

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	
rearre	11010	the broker). The set (o_d_mo, o_t_mo, o_m_mo) gives the exact date-time-		
		microsecond 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	Microsecor	nd of order modification or cancelation by the broker, represented by	
		a number l	petween 0 and 999999.	
o_d_en	19	Date at wh	ich the order entered the system, YYYYMMDD.	
o_t_en	20	Time at wh	ich the order entered the system. Always 00:00:00.	
o_sq_nb	21	Sequence i	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	24		time-microsecond of order priority. ne of the order, hh:mm:ss.	
o_t_p	25 25			
o_m_p	25	999999.	crosecond of the order, represented by a number between 0 and	
o_state	26	State of the	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	
		P	Canceled by the self-trade prevention (STP) mechanism	
o_currency	27	Currency.	1	
o_bs	28	Order side		
_		В	Buy	
		S	Sell	
o_type	29	Order type		
_ 51		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		nstruction (if any).	
_		R	Primary peg (track the best bid (ask) for buy (sell) orders) when	
			o_type = P	

			Order file – AMF Euronext Paris		
Name	Field		Description		
ranic	ricia	m	Market to Limit (execute at the prevailing price) when o_type = K		
		0	Market on Opening (order to execute at the opening price) when o_type = K		
		Х	Cross (match a buy and a sell order at a specified price in a single transaction) when o_type = 2		
o_validity	31	Order valid			
_ ,		0	Good for Day		
		1	Good till Cancel		
		2	Valid for Auction, this order is processed during the opening or		
		_	closing auction		
		3	Immediate or Cancel (Fill and kill)		
		4	Fill or Kill		
		6	Good until Specified date		
		7	Valid for Closing, this order is processed only during the closing auction		
o_d_expirati	32	Date of the	expiration of the order, YYYYMMDD. The set (o_d_expiration,		
on	32		ion) gives the date-time of potential order expiration, given that the		
			t executed, modified or canceled earlier (the maximum lifetime of an		
		order in the	e Euronext Paris platform is 365 days).		
o_t_expirati	33	Time of the expiration of the order, hh:mm:ss.			
on					
o_price	34		Order price. For market orders (pure market, stop market or market to limit orders) it is zero.		
	25				
o_price_sto	35	Outbreak t	hreshold price for orders with stop condition (e.g., stop limit orders).		
o_price_dfp	36	Price differ	ence for a pegged order. Always 0.		
g	30				
o_disoff	37	Discretiona	ry offset component for pegged orders. Always 0. Reserved until		
		discretionary offsets are introduced in France.			
o_q_ini	38	Initial order size.			
o_q_min	39	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			
			ins on the market. If the minimum quantity is not immediately he entire order is canceled.		
o_q_dis	40		quantity for iceberg orders. For any other type of orders it is equal to		
0_4_413	40	0.	qualitity for recovery orders. For any other type of orders it is equal to		
o_q_neg	41		quantity negotiated for a given fundamental ID.		
o_app	42		ion occurs when a seller and a buyer send orders with same price		
		and same of	quantity, both orders will be executed jointly. Note that 5, 6 and 7 are		
			to 0, 1, and 3, respectively, for members having subscribed to NYSE		
			nternal Matching Service (IMS). This service uses a trading algorithm		
			a Price-Member-Time priority, which allows buy and sell orders at the		
			originated by the same member firm subscribing to this service to be		
			Euronext's central order book.		
		0	No application		
		1	Cross order (act of matching a buy order with a sell order through a single transaction)		

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Remaining quantity. This variable is equal to the initial quantity minus the negotiated quantity.	
Date of order update, YYYYMMDD. Time of order update, hh:mm:ss. The set (O_D_UP, O_T_UP) gives the date-time	
e of	
e	

	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			
		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		
	0.5	6 11	RLP and non RLP orders (available from January 28, 2013)		
t_s_account	25	Seller account (see t_b_account above and o_account).			
t_cd_pc	26	Code of the trading platform. Always 025 = Euronext Paris.			
t_q_exchan	27	Negotiated	quantity, in number of shares.		
ged t_tr_nb	28	Day/instrument-specific transaction number.			
t_id_tr	29	Transaction			
t_agg	30		ification. Empty during auction phases.		
C_088	30	A	Buyer initiated trade		
		V	Seller initiated trade		
		2	Application		
t viold	31		struments traded on BondMatch only).		
t_yield t_spread	32	_	id (for instruments traded on BondMatch only).		
	33		requency Trading classification of the trader who sent the order.		
t_b_type	22	HFT	Pure high-frequency trader		
		MIXED or			
		MIX	Mixed high-frequency trader (investment bank with HFT activity)		
		NON HFT or NON	Non high-frequency trader		
t_s_type	34		requency Trading classification of the seller (see t_b_type above).		
-2-cypc	J+	/ WWW 1 111811 1	requeries trading classification of the selici (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		
		Е	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		
		X Cancellation of a deferred opening of a warrant due to an			
			the warrant robot		
e_d_upd	3	Updat	e date, YYYYMMDD.		
e_d_me	4	Date o	of the market event, YYYYMMDD. The set (e_d_me, e_t_me) gives the		
		date-ti	me of the market event.		
e_t_me	5	Time o	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 of suspension, hh:mm:ss. Always empty.			
e_ct_state	8	Quotation state indicator. Always empty.			
e_value_state	9		of the instrument.		
		Α .	Authorized		
		1	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.	
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 Notifica	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/instrument state and current
		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
21 2 110		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
		Stressed Market Conditions
Trading Period	Optional	Provides the current trading period.
Trading renou	Optional	1 – Opening
		2 – Standard
		3 - Closing
Trading Side	Optional	Indicates the Trading Side.
	o peroriar	1 – Bid Only
		2 – Offer Only
		3 - PAKO
		4 – Both Sides
Price Limits	Optional	Always empty.
Quote Spread Multiplier	Optional	Always empty.
4 2000 Spi caa marapiici	Priorial	,

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</marketstatuschange>	starts		

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 Updat	e Message – I	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)
		254 – Clear Book
Symbol Index	Mandatory	Exchange identification code of the instrument.
Number Of Orders	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 – 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 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>			
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 Provious Priority	
		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 – 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 File	Ориона	mstrument 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
Trade Type	Presence Mandatory	Type of trade. 1 - Conventional Trade 4 - Large in Scale (LiS) Package Trade 5 - Guaranteed Cross Trade (Cash and Derivatives) 20 - BoB Trade 24 - Trade Cancellation (Cash and Derivatives) 25 - Out of Market Trade 26 - Delta Neutral Trade Underlying Cash Leg (Cash Only) 27 - Market VWAP Operation Trade (Cash Only) 28 - Euronext Fund Service Trade (Cash Only) 29 - Secondary Listing Trade (Cash Only) 32 - Trade Publication (Cash and Derivatives) 33 - Dark Trade (Cash Only) 36 - Total Traded Volume (For future use) 39 - Guaranteed Cross - Negotiated deal NLIQ (Liquid) 40 - Guaranteed Cross - Negotiated deal OILQ (illiquid) 41 - Large in Scale (LIS) Trade 46 - NonStandard Settlement 47 - Repurchase Agreement - Repo (OBOE only) 48 - Exchange Granted Trade (OBOE only) 49 - Other (OBOE only) 50 - Odd Lot 100 - Conventional Trade Provisional price 101 - Large in Scale (LiS) Trade Provisional price
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)	
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 Informa	tion 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	Indicates if trade relates to a block or a negotiated deal following EU and UK MiFID II rules. B – Block Trade N – Regular trade or Negotiated deal (Hyphen) – Undefined
Trade Reference		

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	Optional	Date when the RepoSeller gets the assets back from	
from October 12, 2020)		the RepoBuyer. Used in case of a Repo (Repurchase	
		Agreement) trade (number of days since the 1st of	
		January 1970).	
Trade Unique Identifier	Mandatory	Alphanumerical code unique, consistent and	
(available from November 28,		persistent per ISO10383 segment MIC and per	
2022)		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}]

Examp	ole: 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> sed</marketupdate>	quence starts				
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 update ends					
<marketupdate> sec</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 me	essage entry in milliseconds after midnight, London xample, 28800000 milliseconds correspond to 8:00 am.	
MessageType	3	Type of me	,	
WessageType	3		Symbol clear message (available from May 10, 2013)	
		+	Add order message (long form message)	
			Expanded Add Order Message	
			Executed message (long form message)	
			Canceled message (long form message)	
			Trade message (long form message)	
		-	Trade extended message (available from May 10, 2013)	
			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)	
			Trade status message (available from October 2, 2013)	
			Statistic message (available from October 2, 2013)	
			Auction update message (available from March 28,	
			2014; new format from September 25, 2015)	
		- 1	Auction summary message (available from March 28, 2014)	
	Sym	bol clear message – MessageType = s		
Symbol	4	Bats Chi-X i	internal instrument identifier.	
	Add	order message – MessageType = A or c		
OrderID	4	Day-specific order ID.		
SideIndicator	5	В	Buy order	
			Sell order	
Shares	6		shares added to the book. This variable is less or e initial order size.	
Symbol	7	Bats Chi-X i	internal instrument identifier.	
Price	8	Order price.		
Display	9	Always Y, n	naintained for compatibility reasons.	
	Expand	ed Add Orde	er Message – MessageType = t	
OrderID	4	Day-specific order ID.		
SideIndicator	5		Buy order	
		S :	Sell order	
Quantity	6		f shares applicable to this quote.	
Symbol	7	Bats Chi-X i	internal instrument identifier.	
Price	8	Quote price	e.	
Туре	9	S SI quote		
ParticipantID	10	Attributes t	this quote to a particular participant.	

Bats Chi-X messages (until February 14, 2019)				
Name	Field	Description		
Order executed message – MessageType = E or e				
OrderID	4	Order ID of a previously sent Add Order message.		
ExecutedShares	5	Number of shares executed.		
ExecutionID	6	Day-unique execution ID.		
ExecutionFlag (available from March 28, 2014)	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.		
Order cancel message – MessageType = X or x				
OrderID	4	Order ID of a previously sent Add Order message.		
CancelledShares	5	Number of shares canceled.		
Trade message – MessageType = P or q				
OrderID	4	Obfuscated Order ID (by default) or Order ID of the invisible order or negotiated trade.		
SideIndicator	5	Always B.		
Shares	6	Incremental number of shares executed.		
Symbol	7	Bats Chi-X internal instrument identifier.		
Price	8	Execution price.		
ExecutionID	9	Day-unique execution ID. Before September 26, 2014, the 4th character of the ExecutionID 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		
	Trade	levels.	message – MessageType = O	
Shares	4		of shares executed.	
Symbol	5		X internal instrument identifier.	
Price	6	Execution price. This may be zero if the price is pending for TRF only (from October 27, 2017).		
TradeID	7	Trade ID. Guaranteed to be unique for at least 7 calendar days.		
TradeDate	8	Date on w	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	urrency.	

Bats Chi-X messages (until February 14, 2019)					
Name	Field		Description		
TradeTimingIndicat	12 (from	1	The trade was reported "late"		
or (available from	July 14,	2	The trade was reported out of the Main Session		
July 14, 2017)	2017)	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	Type flags	5.		
	(before		arch 28, 2014, 10-character flag based on MMT v2.2		
	July 14, 2017)		The first character is a Trade timing indicator, the other		
	13 (from		ters refer to a MMT level. In order, levels 1, 2, 3.1, 3.2,		
	July 14,		.5, 3.6, and 4. ch 28, 2014, to October 26, 2017 11-character flag based		
	2017)		2.2 standard. The first character is a Trade timing		
	,	indicator:	2.2 standard. The first character is a frade timing		
		1	The trade was reported late		
		2	The trade was reported out of the main session		
		-	Otherwise		
		The other	10 characters refer to a MMT level. In order, levels 1, 2,		
			.3, 3.4, 3.5, 3.6, 4, and 3.7 (from September 24, 2014,		
		before th	e 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,			
	Tra	3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5. de break message – MessageType = B			
ExecutionID	4		execution identifier of the execution that was broken.		
LACCULIONID	7		a previously sent Order Execution Message or Trade		
		Message.			
	Off-bool		ak message – MessageType = b		
	4				
	Trade mes	sage - unk	nown symbol – MessageType = k		
Shares	4		of shares traded.		
Symbol	5	ISIN.			
Price	6	Reported	price of the trade (zero if the price is pending).		
TradeID	7	•	Guaranteed to be unique for at least 7 calendar days.		
TradeDate	8		which the trade occurred YYYYMMDD.		
TradeTime	9	Time at w	hich the trade occurred in milliseconds after midnight,		
		London ti	_		
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		

Bats Chi-X messages (until February 14, 2019)			
Name	Field		Description
		3	The trade was reported late and out of the Main
			Session
		-	The trade was reported on time and in the Main
			Session
ExtendedTradeFlag	13	Type flag	
			14, 2017 to October 26, 2017, 14-character flag based
			v3.01. Each character refers to a MMT level. In order,
			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. cober 27, 2017, 14-character flag based on MMT v3.04.
			racter refers to a MMT level. In order, levels 1, 2, 3.1, 3.2,
			3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.
	Trac		nessage – MessageType = H
Symbol	4	Bats Chi-	X internal instrument identifier.
Status	5	Т	Trading
		R	Off-Book Reporting
		С	Closed
		S	Suspended
		N	No Reference Price
		V	Volatility Interruption
		Α	Auction (before March 28, 2014)
		0	Opening Auction (available from March 28, 2014)
		Е	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		reserved.
	St		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	Referenc	e price used in tie-breaker situations.
BuyShares	7	Number	of shares on the buy side at the Indicative Price.

Bats Chi-X messages (until February 14, 2019)				
Name	Field	Description		
SellShares	8	Number of shares on the sell side at the Indicative Price.		
IndicativePrice	9	Price at v	which the auction would match if executed at the time of	
		the mess		
•	_		geType = l (available from September 25, 2015)	
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	
ReferencePrice	6		e price used in tie-breaker situations.	
IndicativePrice	7		which the auction would match if executed at the time of	
		the message.		
IndicativeShares	8	Number 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	
		-	Not specified	
IncludesPrimary	10	Indicates whether the Bats Chi-X EBBO used to collar this update		
		includes	the Primary Market quotes.	
		Р	Includes Primary	
		N	Excludes Primary	
		-	Not specified	
	Auctio		ry 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 price.		
Shares	7	Cumulati	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		

CBOE Europe messages (since February 15, 2019)					
Name	Field	Description			
		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)		
		V	Trade extended message		
		W	Trade message - unknown symbol		
		a	Trading status message		
		Υ	Statistic message		
		b	Auction update message		
		f	Auction summary message		
	Sym	bol clear mes	sage – MessageType = h		
Symbol	4	Internal inst	rument identifier.		
	Add c	rder message	e – MessageType = K or M		
OrderID	4	Day-specific	order ID.		
SideIndicator	5	В	Buy order		
		S	Sell order		
Shares	6	Number of shares added to the book (may be less than the			
		number of shares entered).			
Symbol	7	Internal instrument identifier.			
Price	8	Order price.	Order price.		
Display	9	Always Y, maintained for compatibility reasons.			
Order e		xecuted mess	sage – MessageType = N or g		
OrderID	4	Order ID of a previously sent Add Order message.			
ExecutedShares	5	Number of shares executed.			
ExecutionID	6	Day-unique execution ID.			
ExecutionFlag	7		flag based on MMT v3.04. The 1st character refers to		
			mechanism (MMT level 1), the 2nd to the trading mode		
		-	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.		
	Order		ge – MessageType = F or G		
OrderID	4	ı	a previously sent Add Order message.		
CancelledShares	5	Number of s	shares canceled.		
	Tra	de message -	- MessageType = V or W		
OrderID	4		Order ID (by default) or Order ID of the invisible order		
		or negotiated trade.			
SideIndicator	5	Always B.			
Shares	6	Incremental	number of shares executed.		
Symbol	7	Internal instrument identifier.			
Price	8	Execution price.			
ExecutionID	9	Day-unique execution ID.			

	CBOE Europe messages (since February 15, 2019)					
Name	Field		Description			
TradeFlag	10	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				
	Trade		for level 3.8 and "-" for other levels. essage – MessageType = v			
Shares	4		shares executed.			
Symbol	5		rument identifier.			
Price	6	Execution pr	rice. This may be zero if the price is pending as level 3.8 of ExtendedTradeFlag.			
TradeID	7	Trade ID. Gu	aranteed to be unique for at least 7 calendar days.			
TradeDate	8	Date on whi	ch the trade occurred YYYYMMDD.			
TradeTime	9	on the day r	th 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			
			CXE off-book (negociated) trades			
			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 curre	ency.			
TradeFlag	12	Before April 1, 2019 the only possible values are 1, 2, 3, or From April 1, 2019, 1, 2, 3, and - indicate that the trade was reported to the regulated entity UK and 4, 5, 6, and 7 indicate that the trade				
		was reported 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 fate 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	Each charact 3.3, 3.4, 3.5,	r 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. r flag based on MMT v4.1 from January 1, 2024. It is no			

	CBOE E	urope messag	es (since February 15, 2019)		
Name	Field	Description			
		longer the case that each character of the MMT string represents a 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 charact	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		vn symbol – MessageType = w		
Shares	4		hares traded.		
Symbol	5	ISIN.			
Price	6		ce of the trade (zero if the price is pending as denoted of ExtendedTradeFlag).		
TradeID	7		aranteed to be unique for at least 7 calendar days.		
TradeDate	8	Date on whice	ch the trade occurred YYYYMMDD.		
TradeTime	9	Time at which the trade occurred in microseconds since midnight, on the day represented by TradeDate, 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.			
TradeFlag	12	Before April 1, 2019 the only possible values are 1, 2, 3, or From April 1, 2019, 1, 2, 3, and - indicate that the trade was reported to the regulated entity UK and 4, 5, 6, and 7 indicate that the trade was reported to the regulated entity EU. From January 1, 2024, CD, E, and F indicate that the trade was executed under an ESMA non-recognised 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	14-character flag based on MMT v3.04 until December 31, 202 Each character refers to a MMT level. In order, levels 1, 2, 3.1, 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 i longer the case that each character of the MMT string represe single level in the MMT. The first character represents MMT levels 1, the 2nd character represents level 2, the 3rd character encolevels 3.1 and 3.13, the 4th character encodes levels 3.2 and 3. 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			

CBOE Europe messages (since February 15, 2019)					
Name	Field	Description			
		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	ing status message – MessageType = a			
Symbol	4	Internal inst	trument identifier.		
Status	5	Т	Trading		
		R	Off-Book Reporting		
		С	Closed		
		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	Cboe closing cross		
Reserved	6	Always 0, re			
	Sta		age – MessageType = Y		
Symbol	4	Internal inst	trument 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)		
	ı		essage – MessageType = b		
Symbol	4		trument identifier.		
AuctionType	5	0	Opening auction		
		С	Closing auction		
		Н	Halt auction (reserved for future use)		
		V	Volatility auction (reserved for future use)		
		P	Periodic auction		
		U	Cboe closing cross		
ReferencePrice	6		orice used in tie-breaker situations.		
IndicativePrice	7		ch the auction would match if executed at the time of		
IndicativeShares	8	the messag	e. shares at the Indicative Price.		
OutsideTolerance	9	Indicates whether the price on this update is outside the CBOE			
		EBBO collar			
		0	Outside tolerance		

CBOE Europe messages (since February 15, 2019)					
Name	Field	Description			
		I	Inside tolerance		
		-	Not specified		
IncludesPrimary	10	Indicates wh	ether the CBOE EBBO used to collar this update		
		includes the	Primary Market quotes.		
		Р	Includes Primary		
		N	Excludes Primary		
		-	Not specified		
	Auctio	n summary m	nessage – MessageType = f		
Symbol	4	Internal instrument 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		
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 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 – L	SE 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	Identifie	s an investor, an intermediary or a subscriber. For investors	
			rmediaries, this will be the Bank Identifier Code (BIC). It will	
		be null except for Mechanism type CP and where the Segment rules		
C: I	_		e Participant code to be disseminated on Infolect.	
Side	5	В	Buy order	
		S	Sell order	
OrderType	6		the order.	
		СР	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	Size of the 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	
CingloFill	9	at the time of entry. Indicates that an order already submitted into the system will		
SingleFill	9		against an incoming order, only if there is a total match (it	
			t apply to hit orders).	
BroadcastUpdateAction	10		s whether the order message corresponds to the start of the	
			day or the regular trading session (pre-open, main session,	
		_	he 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	
		N	Orders added during the rest of the trading day	
Date	11	Date tha	at the order was first added ddMMyyyy.	
Time	12	2 Time that the order was first added in millisecond accuracy		
			ss.SSS where hh denotes the hour, mm denotes the minute,	
		ss deno	tes the second and SSS denotes the millisecond.	

Order Detail – LSE Version 1 (until March 10, 2017)				
Name	Field	Description		
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	
		Υ	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 corresponding to each order message.			
MessageType	2	Type of t	he event.		
		D	Order deletion		
		E	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.			
AggregatedSize	7	Number of shares currently available (to buy or sell). Since the order may result in partial execution, this variable may be less or equal to the initial order size. For a full match, the number of shares left is zero.			
Side	8	В	Buy order		

	Order History – LSE Version 1 (until March 10, 2017)			
Name	Field	Description		
		S	Sell order	
OrderType	9	Type of	the order.	
		CP	Committed Principal Order	
		LO	Limit Order	
		МО	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	Increasing sequential integer number, unique for each message, to		
		distinguish 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).

