing Price
			Auction Clearing Price is sent as indicative
			information during the auction.
		7	Trade Volume
			The total traded volume of units traded during the
			day can be found in the MDEntrySize field. Please
			note that the total traded volume may include
			coherent volume (from direct matching of complex
		8	instruments) as well. Market Bid
		9	Market Offer
		10	Imbalance
		10	Applicable for Continuous Auction Issuer trading
			model only. Is used instead of QuoteCondition 1 =
			Order Imbalance for products for which the
			imbalance side is not disclosed.
MDBookType	Υ	1	Price Depth
MDSubBookType	Υ	Always	empty.
TrdType	Υ	For MDOriginType 0 = Book defines when the trade happens	
			resent for MDEntryType 2 = Trade and TradeCondition
			st Auction Price.
			4, 5, 6, 7, 8, 9, 10, 11, and 12 only present for TyType 2 = Trade and MDOriginType 1 = Off-Book.
		ואוטבוונו	y rype 2 - made and MDONGII rype 1 - OII-book.

Depth Snapsh	ot Message	- Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
Field name	Optional		Description
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	Portfolio Compression Trade
		5	OTC applicable for T7 Entry Service (TES)
		6	Exchange Basis Facility
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index-Futures Trade
		10	Block Trade at Market
		11	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
		13	Opening Auction Trade
		14	Intraday Auction Trade
		15	Volatility Auction Trade
		16	Closing Auction Trade
		17	Cross Auction Trade
		18	IPO Auction Trade
		19	Liquidity Improvement Cross
TradingSessionID	Υ	Always	attached to the first MDEntry.
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Υ	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ	Trading	status of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book

Depth Snapsh	ot Message -	- Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
Field name	Optional		Description
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous
			Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous
			Auction Specialist only.
		18	Trade At Close
MarketCondition	Υ	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Υ	0	No
		1	Yes
SecurityTradingEvent	Υ	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradin gEvent	Υ	When a signalle	bsent, there is no potential security trading event d.
		1	Price volatility, auction is extended
SoldOutIndicator	Υ	Identifie	es the sold out status (applicable for Continuous
		Auction	Issuer trading model only).
		1	Sold out
TradeCondition	Y	values. receive	ues can be added together to form combinations of the If Exchange Last, High Price are sent then 1 + 4 = 5 is d. ction Price cannot be combined with any other value
			s its own entry in order to convey the auction type
			TrdType. Instrument state already changed to
		_	ous when the auction trade is reported.
		1	Exchange Last
		2	Opening Price
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		128	Previous Closing Price
I			

Depth Snapsh	ot Message	– Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)		
Field name	Optional	Description		
		512 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint		
MultiLegReportingType	Υ	Always empty.		
MultiLegPriceModel	Υ	Always empty.		
QuoteCondition	Υ	1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus		
MDEntryPx	Υ	Price.		
MDEntrySize	Y	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot, even if they happen to be identical to the last trade and be part of the same entry.		
NonDisclosedTradeVol ume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for MDEntryType = 7.		
<mdsshgrp> sequence e</mdsshgrp>	ends			

3.3.1.7. Depth snapshot, T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)

Depth Snapshot Message – Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)					
Field name	Optional		Description		
MsgType	N	Always	W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always	empty.		
SenderCompID	N	Unique	id of a sender.		
LastMsgSeqNumProce	Υ	Last me	ssage sequence number sent regardless of message		
ssed		type.	type.		
RefreshIndicator	Υ	Always	Always empty.		
MarketSegmentID	N	Product	Product identifier, e.g. 89.		
SecurityID	N	Instrument identifier, e.g. 8852.			
SecurityIDSource	N	Source Identification. Always M = Marketplace-assigned			
		identifier.			
ProductComplex	N	Type of instrument			
		0	Simple Instrument		
SecurityStatus	N	Status of the instrument.			
		0	Active		

Depth Snapshot	Message – I	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional		Description
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer
		5	Suspended
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
		8	Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer
TESSecurityStatus	Υ	Status o	of the instrument for TES trading.
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of	last change for SecurityID (nanoseconds).
		level, or	n be any trade, change of the orderbook on any price also a product or instrument state change information and in this message.
<mdsshgrp> sequence s</mdsshgrp>		T	
NoMDEntries	N		r of market data (MD) entries.
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed.
		4	Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction.
		7	Trade Volume The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well.
		8	Market Bid
		9	Market Offer

Depth Snapshot	t Message – I	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional		Description
		10	Imbalance Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
MDBookType	Υ	1	Price Depth
MDSubBookType	Υ	Always	empty.
TrdType	Y	Only pro 32 = Las 1, 2, 3, 4	OriginType 0 = Book defines when the trade happens. esent for MDEntryType 2 = Trade and TradeCondition st Auction Price. 4, 5, 6, 7, 8, 9, 10, 11, and 12 only present for yType 2 = Trade and MDOriginType 1 = Off-Book. Block Trade, used to report T7 Entry Service (TES)
		'	trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	Portfolio Compression Trade
		5	OTC applicable for T7 Entry Service (TES)
		6	Exchange Basis Facility
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index-Futures Trade
		10	Block Trade at Market
		11	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
		13	Opening Auction Trade
		14	Intraday Auction Trade
		15	Volatility Auction Trade
		16	Closing Auction Trade
		17	Cross Auction Trade
		18	IPO Auction Trade
TradingCossionID	Y	19	Liquidity Improvement Cross
TradingSessionID	1	0	attached to the first MDEntry. Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Υ	0	Pre-Trading
<u> </u>		1	Continuous
		2	Closing
	l .	_	U

Depth Snapshot	t Message – I	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional		Description
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Υ	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ	Trading	g status of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Υ	1	Price volatility, auction is extended
, ,		2	Price volatility, auction is extended again
PotentialSecurityTradin	Y		absent, there is no potential security trading event
gEvent		signalle	
Caldowi III i		1	Price volatility, auction is extended
SoldOutIndicator Y			es the sold out status (applicable for Continuous
		Auction	Sold out
HighDy	Y	Hoport	<u>l</u>
HighPx	4	auction	boundary price. For scheduled auctions (e.g. opening i), it may be set together with SecurityTradingEvent 1 = olatility, auction is extended. For volatility auctions it

Depth Snapshot	Message –	Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)		
Field name	Optional	Description		
		may be set immediately without SecurityTradingEvent. If the value is absent, any previous upper boundary price is not valid any longer.		
LowPx	Υ	Lower boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous lower boundary price is not valid any longer.		
TradeCondition	Y	The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 5 is received. Last Auction Price cannot be combined with any other value and has its own entry in order to convey the auction type through TrdType. Instrument state already changed to continuous when the auction trade is reported. 1		
MultiLegReportingType	Υ	Discovery Orders (VDO) executed at midpoint		
		Always empty.		
MultiLegPriceModel QuoteCondition	Y	Always empty. 1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus		
MDEntryPx	Υ	Price.		
MDEntrySize	Y	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot, even if they happen to be identical to the last trade and be		
NonDisclosedTradeVol ume	Y	part of the same entry. Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		

Depth Snapshot Message – Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)				
Field name Optional Description				
TotalNumberOfTrades Y Total Number of trades during the day. Only present for MDEntryType = 7.				
<mdsshgrp> sequence ends</mdsshgrp>				

3.3.1.8. Depth snapshot, T7 Release 12.0 (20/11/2023 - 10/05/2024)

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description		
MsgType	N	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		
SenderCompID	N	Unique id of a sender.		
LastMsgSeqNumProcesse	Υ	Last message sequence number sent regardless of message		
d		type.		
RefreshIndicator	Υ	Always empty.		
MarketSegmentID	Ν	Product identifier, e.g. 89.		
SecurityID	Ν	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source Identification. Always M = Marketplace-assigned identifier.		
ProductComplex	N	Type of instrument		
		0 Simple Instrument		
SecurityStatus	N	Status of the instrument.		
		0 Active		
		3 Knocked-Out, only applicable in trading model		
		Continuous Auction Issuer		
		Knock-Out Revoked, only applicable in trading model		
		4 Continuous Auction Issuer		
		5 Suspended		
		7 Pending deletion, used when the last trading date is		
		exceeded and the instrument will be deleted soon.		
		Those instruments might become 0 = Active again intraday via Market Data intraday State Change		
		essages.		
		8 Knocked-Out And Suspended, only applicable in		
		trading model Continuous Auction Issuer		
TESSecurityStatus	Υ	Status of the instrument for TES trading.		
		0 Active		
		1 Inactive		
		2 Expired		
		5 Suspended		
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds).		
		This can be any trade, change of the orderbook on any price level, or also a product or instrument state change informati		
		conveyed in this message.		
<mdsshgrp> sequence starts</mdsshgrp>				
NoMDEntries	N	Number of market data (MD) entries.		

Depth Snapsh	not Messag	e – Xetra	T7 Release 12.0 (20/11/2023 – 10/05/2024)
Field name	Optional		Description
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book
			Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed.
		4	Auction Clearing Price
			Auction Clearing Price is sent as indicative information during the auction.
		7	Trade Volume
			The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well.
		8	Market Bid
		9	Market Offer
		10	Imbalance Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
MDBookType	Υ	1	Price Depth
MDSubBookType	Υ	Always empty.	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happen Only present for MDEntryType 2 = Trade and TradeConditio = Last Auction Price. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book. 1 Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)	
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	Portfolio Compression Trade
		5	OTC applicable for T7 Entry Service (TES)
		6	Exchange Basis Facility
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index-Futures Trade
		10	Block Trade at Market
	l		I

Depth Snapsh	not Messag	e – Xetra	T7 Release 12.0 (20/11/2023 - 10/05/2024)
Field name	Optional		Description
		11	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
		13	Delta Trade At Market
		14	Opening Auction Trade
		15	Intraday Auction Trade
		16	Volatility Auction Trade
		17	Closing Auction Trade
		18	Cross Auction Trade
		19	IPO Auction Trade
		20	Liquidity Improvement Cross
TradingSessionID	Υ	Always	attached to the first MDEntry.
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Υ	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Υ	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ		status of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Austion
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction Circuit Breaker Auction Freeze
		10	
		11	Closing Austion France
			Closing Auction Freeze IPO Auction
		13	IFO AUCTION

Depth Snapsh	ot Messag	e – Xetra	T7 Release 12.0 (20/11/2023 – 10/05/2024)	
Field name	Optional		Description	
		14	IPO Auction Freeze	
		15	Pre-Call applicable for trading model Continuous Auction Issuer only	
		16	Call applicable for trading model Continuous Auction Issuer only	
		17	Freeze, applicable for trading model Continuous Auction Specialist only.	
		18	Trade At Close	
MarketCondition	Υ	0	Normal	
		1	Stressed market conditions	
FastMarketIndicator	Υ	0	No	
		1	Yes	
SecurityTradingEvent	Υ	1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
PotentialSecurityTradingE	Υ		bsent, there is no potential security trading event	
vent	·	signalle		
		1	Price volatility, auction is extended	
SoldOutIndicator	Υ	Identifie	es the sold out status (applicable for Continuous Auction	
		Issuer tr	rading model only).	
		1	Sold out	
HighPx	Υ	Upper b	oundary price. For scheduled auctions (e.g. opening	
		auction)	, it may be set together with SecurityTradingEvent 1 =	
			latility, auction is extended. For volatility auctions it may	
			nmediately without SecurityTradingEvent. If the value is	
		longer.	any previous upper boundary price is not valid any	
LowPx	Υ		oundary price. For scheduled auctions (e.g. opening	
			, it may be set together with SecurityTradingEvent 1 =	
			latility, auction is extended. For volatility auctions it may	
		be set immediately without SecurityTradingEvent. If the value is		
		absent, any previous lower boundary price is not valid any longer.		
TradeCondition	Υ		ues can be added together to form combinations of the	
Tradecondition	'	values. If Exchange Last, High Price are sent then 1 + 4 = 5 is		
		received		
		Last Aud	ction Price cannot be combined with any other value	
		and has	its own entry in order to convey the auction type	
		through	TrdType. Instrument state already changed to	
		continuo	ous when the auction trade is reported.	
		1	Exchange Last	
		2	Opening Price	
		4	High Price	
		8	Low Price	
		16	Official Closing Price	
		32	Last Auction Price	
		128	Previous Closing Price	
	1		· ·	

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description		
		4096 Retail Price		
MultiLegReportingType	Υ	Always empty.		
MultiLegPriceModel	Υ	Always empty.		
QuoteCondition	Y	1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus		
MDEntryPx	Υ	Price.		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot, even if they happen to be identical to the last trade and be part of the same entry.		
NonDisclosedTradeVolu me	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.		
<mdsshgrp> sequence en</mdsshgrp>	ds			

3.3.1.9. Depth snapshot, T7 Releases 12.1 - 13.0 (13/05/2024 - 16/05/2024)

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)				
Field name	Optional	Description		
MsgType	Ν	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always empty.		
SenderCompID	Ν	Unique id of a sender.		
LastMsgSeqNumProcesse	Υ	Last message sequence number sent regardless of message		
d		type.		
RefreshIndicator	Υ	Always empty.		
MarketSegmentID	Ν	Product identifier, e.g. 89.		
SecurityID	Ν	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source Identification. Always M = Marketplace-assigned		
		identifier.		
ProductComplex	Ν	Type of instrument		
		0 Simple Instrument		
SecurityStatus	N	Status of the instrument.		
		0 Active		

Field name
Continuous Auction Issuer Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer 5
Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer 5 Suspended 7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. 8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer 1 Inactive 2 Expired 5 Suspended 5 Suspended 5 Suspended 5 Suspended 5 Suspended 5 Suspended 6 Suspended 7 Ime of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. 6 MDSshGrp > sequence states N Number of market data (MD) entries. NMDEntries N Number of market data (MD) entries. MDCoriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book Empty Book Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" or when no price levels exist. During "Post-Trad
4 Continuous Auction Issuer
Suspended Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. 8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer Status of the instrument for TES trading. O Active
7 Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. 8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer TESSecurityStatus Y Status of the instrument for TES trading. 0 Active 1 Inactive 2 Expired 5 Suspended LastUpdateTime N Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. <mdsshgrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are</mdsshgrp>
exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. 8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer TESSecurityStatus Y Status of the instrument for TES trading. 0 Active 1 Inactive 2 Expired 5 Suspended LastUpdateTime N Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. <mdsshgrp> sequence statts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" on when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are</mdsshgrp>
Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages. 8
intraday via Market Data intraday State Change essages. 8 Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer TESSecurityStatus Y Status of the instrument for TES trading. 0 Active 1 Inactive 2 Expired 5 Suspended LastUpdateTime N Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. <mdsshgrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" or when no price levels exist. During "Post-Trading" on "End-Of-Day" TOB prices are</mdsshgrp>
Status of the instrument for TES trading. Status of the instrument for TES trading. O Active
TESSecurityStatus Y Status of the instrument for TES trading. 0
TESSecurityStatus Y Status of the instrument for TES trading. 0
O Active 1 Inactive 2 Expired 5 Suspended Suspende
1 Inactive 2 Expired 5 Suspended
LastUpdateTime
LastUpdateTime N Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. <mdsshgrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are</mdsshgrp>
LastUpdateTime N Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. SMDSshGrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message. <mdsshgrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are</mdsshgrp>
level, or also a product or instrument state change information conveyed in this message. MDSshGrp> sequence starts
conveyed in this message. MDSshGrp> sequence starts
< MDSshGrp> sequence starts NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
NoMDEntries N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
MDOriginType N Off-Book for on-exchange trading Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume N Offer Trade Trade Trade Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDEntryType N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
MDEntryType 2 = Trade or 7 = Trade Volume N 0 Bid 1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
1 Offer 2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
2 Trade 3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
3 Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
Empty Book is sent during product states "Start-Of- Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
Empty Book is sent during product states "Start-Of- Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are
distributed.
4 Auction Clearing Price
Auction Clearing Price is sent as indicative information
during the auction.
7 Trade Volume
The total traded volume of units traded during the day
can be found in the MDEntrySize field. Please note that the total traded volume may include coherent
volume (from direct matching of complex instruments)
as well.
8 Market Bid
I WALLES DIA

Depth Snapshot N	∕lessage – >	(etra T7 F	Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)
Field name	Optional		Description
		10	Imbalance Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
MDBookType	Υ	1	Price Depth
MDSubBookType	Υ	Always 6	·
TrdType	Y	Only pre = Last A 1, 2, 3, 4	OriginType 0 = Book defines when the trade happens. esent for MDEntryType 2 = Trade and TradeCondition 32 uction Price. e., 5, 6, 7, 8, 9, 10, 11, 12, and 13 only present for yType 2 = Trade and MDOriginType 1 = Off-Book. Block Trade, used to report T7 Entry Service (TES)
		,	trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market
		10	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		11	Block QTPIP (Qualified Third Party Information Provider) Trade
		12	Delta Trade At Market
		13	Opening Auction Trade
		14	Intraday Auction Trade
		15	Volatility Auction Trade
		16	Closing Auction Trade
		17	Cross Auction Trade
		18	IPO Auction Trade
		19	Liquidity Improvement Cross
TradingSessionID	Υ		attached to the first MDEntry.
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
Totalia Carata C. L.D.		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Clasica
		2	Closing

Depth Snapshot N	∕lessage – >	(etra T7 F	Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)
Field name	Optional		Description
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Υ	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Υ	Trading	status of an instrument.
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous
			Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous
			Auction Specialist only
		18	Trade At Close
		19	Circuit Breaker Auction Triggered By Static Limit Breach
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze
MarketCondition	Υ	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Υ	0	No
		1	Yes
SecurityTradingEvent	Υ	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingE vent	Y		bsent, there is no potential security trading event
VOITE		1	Price volatility, auction is extended
SoldOutIndicator	Υ	Identifie	es the sold out status (applicable for Continuous Auction
	•		rading model only).

Depth Snapshot N	Message – X	Ketra T7 I	Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)	
Field name	Optional		Description	
		1	Sold out	
HighPx	Y	auction Price vo be set in	ooundary price. For scheduled auctions (e.g. opening), it may be set together with SecurityTradingEvent 1 = latility, auction is extended. For volatility auctions it may mmediately without SecurityTradingEvent. If the value is any previous upper boundary price is not valid any	
LowPx	Y	Lower boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous lower boundary price is not valid any longer.		
TradeCondition	Y	values. received Last Aud and has through	Less can be added together to form combinations of the life Exchange Last, High Price are sent then 1 + 4 = 5 is ed. Lection Price cannot be combined with any other value its own entry in order to convey the auction type in TrdType. Instrument state already changed to ous when the auction trade is reported. Exchange Last Opening Price High Price Low Price Official Closing Price Last Auction Price Previous Closing Price Retail Price Midpoint Price resulting from midpoint orders (available since 13.0)	
MultiLegReportingType	Υ	Always	,	
MultiLegPriceModel	Y	Always		
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus	
MDEntryPx	Υ	Price.		
MDEntrySize	Y	Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot,		

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)				
Field name	Optional	Description		
		even if they happen to be identical to the last trade and be part		
		of the same entry.		
NonDisclosedTradeVolu	Υ	Contains the TES trade volume that is not displayed during the		
me		day. Only present for MDEntryType 7 = Trade Volume. Used		
		when trade volume is finally disclosed and also for recovery.		
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for		
		MDEntryType = 7.		
<mdsshgrp> sequence ends</mdsshgrp>				

3.3.2. Depth incremental

File:

- from July 7, 2017 to December 29, 2017 DI_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 DI_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

The depth incremental message provides order book updates and trades.