Tra	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.		
BroadcastUpdateA	8	Type of action to be taken by customers when they receive the		
ction		message.		
		E Automatic executions		
		A Manual trade additions		

Tra	Trade Report – LSE Version 1.1 (2011 – 2013 & 2016 – 10/03/2017)			
Name	Field	Description		
		D	Manual trade cancellations	
TradeType	9		of trade. This type of information is subject to changes over time. complete, updated, list of trade types can be found here">here .	
		AT	Automatic trade	
		CT	Contra trade	
		NK	Negociated trade	
		OK	Ordinary trade	
		PC	Previous day contra trade	
		PT	Closing price crossing session trade	
		UT	Uncrossing trade	
ReportTime	10	Indicates the time when the trade was reported.		
		Ν	Normal trade period report	
		L	Late report	
		0	Overnight report	
Bargain	11	Indicates whether the trade includes bargain conditions.		
		Υ	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		of publication of the particular transaction ddMMyyyy.	
PublicationTime	14		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		ates if the order concerns a cash/pure equity (N) or a Contract for rence (Y)	

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.	

		Trade Report – LSE Version 1.2 (2014 – 2015)	
Name	Field	Description	
BroadcastUpdateA	8	Type of action to be taken by customers when they receive the	
ction		message.	
		E Automatic executions	
		A Manual trade additions	
		D Manual trade cancellations	
TradeType	9	Type of trade. This type of information is subject to changes over time.	
		The complete, updated, list of trade types can be found at the following	
		link: http://www.londonstockexchange.com/prices-and-markets/prices-	
		help/trade-type.htm	
		AT Automatic trade	
		CT Contra trade	
		NK Negociated trade	
		OK Ordinary trade	
		PC Previous day contra trade	
		PT Closing price crossing session trade	
		UT Uncrossing 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	
		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 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		Description	
InstrumentID	1	The Instrument Identifier allocated by the Millennium Trading system.	

Instrument Reference – LSE Version 2 (from March 11, 2017)			
Name	Field	Description	
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	on 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
TransactTime	2		this event stamped by the Trading system YYYYMMDD
		-	ss.000000 until December 2022 and YYYYMMDD
			ss.00000000 from January 2023.
Sequencenumber	3	_	ce number, unique to an instrument.
InstrumentID	4		rument Identifier allocated by the Millennium Trading
BuySellInd	5	system, B	can be referenced in the InstrumentRef table. Buy
Биузенни	5	S	Sell
OrderCode	6	_	
MemberID			nique to the order, this field is case sensitive.
	7		r 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	0	`	
	9		the order in the currency for the instrument.
RemainingVisibleSize	10		
MatchingOrderCode	11	Order co	ode for the other side of the execution.

Execution Report – LSE Version 2 (from March 11, 2017)			
Name	Field	Field Description	
TradeCode	12	Unique Trade Code for the execution.	
TradePrice	13	Price for the execution.	
ExecutedSize	14	Number of shares traded.	
Reserved1	15	Empty until December 2022, Currency of the transaction from January 2023.	
Reserved2	16	Reserved 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 In	strument Identifier allocated by the Millennium Trading system,		
		can be	e referenced in the InstrumentRef table.		
TradeCode	3	Uniqu	e Trade Code for the execution.		
TradePrice	4	Price f	or the execution.		
TradeSize	5	Numb	er of Shares traded.		
TradeDateTime	6	Date T	ime of execution YYYYDDMM hh:mm:ss.000000 until December		
		2022 a	and YYYYMMDD hh:mm:ss.000000000 from January 2023.		
BroadcastUpdateA	7	Α	Add		
ction		D	Delete		
TradeTypeInd	8	Type of Trade. For a full list see the Millennium Exchange Business			
		Param	neters.		
		0	Ordinary trade, off book – on exchange.		
		OT	OTC trade.		
		SI	SI trade.		
TradeTimeInd	9	Time I	ndicator.		
		N	Normal		
		L	Late		
		0	Overnight		
BargainConditions	10	Υ	Yes		
Ind		N	No		
ConvertedPriceInd	11	Υ	Yes		
		N	No		
PublicationDateTi	12	Date 1	Time Of Publication YYYYDDMM hh:mm:ss.000000 until December		
me		2022 and YYYYMMDD hh:mm:ss.000000000 from January 2023.			
Reserved1	13	Reserv	Reserved for future use.		
Reserved2	14	Reserv	ved 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.				
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	Р	erio	d
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	_	

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, <u>System documentation</u>

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	Sequence 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 da	ata file – X	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 –)	Ketra 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 da	ata file – 2	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>		I	
NoTickRules (available from	N	Numbe	r of tick rules.
2015)			
TickIncrement	N	Tick Inc	rement.
EndTickPriceRange	Υ	End of Tick range for each Tick increment.	
<tickrules> sequence</tickrules>			
trdmdl	N		Model identifier.
	<u> </u>	01	Multiple Auctions, M
		02	Continuous Trading, C
		03	One Auction Only, O

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		added t Book In Matchir 8217 is 2^0 2^1 2^2	f supported order types and other flags. The values can be ogether to form combinations of the values. If Closed dicator, Iceberg Order Indicator, Limit Order Indicator and ag instruction Cross Id are sent then 1 + 8 + 16 + 8192 = received. Closed Book Indicator Discretionary Order Indicator 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	Minimu	m Hidden Order Value, specified as cash amount.		
minMidPntOrdrVal	Υ	Minimum Midpoint Order Value.			
minIceQty	Υ	Minimum Iceberg Order Quantity.			
minPeakQty	Υ	Minimum 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	Post Trade Anonymity indicator. Field indicating, whether post			
		trade ar	nonymity 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 Currency Code.		
stlCal	N		ent Calendar, e.g. XCAL for Standard calendar.		
homeMkt	N	Market took pla	Identifier Code (ISO 10383) of the market where the IPO ace.		
refMkt	N	MIC of t	he market from which the reference price is derived.		
reportMarket	N	MIC req	uired for reporting to supervisory authority		
cmexind	Υ	Indicato	or for CUM/EX events or capital adjustment.		
		С	Cum Capital Adjustment or Dividend		
		A	Change of price determination frequency in Continuous Auction		
		E	Ex Capital Adjustment or Dividend		
<subscription> (option</subscription>	l nal) group st		2x capital xajastinent of Sinacina		
issueDate	N	1	which a security is issued;		
inSubscription	N		or for subscription trading (primary market);		
in Subscription		Y	instrument in subscription trading. Only provided for		
			instruments that are currently in subscription trading.		
		N	Instrument is not in subscription period		
<subscription> group</subscription>	ends				
 <bond> (optional) gro</bond>					
bonCpnRatWss	Y	The coupon rate of a bond.			
bonCurPoolFact	Υ		urrent Pool Factor.		
bonYldTrdInd	Υ	Bond Yi	eld Trading Indicator, indicates whether the		
			onding price contains a yield. Always Y = Yes.		
bonCrtCpnDat	Υ	Beginni	ng of current coupon period YYYYMMDD.		
bonNxtCpnDat	Υ	End of o	current coupon period YYYYMMDD.		
dnomCurrCod	N	Denom	ination Currency.		
bonFlatInd	N		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	Accrued	d 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)		
			(r <i>)</i> /		

Instrument	reference da	ata file –)	Ketra Versions 12 – 16 (28/11/2011 – 30/06/2017)
Name	Optional		Description
		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	Bond is:	suer, e.g. BUND.
(available from V15)			
<body> <br <="" td=""/><td></td><td></td><td></td></body>			
<warrant> (optional) §</warrant>	group starts		
warSeg	N	Warrant	t Segment.
		WA	Plain Vanilla Warrants
		KO	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
		GC	Guarantee Certificates
		IX	Index Certificates
		OP	Out Performance Certificates
		MS	Misc. Investment Products
		blank	Other
warStrPrc	Υ	Warrant	t Strike Price.
warTyp	N	Warrant	t Type.
		С	Call
		Р	Put
		R	Range
		F	Certificate
		0	Others
warUnd	Y	Warrant	t underlying.
<warrant> (optional) §</warrant>	group ends		
<continuousauction></continuousauction>	(optional) gr	oup start	S
exchangeSegment	N	Exchang XEXC XE	ge Segment code in which the instrument is traded, e.g.
issrMembId	N		r ID of the issuer (Quote Provider) comprising institution acters) and branch (2 characters).

Instrument	reference da	ata 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		information is there or not. Always Y = Yes.		
V13)				
<continuousauction></continuousauction>	·			
<marketmaker> (option</marketmaker>		starts		
<pre></pre>				
nooflicenses	N	Number of Licenses.		
licensetype	N	License type.		
		M Designated Sponsor License		
		E BEST Executor License		
		Q Liquidity Manager License		
sprdtypecode	N	Quote Spread Type for license.		
		A Absolute value		
		P Percentage value		
sprdFact	Υ	Maximum Spread permissible for the license.		
sprdminqty	N	Minimum allowable size of a Quote by license.		
license> sequence el	nds			
maxsrpqty		Maximum surplus quantity which can be taken by a member in the Betreuer OBB phase.		
<marketmaker> group</marketmaker>	n ends	The believe Obb phase.		
<pre></pre>		ın starts		
basund	γ			
	<u> </u>	Onderlying is it 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 boo	k snapsh	ot 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 o	order interruption indicator.		
		Р	Potential market order interruption		
		М	Market order interruption		
		Х	Volatility interruption after market order interruption		
volInd	Υ	Volatility	v 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		
		Α	Capital adjustment		
		E	Ex dividend		
<entriesprcqty></entriesprcqty>	sequence	starts, sent 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				
<entriesprc> sec</entriesprc>	quence sta	rts, filled	whenever there is a new daily high, daily low, opening price,		
closing price, va	luation pri	ce			
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>	quence end	ds			
<entriesqty> see</entriesqty>	quence sta	rts, filled	when there is a surplus, either bid or ask side		
entryType	Ν	15	Surplus bid		
		16	Surplus ask		
entryQty	Ν	Surplus ask/bid quantity.			
<entriesqty> see</entriesqty>	quence en	ds			
· ·	•		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	N	Number of trades, cumulative total of the number of trades for the current 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 the level below (price = 0 and entryType = 23 or 24 for market			
		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 boo	Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description		
entryTime	N	Time of the last order book update, in microseconds since		
		midnight CET/CEST.		
srcId	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	
in the Charles	N.I		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	

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional		Description
		43	Hol
•			here is any information on last trade price, in subscription e, last BEST price or last trade price with Bundesbank
noEntriesAtp	N		
(available from 2015)	N.I.	4	I have been dear often
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
		25	Last best trade price with Bundesbank (currently not in use)
entryPrc	N		d price.
entryQty	N		d quantity (shares).
totTrdQty	Υ		raded quantity (shares).
entryTime	N		time, in microseconds since midnight CET/CEST.
numTrades	Υ		er of trades, cumulative total of the number of trades for
			rrent day in a given instrument.
tranMtchldNo	Υ	Intern	al transaction matching identifier.
<entriesatp> sequence</entriesatp>			
•	1	ed whe	n orderbook entries are sent
noEntriesDepth (available from 2015)	N		
entryType	N	1	Ask price
		2	Bid price
		3	Empty Order book
		23	Ask market order
		24	Bid market order
entryPrc	N		for the level below (price = 0 and entryType = 23 or 24 for
			et orders).
entryQty	N		ity offered at above price.
numOrders	N		er of orders.
entryPrcLvl	N	Level	of price in OB, 1 is for top-of-book for instance.
<entriesdepth> sequer</entriesdepth>			
<auctiongroup> (optio</auctiongroup>	nal) group st	arts, on	ly active in an auction
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

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	N	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		cial auction quantity, matching range BID/ASK quantity or s BID/ASK quantity.
<entriesauction> seque</entriesauction>	ence ends		
<auctiongroup> group</auctiongroup>	ends		
<pre><entriesprc> sequence closing price, valuation</entriesprc></pre>		whenev	ver there is a new daily high, daily low, opening price,
noEntriesPrc (available from 2015)	N		
entryType	N	5	Opening price
		7	Valuation price
		8	Closing price
		20	Daily high price
		21	Daily low price
entryPrc	N	Price.	
<entriesprc> sequence ends</entriesprc>			

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	
		Χ	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.	
		Ċ	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	starts, sent 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	tial auction price or matching range bid/ask price.	

Order	book delta /	increm	ental file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description				
entryQty	N	Poten	tial auction quantity, matching range BID/ASK quantity or			
		surplus BID/ASK quantity.				
<entriesprcqty> sequence ends</entriesprcqty>						
<entriesprc> seq</entriesprc>	<entriesprc> sequence starts, filled whenever there is a new daily high, daily low, opening price,</entriesprc>					
closing price,						
valuation price		ı				
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	when 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> sequence starts, filled when orderbook entries are sent</entriesdepth>						
entryType	N	1	Ask price			
		2	Bid price			
		3	Empty Order book			
		23	Ask market order			
		24	Bid market order			
entryPrc	N	Price f	for the level below (price = 0 and entryType = 23 or 24 for market			
		orders	5).			
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		operation will be performed with this entry to know in what way			
			date 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				
		'	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	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	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	ier 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	_	s Y, indicates that the Xetra interface may have missed some of est 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></entriestrades>	> sequence s		ent 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	Ν	Price ty	ype code.	
		С	Continuous Trading	
		0	Opening Auction	
		Α	Auction	
		F	Closing Auction	
		Е	End-of-day Auction	
		V	Volatility Interruption in Continuous Trading	
<entriestradepi< td=""><td colspan="3">ePrices> sequence starts</td></entriestradepi<>	ePrices> sequence starts			
entryType	Ν	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	
. 5			is used for prices determined with Bundesbank participation.	
entryPrc	N	Tradeo	·	
entryQty	Y		I 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	
tranMtchldNo	N	Interna	al transaction matching identifier.	
<entriestradepi< td=""><td>rices> seque</td><td>nce end</td><td>s</td></entriestradepi<>	rices> seque	nce end	s	
<entriestrades></entriestrades>	> sequence e	ends		
<entriesdepth></entriesdepth>	sequence st	tarts, 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	Ν	Number of orders.		
entryPrcLvl	Ν	Level of price in the order book (1 = top of book, 120 = depth level).		
updateAction	Ν	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		
		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		
		entryPrcLvl = 'x'. All price levels y where $y > x$ are shifted to $y - x$.		
<entriesdepth></entriesdepth>	sequence e			
<auctiongroup?< td=""><td>> (optional) ខ្</td><td>group starts, only active in an auction</td></auctiongroup?<>	> (optional) ខ្	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		
3 31		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	Y	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> group ends</auctiongroup>						
<entriesprc> se</entriesprc>	<entriesprc> sequence starts, filled whenever there is a new daily high, daily low, opening price,</entriesprc>					
closing price, va	luation price	9				
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 ends</entriesprc>						

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

Order book del	Order book delta / incremental file – Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)				
Name	Optional		Description		
entryTime	N	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.			
srcld	N	Identif	ier of the message disseminating source.		
isix	N	Xetra i	nternal instrument identifier.		
seqNum	N	compa	nce number for synchronization purposes when aring messages coming from the same source.		
instrStatus	N	Identif	ier 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		

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
		-	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
		latest	are sent). In case any trade price is not included in the
			message the full view of all trades may be obtained from
			Trade Price stream.
<entriestrades> seque</entriestrades>		ent if a t	rade occurs
noEntriesTrade (available from 2015)	N		
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
			tamp is only available in case of a trade. The
			ssorTime is empty if the trade resulted from an auction.
totTrdQty	N		raded quantity, cumulated quantity of the instrument for
	N.I.		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
			Thee nom subscription period
		10	Best trade price (available from V16)
			Best trade price (available from V16) Midpoint trade price (available from V16)
		10	Best trade price (available from V16)
		10 11	Best trade price (available from V16) Midpoint trade price (available from V16) Last best trade price with Bundesbank (currently not in
		10 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
		10 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
		10 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
		10 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
		10 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)
		10 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
		10 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
		10 11 25 29 30 31	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)
		10 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
prcTypCod	N	10 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

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
tranMtchIdNo	N	Intern	al transaction matching identifier.
<entriestradeprices> se</entriestradeprices>	equence end	ds	
<entriestrades> seque</entriestrades>	nce ends		
<entriesdepth> sequer</entriesdepth>	nce starts, fill	led whe	n order book entries are sent
	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	for 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		of price in the order book (1 = top of book, 120 = depth
undateAction	N		operation will be performed with this entry to know in
apaate/tetion			·
			Prc, entryQty and numOrders have to be ignored in the
		_	ting group noEntriesDepth.
		1	New: creating a price level, adds the new price at the
			specified entryPrcLvl say x. All price levels y where $y \ge x$
		2	
			· · · · · · · · · · · · · · · · · · ·
		2	
		3	_ ,
<entriestradeprices> so <entriestrades> seque <entriesdepth> sequer noEntriesDepth (available from 2015) entryType entryPrc entryQty numOrders</entriesdepth></entriestrades></entriestradeprices>	N N N N N	1 2 3 24 Price = Quant Numb Level (level). What we for all entry repeat	Delete al transaction matching identifier. n order book entries are sent Ask price Bid price Empty Order book Ask market order Bid market order for the level below. 0 and entryType = 23 or 24 for market orders city offered at above price. For price in the order book (1 = top of book, 120 = depth operation will be performed with this entry to know in way to update the order book. delete actions (delete, delete from, delete thru) the field of the price of the price in the the order book. The price in the order book (1 = top of book) the price of the price in the order book. The price in the order book (1 = top of book) the price in the field of the price of

Order book delta / incremental 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 shifted to $y - x$.
<entriesdepth> sequer</entriesdepth>	ice ends		
<auctiongroup> (option</auctiongroup>	nal) group st	arts, on	ly active in an auction
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
		Х	Expired
<entriesauction> seque</entriesauction>	ence starts		
noEntriesAuction (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		tial auction price or matching range bid/ask price.
entryQty	Y		tial auction quantity, matching range bid/ask quantity or s bid/ask quantity.
<entriesauction> seque</entriesauction>			
<auctiongroup> group</auctiongroup>			
			ver there is a new daily high, daily low, opening price,
closing price, valuation		v refere	nce price
noEntriesPrc	N		
(available from 2015) entryType	N	4	Last trade price
Chuyrype	IN	5	Opening price
		7	Valuation price
		8	Closing price
		20	Daily high price
		21	Daily low price
entryPrc	N	Price.	Daily low price
<entriesprc> sequence</entriesprc>		i rice.	
Entresi te sequence enus			

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 trad	e price fil	e – 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	ernal instrument identifier.		
gapIndicator	Y	instrum	, 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 type.			
		C	Continuous Trading		
		0	Opening Auction		
		Α	Auction		
		F	Closing Auction		
		Е	End-of-day Auction		
		V	Volatility Interruption in Continuous Trading		
entryPrc	N	Price at	the above level.		
entryQty	N	Quantity	offered at above price.		
entryTime	N	Time of	entry HHMMSSCC.		
tranMtchldNo	N	Internal	transaction matching identifier.		
tpSeqNum	N	Sequenc	e number.		
actnCod	N	Action c	ode, indicates what type of action should be performed in case of		
		last trad	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	rice file – >	Ketra 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	rnal instrument identifier.	
seqNum	N	Sequence	number.	
prcTypCod	N	Price type		
		С	Continuous Trading	
		0	Opening Auction	
		Α	Auction	
		F	Closing Auction	
		Е	End-of-day Auction	
		V	Volatility Interruption in Continuous Trading	
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	Price at th	ne above level.	
entryQty	Υ	Quantity (offered at above price.	
entryTime	N	Match tim	ne, in microseconds since midnight CET/CEST.	
tranMtchldNo	N	Internal tr	ransaction matching identifier, corresponds to the field in the	
			snapshot message.	
actnCod	N		de, indicates what type of action should be performed in case of	
			price information.	
		4	Add (default)	
		5	Update	
	6		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 Messa	age – 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>					
<derivativesdescriptor> (optional) group ends</derivativesdescriptor>					
	<underlyingdescriptor> (optional) group starts, always empty {}</underlyingdescriptor>				
<underlyingdescriptor> (optional</underlyingdescriptor>					
<instrumentscopes> (optional) se</instrumentscopes>	equence sta	rts, always empty []			
<instrumentscopes> sequence e</instrumentscopes>					
<relatedmarketsegments> (option</relatedmarketsegments>		nce starts, always empty []			
<relatedmarketsegments> seque</relatedmarketsegments>	.				
<pre><basetradingrules> group starts</basetradingrules></pre>					
<tickrules> (optional) sequence s</tickrules>					
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		
Tid Dulan and a		product can be quoted and traded.		
<tickrules> sequence ends</tickrules>		_		
<pricerangerules> (optional) sec</pricerangerules>	1			
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).		
rriceRangeValue	,	Conditionally required if PriceRangePercentage is		
	,,	absent.		
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.		
<pricerangerules> sequence en</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.		
<basetradingrules> group ends</basetradingrules>				
<pre><basetradingrulesderivatives> (</basetradingrulesderivatives></pre>				
<pre><basetradingrulesderivatives> (</basetradingrulesderivatives></pre>		•		
<basetradingrulescash> (option</basetradingrulescash>		egins		
<auctiontyperulegrp> sequence</auctiontyperulegrp>				
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		
s. Recirribalarice indicator	, ,	interruption/extended volatility interruption/market		

Product Snapshot Message – Xetra		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.			
		0 No			
		1 Yes. Applicable for cash market products only.			
<auctiontyperulegrp> sequence</auctiontyperulegrp>	ends	у при			
<basetradingrulescash> (option</basetradingrulescash>		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			
		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>	T				
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			
MDDocovon/Timedatemial	Y	netting).			
MDRecoveryTimeInterval		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)

Product S	Snapshot Me	ssage – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)		
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.		
EffectiveBusinessDa	N	Current business date, e.g. 20131128.		
te		-		
NextEffectiveBusine ssDate	N	Next business date.		
MarketSegment	Ν	Product ISIN, e.g. DE0009653147.		
MarketSegmentStat us	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		
PartitionID	N	Partition of the product.		
<derivativesdescripto< td=""><td>r> (optional)</td><td>group starts, always empty {}</td></derivativesdescripto<>	r> (optional)	group starts, always empty {}		
<derivativesdescripto< td=""><td>r> (optional)</td><td>group ends</td></derivativesdescripto<>	r> (optional)	group ends		
<underlyingdescripto< td=""><td>r> (optional)</td><td>group starts, always empty {}</td></underlyingdescripto<>	r> (optional)	group starts, always empty {}		
<underlyingdescripto< td=""><td colspan="3">nderlyingDescriptor> (optional) group ends</td></underlyingdescripto<>	nderlyingDescriptor> (optional) group ends			
<pre><instrumentscopes> (</instrumentscopes></pre>	<pre><!--nstrumentScopes--> (optional) sequence starts, always empty []</pre>			
<instrumentscopes> s</instrumentscopes>	<instrumentscopes> sequence ends</instrumentscopes>			
<relatedmarketsegm< td=""><td>ents> (optio</td><td>nal) sequence starts, always empty []</td></relatedmarketsegm<>	ents> (optio	nal) sequence starts, always empty []		
<relatedmarketsegm< td=""><td>ents> seque</td><td>nce ends</td></relatedmarketsegm<>	ents> seque	nce ends		
<basetradingrules> g</basetradingrules>	roup starts			
<tickrules> (optional)</tickrules>	•	tarts		
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.		
TickRuleID	Υ	Table identifier, only for cash. Used in field RefTickTableID from the Instrument Snapshot message.		
TickRuleProductCo	N	Defines the instrument type for the tick rule.		
mplex		0 Simple Instrument		
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 instrument of the product can be quoted and traded.		

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,		
G		•	Range Table Basics.	
PriceRangeRuleID	N	Table identifi	er.	
PriceRangeProductC	N	0 S	imple Instrument	
omplex				
StartPriceRange	N	Start of price	range (inclusive).	
EndPriceRange	N	End of price r	range (non-inclusive).	
PriceRangeValue	Υ	Maximum all	owable quote spread (absolute value). Conditionally	
		•	iceRangePercentage is absent.	
PriceRangePercenta	Υ		owable quote spread (percentage value).	
ge			required if PriceRangeValue is absent.	
<pricerangerules> se</pricerangerules>				
QuoteSideIndicator	N		e sided quotes are allowed.	
			One-sided quote not allowed	
		1 C	One-sided quote allowed	
QuoteSideModelTyp	N		ingle sided quote rejection leads to a double sided	
е			on or cancellation.	
			ingle-sided quotes not supported Rejection of just	
			one quote side leads to rejection or cancellation of	
			ooth quote sides	
			Single-sided quotes supported Rejection may affect	
FactMauliatDaugauta	Y	only one quote side in a double sided quote		
FastMarketPercenta	Y	_	y which range resulting from PriceRangeValue and	
ge		PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed		
			itions in derivatives markets:	
			e to normal range, e.g. 80->80	
		_	by half, e.g. 80->120	
		100 = range t	o be doubled, e.g. 80->160	
		More details	are available in the T7 Functional Reference.	
<basetradingrules> g</basetradingrules>	group ends			
<basetradingrulesde< td=""><td>erivatives> (c</td><td>ptional) group</td><td>starts, always empty {}</td></basetradingrulesde<>	erivatives> (c	ptional) group	starts, always empty {}	
<basetradingrulesde< td=""><td>erivatives> (c</td><td>ptional) group</td><td>ends</td></basetradingrulesde<>	erivatives> (c	ptional) group	ends	
<basetradingrulesca< td=""><td>sh> (optiona</td><td>l) group begin</td><td>S</td></basetradingrulesca<>	sh> (optiona	l) group begin	S	
AuctionTypeRuleGrp				
NoAuctionTypeRule	N		ıles. Always 1.	
S				
AuctionType	N	Defines the ty	ype of auction. Always 0.	
		0 A	Any Auction	
ClosedBookIndicato	N	Indicates whether the order book is closed during auction tr		
r			No. Applicable for cash market products only.	
			'es	
MarketImbalanceIn	N	l l	ring auction call/volatility interruption/extended	
dicator	1 1	volatility interruption/market order interruption phase a surplus		
	l	T volucinty interruption/market order interruption phase a surplus		

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>al) group ends</td></basetradingrulesca<>	sh> (optiona	al) group ends		
<matchrules> sequer</matchrules>	ice starts, us	ed to convey allocation rules for matching		
NoMatchRules	N	Number of match rules.		
MatchRuleProductC	N	Indicates the instrument type.		
omplex		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.		
		0 Auto Match (for continuous trading)		
		1 Call Auction (for auction trades)		
<pre><matchrules> sequence ends</matchrules></pre>				
<feeds> sequence sta</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 book data.		
		1 Price Depth		
M. 1. 15. 11		2 Order Depth		
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.		
MarketDepthTimeIn	Υ	Netting interval for low bandwidth feeds (0=no netting).		
terval		,		
MDRecoveryTimeInt	Υ	Recovery interval (duration of one cycle).		
erval				
PrimaryServiceLocat	N	IP Address for Service A.		
ionID	N I	Dout number for ID address Courtes A		
PrimaryServiceLocat ionSubID	N	Port number for IP address Service A.		
SecondaryServiceLo	Υ	IP Address Service B.		
cationID	·			
SecondaryServiceLo cationSubID	Y	Port number for IP address Service B.		
<feeds> sequence en</feeds>	ds			
recas sequence en	4 5			

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

Product Sna	pshot Messa	nge – 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.		
	(optional) gr	roup starts, always empty {}		
<pre><derivativesdescriptor></derivativesdescriptor></pre>				
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	onal) group starts, always empty {}		
<pre><underlyingdescriptor></underlyingdescriptor></pre>				
<instrumentscopes> (op</instrumentscopes>	tional) seque	onal) sequence starts, always empty []		
<instrumentscopes> sec</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> gro</basetradingrules>	up starts			
<tickrules> sequence st</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 (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> seque</tickrulesscopes>	ence 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		
TickRuleProductCompl	N	snapshot message). Defines the instrument type for the tick rule.		
ex	IN	0 Simple Instrument		
TrdType	N	Defines the (TES) trade type for this tick rule scope.		
- 71		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> seque</tickrulesscopes>	ence ends	Action Planes Emigne anggered made		
<tickrules> sequence en</tickrules>				
<pre><pricerangerules> sequence</pricerangerules></pre>				
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section 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	Υ	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.		
PriceRangePercentage	Υ	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.		
<pricerangerules> seque</pricerangerules>	ence ends			
QuoteSideIndicator	cator Y Defines if one sided quotes are allowed.			
		0 One-sided quote not allowed		
		1 One-sided quote allowed		
QuoteSideModelType	Y	Defines if a single sided quote rejection leads to a double si 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 Single-sided quotes supported Rejection may affect		
FactMandart Danas at a sa	V	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.		
<basetradingrules> grou</basetradingrules>	·			
		onal) group starts, always empty {}		
<basetradingrulesderivation< td=""><td></td><td></td></basetradingrulesderivation<>				
<basetradingrulescash></basetradingrulescash>				
<auctiontyperulegrp> s</auctiontyperulegrp>	•			
NoAuctionTypeRules	N	Number of rules. Always 1.		
AuctionType	N	Defines the type of auction. Always 0.		
al In III ''		0 Any Auction		
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading. O No. Applicable for cash market products only.		
MarketImbalanceIndica tor	N	1 Yes 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. 0 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 – Xeti	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	Ν	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	Maximum 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	Υ	IP Address 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	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	Ν	Current business date, e.g. 20131128.		
NextEffectiveBusiness	Ν	Next business date.		
Date				
MarketSegment	N	Product ISIN, e.g. DE0009653147.		

Product Snapsh	not 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	Υ	Contains the default and maximum duration of negotiation event in seconds.		
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup starts, always empty {}		
<derivativesdescriptor></derivativesdescriptor>		·		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts, always empty {}		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup ends		
<pre><instrumentscopes> (op)</instrumentscopes></pre>	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	ce starts		

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		
			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	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>				
<tickrules> sequence er</tickrules>				
<pricerangerules> (option</pricerangerules>			6 1 1 1 6 77 5 11 10 6	
NoPriceRangeRules	N		of price range tables. See T7 Functional Reference,	
PriceRangeRuleID	N	section Price Range Table Basics. Table identifier.		
PriceRangeProductCo	N	0	Simple Instrument	
mplex			Simple instrument	
StartPriceRange	N	Start of p	rice range (inclusive).	
EndPriceRange	N	End of pr	ice range (non-inclusive).	
PriceRangeValue	Υ	Maximun	n allowable quote spread (absolute value).	
			nally required if PriceRangePercentage is absent.	
PriceRangePercentage	Υ		n allowable quote spread (percentage value).	
		Condition	nally required if PriceRangeValue is absent.	
<pricerangerules> sequ</pricerangerules>		5.0		
QuoteSideIndicator	Y		f one sided quotes are allowed.	
		0	One-sided quote not allowed	
0 (0)		1	One-sided quote allowed	
QuoteSideModelType	Υ		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	
	l	l	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>	ıp ends			
<basetradingrulesderiva< td=""><td>atives> (opti</td><td>onal) group starts, always empty {}</td></basetradingrulesderiva<>	atives> (opti	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 Yes. Applicable for cash market products only.		
<auctiontyperulegrp> s</auctiontyperulegrp>	equence en	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.		
J		0 Price-time		
		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. O Auto Match (for continuous trading) 1 Call Auction (for auction trades)		
<matchpulos> soquense</matchpulos>	ands	1 Call Auction (for auction trades)		
<pre><matchrules> sequence <feeds> sequence starts</feeds></matchrules></pre>	erius			
•	N	Number of foods		
NoMDFeedTypes	IN	Number of feeds.		

Product Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
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.	
	İ	1 Price Depth	
		2 Order Depth	
MarketDepth	Υ	Maximum number of available price levels (order book depth)	
		for the product.	
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>			

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

Product Snapsh	ot 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	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.		
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		

Product Snapsh	ot Message	– Xetra T7	Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)	
Field name	Optional	Description		
	o position	is setup on the current T7 platform for Off-book trading with		
		no intention for on-exchange trading.		
		0 Active		
		2	Published	
PartitionID	N	Partition	of the product.	
NegotiationDuration	Υ	Contains	the default and maximum duration of negotiation	
Ü		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> (op</instrumentscopes>	tional) seque	ence ends		
<relatedmarketsegment< td=""><td>s> (optional)</td><td>sequence</td><td>starts, always empty []</td></relatedmarketsegment<>	s> (optional)	sequence	starts, always empty []	
<relatedmarketsegment< td=""><td>s> sequence</td><td>ends</td><td></td></relatedmarketsegment<>	s> sequence	ends		
<basetrdgrules> group s</basetrdgrules>	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		
			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		
CtartTickDriceDange	N.I.	any Instrument Snapshot message.		
StartTickPriceRange	N N	Starting price range for specified tick increment (inclusive).		
EndTickPriceRange	IN	Ending price range for the specified tick increment (noninclusive).		
TickIncrement	N	,	ment for stated price range. Specifies the valid price	
Hekinerement	14	increments at which quotes or trades for an instrument of the		
		product can be entered.		
<tickrulesscopes> (option</tickrulesscopes>	nal) sequen			
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 s			
		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)	

Product Snapsh	ot Message	– Xetra T7	Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)	
Field name	Optional	Description		
		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>	ence ends			
<tickrules> sequence er</tickrules>	ıds			
<pricerangerules> (option</pricerangerules>	onal) sequen	ice starts		
NoPriceRangeRules	Ν		of price range tables. See T7 Functional Reference,	
			rice Range Table Basics.	
PriceRangeRuleID	N	Table ide		
PriceRangeProductCo mplex	N	0	Simple Instrument	
StartPriceRange	N	Start of price range (inclusive).		
EndPriceRange	N	End of price range (non-inclusive).		
PriceRangeValue	Υ	Maximum allowable quote spread (absolute value).		
			nally required if PriceRangePercentage is absent.	
PriceRangePercentage	Υ		n allowable quote spread (percentage value).	
<price dange="" dules=""> cogu</price>	onco ondo	Condition	nally required if PriceRangeValue is absent.	
<pre><pricerangerules> sequ</pricerangerules></pre>		Defines it	f one sided guetes are allowed	
QuoteSideIndicator	Y		f one sided quotes are allowed.	
		0	One-sided quote not allowed	
Ou ataCidaMadalTura	V	1 Defines it	One-sided quote allowed	
QuoteSideModelType	Y	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	
		J	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		
			ails are available in the T7 Functional Reference.	
<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	

Product Snapsh	ot Message	– Xetra T7	Releases 9.0 - 9.1 (23/11/2020 - 19/11/2021)		
Field name	Optional	Description			
<basetrdgrulescash> (o</basetrdgrulescash>	<u> </u>	,			
AuctionTypeRuleGrp> s		<u> </u>			
NoAuctionTypeRules	N		of rules Always 1		
AuctionType	N	Number of rules. Always 1. Defines the type of auction. Always 0.			
Adedontype	11				
ClosedBookIndicator	N	0 Any Auction Indicates whether the order book is closed during auct			
Closeabookillalcator	IN	trading.	whether the order book is closed during adction		
		0	No. Applicable for cash market products only.		
		1	Yes		
MarketImbalanceIndica	N	Controls	if during auction call/volatility interruption/extended		
tor	11		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		
			nen ClosedBookIndicator = Y.		
		0	No		
		1	Yes. Applicable for cash market products only.		
<auctiontyperulegrp> s</auctiontyperulegrp>	equence end				
<basetrdgrulescash> (o</basetrdgrulescash>	-				
		•	allocation rules for matching		
NoMatchRules	N		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		Type 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</matchrules>	ends				
<feeds> sequence starts</feeds>					
NoMDFeedTypes	N	Number	of feeds.		
MDFeedType	N	Type of feed.			
Werecarype	.,	0	High Incremental (unnetted feed)		
		1	High Snapshot (unnetted feed)		
		2	Low (netted feed)		
MDBookType	N	Type of book data.			
	IV	1	Price Depth		
		2	Order Depth		
MarketDepth	Υ		n number of available price levels (order book depth)		
INIAI KELDEPHII	ı	for the pr			
		I tot tile bi	oude.		

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)				
Field name	Optional	Description		
MarketDepthTimeInter val	Y	Netting interval for low bandwidth feeds (0=no netting).		
MDRecoveryTimeInterv al	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 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 Snapshot Message – 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	N	Current business date, e.g. 20131128.		
NextEffectiveBusiness Date	N	Next business date.		
MarketSegment	Ν	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.		
<derivativesdescriptor></derivativesdescriptor>	<pre><derivativesdescriptor> (optional) group starts, always empty {}</derivativesdescriptor></pre>			
<derivativesdescriptor></derivativesdescriptor>	(optional) gr	oup ends		
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	oup starts, always empty {}		

Product Snapshot Message – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)					
Field name	Optional	Optional Description			
<underlyingdescriptor></underlyingdescriptor>	(optional) gr	optional) group ends			
<instrumentscopes> (op</instrumentscopes>	tional) seque	ence starts	, always empty []		
<instrumentscopes> (op</instrumentscopes>	tional) seque	ence ends			
<relatedmarketsegment< td=""><td>s> (optional</td><td>) sequence</td><td>starts, always empty []</td></relatedmarketsegment<>	s> (optional) sequence	starts, always empty []		
<relatedmarketsegment< td=""><td>s> sequence</td><td>e ends</td><td></td></relatedmarketsegment<>	s> sequence	e ends			
<basetrdgrules> group :</basetrdgrules>	starts				
<tickrules> sequence sta</tickrules>	arts				
NoTickRules	N		of tick rules defining the price step table for the See T7 Functional Reference, section Limit Price.		
TickRuleID	N	Price Step that belo price step same Ticl For cash reference	o Table identifier. This is used to identify all tick rules ng to the same price step table alias tick rule table. A o table may consist of one or more tick rules with the		
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> (option</tickrulesscopes>	nal) sequen	ce starts			
NoTickRuleScopes	N	Each com defines a Please no TickRulel RefTickTa	of tick rule scope definitions. abination of TickRuleProductComplex and TrdType valid scope for which this tick rule is used for. bte, 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	OTC .		
		7	Vola Trade		
		8	EFP-Fin Trade		
		9	EFP-Index Futures Trade		
		10	Block Trade At Market		
		11	Xetra / Eurex Enlight triggered Trade		
		''	Action Laren Emigne diggered fraue		

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	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> sequ</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 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 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 ege 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> s</auctiontyperulegrp>	equence sta	rts		
NoAuctionTypeRules	N	Number of rules. Always 1.		
AuctionType	N	Defines t	he type of auction. Always 0.	

Product Snar	shot Messa	ge – Xetra	T7 Release 10.0 (22/11/2021 – 24/06/2022)	
Field name	Optional	Description		
Trefa flattic	Optional	0	Any Auction	
ClosedBookIndicator	N	_	whether the order book is closed during auction	
		trading.		
		0	No. Applicable for cash market products only.	
		1	Yes	
MarketlmbalanceIndica	Ν	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	
		0	en ClosedBookIndicator = Y. No	
		1	Yes. Applicable for cash market products only.	
<pre></pre>	oguanca an	·	res. Applicable for cash market products only.	
<auctiontyperulegrp> s</auctiontyperulegrp> <basetrdgrulescash> (o</basetrdgrulescash>				
		•	allocation rules for matching	
NoMatchRules	N		of match rules.	
MatchRuleProductCom	N			
plex	IN		the instrument type.	
•	N.I.	0 Defines t	Simple Instrument he order allocation method.	
MatchAlgorithm	N			
		0	Price-time	
		1	Pro-rata	
N4 T		2	Time pro-rata	
MatchType	Υ		ype is not filled the same matching algorithm is used	
		0	nuous trading and auction trades. Auto Match (for continuous trading)	
		1	Call Auction (for auction trades)	
<matchrules> sequence</matchrules>	ands	'	Call Addition (for addition trades)	
<feeds> sequence starts</feeds>				
•	N	Number	of foods	
NoMDFeedTypes MDFeedType	N	Type of fe		
MDreedType	IN		High Incremental (unnetted feed)	
		0	, , , , , , , , , , , , , , , , , , ,	
		1	High Snapshot (unnetted feed)	
MDD LT	N.I.	2	Low (netted feed)	
MDBookType	N		ook data.	
		1	Price Depth	
M. I. (D. (I		2	Order Depth	
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.		
MarketDepthTimeInter val	Υ	Netting interval for low bandwidth feeds (0=no netting).		
MDRecoveryTimeInterv al	Y	Recovery 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	Υ	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	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	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	Υ	Contains the default and maximum duration of negotiation event in seconds.			
•		oup starts, always empty {}			
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	•				
	<pre><underlyingdescriptor> (optional) group starts, always empty {}</underlyingdescriptor></pre>				
<underlyingdescriptor> (</underlyingdescriptor>	optional) gro	oup ends			
<pre><instrumentscopes> (optional) sequence starts, always empty []</instrumentscopes></pre>					
<instrumentscopes> (optional) sequence ends</instrumentscopes>					
<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>					
<relatedmarketsegments> sequence ends</relatedmarketsegments>					
<basetrdgrules> group starts</basetrdgrules>					

Product Snap	shot Messa	ge – Xetra	a T7 Release 10.1 (27/06/2022 – 18/11/2022)
Field name	Optional		Description
<tickrules> sequence sta</tickrules>	irts		
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 p	orice range for the specified tick increment usive).
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> (optional) sequence starts</tickrulesscopes>			
NoTickRuleScopes	N	Each cor defines a Please n TickRule RefTickT	of tick rule scope definitions. The mbination of TickRuleProductComplex and TrdType Tavalid scope for which this tick rule is used for. Tote, that for cash market products a tick rule with a TID may additionally be referenced by the same TableID for on book trading as well (see Instrument of 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	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		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 ider	ntifier.	
PriceRangeProductCom plex	N	0	Simple Instrument	
StartPriceRange	N	Start of pr	rice range (inclusive).	
EndPriceRange	N		ce range (non-inclusive).	
PriceRangeValue	Υ	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.		
PriceRangePercentage	Υ		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		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 empty.		
<basetrdgrules> group e</basetrdgrules>	nds	-		
<basetrdgrulesderivative< td=""><td></td><td>l) group sta</td><td>arts, always empty {}</td></basetrdgrulesderivative<>		l) group sta	arts, always empty {}	
<basetrdgrulesderivative< td=""><td>-</td><td></td><td></td></basetrdgrulesderivative<>	-			
<basetrdgrulescash> (or</basetrdgrulescash>	•	· · · ·		
<auctiontyperulegrp> se</auctiontyperulegrp>		<u> </u>		
NoAuctionTypeRules	N	Number of rules. Always 1.		
AuctionType	N		ne type of auction. Always 0.	
		0	Any Auction	
ClosedBookIndicator	N	Indicates trading.	whether the order book is closed during auction	
		0	No. Applicable for cash market products only.	
		1	Yes	
MarketImbalanceIndicat or	N		f during auction call/volatility interruption/extended nterruption/market order interruption phase a	

Product Snan	shot Messa	ge – Xetra	T7 Release 10.1 (27/06/2022 – 18/11/2022)	
Field name	Optional		Description	
110.0 10.11	ореготи.	•	ide and volume) at the indicative price (if crossed ok) or the best bid/best ask limit and quantity (if	
		uncrossed	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> se</auctiontyperulegrp>	•	1		
DisableOnBookTrading	Υ	Defines if	On Book trading is disabled.	
		0	No	
		1	Yes	
<basetrdgrulescash> (or</basetrdgrulescash>		•		
•	starts, used		allocation rules for matching	
NoMatchRules	N	Number o	of match rules.	
MatchRuleProductCom	Ν	Indicates	the instrument type.	
plex		0	Simple Instrument	
MatchAlgorithm	Ν	Defines th	ne 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		
			uous trading and auction trades.	
		0	Auto Match (for continuous trading)	
		1	Call Auction (for auction trades)	
<matchrules> sequence 6</matchrules>	ends			
<feeds> sequence starts</feeds>				
NoMDFeedTypes	N	Number o		
MDFeedType	N	Type of fe		
		0	High Incremental (unnetted feed)	
		1	High Snapshot (unnetted feed)	
		2	Low (netted feed)	
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	terval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterv al	Υ	Recovery	interval (duration of one cycle).	
PrimaryServiceLocationI D	N	IP Addres	s for Service A.	
PrimaryServiceLocation SubID	N	Port number for IP address Service A.		
SecondaryServiceLocati onID	Υ	IP Addres	s Service B.	

Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)				
Field name	Optional	Description		
SecondaryServiceLocati onSubID	Y	Port number for IP address Service B.		
<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	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	Ν	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	Z	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) gro	oup starts, always empty {}		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup ends		
<underlyingdescriptor> (</underlyingdescriptor>	optional) gro	oup starts, always empty {}		
<underlyingdescriptor> (</underlyingdescriptor>	optional) gro	oup ends		
<pre><instrumentscopes> (opt</instrumentscopes></pre>	ional) seque	ence starts, always empty []		
<pre><instrumentscopes> (opt</instrumentscopes></pre>				
<relatedmarketsegments< td=""><td colspan="4"><relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments></td></relatedmarketsegments<>	<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>			
<relatedmarketsegments< td=""><td>s> sequence</td><td>ends</td></relatedmarketsegments<>	s> sequence	ends		
<basetrdgrules> group s</basetrdgrules>	tarts			
<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 R	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	rice range for specified tick increment (inclusive).
EndTickPriceRange	N	Ending pr (noninclu	ice range for the specified tick increment sive).
TickIncrement	N	incremen	ment for stated price range. Specifies the valid price ts at which quotes or trades for an instrument of the an 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 th	ne 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>	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 ide	
PriceRangeProductCom plex	N	0 Simple Instrument	

Product Snapsho	t Message –	Xetra T7 R	teleases 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	Maximum allowable quote spread (absolute value).		
Tricendinge value		Conditionally 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	V	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:	
			ange to normal range, e.g. 80->80	
			ease by half, e.g. 80->120	
		100 = range 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>	sequence st			
NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.		
HHIIndicator	N	The HHIIn	nterval value.	
HHIIntervalEnd	N		nterval upper boundary (incl.), e.g. HHIIndicator = 1 for	
		_	ervalEnd ₁], HHIIndicator = n for (HHIIntervalEnd _(n-1) ;	
			alEnd _n], for n > 1.	
<hhiintervals> (optional)</hhiintervals>	•	nds		
<basetrdgrules> group 6</basetrdgrules>		l)		
<basetrdgrulesderivativ< td=""><td>•</td><td>· · ·</td><td></td></basetrdgrulesderivativ<>	•	· · ·		
<basetrdgrulesderivativ< td=""><td></td><td><u> </u></td><td>nds</td></basetrdgrulesderivativ<>		<u> </u>	nds	
<basetrdgrulescash> (o)</basetrdgrulescash>		<u> </u>		
<auctiontyperulegrp> se</auctiontyperulegrp>	•			
NoAuctionTypeRules	N	Number of rules. Always 1.		
AuctionType	N	Defines the type of auction. Always 0.		
		0	Any Auction	
ClosedBookIndicator	N	S S		
		trading.	No Applicable for a silver white and the	
		0	No. Applicable for cash market products only.	
		1	Yes	

Product Snapsho	t Message –	Xetra T7 R	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)
Field name	Optional	Description	
MarketImbalanceIndicat or	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	
		uncrosse	ok) or the best bid/best ask limit and quantity (if d order book) is displayed to the market. Only makes
			en ClosedBookIndicator = Y.
		0	No
.A T. D.I.C.		1	Yes. Applicable for cash market products only.
<pre><auctiontyperulegrp> se DisableOnDeakTrading</auctiontyperulegrp></pre>		1	On Dook trading is disabled
DisableOnBookTrading	Υ		On Book trading is disabled.
		0	No Voc
<pre></pre>	otional) area	1	Yes
<basetrdgrulescash> (op</basetrdgrulescash>		·	
,		-	allocation rules for matching
NoMatchRules	N		of match rules.
MatchRuleProductCom plex	N		the instrument type.
•	N.I.	0	Simple Instrument
MatchAlgorithm	N		ne order allocation method.
		0	Price-time
		1	Pro-rata
N4 . 1 T		2	Time pro-rata
MatchType	Υ	If MatchType is not filled the same matching algorithm is us	
		or contin	uous trading and auction trades. Auto Match (for continuous trading)
		1	Call Auction (for auction trades)
<matchrules> sequence 6</matchrules>	ands	. Can reaction (for duction added)	
<feeds> sequence starts</feeds>	51103		
NoMDFeedTypes	N	Number o	of feeds
MDFeedType	N	Type of fe	
Moreedrype	IN	0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of b	
MDBookType	IN	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Price Depth
		2	Order Depth
MarketDepth	Υ		n number of available price levels (order book depth)
MarketDepth	ı	for the pr	·
MarketDepthTimeInterv al	Υ	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterv al	Υ	Recovery interval (duration of one cycle).	
PrimaryServiceLocationl D	N	IP Address for Service A.	
PrimaryServiceLocation SubID	N	Port number 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	Y	IP Address Service B.		
SecondaryServiceLocati onSubID	Y	Port number for IP address Service B.		
<feeds> sequence ends</feeds>				

3.1.1.9. Product snapshot, T7 Release 12.0 (from 20/11/2023)

Product Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)				
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) gr	oup starts, always empty {}		
<pre><derivativesdescriptor> (</derivativesdescriptor></pre>	optional) gr	oup ends		
<u> </u>	•	oup starts, always empty {}		
<underlyingdescriptor> (</underlyingdescriptor>		·		
<instrumentscopes> (opt</instrumentscopes>	ional) seque	ence starts, always empty []		
<instrumentscopes> (opt</instrumentscopes>				
	<relatedmarketsegments> (optional) sequence starts, always empty []</relatedmarketsegments>			
<relatedmarketsegments> sequence ends</relatedmarketsegments>				
<basetrdgrules> group s</basetrdgrules>				
<tickrules> sequence sta</tickrules>	irts			

Product 9	Snapshot Me	essage – X	etra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional	Description		
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 p	price range for specified tick increment (inclusive).	
EndTickPriceRange	N	Ending p	rice range for the specified tick increment isive).	
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	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	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>	nce ends			
<tickrules> sequence en</tickrules>				
<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.		

Product :	Snapshot Me	essage – Xetra T7 Release 12.0 (from 20/11/2023)		
Field name	Optional	Description		
PriceRangeProductCom	N	0 Simple Instrument		
plex				
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).		
		Conditionally 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		
		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 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		
Tustiviariteti ereentage		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 empty.		
<hhiintervals> (optional)</hhiintervals>				
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)</hhiintervals>	sequence e			
<basetrdgrules> group 6</basetrdgrules>	ends			
<basetrdgrulesderivativ< td=""><td>es> (optiona</td><td>l) group starts, always empty {}</td></basetrdgrulesderivativ<>	es> (optiona	l) group starts, always empty {}		
<basetrdgrulesderivativ< td=""><td></td><td></td></basetrdgrulesderivativ<>				
<basetrdgrulescash> (optional) group begins</basetrdgrulescash>				
<auctiontyperulegrp> se</auctiontyperulegrp>				
NoAuctionTypeRules	N	Number of rules. Always 1.		
AuctionType	N Defines the type of auction. Always 0. 0 Any Auction	-		
) I' -		0 Any Auction		
		<u> </u>		

Product S	Snapshot Me	essage – Xetra T7 Release 12.0 (from 20/11/2023)		
Field name	Optional	Description		
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.		
		0 No. Applicable for cash market products only.		
		1 Yes		
MarketImbalanceIndicat	N	Controls if during auction call/volatility interruption/extended		
or		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.		
		0 No		
		1 Yes. Applicable for cash market products only.		
<auctiontyperulegrp> se</auctiontyperulegrp>	equence end	ds		
DisableOnBookTrading	Υ	Defines if On Book trading is disabled.		
		0 No		
		1 Yes		
<basetrdgrulescash> (or</basetrdgrulescash>	otional) grou	up ends		
<matchrules> sequence s</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.		
		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 book data.		
		1 Price Depth		
		2 Order Depth		
MarketDepth	Υ	Maximum 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 (from 20/11/2023)					
Field name	Optional	Description			
MDRecoveryTimeInterv	Υ	Recovery interval (duration of one cycle).			
al					
PrimaryServiceLocationI	Ν	IP Address for Service A.			
D					
PrimaryServiceLocation	N	Port number for IP address Service A.			
SubID					
SecondaryServiceLocati	Υ	IP Address Service B.			
onID					
SecondaryServiceLocati	Υ	Port number for IP address Service B.			
onSubID					
<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	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General		
			re of the snapshot cycle.	
SecurityID	N		trument identifier uniquely identifies an instrument, 157800196358145.	
SecurityIDSource	N	Always	M = Marketplace-assigned identifier.	
<securityalt> (optional) sequence starts</securityalt>				
NoSecurityAltID	N	Numbe	Number of alternate identifiers.	
SecurityAltID	N	Alternat	te instrument identifier.	
SecurityAltIDSource	N	4 ISIN		
		8	Exchange symbol	
		В	Wertpapier	
<securityalt> (optional) se</securityalt>	quence ends	5		
SecurityType	N	Type of	security.	
		5	Common stock	
		8	Exchange traded fund	
		9	Exchange traded commodity	
		10 Exchange traded note11 Other		
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all		

Instrument Sna	pshot Messa	age – Xetr	ra T7 Release 5.0 (03/07/2017 – 01/12/2017)	
Field name	Optional	Description		
		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		
			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	Υ		Identifier Code (ISO 10383). For cash this is the	
DradustCampley	N		ge where the IPO took place.	
ProductComplex	IN		instrument.	
«Danisationa Danavinta » (a		0	Simple Instrument	
<pre><derivativesdescriptor> (c)</derivativesdescriptor></pre>	•		always empty {}	
<pre><derivativesdescriptor> (c)</derivativesdescriptor></pre>		•		
<cashdescriptor> (optional</cashdescriptor>	•		so to tick size table identifier from maduat level	
RefTickTableID	N	Reference to tick size table identifier from product level message.		
Currency	N	Currency as published in ISO 4217		
SettlCurrency	N	Settlement currency.		
<pre><instrumentparties> (option)</instrumentparties></pre>	onal) sequen			
NoInstrumentParties	N	Number of parties.		
InstrumentPartyID	N	Identifie	es a party associated with an instrument.	
InstrumentPartylDSourc e	N	0	Proprietary	
InstrumentPartyRole	N	0	Clearing Organization	
		1	Market Maker	
InstrumentPartyRoleQua lifier	Υ	0	Designated Sponsor	
<pre><instrumentparties> (option)</instrumentparties></pre>	onal) sequen	ice ends		
<instrumentattributes> (o</instrumentattributes>			rts	
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	
		7	Cum-Ex Indicator	
		8	Product Assignment Group	
		9	Product Assignment Group Description	

Instrument Sna	pshot Messa	age – Xetr	ra T7 Release 5.0 (03/07/2017 – 01/12/2017)	
Field name	Optional	Description		
		10	Domestic Indicator	
InstrAttribValue	N	Value of instrument attribute.		
<instrumentattributes> (optional) sequence ends</instrumentattributes>				
<cashdescriptor> (optional</cashdescriptor>	•			
<events> (optional) seque</events>	nce starts			
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) seque</events>	nce ends			
InstrumentPricePrecisio	Y	Display	decimals.	
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.		
MinPriceIncrementCleari ng	Y	Defines the minimum increment for trade prices in clearing notation (clearing tick size). Used for products to distinguish between tick sizes for trading and clearing notation, e.g. Total Return Futures.		
MinPriceIncrementAmou nt	Y	Defines the minimum price movement in the respective 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 MinPriceIncrementClearing is present.		
<marketsegmentgrp> seq</marketsegmentgrp>	uence starts		<u> </u>	
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product	identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Υ	Always	empty.	
MultilegModel	Υ	Always	empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling. Only for cash. O Percent 1 Shares		
DootTroda Araara 14	V	2	Points	
PostTradeAnonymity	Υ	0	Disabled	
		1	Enabled	
CattlDusingsaDays	V	2	Central counterparty	
SettlBusinessDays	Υ	Indicates the number of business days from trade execution after which settlement is to be effected.		
<quotesizerules> (optional</quotesizerules>				
NoQuoteSizeRules	N	Always 1.		
MinBidSize	N	Bid side minimum quote quantity.		

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional		Description		
MinOfferSize	N	Offer si	de minimum quote quantity.		
<quotesizerules> (optional</quotesizerules>	al) sequence	ends			
<pricerangerules> (option</pricerangerules>	nal) sequenc	e starts			
NoPriceRangeRules	N	Always	1.		
PriceRangeRuleID	N	Referen	Reference to table identifier from product level messages.		
<pricerangerules> (option</pricerangerules>	nal) sequenc	e ends			
<tradingsessionrules> (or</tradingsessionrules>	otional) sequ	ence sta	rts		
NoTradingSessionRules	N	Always 1.			
TradingSessionID	Ν	Always	0 = 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	N	_	us across all messages on the reference data snapshot feed			
		_	ss 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		l = Marketplace-assigned identifier.			
<securityalt> (option</securityalt>	onal) sequer	nce starts				
NoSecurityAltID	N	Number	of alternate identifiers.			
SecurityAltID	N	Alternate	instrument identifier.			
SecurityAltIDSou	N	4	ISIN			
rce		8	Exchange symbol			
		В	Wertpapier			
<securityalt> (option</securityalt>	onal) sequer	nce ends				
SecurityType	N	Type of s	ecurity.			
		5	Common stock			
		8	Exchange traded fund			
		9	Exchange traded commodity			
		10	Exchange traded note			
		11	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.				

Field name	Instrument	Snapshot M	1essage – X	Cetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)		
is conveyed with the same field but only within intraday state change messages. O Active				-		
O 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. SecurityExchang		•	is conveyed with the same field but only within intraday state chang			
4 Published Fending 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						
SecurityDesc Y Description of security.			1	Inactive		
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 e where the IPO took place. ProductComplex Type of instrument. O Simple Instrument O Simple			4	Published		
SecurityExchang e			5	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		
e where the IPO took place. ProductComplex N Type of instrument. O Simple Instrument Simple Instrument) O Simple Instrument (Simple Instrument) O Simple Instrument (Simple Instrument) O O Auslands (Saseneverin) O O Auslands (Saseneverin) O O Streifbandverwahrung O Streifbandverwahrung O Streifbandverwahrung O Streifbandverwahrung O InstrumentParties> (optional) sequence starts NoInstrumentParty! N Identifies a party associated with an instrument. D InstrumentParty! N O Proprietary Source InstrumentParty! N O Clearing Organization Role InstrumentParty N O Designated Sponsor InstrumentParties> (optional) sequence ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Display Volume 1 Minimum Display Volume 1 Minimum Display Volume	SecurityDesc	Υ	Description	on of security.		
ProductComplex	SecurityExchang	Υ				
O Simple Instrument						
SerivativesDescriptor> (optional) group starts, always empty {} SerivativesDescriptor> (optional) group ends CashDescriptor> (optional) group starts RefTickTableID	ProductComplex	N	Type of ir			
<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 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts Number of parties. NoInstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl N Proprietary DSource Proprietary Proprietary InstrumentPartyl N O Clearing Organization Role 1 Market Maker InstrumentPartyler Y O Designated Sponsor RoleQualifier InstrumentParties> (optional) sequence ends <cashdescriptor> (optional) sequence starts Nonstrattrib N Number of instrument attributes. NolnstrAttrib N Number of instrument attri</cashdescriptor></instrumentparties></cashdescriptor></derivativesdescriptor>			-	,		
<cashdescriptor> (optional) 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 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl N 0 Proprietary DSource InstrumentPartyl N 0 Clearing Organization Role 1 Market Maker InstrumentPartyl Y 0 Designated Sponsor RoleQualifier Optional) sequence ends <cashdescriptor> (optional) sequence ends <cashdescriptor> (optional) sequence ends N Number of instrument attributes. N Minimum Display Volume</cashdescriptor></cashdescriptor></instrumentparties></cashdescriptor>		•				
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 N 0 Proprietary DSource InstrumentPartyl N 0 Clearing Organization Role InstrumentPartyl N 0 Designated Sponsor InstrumentPartyl N 0 Designated Sponsor InstrumentPartyl N 0 Designated Sponsor InstrumentPartyl N 0 Market Maker InstrumentPartyl N 0 Designated Sponsor InstrumentPartyl N 0 Designated Sponsor InstrumentPartyl N 0 Designated Sponsor InstrumentParties> (optional) sequence ends <cashdescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</cashdescriptor></instrumentparties>	<derivativesdescri< p=""></derivativesdescri<>	ptor> (optio	nal) group	ends		
Currency N Currency s published in ISO 4217. SettlCurrency N Settlement currency. DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung InstrumentParties> (optional) sequence starts NolnstrumentPartyl N Identifies a party associated with an instrument. InstrumentPartyl N 0 Proprietary DSource InstrumentPartyl N 0 Clearing Organization Role 1 Market Maker InstrumentPartyl Y 0 Designated Sponsor InstrumentPartyl Y 0 Designated Sponsor InstrumentPartyl SoleQualifier InstrumentParties> (optional) sequence ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence estarts NolnstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name	•	(optional) gr	•			
SettlCurrency N Settlement currency.		N		, , ,		
DepositType Y 0 Auslandskassenverein 1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung <instrumentparties> (optional) sequence starts NoInstrumentPartyl N Identifies a party associated with an instrument. InstrumentPartyl DSource InstrumentPartyl N O Proprietary DSource InstrumentPartyl N O Clearing Organization Role InstrumentPartyl RoleQualifier InstrumentParties> (optional) sequence ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</instrumentparties>	Currency	N	Currency	as published in ISO 4217.		
1 Girosammelverwahrung 2 Streifbandverwahrung 3 Wertpapierrechnung 3 Wertpapierrechnung Streifbandverwahrung 3 Wertpapierrechnung Mertpapierrechnung Me	SettlCurrency	N	Settlemer	Settlement currency.		
2 Streifbandverwahrung 3 Wertpapierrechnung Streifbandverwahrung 3 Wertpapierrechnung Streifbandverwahrung Streifbandve	DepositType	Υ	0	Auslandskassenverein		
<pre></pre>				-		
<instrumentparties> (optional) sequence starts NoInstrumentPartyI N Identifies a party associated with an instrument. D InstrumentPartyI N O Proprietary DSource InstrumentParty N O Clearing Organization Role 1 Market Maker InstrumentParty Y O Designated Sponsor RoleQualifier InstrumentParties> (optional) sequence ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</instrumentattributes></cashdescriptor></instrumentparties>				<u> </u>		
NoInstrumentPartyl N Identifies a party associated with an instrument. D InstrumentPartyl N O Proprietary DSource InstrumentParty N O Clearing Organization Role 1 Market Maker InstrumentParty Y O Designated Sponsor RoleQualifier <instrumentparties> (optional) sequence ends <cashdescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</cashdescriptor></instrumentparties>			3	Wertpapierrechnung		
rties InstrumentPartyI D InstrumentPartyI D InstrumentPartyI D InstrumentPartyI D InstrumentParty D InstrumentParty Role InstrumentParty Y InstrumentParty RoleQualifier InstrumentParties> (optional) sequence ends InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentPartieb InstrumentAttributes> (optional) sequence ends InstrumentAttributes> (optional) sequence estarts InstrumentAttrib InstrAttrib InstrAt		s> (optional)	sequence	starts		
D D D D D D D D D D		N	Number	of parties.		
DSource InstrumentParty Role InstrumentParty Y O Designated Sponsor InstrumentParties> (optional) sequence ends CashDescriptor> (optional) group ends InstrumentAttributes> (optional) sequence starts NoInstrAttrib N N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name		N	Identifies	a party associated with an instrument.		
Role InstrumentParty Y 0 Designated Sponsor RoleQualifier <instrumentparties> (optional) sequence 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</instrumentattributes></cashdescriptor></instrumentparties>		N	0	Proprietary		
InstrumentParty RoleQualifier <instrumentparties> (optional) sequence 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</instrumentattributes></cashdescriptor></instrumentparties>		N	0	Clearing Organization		
RoleQualifier <instrumentparties> (optional) sequence ends <cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</instrumentattributes></cashdescriptor></instrumentparties>	Role		1			
<cashdescriptor> (optional) group ends <instrumentattributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N O Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name</instrumentattributes></cashdescriptor>	_	Y	0	Designated Sponsor		
InstrumentAttributes> (optional) sequence starts NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name	<pre><instrumentpartie< pre=""></instrumentpartie<></pre>	s> (optional)	sequence	ends		
NoInstrAttrib N Number of instrument attributes. InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name	<cashdescriptor> (optional) group ends</cashdescriptor>					
InstrAttribType N 0 Minimum Reserve Order Volume 1 Minimum Display Volume 2 Issuer Name	<instrumentattribu< td=""><td>utes> (option</td><td colspan="3">onal) sequence starts</td></instrumentattribu<>	utes> (option	onal) sequence starts			
1 Minimum Display Volume 2 Issuer Name	NoInstrAttrib	N	Number	of instrument attributes.		
2 Issuer Name	InstrAttribType	N	0	Minimum Reserve Order Volume		
			1	Minimum Display Volume		
3 Issuer Number			2	Issuer Name		
			3	Issuer Number		