3.3.2.1. Depth incremental, T7 Release 5.0 (03/07/2017 - 01/12/2017)

Depth Incremental Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional	Description			
MsgType	N	Always X	= Market Data Incremental Refresh.		
MsgSeqNum	N		ence number is incremented per product across all		
			message types on a particular feed.		
SenderCompID	N	Unique id	d of a sender.		
MarketSegmentID	N	Product i	dentifier, e.g. 89.		
<mdincgrp> sequer</mdincgrp>	nce starts				
NoMDEntries	N	Number	of market data (MD) entries		
MDOriginType	N	0	Book for on-exchange trading		
		1	Off-Book for TES trading only. Only applicable for		
			MDEntryType 2 = Trade or 7 = Trade Volume		
MDUpdateAction	N	0	New, indicates either that a new price level is created in		
			the order book or a trade.		
		1	Change, indicates a change at a given price level, all		
			fields but the price on the specified side at the price level should be updated.		
		2	Delete, delete a specified price level.		
		3	Delete Thru, delete all price levels from 1 to the specified price level.		
		4	Delete From, delete all price levels ≥ specified price level.		
		5	Overlay, change the price of a given price level, other		
			parameters, e.g quantity might also change.		
MDEntryType	N	0	Bid		

Depth Ir	ncremental N	Лessage – Х	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)	
Field name	Optional	Description		
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be	
			found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also send together	
			with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.	
		8	Market Bid	
		9	Market Offer	
SocurityID	NI		nt identifier, e.g. 8852.	
SecurityIDSource	N			
SecurityIDSource	N		entification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	`	de or order).	
MDEntrySize	Y		or trade volume when MDEntryType = 2 or 7. TES quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Υ	Number	of orders.	
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	For bids and offers the official time of book entry, for trades official time of execution (all in nanoseconds).		
PotentialSecurityT	Υ	0	None	
radingEvent		1	Price volatility, auction is extended	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus	
<tradeentrygrp> (or</tradeentrygrp>	ntional) grou	up starts, only present for MDEntryType=2 (Trade).		
TrdType	Υ	For MDOriginType 0 = Book defines when the trade happens. Only		
			or MDEntryType = 2 and TradeCondition = 32 Last Auction	
		1 -	e, with the exception of cross auction trades which do not	
		establish	a last auction price, i.e. TradeCondition = 32 is not set for	
		these tra	des. For trades outside the auctions, this field is not set.	
			4, 5, 6, and 7 only present for MDEntryType 2 = Trade and	
			Type 1 = Off-Book.	
		0	Off-Book Block Trade	
		1	Exchange For Physical (EFP)	
		2	Exchange For Swap (EFS)	
		3	Exchange Basis Facility	
		4	Vola Trade	
		5	EFP-Fin Trade	
		6	EFP-Index-Futures Trade	
		7	Block Trade at Market	
		8	Opening Auction Trade	
		9	Intraday Auction Trade	
		10	Volatility Auction Trade	
		11	Closing Auction Trade	

Depth Incremental Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional	Description		
		13 IPO Auction Trade		
TradeCondition	Υ	Defines the type of price for MDEntryPx. Only present for MDEntryType 2 = Trade. The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 5 is received.		
		1 Exchange Last		
		2 Opening Price		
		4 High Price		
		8 Low Price		
		16 Official Closing Price		
		32 Last Auction Price		
		64 Out of sequence used for trades entered manually by Market Supervision (mutually exclusive with 1).		
		128 Previous Closing Price		
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).		
AggressorTime	Υ	Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.		
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.		
		0 Buy		
		1 Sell		
NumberOfBuyOrd ers	Y	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.		
NumberOfSellOrd ers	Y	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.		
TotalNumberOfTr ades	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.		
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.		
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTrad eVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		
<tradeentrygrp> (optional) group ends</tradeentrygrp>				
<mdincgrp> sequer</mdincgrp>	nce ends			

3.3.2.2. Depth incremental, T7 Releases 6.0 - 6.1 (04/12/2017 - 30/11/2018)

Depth Incremental Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name Optional Description			
MsgType	N	Always X = Market Data Incremental Refresh.	
MsgSeqNum	N	The sequence number is incremented per product	
		across all message types on a particular feed.	

Depth Incremental Me	essage – Xetr	ra T7 Rel	eases 6.0 – 6.1 (04/12/2017 – 30/11/2018)	
Field name	Optional	Description		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Produc	Product identifier, e.g. 89.	
<mdincgrp> sequence starts</mdincgrp>				
NoMDEntries	N	Numbe	er of market data (MD) entries	
MDOriginType	N	0	Book for on-exchange trading	
		1	Off-Book for TES trading only. Only applicable	
			for MDEntryType 2 = Trade or 7 = Trade Volume	
MDUpdateAction	N	0	New, indicates either that a new price level is created in the order book or a trade.	
		1	Change, indicates a change at a given price level, all fields but the price on the specified side at the price level should be updated.	
		2	Delete, delete a specified price level.	
		3	Delete Thru, delete all price levels from 1 to the specified price level.	
		4	Delete From, delete all price levels ≥ specified price level.	
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is	
			sent, the total traded volume of units traded during the day can be found in the MDEntrySize field.	
			For MDOriginType 1 = Off-Book, 7 is also send	
			together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.	
		8	Market Bid	
		9	Market Offer	
SecurityID	N	Instrur	nent identifier, e.g. 8852.	
SecurityIDSource	N		identification. Always M = Marketplace-assigned	
MDEntryPx	Υ		rade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.		
NumberOfOrders	Υ	Numbe	er of orders.	
MDPriceLevel	Υ	Book le	evel. Absent for implied bid/offer prices.	
MDEntryTime	Y		ls and offers the official time of book entry, for official time of execution (all in nanoseconds).	

Depth Incremental Me	essage – Xetr	a T7 Rel	eases 6.0 – 6.1 (04/12/2017 – 30/11/2018)
Field name	Optional	Description	
PotentialSecurityTradingEven	Y	When a	absent, there is no change in potential security
t	•	trading	9 ,
		0	None Signals a reset. Snapshot will change to
			absent in this case.
		1	Price volatility, auction is extended
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 =
			Bid or 1 = Offer to define a surplus
<tradeentrygrp> (optional) gro</tradeentrygrp>	up starts, or	nly prese	ent for MDEntryType=2 (Trade).
TrdType	Υ	For MD	OriginType 0 = Book defines when the trade
			ns. Only present for MDEntryType = 2 and
			Condition = 32 Last Auction Price Price, with the
			ion of cross auction trades which do not establish
			uction price, i.e. TradeCondition = 32 is not set for
			rades. For trades outside the auctions, this field is
		not set	
			3, 4, 5, 6, and 7 only present for MDEntryType 2 =
			and MDOriginType 1 = Off-Book.
		0	Off-Book Block Trade
		1	Exchange For Physical (EFP)
		2	Exchange For Swap (EFS)
		3	Exchange Basis Facility
		4	Vola Trade
		5	EFP-Fin Trade
		6	EFP-Index-Futures Trade
		7	Block Trade at Market
		8	Opening Auction Trade
		9	Intraday Auction Trade
		10	Volatility Auction Trade
		11	Closing Auction Trade
		12	Cross-Auction Trade
		13	IPO Auction Trade
AlgorithmicTradeIndicator	Υ	0	Algorithmic Trade. A trade has to be flagged as
			"algorithmic", if at least one of the matched
		- 6	orders was submitted by a trading algorithm.
TradeCondition	Υ		s the type of price for MDEntryPx. Only present
			EntryType 2 = Trade.
			lues can be added together to form combinations
			values. If Exchange Last, High Price are sent then
		1 + 4 =	5 is received.
			Exchange Last
		2	Opening Price
			High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price

Depth Incremental Me	ssage – Xetr	a T7 Rele	eases 6.0 – 6.1 (04/12/2017 – 30/11/2018)	
Field name	Optional		Description	
		64	Out of sequence used for trades entered manually by Market Supervision (mutually exclusive with 1).	
		128	Previous Closing Price	
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.	
		512	Systematic Internalizer, prices resulting from BEST executions	
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	
MultiLegReportingType	Υ	Always	empty.	
MultiLegPriceModel	Υ	Always	empty.	
AggressorTime	Y	_	me of the incoming order that triggered the trade oseconds). Only present for MDEntryType = 2	
RequestTime	Υ	Gatewa	ay-In timestamp (in nanoseconds).	
AggressorSide	Y		the incoming order, which created the trade. resent for MDEntryType = 2 Trade. Buy Sell	
NumberOfBuyOrders	Υ	Numbe	er of buy orders involved in this trade. Only t for MDEntryType = 2 Trade.	
NumberOfSellOrders	Y	Numbe	er of sell orders involved in this trade. Only t for MDEntryType = 2 Trade.	
TotalNumberOfTrades	Y		umber of trades during the day. Only present for ryType = 2 Trade.	
RestingCxlQty	Y		ty that was cancelled due to SMP. Only present EntryType = 2 Trade.	
MDEntryID	Y	togethe	ents the match step ID. This field is unique er with MarketSegmentID. Only present for ryType = 2.	
NonDisclosedTradeVolume	Y	during Volume	ns the TES trade volume that is not displayed the day. Only present for MDEntryType 7 = Trade e. Used when trade volume is finally disclosed and recovery.	
<tradeentrygrp> (optional) group ends</tradeentrygrp>				
<mdincgrp> sequence ends</mdincgrp>				

3.3.2.3. Depth incremental, T7 Release 7.0 (03/12/2018 - 24/05/2019)

Depth Incremental Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)					
Field name	Optional	Optional Description			
MsgType	N	Always X = Market Data Incremental Refresh.			