Instrument	t Snapshot M	1essage – >	Ketra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)	
Field name	Optional		Description	
		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 i	nstrument attribute.	
<instrumentattribu< td=""><td>utes> (optior</td><td>nal) sequer</td><td>nce ends</td></instrumentattribu<>	utes> (optior	nal) sequer	nce ends	
<events> (optional</events>) sequence s	starts		
NoEvents	N	Number	of events.	
EventType	N	1	First Eligible Trade Date	
		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	Date of e	vent YYYYMMDD.	
<events> (optional</events>) sequence e	ends		
InstrumentPriceP recision	Y	Display decimals.		
MinPriceIncreme	Υ	Defines t	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	
MinPriceIncreme	Υ		IncrementClearing is present. he minimum increment for trade prices in clearing notation	
ntClearing	ı		tick size). Used for products to distinguish between tick	
The course		_	trading and clearing notation, e.g. Total Return Futures.	
MinPriceIncreme	Υ		he minimum price movement in the respective currency	
ntAmount		(tick valu	e). This value is identical for all instruments of a product.	
			are only relevant for clearing tick sizes, i.e. to be multiplied	
		with MinPriceIncrement unless MinPriceIncrementClearing is		
10.4		present.		
<pre><marketsegmentg< pre=""></marketsegmentg<></pre>	1			
NoMarketSegme nts	N	Always 1.		
1165		Product identifier or product pool identifier a c. 20		
MarketSegmentI	l N	Product identifier or product pool identifier, e.g. 89.		
MarketSegmentl D	N	Producti	defitifier of product poor identifier, e.g. 89.	
l _	N Y	Always e		

Instrument	: Snapshot N	1essage – >	Ketra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)		
Field name	Optional	Description			
MultilegModel	Υ	Always e	Always empty.		
PriceType	Υ	The unit	in which an instrument is quoted/stated when buying or		
		selling.	selling.		
		0	Percent		
		1	Shares		
		2	Points		
PostTradeAnony	Υ	0	Disabled (no)		
mity		1	Enabled (yes)		
		2	Central counterparty		
SettlBusinessDay	Υ	Indicates	the number of business days from trade execution after		
S			ttlement is to be effected.		
<quotesizerules></quotesizerules>	(optional) se				
NoQuoteSizeRul	N	Always 1	•		
es MinBidSize	N	Pid sido i	Did side minimum quete questitu		
MinOfferSize	N	Bid side minimum quote quantity. Offer side minimum quote quantity.			
<quotesizerules></quotesizerules>					
<pre><pricerangerules></pricerangerules></pre>	· •				
	N (Optional) S	•			
NoPriceRangeRul es	IN	Always I.	Always 1.		
PriceRangeRulel D	N	Reference to table identifier from product level messages.			
<pricerangerules></pricerangerules>	optional) s	equence e	ends		
<tradingsessionru< td=""><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td></tradingsessionru<>	· · · · · · · · · · · · · · · · · · ·				
NoTradingSessio nRules	N	Always 1			
TradingSessionID	N	Always 0	= Day.		
TradingSessionS	N	1	Continuous		
ubID		4	Scheduled Intraday Auction		
		6	Any Auction		
<pre><tradingsessionrules> (optional) sequence ends</tradingsessionrules></pre>					
<marketsegmentg< td=""><td>rp> sequen</td><td>ce ends</td><td></td></marketsegmentg<>	rp> sequen	ce ends			

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.		
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.		

Instrument S	Snapshot Me	essage – X	etra T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional		Description	
SecurityIDSource	N	Always N	M = Marketplace-assigned identifier.	
<securityalt> (optional)</securityalt>	sequence s	tarts	<u> </u>	
NoSecurityAltID	N	Number	of alternate identifiers.	
SecurityAltID	N	Alternat	e instrument identifier.	
SecurityAltIDSource	N	4	ISIN	
-		8	Exchange symbol	
		В	Wertpapier	
<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	
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		
Conveit Door	V	la sturra	messages.	
SecurityDesc	Y		ent's long name.	
SecurityExchange	Y		dentifier Code (ISO 10383). For cash this is the exchange ne IPO took place.	
ProductComplex	N		instrument.	
		0	Simple Instrument	
<derivativesdescriptor< td=""><td>> (optional) §</td><td>group stai</td><td>rts, always empty {}</td></derivativesdescriptor<>	> (optional) §	group stai	rts, always empty {}	
<derivativesdescriptor< td=""><td>> (optional) {</td><td>group end</td><td>ls</td></derivativesdescriptor<>	> (optional) {	group end	ls	
<cashdescriptor> (opti</cashdescriptor>	onal) group	starts		
RefTickTableID	N	Reference to tick size table identifier from product level		
Currency	N	message. Currency as published in ISO 4217.		
SettlCurrency	N		ent currency.	
· · · · · · · · · · · · · · · · · · ·	L	semement currency.		

Instrument S	Snapshot Me	essage – >	Ketra T7 Release 7.0 (03/12/2018 – 24/05/2019)
Field name	Optional		Description
DepositType	Υ	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
Issuer	Υ	Issuer c	of instrument. Always empty.
IssueDate	Υ	Issue da	ate of instrument. Always empty.
<instrumentparties> (o</instrumentparties>	ptional) sequ	uence sta	arts
NoInstrumentParties	N	Numbe	r of parties.
InstrumentPartyID	N	Identifie	es a party associated with an instrument.
InstrumentPartyIDSo	N	0	Proprietary
urce			
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRole Qualifier	Y	0	Designated Sponsor
<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	uence en	ds
<bonddescriptor> (opt</bonddescriptor>	ional) group	starts, al	ways empty {}
<bonddescriptor> (opt</bonddescriptor>	ional) group	ends	
<cashdescriptor> (opti</cashdescriptor>	onal) group	ends	
<pre><instrumentattributes></instrumentattributes></pre>	optional) s	equence	starts
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
		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 Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description		
		22 Allow Knock Out		
		23 Has PLP		
		24 PLP Deferral Time		
		25 Warrant Strike		
InstrAttribValue	N	Value of instrument attribute.		
<instrumentattributes></instrumentattributes>	· (optional) s	equence ends		
<events> (optional) seq</events>		·		
NoEvents	N	Number 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>				
InstrumentPricePreci	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. Trading and clearing tick sizes, i.e. increments for trade prices in trading and clearing notation are the same unless		
MinPriceIncrementCl	Υ	MinPriceIncrementClearing is present. 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 mount	Y	Defines the minimum price movement in the respective 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 MinPriceIncrementClearing is present.		
MaturityDate	Υ	Always empty.		
MaturityMonthYear	Υ	Always empty.		
SecuritySubType	Υ	Always empty.		
<marketsegmentgrp> s</marketsegmentgrp>	sequence sta	arts		
NoMarketSegments	Ν	Always 1.		
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicat or	Y	Always empty.		
MultilegModel	Υ	Always empty.		
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling. O Percent		
		1 Shares		
		2 Points		
PostTradeAnonymity	Y	0 Disabled (no)		
		1 Enabled (yes)		

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)					
Field name	Optional	Description			
		2	Central counterparty		
SettlBusinessDays	Y		es the number of business days from trade execution		
		after wl	hich settlement is to be effected.		
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce starts	5		
NoQuoteSizeRules	Ν	Always	1.		
MinBidSize	N	Bid side	e minimum quote quantity.		
MinOfferSize	N	Offer si	de minimum quote quantity.		
<quotesizerules> (opti</quotesizerules>	<quotesizerules> (optional) sequence ends</quotesizerules>				
<pricerangerules> (opt</pricerangerules>	<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 end	s		
<tradingsessionrules></tradingsessionrules>	<tradingsessionrules> (optional) sequence starts</tradingsessionrules>				
NoTradingSessionRul	N	Always	1.		
es					
TradingSessionID	Ν	Always	0 = Day.		
TradingSessionSubID	N	1	Continuous		
		4 Scheduled Intraday Auction 6 Any Auction			
		7 Continuous Auction Issuer			
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>					
<marketsegmentgrp> sequence ends</marketsegmentgrp>					

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 = 9	Security Definition.		
MsgSeqNum	N	•	across all messages on the reference data snapshot		
		_	less of message type. See T7 Market and Reference		
		Data Interfa	ices – Manual, section General structure of the		
		snapshot cy	rcle.		
SecurityID	Ν	The instrum	nent identifier uniquely identifies an instrument, e.g.		
		7205780019	72057800196358145.		
SecurityIDSource	N	Always M =	Always M = Marketplace-assigned identifier.		
<securityalt> (optional)</securityalt>	sequence s	tarts			
NoSecurityAltID	N	Number of alternate identifiers.			
SecurityAltID	N	Alternate in	strument identifier.		
SecurityAltIDSource	N	4	ISIN		
		8	Exchange symbol		
		В	Wertpapier		
<securityalt> (optional) sequence ends</securityalt>					
SecurityType	N	Type of security.			
		5	Common stock		

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional		Description
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
SecurityStatus	N		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 ading. These will still be distributed until they expire
		but as inactiv	-
			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 long name.	
SecurityExchange	Υ		tifier Code (ISO 10383). For cash this is the exchange
Due de et Cerendes	N.I.	where the IPO took place.	
ProductComplex	N	Type of instr	
.D : :: D :::		0	Simple Instrument
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	•	•	llways empty {}
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>		·	
<cashdescriptor> (opti</cashdescriptor>		1	
RefTickTableID	N		price step table alias tick rule table identifier
			from product snapshot message. d as the reference to the default tick rule table for
		TES.	d as the reference to the default lick rule table for
Currency	N		published in ISO 4217.
SettlCurrency	N	Settlement c	urrency.
DepositType	Υ	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
Issuer	Υ	Issuer of ins	trument. Always empty.
IssueDate	Υ	Issue date of instrument. Always empty.	
RoundLot	Υ	Minimum Tr	adable Unit.

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)						
Field name	Optional	Description				
MinTradeVol	Y	Minimum Order Quantity.				
<instrumentparties> (o</instrumentparties>	ptional) sequ	equence starts				
NoInstrumentParties	N	Number of parties.				
InstrumentPartyID	N	Identifies a p	party associated with an instrument.			
InstrumentPartyIDSo	N	0	Proprietary			
urce						
InstrumentPartyRole	Ν	0	Clearing Organization			
		1	Market Maker			
InstrumentPartyRole Qualifier	Υ	0	Designated Sponsor			
<pre><instrumentparties> (o</instrumentparties></pre>	ntional) soci	lence ands				
<bonddescriptor> (opti</bonddescriptor>			empty A			
<bonddescriptor> (opti</bonddescriptor>			empty {}			
<cashdescriptor> (opti</cashdescriptor>						
<pre>cashbescriptor (option) </pre>						
NoInstrAttrib	N		nstrument attributes.			
InstrAttribType	N	0	Minimum Reserve Order Volume			
ilisti Atti ib i ype	IN	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			
		22	Allow Knock Out			
		23	Has PLP			
		24	PLP Deferral Time			
		25	Warrant Strike			
		26	Reporting Market TES			

Instrument S	Snapshot Me	essage – Xetra	T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional		Description			
InstrAttribValue	N	Value of instrument attribute.				
<instrumentattributes> (optional) sequence ends</instrumentattributes>						
<events> (optional) seq</events>	<events> (optional) sequence starts</events>					
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	it YYYYMMDD.			
<events> (optional) seq</events>	uence ends	<u> </u>				
InstrumentPricePreci	Υ	Display deci	mals.			
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.				
MinPriceIncrementCl earing	Y	Defines the minimum increment for trade prices in clearing notation (clearing tick size). Used for products to distinguish between tick sizes for trading and clearing notation, e.g. Total Return Futures.				
MinPriceIncrementA mount	Υ	Defines the minimum price movement in the respective 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 MinPriceIncrementClearing is present.				
MaturityDate	Υ	Always empty.				
MaturityMonthYear	Υ	Always empty.				
SecuritySubType	Υ	Always empty.				
<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 empty.				
MultilegModel	Υ	Always empty.				
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	Y	Indicates the number of business days from trade execution after which settlement is to be effected.				
<quotesizerules> (opti</quotesizerules>	onal) seguei					

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)					
Field name	Optional	Description			
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> (opt</pricerangerules>	<pricerangerules> (optional) sequence starts</pricerangerules>				
NoPriceRangeRules	N	Always 1.			
PriceRangeRuleID	N	Reference to	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	<pricerangerules> (optional) sequence ends</pricerangerules>				
<tradingsessionrules></tradingsessionrules>	<tradingsessionrules> (optional) sequence starts</tradingsessionrules>				
NoTradingSessionRul	Ν	Always 1.			
es					
TradingSessionID	N	Always 0 = D	ay.		
TradingSessionSubID	Ν	1	Continuous		
		4	Scheduled Intraday Auction		
		6	Any Auction		
		7	Continuous Auction Issuer		
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>					
<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	Ν	Always M = I	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 (mnemonic)			
		В	Wertpapier		
<securityalt> (optional)</securityalt>	<securityalt> (optional) sequence ends</securityalt>				
SecurityType	Ν	Type of security.			
		5	Common stock		
		8	Exchange traded fund		
		9	Exchange traded commodity		
		10	Exchange traded note		

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)				
Field name	Optional		Description	
		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 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 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></derivativesdescriptor></pre>	> (optional) g	group starts, always empty {}		
<pre><derivativesdescriptor3< pre=""></derivativesdescriptor3<></pre>		-		
<cashdescriptor> (opti</cashdescriptor>		·		
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	· · · · · · · · · · · · · · · · · · ·	
DepositType	Y	0	Auslandskassenverein	
		1	Girosammelverwahrung	
		2	Streifbandverwahrung	
		3	Wertpapierrechnung	
		4	NCSC via T2S	
Issuer	Υ	Issuer of ins	trument. Always empty.	
IssueDate	Υ	Issue date of instrument. Always empty.		
RoundLot	Y	Minimum Tr	adable Unit.	

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
MinTradeVol	Υ	Minimum Order Quantity.	
QuotingStartTime	Υ	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Υ	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionTy	Υ	0 Default	
pe		1	Single Auction
		2	Special Auction
<instrumentparties> (o</instrumentparties>	otional) sequ	uence starts	
NoInstrumentParties	N	Number of p	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	Υ	0	Designated Sponsor
Qualifier		1	Specialist
<instrumentparties> (o)</instrumentparties>	otional) sequ	uence ends	
<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 {}
<bondsandwarrantsgr< td=""><td>oup> (optio</td><td>nal) group end</td><td>ds</td></bondsandwarrantsgr<>	oup> (optio	nal) group end	ds
<cashdescriptor> (option</cashdescriptor>	onal) group	ends	
<instrumentattributes></instrumentattributes>	(optional) s	equence start	rs .
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	Cum-Ex Indicator Product Assignment Group
		8	Product Assignment Group
		8 9	Product Assignment Group Product Assignment Group Description
		8 9 10	Product Assignment Group Product Assignment Group Description Domestic Indicator
		8 9 10 11	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value
		8 9 10 11 12	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange
		8 9 10 11 12 13	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation
		8 9 10 11 12 13 14	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation Liquid As Defined By Regulator
		8 9 10 11 12 13 14 15	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation Liquid As Defined By Regulator Eligible For Stressed Market Conditions
		8 9 10 11 12 13 14 15	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation Liquid As Defined By Regulator Eligible For Stressed Market Conditions Multi CCP-eligibility
		8 9 10 11 12 13 14 15 17	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation Liquid As Defined By Regulator Eligible For Stressed Market Conditions Multi CCP-eligibility Pool Factor
		8 9 10 11 12 13 14 15 17 18	Product Assignment Group Product Assignment Group Description Domestic Indicator Pre Trade LIS Value Illiquid As Defined By Exchange Market Making Obligation Liquid As Defined By Regulator Eligible For Stressed Market Conditions Multi CCP-eligibility Pool Factor Indexation Coefficient

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)				
Field name	Optional	Description		
		23	Has PLP	
		24	PLP Deferral Time	
		25	Warrant Strike	
		26	Reporting Market TES	
		27	Liquidity Provider User Group	
		28	Specialist User Group	
 InstrAttribValue	N		rument attribute.	
<pre><instrumentattributes></instrumentattributes></pre>				
<events> (optional) seq</events>	•			
NoEvents	N	Number of e	wonts	
	N	1		
EventType	IN		First Eligible Trade Date	
		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N .	Date of ever	nt YYYYMMDD.	
<events> (optional) seq</events>		T		
InstrumentPricePreci sion	Y	Display deci	mals.	
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		
		MinPriceIncrementClearing is present.		
MinPriceIncrementCl	Υ		minimum increment for trade prices in clearing	
earing			earing tick size). Used for products to distinguish	
		between tick sizes for trading and clearing notation, e.g. Total Return Futures.		
MinPriceIncrementA	Υ		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.		
			lied with MinPriceIncrement unless	
		MinPriceIncr	rementClearing is present.	
MaturityDate	Υ	Always emp	ty.	
MaturityMonthYear	Υ	Always emp	ty.	
SecuritySubType	Υ	Always emp	ty.	
<marketsegmentgrp> :</marketsegmentgrp>	sequence sta	arts		
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicat	Υ	Always emp	ty.	
or		·		
MultilegModel	Υ	Always empty.		
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.		
		0	Percent	
		1	Shares	
		2	Points	
			1 01110	

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)				
Field name	Optional	Description		
PostTradeAnonymity	Υ	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Υ	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 min	imum quote quantity.	
MinOfferSize	N	Offer side m	inimum quote quantity.	
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce ends		
<pricerangerules> (optional) sequence starts</pricerangerules>				
NoPriceRangeRules	N	Always 1.	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence start	S	
NoTradingSessionRul	N	Always 1.	Always 1.	
es				
TradingSessionID	N	Always 0 = D	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>	<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) sequence starts</securityalt>				
NoSecurityAltID	N	Number of alternate identifiers.		
SecurityAltID	N	Alternate instrument identifier.		
SecurityAltIDSource	N	4	ISIN	
		8	Exchange symbol (mnemonic)	
		В	Wertpapier	

Instrument Sna	pshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description		
<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 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 busine 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		
SecurityDesc	Υ	Instrument's	Change messages.	
SecurityExchange	Y		tifier Code (ISO 10383) of the exchange where the ce ("Primary Market").	
ProductComplex	N	Type of instr	ument.	
		0	Simple Instrument	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) g	group starts, a	lways empty {}	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) ફ	group ends		
<cashdescriptor> (opti</cashdescriptor>	onal) group			
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		
DepositType	Υ	0	Auslandskassenverein	
		1	Girosammelverwahrung	

	ipshot Messa	age – Xetra T7	Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
Field name	Optional		Description
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
Issuer	Υ	Issuer of ins	trument. Always empty.
IssueDate	Υ	Issue date o	f instrument. Always empty.
RoundLot	Υ	Minimum Tr	adable Unit.
MinTradeVol	Υ	Minimum O	rder 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	Identifies a p	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
<pre><instrumentparties> (o</instrumentparties></pre>	ptional) sequ	uence ends	
<bondsandwarrantsgr< td=""><td>oup> (option</td><td>nal) group sta</td><td>rts, always empty {}</td></bondsandwarrantsgr<>	oup> (option	nal) group sta	rts, always empty {}
<bondsandwarrantsgr< td=""><td>oup> (optio</td><td>nal) group end</td><td>ds</td></bondsandwarrantsgr<>	oup> (optio	nal) group end	ds
<cashdescriptor> (opti</cashdescriptor>	onal) group	ends	
<pre><instrumentattributes></instrumentattributes></pre>	optional) s	equence start	S 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
			1
		11	Pre Trade LIS Value
		11 12	Illiquid As Defined By Exchange
			Illiquid As Defined By Exchange Market Making Obligation
		12	Illiquid As Defined By Exchange

Instrument Sna	pshot Messa	age – Xetra T7	Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)	
Field name	Optional	Description		
		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) seg</events>				
NoEvents	N	Number of e	events.	
EventType	N	1	First Eligible Trade Date	
2 2 7 7 7		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	_	t YYYYMMDD.	
<events> (optional) seq</events>				
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 trading and clearing notation are the same unless MinPriceIncrementClearing is present.		
MinPriceIncrementCl	Υ		minimum increment for trade prices in clearing	
earing			aring tick size). Used for products to distinguish	
		between tick sizes for trading and clearing notation, e.g. Total Return Futures.		
		Return Futui	es.	
MinPriceIncrementA	Y		res. minimum price movement in the respective	
MinPriceIncrementA mount	Y	Defines the		
	Y	Defines the currency (tic	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e.	
	Y	Defines the currency (tic a product. A to be multip	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless	
mount		Defines the currency (tic a product. A to be multip MinPriceIncr	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless rementClearing is present.	
mount MaturityDate	Y	Defines the currency (tic a product. A to be multip MinPriceIncr	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless rementClearing is present.	
mount MaturityDate MaturityMonthYear	Y Y	Defines the currency (tic a product. A to be multip MinPriceIncr Always empt	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless ementClearing is present.	
mount MaturityDate MaturityMonthYear SecuritySubType	Y Y Y	Defines the currency (tic a product. A to be multip MinPriceIncr Always empt Always empt Always empt	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless rementClearing is present.	
mount MaturityDate MaturityMonthYear SecuritySubType <marketsegmentgrp>:</marketsegmentgrp>	Y Y Y sequence sta	Defines the currency (tic a product. A to be multip MinPriceIncr Always empth Always empth always empth arts	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless rementClearing is present.	
mount MaturityDate MaturityMonthYear SecuritySubType	Y Y Y	Defines the currency (tic a product. A to be multip MinPriceIncr Always emptacts Always emptacts Always 1.	minimum price movement in the respective k value). This value is identical for all instruments of mounts are only relevant for clearing tick sizes, i.e. lied with MinPriceIncrement unless rementClearing is present.	