Depth Incremental Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
<mdincgrp> sequenc</mdincgrp>	e starts			
NoMDEntries	N	Number of market data (MD) entries.		
MDOriginType	Ν	0 Book for on-exchange trading		
		1 Off-Book for TES trading only. Only applicable for		
MDI la data Astica	NI	MDEntryType 2 = Trade or 7 = Trade Volume		
MDUpdateAction	N	0 New, indicates either that a new price level is created in the order book or a trade.		
		1 Change, indicates a change at a given price level, all fields		
		but the price on the specified side at the price level should		
		be updated.		
		2 Delete, delete a specified price level.		
		3 Delete Thru, delete all price levels from 1 to the specified		
		price level.		
		4 Delete From, delete all price levels ≥ specified price level.		
		5 Overlay, change the price of a given price level, other		
		parameters, e.g quantity might also change.		
MDEntryType	Ν	0 Bid		
		1 Offer		
		2 Trade		
		4 Auction Clearing Price		
		7 Trade Volume. Used only for recovery purposes after a		
		failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be		
		found in the MDEntrySize field.		
		For MDOriginType 1 = Off-Book, 7 is also send together		
		with NonDisclosedTradeVolume and MDEntrySize when		
		TESTradSesStatus changes to 3 = Pre-Close.		
		8 Market Bid		
		9 Market Offer		
		10 Imbalance		
		Applicable for Continuous Auction Issuer trading model		
		only. Is used instead of QuoteCondition 1 = Order		
		Imbalance for products for which the imbalance side is not disclosed.		
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.		
MDEntryPx	Υ	Price (trade or order).		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType = 2 or 7. TES		
NumberOfOrders	V	disclosed quantity when MDOriginType 1 = Off-Book. Number of orders.		
NumberOfOrders MDDricol aval	Y			
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		

Depth Inc	remental Me	essage – >	Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional	Description		
MDEntryTime	Y	For bids and offers the official time of book entry, for trades		
		official time of execution (all in nanoseconds).		
PotentialSecurityTra	Υ	When absent, there is no change in potential security trading		
dingEvent		event.		
			None Signals a reset. Snapshot will change to absent in	
			this case. Price volatility, auction is extended	
QuoteCondition	Υ		Order imbalance together with MDEntryType 0 = Bid or 1	
Quotecondition	'		= Offer to define a surplus	
<tradeentrygrp> (opt</tradeentrygrp>	ional) group		nly present for MDEntryType=2 (Trade).	
TrdType	Y		OriginType 0 = Book defines when the trade happens.	
		Only pre	esent for MDEntryType = 2 and TradeCondition = 32 Last	
			Price, with the exception of cross auction trades which do	
			ablish a last auction price, i.e. TradeCondition = 32 is not	
			hese trades.	
			les outside the auctions, this field is not set.	
			3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade OriginType 1 = Off-Book.	
			Block Trade, used to report T7 Entry Service (TES) trades of	
			TES Type Large in Scale (LIS)	
			Exchange For Physical (EFP)	
			Exchange For Swap (EFS)	
			OTC	
		4	Exchange Basis Facility	
			Vola Trade	
		6	EFP-Fin Trade	
		7 EFP-Index-Futures Trade		
		8 Block Trade at Market		
		9	Opening Auction Trade	
		10	Intraday Auction Trade	
		11	Volatility Auction Trade	
		12	Closing Auction Trade	
		13	Cross-Auction Trade	
		14	IPO Auction Trade	
		15	Liquidity Improvement Cross	
AlgorithmicTradeInd	Υ	0	Algorithmic Trade. A trade has to be flagged as	
icator			"algorithmic", if at least one of the matched orders was	
			submitted by a trading algorithm.	
TradeCondition	Υ		the type of price for MDEntryPx. Only present for	
			yType 2 = Trade.	
		The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 5 is		
		received		
		1 Exchange Last		
			Opening Price	

Depth Inc	remental Me	essage -	- Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional	Description	
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		64	Out of sequence is mutually exclusive with 1. It is used for
			trades entered manually by Market Supervision, CLIP
			trades outside BBO which are reported as Liquidity
			Improvement Cross and for simple instrument Off-Book
			trades which are part of a basket trade.
		128	Previous Closing Price
		256	Volume Only, used for coherent entries from direct
			matching of complex instruments (no simple instrument
		F42	involved), mutually exclusive with 1.
		512	Systematic Internalizer, prices resulting from BEST executions
		1024	Midpoint price, prices resulting from Volume Discovery
		1024	Orders (VDO) executed at midpoint
MultiLegReportingT	Υ	Always empty.	
ype	,	/ ways empty.	
MultiLegPriceModel	Υ	Always empty.	
AggressorTime	Υ	Entry time of the incoming order that triggered the trade (in	
			econds). Only present for MDEntryType = 2 Trade.
RequestTime	Υ		ay-In timestamp (in nanoseconds).
AggressorSide	Y		f the incoming order, which created the trade. Only present
			DEntryType = 2 Trade.
		0	Buy
		1	Sell
NumberOfBuyOrde	Y		er of buy orders involved in this trade. Only present for
rs			tryType = 2 Trade.
NumberOfSellOrder	Υ		er of sell orders involved in this trade. Only present for
s TotalNumberOfTrad	Υ		tryType = 2 Trade. Number of trades during the day. Only present for
es	Ī		tryType = 2 Trade.
RestingCxlQty	Υ		ity that was cancelled due to SMP. Only present for
	'		tryType = 2 Trade.
MDEntryID	Υ		sents the match step ID. This field is unique together with
			tSegmentID. Only present for MDEntryType = 2.
NonDisclosedTrade	Υ	Conta	ins the TES trade volume that is not displayed during the
Volume		_	only present for MDEntryType 7 = Trade Volume. Used when
			volume is finally disclosed and also for recovery.
<tradeentrygrp> (opt</tradeentrygrp>		ends	
<mdincgrp> sequenc</mdincgrp>	e ends		

3.3.2.4. Depth incremental, T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)

Depth Incren	nental Mess	ge – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/202	20)	
Field name	Optional	Description		
MsgType	N	Always X = Market Data Incremental Refresh.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
<mdincgrp> sequenc</mdincgrp>	e starts			
NoMDEntries	N	Number of market data (MD) entries.		
MDOriginType	N	0 Book for on-exchange trading		
		1 Off-Book for TES trading only. Only applicab	le for	
		MDEntryType 2 = Trade or 7 = Trade Volume		
MDUpdateAction	N	0 New, indicates either that a new price level is	s created in	
		the order book or a trade.		
		1 Change, indicates a change at a given price I		
		fields but the price on the specified side at the level should be updated.	ne price	
		2 Delete, delete a specified price level.		
		3 Delete Thru, delete all price levels from 1 to	the	
		specified price level.	arc .	
		4 Delete From, delete all price levels ≥ specifie	d price	
		level.	•	
		5 Overlay, change the price of a given price lev	el, other	
		parameters, e.g quantity might also change.		
MDEntryType	N	0 Bid		
		1 Offer		
		2 Trade		
		4 Auction Clearing Price		
		7 Trade Volume. Used only for recovery purpo		
		failover on the exchange side. When 7 is sen		
		traded volume of units traded during the da	y can be	
		found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also ser	nd togothor	
		with NonDisclosedTradeVolume and MDEnti		
		when TESTradSesStatus changes to 3 = Pre-0	-	
		8 Market Bid		
		9 Market Offer		
		10 Imbalance. Applicable for Continuous Auctio	n Issuer	
		trading model only. Is used instead of Quote		
		1 = Order Imbalance for products for which	the	
		imbalance side is not disclosed.		
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.		
MDEntryPx	Υ	Price (trade or order).		

Depth Incren	nental Messa	age – Xetra	T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)	
Field name	Optional	Description		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Υ	For bids and offers the official time of book entry, for trades		
		official time of execution (all in nanoseconds).		
PotentialSecurityTra dingEvent	Y	When absevent.	sent, there is no change in potential security trading	
		0	None Signals a reset. Snapshot will change to absent in this case.	
		1	Price volatility, auction is extended	
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus	
<tradeentrygrp> (opt</tradeentrygrp>	ional) group	starts, onl	y present for MDEntryType=2 (Trade).	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which d not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.		
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)	
		2	Exchange For Physical (EFP)	
		3	Exchange For Swap (EFS)	
		4	OTC applicable for T7 Entry Service (TES)	
		5	Exchange Basis Facility	
		6	Vola Trade	
		7	EFP-Fin Trade	
		8	EFP-Index-Futures Trade	
		9	Block Trade at Market	
		10	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.	
		11	Opening Auction Trade	
		12	Intraday Auction Trade	
		13	Volatility Auction Trade	
		14	Closing Auction Trade	
		15	Cross Auction Trade	
		16	IPO Auction Trade	
		17	Liquidity Improvement Cross	
AlgorithmicTradeInd icator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.	