Instrument Sna	pshot Mess	age – Xetra T7	Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)	
Field name	Optional		Description	
ImpliedMarketIndicat or	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	
			settlement is to be effected.	
<quotesizerules> (opti</quotesizerules>	onal) seque	nce starts		
NoQuoteSizeRules	N	Always 1.		
MinBidSize	N	Bid side min	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.		
<quotesizerules> (opti</quotesizerules>	onal) seque	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) so	equence start	S	
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	
		8	Continuous Auction Specialist	
<tradingsessionrules></tradingsessionrules>	(optional) so	equence ends		
<marketsegmentgrp> s</marketsegmentgrp>	sequence er	nds		

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

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional	Description	
MsgType	N	Always d = Security Definition.	
MsgSeqNum	Ν	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	Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)					
SecurityID	·					
SecurityIDSource N Always M = Marketplace-assigned identifier.	SecurityID		The instrument identifier uniquely identifies an instrument, e.g.			
SecurityAltID N Number of alternate identifiers.	SecurityIDSource	N				
Number of alternate identifiers. SecurityAltID						
SecurityAltIDSource N				alternate identifiers.		
SecurityAltIDSource		N	Alternate ins	strument identifier.		
SecurityAlt> (optional) Sequence						
B Wertpapier	,					
Total Part Security Securit						
SecurityAlt> (optional) sequence ends SecurityType						
SecurityAlt> (optional) sequence ends				I		
SecurityType N Type of security.				·		
SecurityStatus SecurityStatus	<securityalt> (optional)</securityalt>	sequence e	nds			
SecurityStatus SecurityStatus	SecurityType	N	Type of secu	rity.		
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 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 equal or later than current business date. 1 Inactive 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) of the exchange where the IPO took place ("Primary Market").			5	Common stock		
10 Exchange traded note 12 Other 13 Subscription Right 14 Investment Funds 15 Digital Assets			8	Exchange traded fund		
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 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			9	Exchange traded commodity		
13 Subscription Right			10	Exchange traded note		
14 Investment Funds 15 Digital Assets			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) of the exchange where the IPO took place ("Primary Market").			13	Subscription Right		
SecurityStatus N			14	Investment Funds		
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) of the exchange where the IPO took place ("Primary Market").			15	Digital Assets		
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) of the exchange where the IPO took place ("Primary Market").	SecurityStatus	N	Instruments	may be published prior to becoming active for		
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) of the exchange where the IPO took place ("Primary Market").			trading. Stat	us is identical to the product level, i.e. all		
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) of the exchange where the IPO took place ("Primary Market").				·		
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) of the exchange where the IPO took place ("Primary Market").			·	•		
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) of the exchange where the IPO took place ("Primary Market").			-	- '		
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) of the exchange where the IPO took place ("Primary Market").						
SecurityDesc Y 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) of the exchange where the IPO took place ("Primary Market").				· · · · · · · · · · · · · · · · · · ·		
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) of the exchange where the IPO took place ("Primary Market").				· ·		
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) of the exchange where the IPO took place ("Primary Market").			_	1		
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) of the exchange where the IPO took place ("Primary Market").						
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) of the exchange where the IPO took place ("Primary Market").				· · · · · · · · · · · · · · · · · · ·		
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) of the exchange where the IPO took place ("Primary Market").						
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) of the exchange where the IPO took place ("Primary Market").				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) of the exchange where the IPO took place ("Primary Market").			1	Inactive		
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) of the exchange where the IPO took place ("Primary Market").			7			
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").						
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").						
SecurityDesc Y Instrument's long name. SecurityExchange Y Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market").						
SecurityExchange Y Market Identifier Code (ISO 10383) of the exchange where the IPO took place ("Primary Market").	SecurityDesc	٧	Instrument's	•		
IPO took place ("Primary Market").	<u> </u>					
	SecurityExtriarise	'				
	ProductComplex	N		-		

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)				
Field name	Optional		Description	
		0	Simple Instrument	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) ខ្	group starts, a	always empty {}	
<pre><derivativesdescriptor< pre=""></derivativesdescriptor<></pre>	> (optional) g	group ends		
<cashdescriptor> (opti</cashdescriptor>	onal) group	starts		
RefTickTableID	N	Reference to price step table alias tick rule table identifier		
		TickTableID	from product snapshot message.	
		It is also use	ed as the reference to the default tick rule table for	
		TES.		
Currency	N		published in ISO 4217.	
SettlCurrency	N	Settlement of		
DepositType	Υ	0	Auslandskassenverein	
		1	Girosammelverwahrung	
		2	Streifbandverwahrung	
		3	Wertpapierrechnung	
		4	NCSC via T2S	
Issuer	Υ	Issuer of ins	strument. Always empty.	
IssueDate	Υ	Issue date of instrument. Always empty.		
RoundLot	Υ	Minimum Tradable Unit.		
MinTradeVol	Υ	Minimum O	rder Quantity.	
QuotingStartTime	Υ	Quoting Per	iod Start Time (HH:mm:ss).	
QuotingEndTime	Υ	Quoting Per	riod 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 parties.		
InstrumentPartyID	N		party associated with an instrument.	
InstrumentPartyIDSo	N	0	Proprietary	
urce				
InstrumentPartyRole	N	0	Clearing Organization	
		1	Market Maker	
InstrumentPartyRole	Υ	0	Designated Sponsor	
Qualifier		1	Specialist	
<instrumentparties> (o</instrumentparties>	ptional) sequ	uence ends		
<bondsandwarrantsgr< td=""><td>oup> (option</td><td>nal) group sta</td><td>rts, always empty {}</td></bondsandwarrantsgr<>	oup> (option	nal) group sta	rts, always empty {}	
<bondsandwarrantsgr< td=""><td></td><td></td><td></td></bondsandwarrantsgr<>				
<volacorridorgroup> (</volacorridorgroup>	optional) gro	oup starts		
VolatilityCorridorOpe	Y	Reference to	o Volatility Corridor Table for Opening Auction. The	
ningAuction			integer values to the corresponding corridor table is	
			www.xetra.com > Instruments > All tradable	
		instruments		
VolatilityCorridorIntra	Υ		o Volatility Corridor Table for Intraday Auction. The	
dayAuction		mapping of	integer values to the corresponding corridor table is	

Instrument Snap	shot Messag	ge – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)		
Field name	Optional	Description		
		available at: www.xetra.com > Instruments > All tradable instruments		
VolatilityCorridorClosi	Υ	Reference to Volatility Corridor Table for Closing Auction. The		
ngAuction		mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable		
	.,	instruments		
VolatilityCorridorCont	Υ		o Volatility Corridor Table in Continuous. The	
inuous			integer values to the corresponding corridor table is www.xetra.com > Instruments > All tradable	
		instruments		
<volacorridorgroup> (</volacorridorgroup>	optional) gro			
<cashdescriptor> (opti</cashdescriptor>	•			
<lnstrumentattributes></lnstrumentattributes>	· (optional) s	equence start		
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	
		24	Warrant Strike	
		25	Reporting Market TES	
		26	Liquidity Provider User Group	
		27	Specialist User Group	
Long And Address of the Long Andrews of the Lo	A.I	28	Liquidity Class	
InstrAttribValue	N	value of inst	rument attribute.	

Instrument Snap	shot Messag	ge – Xetra T7 F	Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)	
Field name	Optional		Description	
<instrumentattributes></instrumentattributes>	optional) s	equence ends		
<events> (optional) seg</events>				
NoEvents	N	Number of e	events.	
EventType	N	1	First Eligible Trade Date	
51		2	Capital Adjustment Date	
		3	Dividend Payment Date	
EventDate	N	_	it YYYYMMDD.	
<events> (optional) seq</events>				
InstrumentPricePreci	Υ	Display deci	mals.	
sion	•	Display accin	10.5	
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		minimum increment for trade prices in clearing	
earing			aring tick size). Used for products to distinguish	
		Return Futur	sizes for trading and clearing notation, e.g. Total	
MinPriceIncrementA	Υ		minimum price movement in the respective	
mount	•		k value). This value is identical for all instruments of	
		a product. Amounts are only relevant for clearing tick sizes, i.e.		
			lied with MinPriceIncrement unless	
		MinPriceIncrementClearing is present.		
MaturityDate	Υ	Always empty.		
MaturityMonthYear	Υ	Always empt	ty.	
SecuritySubType	Υ	Always empty.		
<marketsegmentgrp> s</marketsegmentgrp>	sequence sta	arts		
NoMarketSegments	N	Always 1.		
MarketSegmentID	N	Product ider	ntifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicat	Y	Always empt	ty.	
or MultilegModel	Y	Always empt	TV	
PriceType	Y		hich an instrument is quoted/stated when buying	
ТПССТУРС		or selling.	mien an mat amene is quotea/stated when baying	
		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	
Jetti Busii 1633 Buys	'		settlement is to be effected.	
<quotesizerules> (opti</quotesizerules>	onal) seguei			
NoQuoteSizeRules	N	Always 1.		
, == = :=:==	l	rumayo 1.		

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)				
Field name	Optional	Description		
		Did side min	·	
MinBidSize	N		imum quote quantity.	
MinOfferSize	N	Offer side m	inimum quote quantity.	
<quotesizerules> (opti</quotesizerules>	onal) sequei	nce ends		
<pricerangerules> (opt</pricerangerules>	tional) seque	ence starts		
NoPriceRangeRules	Ν	Always 1.		
PriceRangeRuleID	Ν	Reference to	table identifier from product level messages.	
<pricerangerules> (opt</pricerangerules>	tional) seque	ence ends		
<tradingsessionrules></tradingsessionrules>	(optional) se	equence start	S	
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	
		8	Continuous Auction Specialist	
<tradingsessionrules></tradingsessionrules>	(optional) se	equence ends		
<marketsegmentgrp> s</marketsegmentgrp>	<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 = 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) sequence starts</securityalt>				
NoSecurityAltID	N	Number of a	lternate identifiers.	
SecurityAltID	N	Alternate ins	trument identifier.	
SecurityAltIDSource	N	4 ISIN		
		8	Exchange symbol (mnemonic)	
		B 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	

Instrument Snap	shot Messag	ge – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)		
Field name	Optional		Description	
		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 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. 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	Υ	Instrument'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></derivativesdescriptor></pre>	· (optional) g	group starts, always empty {}		
<pre><derivativesdescriptor></derivativesdescriptor></pre>		•	.,	
<cashdescriptor> (option</cashdescriptor>		•		
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 co		
DepositType	Υ	0	Auslandskassenverein	
		1	Girosammelverwahrung	
		2	Streifbandverwahrung	
		3	Wertpapierrechnung	
		4	NCSC via T2S	

instrument Shap	snot Messag	ge – Xetra I /	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)	
Field name	Optional		Description	
IssueDate	Υ	Issue date of instrument. Always empty.		
RoundLot	Υ	Minimum Tradable Unit.		
MinTradeVol	Υ	Minimum C	order Quantity.	
QuotingStartTime	Υ	Quoting Per	riod Start Time (HH:mm:ss).	
QuotingEndTime	Υ	Quoting Per	riod End Time (HH:mm:ss).	
InstrumentAuctionTyp	Υ	0	Default	
е		1	Single Auction	
		2	Special Auction	
<pre><instrumentparties> (or</instrumentparties></pre>	otional) sequ	1		
NoInstrumentParties	N	Number of	parties.	
InstrumentPartyID	N		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> (or</instrumentparties></pre>	otional) segu			
<bondsandwarrantsgr< td=""><td></td><td></td><td>arts. always empty {}</td></bondsandwarrantsgr<>			arts. always empty {}	
<bondsandwarrantsgro< td=""><td></td><td></td><td></td></bondsandwarrantsgro<>				
<volacorridorgroup> (c</volacorridorgroup>				
VolatilityCorridorOpen	Υ	Reference to Volatility Corridor Table for Opening Auction. The		
ingAuction	·	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	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 instruments		
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> (c</volacorridorgroup>	ptional) gro	up ends		
<cashdescriptor> (option)</cashdescriptor>	nal) group e	ends		
<instrumentattributes></instrumentattributes>	(optional) s	equence star	ts	
NoInstrAttrib	N	Number of	instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume	
	• •	<u> </u>		
		1	Minimum Display Volume	
		2	Minimum Display Volume Issuer Name	

Instrument Snap	shot Messag	ge – Xetra T7 F	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)
Field name	Optional	Description	
		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	Value of inst	rument attribute.
<instrumentattributes></instrumentattributes>	(optional) se	equence ends	;
<events> (optional) sequ</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) sequ</events>	uence ends		
InstrumentPricePrecisi	Υ	Display decir	mals.
on			
MinPriceIncrement	Υ	1 ,	
			identical for all simple instruments of a product.
	trading and clearing tick sizes, i.e. increments		clearing tick sizes, i.e. increments for trade prices in
		_	ementClearing is present.
MinPriceIncrementCle	Υ	Defines the minimum increment for trade prices in clearing	
aring			aring tick size). Used for products to distinguish

Instrument Snap	shot Messag	ge – Xetra T7 F	Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)		
Field name	Optional	Description			
		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 empt	ementClearing is present.		
MaturityMonthYear	Y	Always empt	×		
SecuritySubType	Y	Always empt			
<marketsegmentgrp> s</marketsegmentgrp>			y.		
NoMarketSegments	N	Always 1.			
MarketSegmentID	N	-	itifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicato	Y	Always empt			
r	'	Always empt	y.		
MultilegModel	Υ	Always empt	y.		
PriceType	Υ		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		number of business days from trade execution		
<pre></pre>	anal) coquen	after which settlement is to be effected.			
<quotesizerules> (option</quotesizerules>	,				
NoQuoteSizeRules	N	Always 1.	incurs quate quantity		
MinBidSize	N	Bid side minimum quote quantity. Offer side minimum quote quantity.			
MinOfferSize	N		inimum quote quantity.		
<quotesizerules> (option</quotesizerules>					
<pricerangerules> (opt</pricerangerules>	-	1			
NoPriceRangeRules	N	Always 1.	Aphila identifican foremental and the transfer		
PriceRangeRuleID	N :D		table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>					
<tradingsessionrules></tradingsessionrules>		1	5		
NoTradingSessionRule	N	Always 1.			
s TradingSessionID	N	Always 0 = Day.			
TradingSessionSubID	N	1	Continuous		
	14	4	Scheduled Intraday Auction		
		6	Any Auction		
		7	Continuous Auction Issuer		
		8	Continuous Auction Issuel Continuous Auction Specialist		
		U	Continuous Auction Specialist		

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)					
Field name Optional Description					
<tradingsessionrules> (optional) sequence ends</tradingsessionrules>					
<marketsegmentgrp> sequence ends</marketsegmentgrp>					

3.1.2.9. Instrument snapshot, T7 Release 12.0 (from 20/11/2023)

Instrument Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)				
Field name	Optional	Description		
MsgType	N	Always d = Security Definition.		
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot		
		_	ess of message type. See T7 Market and Reference	
			tes – Manual, section General structure of the	
6 " 15		snapshot cyc		
SecurityID	N	72057800196		
SecurityIDSource	N	Always M = N	Narketplace-assigned identifier.	
<securityalt> (optional)</securityalt>	sequence st	arts		
NoSecurityAltID	N	Number of a	lternate 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>		ı		
SecurityType	N	Type of secu	-	
		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	
		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 wi		
		state change messages.		
		0	Active, is used when the first trading date is in	
			future and the product state is Active. The	

Instrument Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)			
Field name	Optional	7.00	Description Description
	operarie.		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	long name.
SecurityExchange	Y		ifier Code (ISO 10383) of the exchange where the ce ("Primary Market").
ProductComplex	Ν	Type of instr	ument.
		0	Simple Instrument
<derivativesdescriptor></derivativesdescriptor>		•	lways empty {}
<derivativesdescriptor></derivativesdescriptor>	optional) g	roup ends	
<cashdescriptor> (option)</cashdescriptor>	onal) group s	tarts	
RefTickTableID	N	TickTableID f	price step table alias tick rule table identifier rom 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 c	urrency.
DepositType	Υ	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Υ	Issue date of	instrument. Always empty.
RoundLot	Υ	Minimum Tra	adable Unit.
MinTradeVol	Υ	Minimum Or	der Quantity.
QuotingStartTime	Υ	Quoting Peri	od Start Time (HH:mm:ss).
QuotingEndTime	Υ	Quoting Peri	od End Time (HH:mm:ss).
InstrumentAuctionTyp	Υ	0	Default
е		1	Single Auction
		2	Special Auction
<pre><instrumentparties> (or</instrumentparties></pre>	otional) sequ	ience starts	
NoInstrumentParties	N	Number of p	arties.
InstrumentPartyID	N	Identifies a p	arty associated with an instrument.
InstrumentPartyIDSou rce	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
	Υ	0	Designated Sponsor

Instrume	ent Snapshot	: Message – Xe	etra T7 Release 12.0 (from 20/11/2023)		
Field name	Optional		Description		
InstrumentPartyRoleQ ualifier		1	Specialist		
<instrumentparties> (optional) sequence ends</instrumentparties>					
<bondsandwarrantsgr< td=""><td><u> </u></td><td></td><td>rts. always empty {}</td></bondsandwarrantsgr<>	<u> </u>		rts. always empty {}		
<bondsandwarrantsgr< td=""><td></td><td></td><td>, ,</td></bondsandwarrantsgr<>			, ,		
<volacorridorgroup> (optional) group starts</volacorridorgroup>					
VolatilityCorridorOpen	Υ	Reference to Volatility Corridor Table for Opening Auction. The			
ingAuction		mapping of i	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 ngAuction	Y	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 instruments			
VolatilityCorridorConti nuous	Y	Reference to mapping of i	Volatility Corridor Table in Continuous. The nteger values to the corresponding corridor table is www.xetra.com > Instruments > All tradable		
<volacorridorgroup> (d</volacorridorgroup>	optional) gro				
<cashdescriptor> (option)</cashdescriptor>	onal) group e	ends			
<instrumentattributes></instrumentattributes>	(optional) se	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		

Instrume	nt Snapshot	Message – Xe	etra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional		Description	
		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.	
<pre><instrumentattributes></instrumentattributes></pre>	(optional) se	equence ends		
<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	Date of even	it YYYYMMDD.	
<events> (optional) seq</events>	uence ends			
InstrumentPricePrecisi	Υ	Display decir	mals.	
on				
MinPriceIncrement	Υ	Defines the minimum increment for trade prices (tick size).		
			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	Y	Defines the 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	es.	
MinPriceIncrementAm	Υ		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 ementClearing is present.	
MaturityDate	Υ	Always empt		
MaturityMonthYear	Y	Always empt	•	
SecuritySubType	Y	Always empt	-	
<relatedinstrumentgrp< td=""><td></td><td></td><td>υ·</td></relatedinstrumentgrp<>			υ·	
RelatedSecurityID	N	The instrument identifier uniquely identifies the related		
- I state as occar regis	.,	instrument.	and a surface of the second of	
RelatedSecurityIDSour	N		Marketplace-assigned identifier.	
ce				
<relatedinstrumentgrp> (optional) group ends</relatedinstrumentgrp>				
<marketsegmentgrp> s</marketsegmentgrp>	equence sta	irts		

Instrume	nt Snapshot	: Message – Xe	etra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional	Description		
NoMarketSegments	Ν	Always 1.		
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.		
ImpliedMarketIndicato r	Y	Always empt	y.	
MultilegModel	Υ	Always empt	y.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying selling.		
		0	Percent	
		1	Shares	
		2	Points	
PostTradeAnonymity	Υ	0	Disabled (no)	
		1	Enabled (yes)	
		2	Central counterparty	
SettlBusinessDays	Y		number of business days from trade execution ettlement is to be effected.	
<quotesizerules> (option</quotesizerules>	onal) seguer		retainment to be effected.	
NoQuoteSizeRules	N	Always 1.		
MinBidSize	N	Bid side minimum quote quantity.		
MinOfferSize	N	Offer side minimum quote quantity.		
<quotesizerules> (option</quotesizerules>	onal) sequer			
<pricerangerules> (opt</pricerangerules>				
NoPriceRangeRules	N	Always 1.		
PriceRangeRuleID	N	Reference to table identifier from product level messages.		
<pricerangerules> (opt</pricerangerules>	ional) seque	nce ends		
<tradingsessionrules></tradingsessionrules>				
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></tradingsessionrules>	(optional) se	equence ends		
<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 Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
MsgType	N	Always h = Trading Session Status.	
MsgSeqNum	N		uence number is incremented per product across all
			e types on a particular feed.
SenderCompID	N		d 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
			evaluated additionally to determine the actual product
			adingSessionSubID=4 and TradingSessionID = 1 indicates
			luct state Start of Day, TradingSessionID = 2 End of Day,
TradSesStatus	N I		SessionID = 0 Halt and TradingSessionID = 3 Holiday.
Trausessialus	N	0	Halted
		1	Open
Footh Andread and action	N.I	2	Closed
FastMarketIndicator	N		s if product is in the state Fast Market.
		0	No
		1	Yes
TransactTime	N	(nanose	
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close

3.2.1.2. Product state change, T7 Releases 6.0 – 12.0 (from 03/12/2017)

Product State Change Message – Xetra T7 Releases 6.0 – 12.0 (from 03/12/2017)				
Field name	I name Optional Description			
MsgType	N	Always h = Trading Session Status.		

Product Stat	e Change N	/lessage –	Xetra T7 Releases 6.0 – 12.0 (from 03/12/2017)	
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	d of a sender.	
MarketSegmentID	N	Product i	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	
		Only for	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,	
			essionID = 0 Halt, TradingSessionID = 3 Post End of Day	
T 10 0 1			lingSessionID = 4 Holiday.	
TradSesStatus	N	0	Halted	
		1	Open	
		2	Closed	
MarketCondition	Y	0	Normal	
		1	Stressed	
FastMarketIndicator	N	Indicates	if product is in the state Fast Market.	
		0	No	
		1	Yes	
TransactTime	N	(nanosed	,	
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	Mass Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional	Description			
MsgType	Ν	Always CO = Security Mass Status.			
MsgSeqNum	Ν	The sequence number is incremented per product across all			
			types on a particular feed.		
SenderCompID	N		Unique id of a sender.		
MarketSegmentID	N		dentifier, e.g. 89.		
InstrumentScopeProd	N	Instrume	ent 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		
FastMarketIndicator	Ν		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 when request was processed by the matcher			
<cocmaccctatcraz arct<="" td=""><td>ional) assura</td><td colspan="3">(nanoseconds).</td></cocmaccctatcraz>	ional) assura	(nanoseconds).			
<secmassstatgrp> (optional) sequence starts, when not all indicated instruments are affected by new state</secmassstatgrp>					
NoRelatedSym	N	Number of instruments in the exception list of instruments tha			
		have a di	fferent instrument state.		

Mass Instrument	State Chang	nge Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional	Description				
SecurityID	N	Instrument identifier, e.g. 8852.				
SecurityIDSource	N	Always M = 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			
		14	IPO Auction Freeze			
SecurityTradingEvent	Υ		an event related to a SecurityTradingStatus. Applicable market products only.			
		0	None			
		1	Price volatility, auction is extended			
		2	Price volatility, auction is extended again			
TESSecurityStatus	Υ	0	Active			
-		1	Inactive			
		2	Expired			
		3	Suspended			
<secmassstatgrp> sequence ends</secmassstatgrp>						

3.2.2.2. Mass instrument state change, T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)

Mass Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
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.			
Carada (Carada ID	N.				
SenderCompID	N	Unique id of a sender.			
MarketSegmentID	N	Product identifier, e.g. 89.			
	N	Instrument type of affected instruments.			

Mass Instrument	State Chang	e Message -	- Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional		Description			
InstrumentScopeP 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	Fproduct is in the state Fast Market. This indicator refers			
or		to a product but is provided on instrument level.				
		0	No			
		1	Yes			
SecurityMassTradi	Υ		n event related to a SecurityMassTradingStatus.			
ngEvent		Applicable 0	for cash market products only.			
			None			
		1	Price volatility, auction is extended			
		2	Price volatility, auction is extended again			
TransactTime	N N		request was processed by the matcher (nanoseconds).			
<pre><secmassstatgrp> (new state</secmassstatgrp></pre>	optional) sed	quence start	s, when not all indicated instruments are affected by the			
NoRelatedSym	N		finstruments in the exception list of instruments that			
6 11 15	N.1		erent instrument state.			
SecurityID	N		t identifier, e.g. 8852.			
SecurityIDSource	N	-	Marketplace-assigned identifier.			
SecurityStatus	N	0	Active			
		1	Inactive			
		2	Expired			
		3	Suspended Company (Company Company Com			
		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.			

Mass Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
Field name	Optional		Description		
SecurityTradingSta	Υ	0	Trading Halt		
tus		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		
MarketCondition	N	0	Normal		
		1	Stressed		
SecurityTradingEv	Υ	Identifies a	an event related to a SecurityTradingStatus. Applicable		
ent		for cash m	narket products only.		
		0	None		
		1	Price volatility, auction is extended		
		2	Price volatility, auction is extended again		
TESSecurityStatus	Υ	0	Active		
		1	Inactive		
		2	Expired		
		3	Suspended		
<secmassstatgrp> sequence ends</secmassstatgrp>					

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.		
MsgSeqNum	N	The seq	uence 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.		
InstrumentScopeProductC	N	Instrument type of affected instruments.		
omplex		0	Simple Instrument	
SecurityMassTradingStatu	Υ	0	Trading Halt	
S		1	Closed	
		2	Restricted	

Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)			
Field name	Optional		Description
		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	Indicate	es if product is in the state Fast Market. This
		indicato	or refers to a product but is provided on instrument
		level.	
		0	No
		1	Yes
SecurityMassTradingEvent	Υ		es an event related to a SecurityMassTradingStatus.
		Applicat 0	ble for cash market products only. None
		_	
		1	Price volatility, auction is extended
TransactTime	N.I.	2 Time :l	Price volatility, auction is extended again
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	
<secmassstatgrn> (ontiona</secmassstatgrn>	l) sequence :		nen not all indicated instruments are affected by the
new state	i, sequence	Jean 13, 111	ien not all maleacea most amento are unrected by the
NoRelatedSym	N	Numbe	r of instruments in the exception list of instruments
			ve a different instrument state.
SecurityID	N	Instrum	ent identifier, e.g. 8852.
SecurityIDSource	N	Always	M = Marketplace-assigned identifier.
SecurityStatus	Ν	0	Active
		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

Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)			
Field name	Optional		Description
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
		16	Call
MarketCondition	N	0	Normal
		1	Stressed
SecurityTradingEvent	Υ	Identifie	es an event related to a SecurityTradingStatus.
		Applicable for cash market products only.	
		0	None
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous
		Auction	Issuer trading model only).
		0	Not sold out
		1	Sold out
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		5	Suspended
<secmassstatgrp> sequer</secmassstatgrp>	ice ends		

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	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.			

Field name Optional Description MarketSegmentID N Product identifier, e.g. 89. InstrumentScopeProductComplex 0 Simple Instrument SecurityMassStatus N The instrument status of all affected instruments. SecurityMassStatus N The instrument status of all affected instruments. Instrument status of all affected instruments. 0 Active Instrument sta	Mass Instrument State Change Message – Xetra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)				
InstrumentScopeProductComplex	Field name	Optional	Description		
Omplex 0 Simple Instrument SecurityMassStatus N The instrument status of all affected instruments. 0 Active 3 Knocked-Out, only applicable in trading model Continuous Auction Issuer. 5 Suspended 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. SecurityMassTradingStatu Y 0 Trading Halt 5 Closed 2 Restricted 3 Book 4 Continuous 4 Continuous 4 Continuous 5 Opening Auction 6 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction Freeze 11 Closing Auction Freeze 11 Closing Auction 7 Closing Auction Freeze 12 Closing Aucti	MarketSegmentID	N	Product identifier, e.g. 89.		
The instrument status of all affected instruments. O	InstrumentScopeProductC	N	Instrument type of affected instruments.		
O Active 3 Knocked-Out, only applicable in trading model Continuous Auction Issuer. Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer. 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 Y	omplex		0	Simple Instrument	
SecurityMassTradingStatu Y	SecurityMassStatus	N	The inst	rument status of all affected instruments.	
Continuous Auction Issuer. 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 5 Trading Halt 1 Closed 2 Restricted 3 Book 4 Continuous 5 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction 10 Circuit Breaker Auction 11 Closing Auction 12 Closing Auction 14 IPO Auction 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 trades resulting from Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable for ca			0	Active	
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. SecurityMassTradingStatu S O Trading Halt 1 Closed 2 Restricted 3 Book 4 Continuous 5 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction Freeze 11 Closing Auction 10 Circuit Breaker Auction Freeze 11 Closing Auction 12 Closing 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 Issuer only. 18 Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable since 9.0 only). MassMarketCondition N 0 Normal			3	* ''	
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 S 1 Closed 2 Restricted 3 Book 4 Continuous 5 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction 11 Closing Auction 12 Closing Auction 14 IPO Auction 15 Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only. 16 Call, applicable for trading model Continuous Auction Specialist 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). MassMarketCondition N 0 Normal			4	, , ,	
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 S 1 Closed 2 Restricted 3 Book 4 Continuous 5 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction 11 Closing Auction 12 Closing Auction 14 IPO Auction 15 Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only. 16 Call, applicable for trading model Continuous Auction Specialist 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). MassMarketCondition N 0 Normal			5	Suspended	
SecurityMassTradingStatu s			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	
1 Closed 2 Restricted 3 Book 4 Continuous 5 Opening Auction 6 Opening Auction Freeze 7 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction Freeze 11 Closing Auction Freeze 11 Closing Auction Freeze 11 Closing Auction 12 Closing Auction 14 IPO Auction 19O Auction 11 IPO Auction Freeze 15 Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only. 16 Call, applicable for trading model Continuous Auction Specialist only. 17 Freeze, applicable for trades resulting from 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).			8	, , , , , , , , , , , , , , , , , , , ,	
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 13 IPO Auction 14 IPO Auction 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, used for trading phase and is applicable for cash market instruments only (applicable since 9.0 only). MassMarketCondition N O Normal	SecurityMassTradingStatu	Υ	0	Trading Halt	
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 Freeze 12 Closing Auction Freeze 13 IPO Auction 14 IPO Auction 16 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). MassMarketCondition N O Normal	S		1	Closed	
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 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). MassMarketCondition N O Normal			2	Restricted	
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 Freeze 11 Closing Auction Freeze 12 Closing Auction Freeze 13 IPO Auction Freeze 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). MassMarketCondition N O Normal			3	Book	
6 Opening Auction Freeze 7 Intraday Auction 8 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction Freeze 11 Closing Auction Freeze 12 Closing Auction Freeze 13 IPO Auction 14 IPO Auction 16 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). MassMarketCondition N O Normal			4	Continuous	
7 Intraday Auction 8 Intraday Auction Freeze 9 Circuit Breaker Auction 10 Circuit Breaker Auction Freeze 11 Closing Auction Freeze 11 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). MassMarketCondition N O Normal			5	Opening 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 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). MassMarketCondition N O Normal			6	Opening 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). MassMarketCondition N O Normal			7	Intraday 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). MassMarketCondition N O Normal			8	Intraday 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). MassMarketCondition N O Normal			9	Circuit Breaker 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). MassMarketCondition N O Normal			10	Circuit Breaker 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). MassMarketCondition N 0 Normal			11	Closing 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). MassMarketCondition N O Normal			12	Closing 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). MassMarketCondition N 0 Normal			13	IPO Auction	
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). MassMarketCondition N O Normal			14	IPO Auction Freeze	
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). MassMarketCondition N 0 Normal			15		
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). MassMarketCondition N 0 Normal			16		
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			17	1	
MassMarketCondition N 0 Normal			18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only	
	MassMarketCondition	N	0		
				Stressed	

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
FastMarketIndicator	N		es if product is in the state Fast Market. This or refers to a product but is provided on instrument
		1	Yes
SecurityMassTradingEvent	Y	Identifie	es an event related to a SecurityMassTradingStatus. ble for cash market products only.
		1 2	Price volatility, auction is extended Price volatility, auction is extended again
MassSoldOutIndicator	Υ	Identific Auction	es the sold out status (applicable for Continuous Issuer trading model only).
TransactTime	N	Time wh	Sold out hen request was processed by the matcher
TESSecurityMassStatus	Υ		of all affected instruments for TES trading.
•		0	Active
		1	Inactive
		2	Expired
		5	Suspended
	l) sequence	starts, wh	nen not all indicated instruments are affected by the
new state	N	Numba	r of instruments in the exception list of instruments
NoRelatedSym	IN		r of instruments in the exception list of instruments ve a different instrument state.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N		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
		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
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze

Mass Instrument State C	hange Messa	age – Xetr	ra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)	
Field name	Optional	Description		
		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	
		16	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	
		1	Stressed	
SecurityTradingEvent	Υ	Identifie	Identifies an event related to a SecurityTradingStatus.	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous	
			Issuer trading model only).	
		1	Sold out	
TESSecurityStatus	Υ	0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
<secmassstatgrp> sequence</secmassstatgrp>	e ends			
LastFragment	N	Indicate	s whether this message is the last in a sequence of	
		_	es that together convey a joint exception list of	
			sStatGrp. All messages up to the last with	
		LastFrag		
			te the same root level content and an application eds to combine all single exception lists before the	
			ate Change message could be applied with the fully	
		joint	ace change message codia se applied with the fully	
		exception	on list.	
		0	Not Last Message	
		1	Last Message	
	1			

3.2.2.5. Mass instrument state change, T7 Releases 10.0 – 12.0 (from 22/11/2021)

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 12.0 (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	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.		
InstrumentScopeProductC	N	· 5		
omplex	IN	Instrument type of affected instruments. 0 Simple Instrument		
SecurityMassStatus	N		rument status of all affected instruments.	
SecurityMasssialus	IN	0	Active	
		3		
		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	
		8	Change essages. 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.	

Field nameOptionalDescription18Trade 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).MassMarketConditionN0Normal1StressedFastMarketIndicatorNIndicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.0No1YesSecurityMassTradingEventYIdentifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only.1Price volatility, auction is extended2Price volatility, auction is extended again
Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only). MassMarketCondition N O Normal Stressed FastMarketIndicator N Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level. O No 1 Yes SecurityMassTradingEvent Y Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only. 1 Price volatility, auction is extended
FastMarketIndicator N Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level. O No 1 Yes SecurityMassTradingEvent Y Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only. 1 Price volatility, auction is extended
FastMarketIndicator N Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level. O No 1 Yes SecurityMassTradingEvent Y Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only. 1 Price volatility, auction is extended
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SecurityMassTradingEvent Y Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only. 1 Price volatility, auction is extended
SecurityMassTradingEvent Y Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only. 1 Price volatility, auction is extended
Applicable for cash market products only. 1 Price volatility, auction is extended
1 Price volatility, auction is extended
MassSoldOutIndicator Y Identifies the sold out status (applicable for Continuous
Auction Issuer trading model only).
1 Sold out
TransactTime N Time when request was processed by the matcher
(nanoseconds).
TESSecurityMassStatus Y Status of all affected instruments for TES trading.
0 Active
1 Inactive
2 Expired
5 Suspended
<secmassstatgrp> (optional) sequence starts, when not all indicated instruments are affected by the new state</secmassstatgrp>
NoRelatedSym N Number of instruments in the exception list of instruments
that have a different instrument state.
SecurityID N Instrument 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
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 Y 0 Trading Halt
1 Closed

Mass Instrument State	Change Me	ssage – X	etra T7 Releases 10.0 – 12.0 (from 22/11/2021)	
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	
		10	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	
		1	Stressed	
SecurityTradingEvent	Υ	Identifies an event related to a SecurityTradingStatus.		
,		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous	
			Issuer trading 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	
			olatility, auction is extended. For volatility auctions	
			e set immediately without SecurityTradingEvent. If	
			e is absent, any previous upper boundary price is	
LowPy	Y		d any longer.	
LowPx	Y	, , , , , , , , , , , , , , , , , , ,		
		auction), it may be set together with SecurityTradingEvent = Price volatility, auction is extended. For volatility auction it may be set immediately without SecurityTradingEvent. If		
		_	e is absent, any previous lower boundary price is	
			d any longer.	
TESSecurityStatus	Υ	0	Active	
		1	Inactive	

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 12.0 (from 22/11/2021)					
Field name	Optional	Description			
		2	Expired		
		5	Suspended		
<secmassstatgrp> sequence</secmassstatgrp>	e ends				
LastFragment	N	Indicates whether this message is the last in a sequence of 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 first needs to combine all single exception lists before the Mass State Change message could be applied with the ful joint exception list. O Not 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 sec	The sequence number is incremented per product across all		
		message types on a particular feed.			
SenderCompID	N	Unique	id of a sender.		
MarketSegmentID	N	Produc	Product identifier, e.g. 89.		
SecurityID	N	Instrument 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		
SecurityTradingStatus	Υ	0	Trading Halt		
		1	Closed		
		2	Restricted		
		3	Book		

Instrument Stat	t State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
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	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This i		
			o a product but is provided on instrument level.	
		0	No	
		1	Yes	
SecurityTradingEvent	Y	Identifies an event related to a SecurityMassTradingStatus.		
			ble for cash market products only.	
		0	None	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
TransactTime	N		hen request was processed by the matcher	
		(nanoseconds).		
TESSecurityStatus	Υ	0	Active	
		1	Inactive	
		2	Expired	
		3	Suspended	

3.2.3.2. Instrument state change, T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
Field name	Optional		Description		
MsgType	N	Always f	f = Security Status.		
MsgSeqNum	N	The seq	uence number is incremented per product across all		
		message	e types on a particular feed.		
SenderCompID	N	Unique	Unique id of a sender.		
MarketSegmentID	N	Product identifier, e.g. 89.			
SecurityID	N	Instrument 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			

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)				
Field name	Optional	Description		
		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.	
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	
MarketCondition	N	0	Normal	
		1	Stressed	
FastMarketIndicator	N		s 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. ole for cash market products only.	
		0	None	
		1	Price volatility, auction is extended	
		2	Price volatility, auction is extended again	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).		
TESSecurityStatus	Υ	0	Active	
		1	Inactive	
		2	Expired	
		3	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.			