Depth Incremental Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	Optional	Description		
TradeCondition	Y	Defines the type of price for MDEntryPx. Only present for MDEntryType 2 = Trade.		
		The values can be added together to form combinations of the		
		values. If Exchange Last, High Price are sent then 1 + 4 = 5 is		
		received.	Evehanga Last	
		2	Exchange Last Opening Price	
		4		
		8	High Price Low Price	
		16	Official Closing Price	
		32	Last Auction Price	
		64	Out of sequence is mutually exclusive with 1. It is used	
			for trades entered manually by Market Supervision, CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.	
		128	Previous Closing Price	
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.	
		512	Systematic Internalizer, prices resulting from BEST executions (applicable for 7.1 only)	
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	
		2048	Trading On Terms Of Issue (applicable since 8.0 only).	
		4096	Special Auction (applicable since 8.0 only). Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction indicator is used for prices determined with Bundesbank participation.	
MultiLegReportingT ype	Y	Always empty.		
MultiLegPriceModel	Υ	Always empty.		
AggressorTime	Υ	nanoseco	Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.	
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).		
AggressorSide	Υ		e incoming order, which created the trade. Only present stryType = 2 Trade. Buy	
		1	Sell	
NumberOfBuyOrde rs	Υ	Number	of buy orders involved in this trade. Only present for Type = 2 Trade.	
NumberOfSellOrder s	Υ	Number	of sell orders involved in this trade. Only present for Type = 2 Trade.	

Depth Incremental Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)				
Field name	Optional	Description		
TotalNumberOfTrad	Υ	Total Number of trades during the day. Only present for		
es		MDEntryType = 2 Trade.		
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for		
		MDEntryType = 2 Trade.		
MDEntryID	Υ	Represents the match step ID. This field is unique together with		
		MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTrade	Υ	Contains the TES trade volume that is not displayed during the		
Volume		day. Only present for MDEntryType 7 = Trade Volume. Used when		
		trade volume is finally disclosed and also for recovery.		
<tradeentrygrp> (optional) group ends</tradeentrygrp>				
<mdincgrp> sequence ends</mdincgrp>				

3.3.2.5. Depth incremental, T7 Release 8.1 (29/06/2020 - 20/11/2020)

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)				
Field name	Optional	Description		
MsgType	N	Always X = Market Data Incremental Refresh.		
MsgSeqNum	N		rence number is incremented per product across all types on a particular feed.	
SenderCompID	N		d of a sender.	
MarketSegmentID	N		dentifier, e.g. 89.	
<mdincgrp> sequence</mdincgrp>	e starts		C	
NoMDEntries	N	Number	of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading	
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume	
MDUpdateAction	N	0	New, indicates either that a new price level is created in the order book or a trade.	
		1	Change, indicates a change at a given price level, all fields but the price on the specified side at the price level should be updated.	
		2	Delete, delete a specified price level.	
		3	Delete Thru, delete all price levels from 1 to the specified price level.	
		4	Delete From, delete all price levels ≥ specified price level.	
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be	
			found in the MDEntrySize field.	

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)			
Field name	Optional	Description	
	·	0	For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close. Market Bid
		8	
		9	Market Offer
		10	Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
SecurityID	N	Instrume	nt identifier, e.g. 8852.
SecurityIDSource	N	Source id	lentification. Always M = Marketplace-assigned identifier.
MDEntryPx	Υ	Price (tra	de or order).
MDEntrySize	Y	•	or trade volume when MDEntryType = 2 or 7. TES quantity when MDOriginType 1 = Off-Book.
NumberOfOrders	Υ	Number	of orders.
MDPriceLevel	Υ	Book leve	el. Absent for implied bid/offer prices.
MDEntryTime	Y	For bids and offers the official time of book entry, for trades official time of execution (all in nanoseconds).	
PotentialSecurityTra dingEvent	Y	When absent, there is no change in potential security trading event. O None Signals a reset. Snapshot will change to absent	
			this case.
Overta Caraditi an	V	1	Price volatility, auction is extended
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
			y present for MDEntryType=2 (Trade).
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)					
Field name	Optional	Description			
		10	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.		
		11	Block QTPIP (Qualified Third Party Information Provider) Trade		
		12	Opening Auction Trade		
		13	Intraday Auction Trade		
		14	Volatility Auction Trade		
		15	Closing Auction Trade		
		16	Cross Auction Trade		
		17	IPO Auction Trade		
		18	Liquidity Improvement Cross		
AlgorithmicTradeInd	Υ	0	Algorithmic Trade. A trade has to be flagged as		
icator			"algorithmic", if at least one of the matched orders was submitted by a trading algorithm.		
TradeCondition	TradeCondition Y		Defines the type of price for MDEntryPx. Only present for MDEntryType 2 = Trade. The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 5 is received.		
		1	Exchange Last		
		2	Opening Price		
		4	High Price		
		8	Low Price		
		16	Official Closing Price		
		32	Last Auction Price		
		64	Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision, CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.		
		128	Previous Closing Price		
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.		
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint		
		2048	Trading On Terms Of Issue.		
		4096	Special Auction. Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction indicator is used for prices determined with Bundesbank participation.		

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)				
Field name	Optional	Description		
MultiLegReportingT	Υ	Always empty.		
уре				
MultiLegPriceModel	Υ	Always empty.		
AggressorTime	Υ	Entry time of the incoming order that triggered the trade (in		
		nanoseconds). Only present for MDEntryType = 2 Trade.		
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).		
AggressorSide	Υ	Side of the incoming order, which created the trade. Only present		
		for MDEntryType = 2 Trade.		
		0 Buy		
		1 Sell		
NumberOfBuyOrde	Υ	Number of buy orders involved in this trade. Only present for		
rs		MDEntryType = 2 Trade.		
NumberOfSellOrder	Υ	Number of sell orders involved in this trade. Only present for		
S		MDEntryType = 2 Trade.		
TotalNumberOfTrad	Υ	Total Number of trades during the day. Only present for		
es		MDEntryType = 2 Trade.		
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for		
		MDEntryType = 2 Trade.		
MDEntryID	Υ	Represents the match step ID. This field is unique together with		
		MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTrade	Υ	Contains the TES trade volume that is not displayed during the		
Volume		day. Only present for MDEntryType 7 = Trade Volume. Used when		
		trade volume is finally disclosed and also for recovery.		
<tradeentrygrp> (optional) group ends</tradeentrygrp>				
<mdincgrp> sequenc</mdincgrp>	e ends			

3.3.2.6. Depth incremental, T7 Releases 9.0 - 11.1 (23/11/2020 - 17/11/2023)

Depth Incremental Message – Xetra T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)			
Field name	Optional	Description	
MsgType	N	Always 2	X = Market Data Incremental Refresh.
MsgSeqNum	N	The seq	uence number is incremented per product across all
		messag	e types on a particular feed.
SenderCompID	Ν	Unique	id of a sender.
MarketSegmentID	N	Product	identifier, e.g. 89.
<mdincgrp> sequence starts</mdincgrp>			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for
			MDEntryType 2 = Trade or 7 = Trade Volume
MDUpdateAction	N	0	New, indicates either that a new price level is created in
			the order book or a trade.
		1	Change, indicates a change at a given price level, all
			fields but the price on the specified side at the price
			level should be updated.

Depth Increme	ntal Messag	e – Xetra	T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)
Field name	Optional	Description	
		2	Delete, delete a specified price level.
		3	Delete Thru, delete all price levels from 1 to the
			specified price level.
		4	Delete From, delete all price levels ≥ specified price
			level.
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		4	Auction Clearing Price
		7	Trade Volume. Used only for recovery purposes after a
			failover on the exchange side. When 7 is sent, the total
			traded volume of units traded during the day can be
			found in the MDEntrySize field.
			For MDOriginType 1 = Off-Book, 7 is also send together
			with NonDisclosedTradeVolume and MDEntrySize
			when TESTradSesStatus changes to 3 = Pre-Close.
		8	Market Bid
		9	Market Offer
		10	Imbalance. Applicable for Continuous Auction Issuer
			trading model only. Is used instead of QuoteCondition
			1 = Order Imbalance for products for which the
			imbalance side is not disclosed.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned	
		identifie	, ,
MDEntryPx	Υ	Price (tr	ade or order).
MDEntrySize	Y		y or trade volume when MDEntryType = 2 or 7. TES
			ed quantity when MDOriginType 1 = Off-Book.
NumberOfOrders	Υ	Number of orders.	
MDPriceLevel	Υ		vel. Absent for implied bid/offer prices.
MDEntryTime	Υ		and offers the official time of book entry, for trades
DotontialCoguette Test-II	V		time of execution (all in nanoseconds).
PotentialSecurityTradi ngEvent	Υ		bsent, there is no change in potential security trading
Higevenic		event.	None Signals a reset. Snapshot will change to absent in
			this case.
		1	Price volatility, auction is extended
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or
(2.2.2.2.3.1.3.1.	,	·	1 = Offer to define a surplus
<tradeentrygrp> (option</tradeentrygrp>	nal) group s	tarts, onl	y present for MDEntryType=2 (Trade).

Depth Increme	ntal Messag	e – Xetra	T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)		
Field name	Optional		Description		
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which			
		do not establish a last auction price, i.e. TradeCondition = 32 is			
			for these trades.		
			For on-exchange trades outside the auctions, this field is not set. 1 Rlock Trade used to report T7 Entry Service (TES)		
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)		
		2	Exchange For Physical (EFP)		
		3	Exchange For Swap (EFS)		
		4	Portfolio Compression Trade		
		5	OTC applicable for T7 Entry Service (TES)		
		6	Exchange Basis Facility		
		7	Vola Trade		
		8	EFP-Fin Trade		
		9	EFP-Index-Futures Trade		
		10	Block Trade at Market		
		11	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.		
		12	Block QTPIP (Qualified Third Party Information Provider) Trade		
		13	Opening Auction Trade		
		14	Intraday Auction Trade		
		15	Volatility Auction Trade		
		16	Closing Auction Trade		
		17	Cross Auction Trade		
		18	IPO Auction Trade		
		19	Liquidity Improvement Cross		
AlgorithmicTradeIndic ator	Υ	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was		
		_	submitted by a trading algorithm.		
TradeCondition	Y		the type of price for MDEntryPx. Only present for yType 2 = Trade.		
			ues can be added together to form combinations of the		
			If Exchange Last, High Price are sent then 1 + 4 = 5 is		
		received			
		1	Exchange Last		
		2	Opening Price		
		4	High Price		
		8	Low Price		
		16	Official Closing Price		
		32	Last Auction Price		
		64	Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision,		

Depth Increme	ntal Messag	e – Xetra T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)	
Field name	Optional	Description	
		CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.	
		128 Previous Closing Price	
		256 Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.	
		512 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	
		1024 Trading On Terms Of Issue	
		2048 Special Auction. Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction indicator is used for prices determined with Bundesbank participation.	
		4096 Trade At Close	
MultiLegReportingTyp e	Υ	Always empty.	
MultiLegPriceModel	Υ	Always empty.	
AggressorTime	Υ	Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.	
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Υ	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0 Buy	
		1 Sell	
NumberOfBuyOrders	Υ	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.	
NumberOfSellOrders	Y	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.	
TotalNumberOfTrade s	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.	
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTradeVo lume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.	
<tradeentrygrp> (optio</tradeentrygrp>	nal) group e		
<mdincgrp> sequence</mdincgrp>	ends		

3.3.2.7. Depth incremental, T7 Release 12.0 (20/11/2023 – 10/05/2024)

Depth Incre	mental Mes	sage – Xe	tra T7 Release 12.0 (20/11/2023 – 10/05/2024)	
Field name	Optional	Description		
MsgType	N	Always X = Market Data Incremental Refresh.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	N	Unique id of a sender.		
MarketSegmentID	N	Product	identifier, e.g. 89.	
<mdincgrp> sequence</mdincgrp>	starts		9	
NoMDEntries	N	Number	of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading	
0 31		1	Off-Book for TES trading only. Only applicable for	
			MDEntryType 2 = Trade or 7 = Trade Volume	
MDUpdateAction	N	0	New, indicates either that a new price level is created in	
			the order book or a trade.	
		1	Change, indicates a change at a given price level, all	
			fields but the price on the specified side at the price	
			level should be updated.	
		2	Delete, delete a specified price level.	
		3	Delete Thru, delete all price levels from 1 to the	
		4	specified price level. Delete From, delete all price levels ≥ specified price	
		4	level.	
		5	Overlay, change the price of a given price level, other	
			parameters, e.g quantity might also change.	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	
		7	Trade Volume. Used only for recovery purposes after a	
			failover on the exchange side. When 7 is sent, the total	
			traded volume of units traded during the day can be	
			found in the MDEntrySize field.	
			For MDOriginType 1 = Off-Book, 7 is also send together	
			with NonDisclosedTradeVolume and MDEntrySize when	
		8	TESTradSesStatus changes to 3 = Pre-Close. Market Bid	
		9	Market Offer	
		10		
		10	Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1	
			= Order Imbalance for products for which the imbalance	
			side is not disclosed.	
SecurityID	N	Instrum	l ent identifier, e.g. 8852.	
SecurityIDSource	N		dentification. Always M = Marketplace-assigned	
		identifier.		
MDEntryPx	Υ	Price (trade or order).		

Depth Incre	mental Mes	sage – Xe	tra T7 Release 12.0 (20/11/2023 – 10/05/2024)	
Field name	Optional	Description		
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	For bids and offers the official time of book entry, for trades		
, will be the grante		official time of execution (all in nanoseconds).		
PotentialSecurityTradi	Υ	When absent, there is no change in potential security trading		
ngEvent		event.		
		0	None Signals a reset. Snapshot will change to absent in this case.	
		1	Price volatility, auction is extended	
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or	
T 15 . C . ()	b		1 = Offer to define a surplus	
			y present for MDEntryType=2 (Trade).	
TrdType	Υ		OriginType 0 = Book defines when the trade happens.	
			esent for MDEntryType=2 and TradeCondition=32 Last	
			Price, with the exception of cross auction trades which establish a last auction price, i.e. TradeCondition = 32 is	
			for these trades.	
			exchange trades outside the auctions, this field is not set.	
			exterioring and a successful and a succe	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)	
		2	Exchange For Physical (EFP)	
		3	Exchange For Swap (EFS)	
		-		
		4	Portfolio Compression Trade	
		5	OTC applicable for T7 Entry Service (TES)	
		6	Exchange Basis Facility	
		7	Vola Trade	
		8	EFP-Fin Trade	
		9	EFP-Index-Futures Trade	
		10	Block Trade at Market	
		11	Xetra Eurex Enlight Triggered Trade may be set together	
			with MDOriginType 1 = Off-Book and TradeCondition 1	
		12	= Exchange Last.	
		12	Block QTPIP (Qualified Third Party Information Provider) Trade	
		13	Delta Trade At Market	
		14	Opening Auction Trade	
		15	Intraday Auction Trade	
		16	Volatility Auction Trade	
		17	Closing Auction Trade	
		18	Cross Auction Trade	
		19	IPO Auction Trade	
I	1			

Depth Incre	mental Mes	sage – Xe	tra T7 Release 12.0 (20/11/2023 – 10/05/2024)
Field name	Optional	Description	
		20	Liquidity Improvement Cross
AlgorithmicTradeIndic ator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.
TradeCondition	Y	MDEntry The valu	the type of price for MDEntryPx. Only present for yType 2 = Trade. Les can be added together to form combinations of the f Exchange Last, High Price are sent then 1 + 4 = 5 is l. Exchange Last Opening Price High Price Low Price Official Closing Price
		32	Last Auction Price
		64	Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision, CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.
		128	Previous Closing Price
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.
		512	Trading On Terms Of Issue
		1024	Special Auction. Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction indicator is used for prices determined with Bundesbank participation.
		2048	Trade At Close
		4096	Retail Price
MultiLegReportingTyp e	Y	Always 6	empty.
MultiLegPriceModel	Υ	Always 6	empty.
AggressorTime	Y	_	ne of the incoming order that triggered the trade (in conds). Only present for MDEntryType = 2 Trade.
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y		he incoming order, which created the trade. Only for MDEntryType = 2 Trade. Buy Sell
NumberOfBuyOrders	Υ	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.	

Depth Incre	Depth Incremental Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)				
Field name	Optional	Description			
NumberOfSellOrders	Υ	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.			
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.			
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.			
MDEntryID	Υ	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.			
NonDisclosedTradeVol ume	Υ	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.			
<tradeentrygrp> (optional) group ends</tradeentrygrp>					
<mdincgrp> sequence ends</mdincgrp>					

3.3.2.8. Depth incremental, T7 Release 12.1 (13/05/2024 – 15/11/2024)

Depth Incremental Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)				
Field name	Optional	Description		
MsgType	N	Always X = Market Data Incremental Refresh.		
MsgSeqNum	N	The seq	uence number is incremented per product across all	
		messag	e types on a particular feed.	
SenderCompID	N	Unique	id of a sender.	
MarketSegmentID	N	Product	t identifier, e.g. 89.	
<mdincgrp> sequence</mdincgrp>	starts			
NoMDEntries	N	Numbe	r of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading	
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume	
MDUpdateAction	N	0	New, indicates either that a new price level is created in the order book or a trade.	
		1	Change, indicates a change at a given price level, all fields but the price on the specified side at the price level should be updated.	
		2	Delete, delete a specified price level.	
		3	Delete Thru, delete all price levels from 1 to the specified price level.	
		4	Delete From, delete all price levels ≥ specified price level.	
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	

Depth Incre	mental Mes	sage – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)		
Field name	Optional	Description		
		7 Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close. 8 Market Bid 9 Market Offer 10 Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.		
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.		
MDEntryPx	Υ	Price (trade or order).		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.		
NumberOfOrders	Υ	Number of orders.		
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	For bids and offers the official time of book entry, for trades official time of execution (all in nanoseconds).		
PotentialSecurityTradi ngEvent	Y	When absent, there is no change in potential security trading event. O None Signals a reset. Snapshot will change to absent in this case. 1 Price volatility, auction is extended		
QuoteCondition	Υ	1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus		
<tradeentrygrp> (optio</tradeentrygrp>	nal) group s	tarts, only present for MDEntryType=2 (Trade).		
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set		
		1 Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)		
		2 Exchange For Physical (EFP)		
		3 Exchange For Swap (EFS)		
		4 OTC applicable for T7 Entry Service (TES)		
		5 Exchange Basis Facility		

Depth Incre	mental Mes	sage – Xe	tra T7 Release 12.1 (13/05/2024 – 15/11/2024)
Field name	Optional	Description	
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market
		10	Xetra Eurex Enlight Triggered Trade may be set together
			with MDOriginType 1 = Off-Book and TradeCondition 1
			= Exchange Last.
		11	Block QTPIP (Qualified Third Party Information Provider) Trade
		12	Delta Trade At Market
		13	Opening Auction Trade
		14	Intraday Auction Trade
		15	Volatility Auction Trade
		16	Closing Auction Trade
		17	Cross Auction Trade
		18	IPO Auction Trade
		19	Liquidity Improvement Cross
AlgorithmicTradeIndic	Υ	0	Algorithmic Trade. A trade has to be flagged as
ator			"algorithmic", if at least one of the matched orders was
	.,	- c	submitted by a trading algorithm.
TradeCondition	Υ		the type of price for MDEntryPx. Only present for
		_	yType 2 = Trade. ues can be added together to form combinations of the
			f Exchange Last, High Price are sent then 1 + 4 = 5 is
		received	
		1	Exchange Last
		2	Opening Price
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		64	Out of sequence is mutually exclusive with 1. It is used
			for trades entered manually by Market Supervision,
			CLIP trades outside BBO which are reported as Liquidity
			Improvement Cross and for simple instrument Off-Book
		120	trades which are part of a basket trade.
		128	Previous Closing Price
		256	Volume Only, used for coherent entries from direct
			matching of complex instruments (no simple instrument involved), mutually exclusive with 1.
		512	Trading On Terms Of Issue
			Trading Off Terms Of 1330c

Depth Incre	mental Mes	sage – Xetra	a T7 Release 12.1 (13/05/2024 – 15/11/2024)
Field name	Optional		Description
		o S ii	Special Auction. Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction ndicator is used for prices determined with Bundesbank participation.
		2048 T	Trade At Close
		4096 F	Retail Price
MultiLegReportingTyp e	Υ	Always em	npty.
MultiLegPriceModel	Υ	Always en	npty.
AggressorTime	Υ	Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.	
RequestTime	Υ	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade. 0 Buy 1 Sell	
NumberOfBuyOrders	Υ	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.	
NumberOfSellOrders	Υ	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.	
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.	
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Υ	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTradeVol ume	Υ	day. Only	the TES trade volume that is not displayed during the present for MDEntryType 7 = Trade Volume. Used le volume is finally disclosed and also for recovery.
<tradeentrygrp> (optio</tradeentrygrp>	nal) group e	nds	
<mdincgrp> sequence</mdincgrp>	ends		

3.3.2.9. Depth incremental, T7 Release 13.0 (from 18/11/2024)

Depth Incremental Message – Xetra T7 Release 13.0 (from 18/11/2024)				
Field name	Optional	al Description		
MsgType	Ν	Always X = Market Data Incremental Refresh.		
MsgSeqNum	N	The sequence number is incremented per product across all		
		message types on a particular feed.		
SenderCompID	Ν	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
<mdincgrp> sequence</mdincgrp>	starts			
NoMDEntries	N	Number of market data (MD) entries.		

Depth I	ncremental	Message	- Xetra T7 Release 13.0 (from 18/11/2024)	
Field name	Optional		Description	
MDOriginType	N	0	Book for on-exchange trading	
		1	Off-Book for TES trading only. Only applicable for	
			MDEntryType 2 = Trade or 7 = Trade Volume	
MDUpdateAction	N	0	New, indicates either that a new price level is created in	
			the order book or a trade.	
		1	Change, indicates a change at a given price level, all	
			fields but the price on the specified side at the price level should be updated.	
		2	Delete, delete a specified price level.	
		3	Delete Thru, delete all price levels from 1 to the	
			specified price level.	
		4	Delete From, delete all price levels ≥ specified price	
			level.	
		5	Overlay, change the price of a given price level, other	
			parameters, e.g quantity might also change.	
MDEntryType	N	0	Bid	
		1	Offer	
		2	Trade	
		4	Auction Clearing Price	
		7	Trade Volume. Used only for recovery purposes after a	
			failover on the exchange side. When 7 is sent, the total	
			traded volume of units traded during the day can be	
			found in the MDEntrySize field.	
			For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when	
			TESTradSesStatus changes to 3 = Pre-Close.	
		8	Market Bid	
		9	Market Offer	
		10	Imbalance. Applicable for Continuous Auction Issuer	
			trading model only. Is used instead of QuoteCondition 1	
			= Order Imbalance for products for which the imbalance	
			side is not disclosed.	
SecurityID	N	Instrum	nent identifier, e.g. 8852.	
SecurityIDSource	N		identification. Always M = Marketplace-assigned	
		identifie		
MDEntryPx	Υ	Price (tr	rade or order).	
MDEntrySize	Υ	-	y or trade volume when MDEntryType = 2 or 7. TES	
			ed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Υ		r of orders.	
MDPriceLevel	Υ	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Υ	· · · · · · · · · · · · · · · · · · ·		
D	,,,	official time of execution (all in nanoseconds).		
PotentialSecurityTradi	Y	When absent, there is no change in potential security trading		
ngEvent		event.		

Depth I	ncremental I	Message	- Xetra T7 Release 13.0 (from 18/11/2024)	
Field name	Optional	Description		
		0	None Signals a reset. Snapshot will change to absent in this case.	
		1	Price volatility, auction is extended	
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or	
			1 = Offer to define a surplus	
<tradeentrygrp> (optio</tradeentrygrp>	nal) group s	starts, only present for MDEntryType=2 (Trade).		
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set		
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)	
		2	Exchange For Physical (EFP)	
		3	Exchange For Swap (EFS)	
		4	OTC applicable for T7 Entry Service (TES)	
		5	Exchange Basis Facility	
		6	Vola Trade	
		7	EFP-Fin Trade	
		8	EFP-Index-Futures Trade	
		9	Block Trade at Market	
		10 Xetra Eurex Enlight Triggered Trade may be set to with MDOriginType 1 = Off-Book and TradeCondi = Exchange Last.		
		11	Block QTPIP (Qualified Third Party Information Provider) Trade	
		12	Delta Trade At Market	
		13	Opening Auction Trade	
		14	Intraday Auction Trade	
		15	Volatility Auction Trade	
		16	Closing Auction Trade	
		17	Cross Auction Trade	
		18	IPO Auction Trade	
		19	Liquidity Improvement Cross	
AlgorithmicTradeIndic ator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was	
TradoCondition	\/	Dofines	submitted by a trading algorithm.	
TradeCondition	Y	MDEntry The valu	the type of price for MDEntryPx. Only present for yType 2 = Trade. Just the second se	
		received	1.	
		1	Exchange Last	

Depth I	ncremental I	Message	– Xetra T7 Release 13.0 (from 18/11/2024)	
Field name	Optional	Description		
		2	Opening Price	
		4	High Price	
		8	Low Price	
		16	Official Closing Price	
		32	Last Auction Price	
		64	Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision, CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.	
		128	Previous Closing Price	
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.	
		512	Trading On Terms Of Issue	
		1024	Special Auction. Indicates a Special Auction Price and is only applicable for trading model Continuous Auction Specialist. For federal bonds the Special Auction indicator is used for prices determined with Bundesbank participation.	
		2048	Trade At Close	
		4096	Retail Price	
		8192	Midpoint Price resulting from midpoint orders (available since 13.0)	
MultiLegReportingTyp e	Y	Always 6		
MultiLegPriceModel	Υ	Always empty.		
AggressorTime	Y	Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.		
RequestTime	Υ		y-In timestamp (in nanoseconds).	
TransBkdTime	Y	Booked time of the off exchange trade. Can only be present for MDOriginType 1 = Off-Book.		
AggressorSide	Y	Side of t	the incoming order, which created the trade. Only for MDEntryType = 2 Trade.	
		1	Buy Sell	
NumberOfBuyOrders	Y		r of buy orders involved in this trade. Only present for yType = 2 Trade.	
NumberOfSellOrders	Y	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.		
NumberOfBuySides	Y	Number of buy sides involved in an off exchange trade. Only present for MDOriginType 1 = Off-Book.		
NumberOfSellSides	Y	Number of sell sides involved in an off exchange trade. Only present for MDOriginType 1 = Off-Book.		

Depth Incremental Message – Xetra T7 Release 13.0 (from 18/11/2024)				
Field name	Optional Description			
TotalNumberOfTrades	Υ	Total Number of trades during the day. Only present for		
		MDEntryType = 2 Trade.		
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for		
		MDEntryType = 2 Trade.		
MDEntryID	Υ	Represents the match step ID. This field is unique together with		
		MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTradeVol	Υ	Contains the TES trade volume that is not displayed during the		
ume		day. Only present for MDEntryType 7 = Trade Volume. Used		
		when trade volume is finally disclosed and also for recovery.		
<tradeentrygrp> (optional) group ends</tradeentrygrp>				
<mdincgrp> sequence ends</mdincgrp>				

3.3.3. Quote request (T7 Releases 5.0 – 13.0 (from 03/07/2017))

File:

- from July 7, 2017 to December 29, 2017 QR_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 QR_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

Market participants can enter a quote request (Trading Interest) that needs to be answered with a quote by Market Makers. The quote request message shows such requests from traders.

Quote Request Message – Xetra T7 Releases 5.0 – 13.0 (from 03/07/2017)				
Field name	Optional	Description		
MsgType	N	Always R	= Quote Request.	
MsgSeqNum	Ν	The seque	ence number is incremented per product across all	
		message	types on a particular feed.	
SenderCompID	Ν	Unique id	of a sender.	
MarketSegmentID	Ν	Product id	dentifier, e.g. 89.	
<quotreqgrp> sequence starts</quotreqgrp>				
NoRelatedSym	N	Always 1.		
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Identifies class or source of the SecurityID value. Required if		
		SecurityID is specified. Always M = Marketplace-assigned		
		identifier.		
Side	Υ	0	Buy	
		1	Sell	
OrderQty	Υ	Defines the requested quantity which can be zero in a quote		
		request.		
TransactTime	N	Time when request was processed by the matcher		
		(nanoseco	onds).	
<quotreqgrp> sequence ends</quotreqgrp>				

3.3.4. Cross request

File:

- from July 7, 2017 to December 29, 2017 CR_SecurityID_YYYYMMDD.csv (one file per day and instrument),
- from January 2, 2018 CR_MarketSegmentID_YYYYMMDD.csv (one file per day and product).

Using the Cross Request, all Members are informed of a crossing or a pre-arranged trade that shall be executed in the order book (on-exchange).

3.3.4.1. Cross request, T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)

Cross Request Message – Xetra T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)			
Field name	Optional	Description	
MsgType	N	Always U16 = Cross Request.	
MsgSeqNum	N	The sequence number is incremented per product across all	
		message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Identifies class or source of the SecurityID value. Required if	
		SecurityID is specified. Always M = Marketplace-assigned identifier.	
OrderQty	N	Defines the requested quantity which cannot be zero in a cross	
		request.	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	

3.3.4.2. Cross request, T7 Releases 7.0 – 13.0 (from 03/12/2018)

Cross Request Message – Xetra T7 Releases 7.0 – 13.0 (from 03/12/2018)				
Field name	Optional	Description		
MsgType	N	Always U16 = Cross Request.		
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.		
SenderCompID	N	Unique id	of a sender.	
MarketSegmentID	N	Product id	dentifier, e.g. 89.	
SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource	N	Identifies class or source of the SecurityID value. Required if SecurityID is specified. Always M = Marketplace-assigned identifier.		
OrderQty	Y	Defines the requested quantity which cannot be zero in a cross request.		
CrossRequestType	N	0	Cross Announcement	
		1	Liquidity Improvement Cross	
<crossrequestsidegrp> (optional) sequence starts</crossrequestsidegrp>				
NoCrossRequestSideGrp	N	Always 1.		

Cross Request Message – Xetra T7 Releases 7.0 – 13.0 (from 03/12/2018)					
Field name	Optional	Description			
Side	Υ	0	Buy		
		1	Sell		
InputSource	N	0	Client Broker		
<crossrequestsidegrp> (optional) sequence ends</crossrequestsidegrp>					
Price	Υ	Price of the Liquidity Improvement Cross.			
TransactTime	N	Time when request was processed by the matcher			
		(nanoseconds).			

4. How to read Xetra messages

4.1. Basic rules (2011 - 2014)

Single variable

- Variables are comma-separated.
- If an optional variable is not given, the field corresponding to this variable is empty.

Sequence

- A sequence is a set of related variables.
- A sequence starts by [and ends by].
- The set of variables belonging to a sequence can be repeated more than once within this sequence. Each repetition within the sequence is delimited by [{ and }].
- If a sequence is empty, it appears as [].

Group

- A group is a set of related variables, it is always optional.
- A group starts by { and ends by }.
- The content of a group appears only once within this group.
- If a group is not given, the field corresponding to this group is empty.

4.2. Basic rules (from 2015)

Single variable

- Variables are comma-separated.
- If an optional variable is not given, the field is empty.

Sequence

- A sequence is a set of related variables.
- A sequence starts by [and ends by].
- The set of variables belonging to a sequence can be repeated more than once within this sequence. The first field in a sequence indicates the number of repetitions in the sequence. Each repetition within the sequence is delimited by [{ and }].
- If an optional sequence is empty, it appears as [].

Group

- A group is a set of related variables, it is always optional.
- A group starts by { and ends by }.
- The content of a group appears only once within this group.
- If a group is not given, it appears as {}.

4.3. Examples

4.3.1. Example: Order book delta / incremental message Version 14

File: IMDI_16020_20140219.csv

 $32668037104,7,16020,49,26,,,[],[[{2,13.96,10000,1,1,2}][{2,13.95,7502,1,2,1}][{2,13.74,39001,1,3,1}][{2,13.59,35000,1,4,1}][{1,14.03,10000,1,1,2}][{1,14.04,7502,1,2,1}][{1,14.26,39001,1,3,1}][{1,14.37,35000,1,4,1}]],,[]$

Example: Order book delta / incremental message Version 14				
Name	Optional	Value	Description	
entryTime	N	326680 37104	Time of last order book update of all updates in the message, in microseconds since midnight CET/CEST.	
srcId	N	7	Identifier of the message disseminating source.	
isix	N	16020	Xetra internal instrument identifier.	
seqNum	N	49	Sequence number for synchronization purposes when comparing messages coming from the same source.	
instrStatus	N	26	Identifier of a trading phase or fast market status, 26 = Continuous trading.	
gapIndicator	Y	Empty	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.	
trdgapIndicator	Y	Empty	Always Y, indicates that all trade prices cannot be delivered within this message (if more than 20 trade prices only the 20 latest are sent). In case any trade price is not included in the delta message the full view of all trades may be obtained from the All Trade Price stream.	
<entriestrades> sequence</entriestrades>	[] = The sequence is sent if a trade occurs, here it is empty.			
<entriesdepth></entriesdepth>	This sequence is filled when order book entries are sent, here it contains eight			
sequence	repetitions (here eight order book entries).			
entryType	N	2	2 = Bid price.	
entryPrc	N	13.96	Price for the level below.	
			price = 0 and entryType = 23 or 24 for market orders	
entryQty	N	10000	Quantity offered at above price.	
numOrders	N	1	Number of orders.	
entryPrcLvl	N	1	Level of price in the order book , here top of the book.	
updateAction	N	2	2 = Change: changing a price level, replaces the quantity of the price level specified by the entryPrcLvl with the information sent in the message.	
There are 7 more order book entries (not detailed in this example).				
<auctiongroup> (optional) group</auctiongroup>	This optional group is only active in an auction, here it is empty.			
<entriesprc></entriesprc>	[] = The sequence is filled whenever there is a new daily high, daily low, opening			
sequence	price, closing price, valuation price or new reference price, here it is empty.			

4.3.2. Example: Order book snapshot message Version 14

File: IMSI_4006_20131205.csv

 $61369510647, 13,4006, 151,39, [[\{4,102.725,0,,32775935277,,681\}][\{6,102.725,0,,32775935277,,\}]], [], \{,, [[\{14,102.713,50000\}][\{13,102.911,50000\}]], [[\{20,102.725\}][\{21,102.725\}][\{5,102.725\}][\{8,102.732\}]]$

Order book snapshot message Version 14					
Name	Optional	Value	Description		
entryTime	N	613695	Time of the last order book update, in microseconds since		
		10647	midnight CET/CEST.		
srcId	N	13	Identifier of the message disseminating source.		
isix	N	4006	Xetra internal instrument identifier.		
consolSeqNum	N	151	Sequence number for the last "consolidated" delta		
·			message for this instrument in order to be able to position		
			the snapshot among the delta messages.		
instrStatus	N	39	Identifier of a trading phase or fast market status, 39 =		
			Continuous Auction Pre-Call.		
<entriesatp></entriesatp>	•		d when there is any information on last trade price, in		
sequence		•	t auction price, last midpoint trade, last BEST price or last		
and the Tales			esbank participation. Here it contains two repetitions		
entryType	N	4	4 = Last trade price.		
entryPrc	N	102.725	Traded price.		
entryQty	N	0	Traded quantity (shares).		
totTrdQty	Y	Empty	Total traded quantity (shares).		
entryTime	N	327759	Match time, in microseconds since midnight CET/CEST.		
		35277			
numTrades	Υ	Empty	Number of trades, cumulative total of the number of		
	.,		trades for the current day in a given instrument.		
tranMtchldNo	Υ	681	Internal transaction matching identifier.		
There is one more repetition (not detailed in this example).					
<entriesdepth></entriesdepth>	[] = This sequence is filled when orderbook entries are sent, here it is empty.				
sequence starts,					
<auctiongroup></auctiongroup>	This group	is only acti	ve in an auction.		
(optional) group	V	Francis to a	No weather aday into which is director		
moilnd	Y	Empty	No market order interruption indicator.		
volInd	Υ	Empty	No Volatility indicator type.		
<entriesauction></entriesauction>	Here there are two repetitions.				
sequence	N.I.	1.4	44. Matakia a aya a kid		
entryType	N	14	14 = Matching range bid.		
entryPrc	Y	102.713	Potential auction price or matching range bid/ask price.		
entryQty	Y	50000	Potential auction quantity, matching range BID/ASK		
Th			quantity or surplus BID/ASK quantity.		
There is one more repetition (not detailed in this example).					
<entriesprc></entriesprc>	This sequence is filled whenever there is a new daily high, daily low, opening				
sequence	•		lluation price. Here there are four repetitions.		
entryType	N	20	20 = Daily high price.		

Order book snapshot message Version 14					
Name Optional Value Description					
entryPrc N 102.725 Price.					
There are three more repetitions (not detailed in this example).					

4.3.3. Example: Synchronization of delta and snapshot messages

Files: IMSI_20488_20130405.csv and IMDI_20488_20130405.csv (version 13)

The following message is retrieved from the IMSI file:

The time of the last order book update is 33844381829 microseconds since midnight CET/CEST, the disseminating source is 13 and the sequence number is 513.

The following three messages are retrieved from the IMDI file:

```
33837608181,13,20488,512,26,,,[],[[{2,34.945,6596,1,12,1}][{2,0,0,0,13,3}]],,[]
33844381829,13,20488,513,26,,,[],[[{2,34.94,6596,1,12,1}][{2,0,0,0,13,3}]],,[]
33853824594,13,20488,514,26,,,[],[[{2,0,0,0,9,3}][{2,35.015,1500,1,10,1}]],,[]
```

First, note that the sequence numbers can be used for synchronization purposes only when they are coming from the same source. Here the disseminating source of the delta messages is also 13.

Second, observe that the sequence number of the snapshot message is 513, which means that it incorporates all delta messages up to the one whose sequence number is 513 (i.e. from the three delta messages presented above, only the first two are incorporated into the snapshot message).