Instrument State Change Message – Xetra T7 Releases 7.0 – 9.1 (03/12/2018 – 19/11/2021)					
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.		
SecurityID	N		Instrument 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		
G ': T I' G: 4	.,,		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		
		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		
		10	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		
M. L. C. IIII			only).		
MarketCondition	N	0	Normal		

Instrument State Change Message – Xetra T7 Releases 7.0 – 9.1 (03/12/2018 – 19/11/2021)					
Field name	Optional	Description			
		1	Stressed		
FastMarketIndicator	N		es if product is in the state Fast Market. This indicator		
		refers to	o a product but is provided on instrument level.		
		0	No		
		1	Yes		
SecurityTradingEvent	Υ	Identifie	es an event related to a SecurityMassTradingStatus.		
		Applicable for cash market products only.			
		1	Price volatility, auction is extended		
		2	Price volatility, auction is extended again		
SoldOutIndicator	Υ	Identifies the sold out status (applicable for Continuous			
		Auction Issuer trading model only).			
		0 Not sold out (applicable for 7.0 & 7.1 only)			
		1	Sold out		
TransactTime	N	Time wh	nen request was processed by the matcher		
		(nanose	econds).		
TESSecurityStatus	Υ	0	Active		
		1	Inactive		
		2	Expired		
		5	Suspended		

3.2.3.4. Instrument state change, T7 Releases 10.0 – 12.0 (from 22/11/2021)

Instrument State Change Message – Xetra T7 Releases 10.0 – 12.0 (from 22/11/2021)				
Field name	Optional	Description		
MsgType	N	Always	f = Security Status.	
MsgSeqNum	N	The sec	uence number is incremented per product across all	
			ge types on a particular feed.	
SenderCompID	N	Unique	id of a sender.	
MarketSegmentID	N	Product	t identifier, e.g. 89.	
SecurityID	N	Instrum	nent 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	
CognitiveTwo dipacts	V	0	trading model Continuous Auction Issuer.	
SecurityTradingStatus	Υ	0	Trading Halt	

Instrument Stat	e Change Me	essage –	Xetra T7 Releases 10.0 – 12.0 (from 22/11/2021)
Field name	Optional		Description
		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
		10	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	Indicate	es if product is in the state Fast Market. This indicator
			to a product but is provided on instrument level.
		0	No
		1	Yes
SecurityTradingEvent	Υ		es an event related to a SecurityMassTradingStatus.
		Applica	ble for cash market products only.
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous
			I Issuer trading model only).
		0	Not sold out (applicable for 7.0 & 7.1 only)
L Colo De c		1	Sold out
HighPx	Y		boundary price. For scheduled auctions (e.g. opening i), it may be set together with SecurityTradingEvent 1 =
			platility, auction is extended. For volatility auctions it
			e set immediately without SecurityTradingEvent. If the
		-	s absent, any previous upper boundary price is not valid
		any lon	

Instrument State	Instrument State Change Message – Xetra T7 Releases 10.0 – 12.0 (from 22/11/2021)			
Field name	Optional		Description	
LowPx	Y	auction) Price vo may be	ooundary price. For scheduled auctions (e.g. opening), it may be set together with SecurityTradingEvent 1 = latility, auction is extended. For volatility auctions it set immediately without SecurityTradingEvent. If the absent, any previous lower boundary price is not valid ger.	
TransactTime	N	Time wh (nanose	nen request was processed by the matcher econds).	
TESSecurityStatus	Y	0	Active	
		1	Inactive	
		2	Expired	
		5	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. De	epth snaps	hat T7 Ra	ا 2 معدما	<u> በ</u> 2/በ7/	′2017 _ 01/	′12 /2017`	ì
J.J.I.I. DE	entii Silans	HUL IZ NE	iease J.U i	U3/ U//	2017 - 017	16/ CUI/	,

Depth	Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)				
Field name	Optional		Description		
MsgType	N	Always '	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always	empty.		
SenderCompID	N	Unique	id of a sender.		
LastMsgSeqNumP rocessed	Y	Last me	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	Suspended		

Depth	Snapshot M	essage – 1	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)
Field name	Optional		Description
TESSecurityStatus	Y	Status c	of the instrument for TES trading.
		0	Active
		1	Inactive
		2	Expired
		3	Suspended
LastUpdateTime	N	Time of	last change for SecurityID (nanoseconds).
·			be any trade, change of the orderbook on any price level,
		or also	a product or instrument state change information conveyed
		in this n	nessage.
<mdsshgrp> seque</mdsshgrp>	nce starts	T	
NoMDEntries	N		
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for
NADE / T	N.I.		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
MDDaalt	\ <u>'</u>	9	Market Offer
MDBookType	Y	1	Price Depth
MDSubBookType	Y	Always	• •
TrdType	Y		OriginType 0 = Book defines when the trade happens. Only for MDEntryType=2 and TradeCondition=32.
			3, 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
<u> </u>	l		

Depth	Snapshot M	essage –	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)
Field name	Optional		Description
		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
		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	Y	0	None
ent		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
	Y	0	None

Depth	Snapshot M	ssage – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)		
Field name	Optional	Description		
PotentialSecurityT radingEvent		1 Price volatility, auction is extended		
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 th auction trade is reported. 1		
		128 Previous Closing Price		
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			
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.		
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> seque</mdsshgrp>	nce ends			

3.3.1.2. Depth snapshot, T7 Releases 6.0 - 6.1 (03/12/2017 - 30/11/2018)

Depth Si	Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
Field name	Optional	Optional Description				
MsgType	N	Always W = Market Data Snapshot Full Refresh.				
MsgSeqNum	Υ	Always empty.				
SenderCompID	N	Jnique id of a sender.				

Depth Sr	napshot Mes	ssage – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional	Description			
LastMsgSeqNum Processed	Υ	Last message sequence number sent regardless of message type.			
RefreshIndicator	Υ	Always empty.			
MarketSegmentI	N	Product identifier, e.g. 89.			
D					
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 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 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			
<mdsshgrp> sequ</mdsshgrp>	onco starts	this message.			
NoMDEntries	1				
	N	O Book for an exchange trading			
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			
- 7 7 7		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			

Depth Sr	napshot Mes	ssage –)	Ketra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)
Field name	Optional		Description
			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	s empty.
TrdType	Υ		OOriginType 0 = Book defines when the trade happens. Only
			nt for MDEntryType=2 and TradeCondition=32.
			3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and iginType 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	
TradingSessionID	Y		IPO Auction Trade sattached to the first MDEntry.
Tradingsessionib	ı	0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionS	Y	0	Pre-Trading
ubID	ı	1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatu	Y	0	Halted
s TESTFauSesStatu	ī	1	Open
		2	Closed
		3	Pre-Close
SecurityTradingS	Y		g status of an instrument.
tatus	·	0	Trading Halt
		1	Closed
		2	Restricted
			Nest reced

Depth Sr	napshot Mes	ssage – X	Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)	
Field name	Optional	Description		
		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	Υ	0	Normal	
		1	Stressed	
FastMarketIndica	Υ	0	No	
tor		1	Yes	
SecurityTradingE	Υ	1	Price volatility, auction is extended	
vent		2	Price volatility, auction is extended again	
PotentialSecurity	Υ	When	absent, there is no potential security trading event signalled.	
TradingEvent		1	Price volatility, auction is extended	
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	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 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	s empty.	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus	

Depth Sr	Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)					
Field name	Optional	Description				
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> sequence ends</mdsshgrp>						

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 '	Always W = Market Data Snapshot Full Refresh.		
MsgSeqNum	Υ	Always	empty.		
SenderCompID	N	Unique	id of a sender.		
LastMsgSeqNumProcess	Υ	Last me	ssage sequence number sent regardless of message		
ed		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 c	of the instrument.		
		0	Active		
		3	Knocked-Out, only applicable in trading model		
			Continuous Auction Issuer		
		Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer			
		5	Suspended		

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)
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 Change
		8	essages. Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer
TESSecurityStatus	Υ	Status c	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 ation conveyed in this message.
<mdsshgrp> sequence st</mdsshgrp>	arts	ı	
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
MDFata Tara	N.I.		MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		3	Trade
		5	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

Depth Snaps	hot Message	e – Xetra	T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional	Description		
MDSubBookType	Υ	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, 7, and 8 only present for MDEntryType 2 =		
			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	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	Trading	status of an instrument.	
		0	Trading Halt	
		1	Closed	
		2	Restricted	
		3	Book	
		4	Continuous	
		5	Opening Auction	

Pield name	Depth Snaps	hot Message	e – Xetra ⁻	Г7 Release 7.0 (03/12/2018 – 24/05/2019)
6 Opening Auction Freeze 7 Intraday Auction 8 Intraday Auction 7 Intraday Auction 8 Intraday Auction 7 Intraday A	·			
Trade			6	1
8			7	
9 Circuit Breaker Auction 10 Circuit Breaker Auction Freeze 11 Closing Auction 12 Closing Auction Freeze 13 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 Stressed market conditions 18 SecurityTradingEvent 19 Price volatility, auction is extended 2 Price volatility, auction is extended again PotentialSecurityTrading Event 20 No 1 Price volatility, auction is extended again PotentialSecurityTrading Event 30 No 1 Price volatility, auction is extended again PotentialSecurityTrading Event 40 No 1 Price volatility, auction is extended again PotentialSecurityTrading Event 50 No Not sold out 1 Price volatility, auction is extended 1 Price volatility, auction is extended 2 Price volatility, auction is extended 3 Not sold out 4 Not sold out 5 Not sold out 5 Not sold out 1 So			8	
TradeCondition Y Identifies the sold out Identifies the			9	
11 Closing Auction 12 Closing Auction Freeze 13 IPO Auction Freeze 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 18 Auction Issuer only 19 Auction Issuer only 19 Stressed market conditions 19 Stressed market conditions 10 No 10 Yes 10 Price volatility, auction is extended 10 Price volatility, auction is extended again 10 Price volatility, auction is extended again 10 Price volatility, auction is extended again 10 Price volatility, auction is extended 10 Price volatility, auction is extended 11 Price volatility, auction is extended 12 Price volatility, auction is extended 13 Price volatility, auction is extended 14 Price volatility, auction is extended 15 Price volatility, auction is extended 16 Price volatility, auction is extended 17 Price volatility, auction is extended 18 Price volatility, auction is extended 18 Price volatility, auction is extended 19 Price volatility, auction is extended 10 Price are sent then 10 Price				
12 Closing Auction Freeze 13 IPO Auction 14 IPO Auction 14 IPO Auction 15 Pre-Call applicable for trading model Continuous Auction Issuer only 16 Call applicable for trading model Continuous Auction Issuer only 16 Call applicable for trading model Continuous Auction Issuer only 17 Stressed market conditions 18 Stressed market conditions 18 Stressed market conditions 19 Price volatility, auction is extended 19 Price volatility, auction is extended 20 Price volatility, auction is extended again 19 Price volatility, auction is extended again 19 Price volatility, auction is extended 19 Price volatility, auction is extended 10				
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 16 Normal 1 Stressed market conditions 1 Yes Normal 1 Stressed market conditions Yes 1 Price volatility, auction is extended 2 Price volatility, auction is extended again Potential Security Trading Yes More absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended again Potential Security Trading Yentender Yen				
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 16 Call applicable for trading model Continuous Auction Issuer only 17 Call applicable for trading model Continuous Auction Issuer only 18 Normal 19 Stressed market conditions 19 Normal 19 Stressed market conditions 19 Normal 19 Yes 10 Price volatility, auction is extended 19 Price volatility, auction is extended 20 Price volatility, auction is extended again Potential Security Trading Yes 19 Price volatility, auction is extended 19 Price volatility, auction is extended 10 Price volatility, auction is extended 11 Price volatility, auction is extended 10 Price volatility, auction is				-
Total applicable for trading model Continuous Auction Issuer only				
Auction Issuer only 16 Call applicable for trading model Continuous Auction Issuer only				
MarketCondition			13	
MarketCondition Y 0 Normal 1 Stressed market conditions FastMarketIndicator Y 0 No 1 Yes SecurityTradingEvent PotentialSecurityTrading Event 1 Price volatility, auction is extended 2 Price volatility, auction is extended again Y When absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended SoldOutIndicator Y Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). 0 Not sold out 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 = 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 Exchange Last 2 Opening Price 4 High Price 8 Low Price 16 Official Closing Price 17 Eystematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			16	-
FastMarketIndicator FastMarketIndicator Y O No 1 Yes SecurityTradingEvent PotentialSecurityTrading Event PotentialSecurityTrading Event Y Inrice volatility, auction is extended 2 Price volatility, auction is extended again When absent, there is no potential security trading event signalled. I Price volatility, auction is extended Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). Not sold out I 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 = 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. Exchange Last Opening Price High Price Last Auction Price B Low Price Cofficial Closing Price Last Auction Price Last Auction Price B Low Price Midpoint price, prices resulting from from BEST executions Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
FastMarketIndicator Y 0 No 1 Yes SecurityTradingEvent Y 1 Price volatility, auction is extended 2 Price volatility, auction is extended again When absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended SoldOutIndicator Y Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). 0 Not sold out 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 = 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 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 from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	MarketCondition	Υ	0	Normal
SecurityTradingEvent Y 1 Price volatility, auction is extended 2 Price volatility, auction is extended again PotentialSecurityTrading Event Y When absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). 0 Not sold out 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 = 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 Exchange Last 2 Opening Price 4 High Price 8 Low Price 16 Official Closing Price 32 Last Auction Price 32 Last Auction Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			1	Stressed market conditions
SecurityTradingEvent Y 1 Price volatility, auction is extended 2 Price volatility, auction is extended again PotentialSecurityTrading Event Y When absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). O Not 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 = 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 Exchange Last 2 Opening Price 4 High Price 8 Low Price 16 Official Closing Price 18 Low Price 19 Previous Closing Price 19 Previous Closing Price 19 Previous Closing Price 10 Midpoint price, prices resulting from Yolume Discovery Orders (VDO) executed at midpoint	FastMarketIndicator	Υ	0	No
PotentialSecurityTrading Event PotentialSecurityTrading Event SoldOutIndicator Y Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). O Not sold out 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 = 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. Exchange Last Opening Price High Price High Price Last Auction Price Substitution Price A High Price Last Auction Price B Low Price To Official Closing Price Last Auction Price To Sold out Last Auction Price Last Auction Price B Low Price To Official Closing Price To Systematic Internalizer, prices resulting from from BEST executions Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			1	Yes
PotentialSecurityTrading Event Y When absent, there is no potential security trading event signalled. 1 Price volatility, auction is extended SoldOutIndicator Y Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). 0 Not sold out 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 = 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 Exchange Last 2 Opening Price 4 High Price 4 High Price 5 Low Price 16 Official Closing Price 32 Last Auction Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	SecurityTradingEvent	Υ	1	Price volatility, auction is extended
PotentialSecurityTrading Event Y	, ,		2	T
Event Signalled. 1 Price volatility, auction is extended	PotentialSecurityTrading	Υ	When a	<u> </u>
SoldOutIndicator Y Identifies the sold out status (applicable for Continuous Auction Issuer trading model only). Not sold out 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 = 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. Exchange Last Opening Price High Price Low Price Sold Official Closing Price Last Auction Price Systematic Internalizer, prices resulting from from BEST executions Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
Auction Issuer trading model only). O Not sold out			1	
Auction Issuer trading model only). O Not sold out	SoldOutIndicator	Υ	Identifie	es the sold out status (applicable for Continuous
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 Exchange Last 2 Opening Price 4 High Price 8 Low Price 16 Official Closing Price 16 Official Closing Price 128 Previous Closing Price 128 Previous Closing Price 129 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
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 Exchange Last 2 Opening Price 4 High Price 8 Low Price 16 Official Closing Price 16 Official Closing Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			0	Not sold out
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			1	Sold out
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 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 from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	TradeCondition	Υ	The valu	ues can be added together to form combinations of
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 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 from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			the valu	ies. If Exchange Last, High Price are sent then 1 + 4 = 5
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				
through 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 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				•
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 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
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 from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			_	· · · · · · · · · · · · · · · · · · ·
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 from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				,
4 High Price 8 Low Price 16 Official Closing Price 32 Last Auction Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
8 Low Price 16 Official Closing Price 32 Last Auction Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
16 Official Closing Price 32 Last Auction Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
32 Last Auction Price 128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
128 Previous Closing Price 512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				T
512 Systematic Internalizer, prices resulting from from BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
BEST executions 1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint				
1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint			512	, ,
Discovery Orders (VDO) executed at midpoint			1024	
			1024	
,, -,	MultiLegReportingType	Υ	Alwavs	· · · · · · · · · · · · · · · · · · ·

Depth Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)				
Field name	Optional	Description		
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	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			
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 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	Optional	Description	
MsgType	Ν	Always '	W = Market Data Snapshot Full Refresh.
MsgSeqNum	Υ	Always	empty.
SenderCompID	N	Unique	id of a sender.
LastMsgSeqNumProcess	Υ	Last me	ssage sequence number sent regardless of message
ed		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	Ν	Status of the instrument.	
		0	Active
		3	Knocked-Out, only applicable in trading model
			Continuous Auction Issuer

Depth Snapshot	Message – 2	Xetra T7 I	Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)
Field name	Optional	Description	
		4	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
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).
·			n be any trade, change of the orderbook on any price
			also a product or instrument state change
		informa	ation conveyed in this message.
<mdsshgrp> sequence sta</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.
		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	instruments) as well. Market Bid
			Market Offer
		9	ivial ket Offer

Depth Snapshor	t Message – 2	Xetra T7 F	Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)
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, and 9 only present for MDEntryType 2 = nd 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	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.
		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

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional	Description	
		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 (applicable since 8.0 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	Y		bsent, there is no potential security trading event
Event		signalle	
		1	Price volatility, auction is extended
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous
			I Issuer trading model only).
		0	Not sold out (applicable for 7.1 only) Sold out
TradeCondition	Y		ues can be added together to form combinations of
TradeCondition	ī		ues. If Exchange Last, High Price are sent then 1 + 4 = 5
		is receiv	
		Last Au and has through	ction Price cannot be combined with any other value its own entry in order to convey the auction type TrdType. Instrument state already changed to
		continu	ous when the auction trade is reported.

Depth Snapshot	Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional		Description	
		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 from BEST executions (applicable for 7.1 only)	
		1024	Midpoint price, prices resulting from Volume	
			Discovery Orders (VDO) executed at midpoint	
MultiLegReportingType	Υ	Always	· -	
MultiLegPriceModel	Υ	Always empty.		
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid	
MDE / D	.,	D :	or 1 = Offer to define a surplus	
MDEntryPx	Y	Price.		
MDEntrySize	Υ		y 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	Y	Book level. Absent for implied bid/offer prices.		
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry		
WDEHU YTHIIC	'		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	
		for the l	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	
	.,	part of the same entry.		
NonDisclosedTradeVolu	Υ		s the TES trade volume that is not displayed during	
me		the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.		
TotalNumberOfTrades	Υ		umber of trades during the day. Only present for	
			yType = 7.	
<mdsshgrp> sequence er</mdsshgrp>	nds			

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

Depth Snapshot Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)						
Field name	eld name Optional Description					
MsgType	N	N Always W = Market Data Snapshot Full Refresh.				
MsgSeqNum	Υ	Y Always empty.				
SenderCompID	N	Unique id of a sender.				

Depth Snaps	hot Message	e – Xetra T7	7 Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional		Description	
LastMsgSeqNumProcess ed	Y	Last message sequence number sent regardless of message type.		
RefreshIndicator	Υ	Always empty.		
MarketSegmentID	N	Product identifier, e.g. 89.		
SecurityID	N	Instrume	nt identifier, e.g. 8852.	
SecurityIDSource	N	Source Id	lentification. Always M = Marketplace-assigned	
ProductComplex	N	Type of ir	nstrument	
		0	Simple Instrument	
SecurityStatus	N	Status 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 of	the instrument for TES trading.	
		0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
LastUpdateTime	N	Time of la	ast change for SecurityID (nanoseconds).	
		level, or a	be any trade, change of the orderbook on any price also a product or instrument state change on conveyed in this message.	
<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.	

Depth Snaps	hot Message	e – Xetra T7	⁷ Release 8.1 (29/06/2020 – 20/11/2020)
Field name	Optional		Description
		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
		8	complex 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	
			sent for MDEntryType 2 = Trade and TradeCondition
			Auction Price.
			5, 6, 7, 8, and 9 only present for MDEntryType 2 =
		_	d 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 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

Field name TradingSessionID	Optional Y		Description	
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	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 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	

Depth Snaps	hot Message	e – Xetra T	7 Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional	Description		
PotentialSecurityTrading Event	Υ	When absent, there is no potential security trading event signalled.		
		1	Price volatility, auction is extended	
SoldOutIndicator	Υ	Identifies	s the sold out status (applicable for Continuous	
		Auction I	ssuer trading model only).	
		1	Sold out	
TradeCondition	Υ	The value	es can be added together to form combinations of	
		the value	es. If Exchange Last, High Price are sent then 1 + 4 = 5	
		is receive		
			tion Price cannot be combined with any other value	
			its own entry in order to convey the auction type	
		_	TrdType. Instrument state already changed to	
			us 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 from BEST executions (applicable for 7.1 only)	
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint	
MultiLegReportingType	Υ	Always e	mpty.	
MultiLegPriceModel	Υ	Always e	mpty.	
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	
			e Volume. TES disclosed quantity when	
			nType is 1 = Off-Book.	
NumberOfOrders	Y		of orders.	
MDPriceLevel	Υ		el. Absent for implied bid/offer prices.	
MDEntryTime	Υ		entry (nanoseconds) for last trade entry	
			ondition = 1 Exchange Last) and for one auction	
		-	ondition 32 = Last Auction Price) entry (e.g. when	
		there are opening, intraday and volatility auction trades, or 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	Υ	-	the TES trade volume that is not displayed during	
me	Ī		Only present for MDEntryType 7 = Trade Volume.	
		_	en trade volume is finally disclosed and also for	
		recovery	•	
	I		-	

Depth Snapshot Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)					
Field name	Optional Description				
TotalNumberOfTrades	Y Total Number of trades during the day. Only present for				
MDEntryType = 7.					
<mdsshgrp> sequence ends</mdsshgrp>					

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

Depth Snapsh	Depth Snapshot 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	Υ	Last message sequence number sent regardless of message		
ssed		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		
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 information		
		conveyed in this message.		
<mdsshgrp> sequence s</mdsshgrp>	I			
NoMDEntries	N	Number of market data (MD) entries.		

Depth Snapsh	ot Message	- Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
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	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	Y	For MDOriginType 0 = Book defines when the trade hap Only present for MDEntryType 2 = Trade and TradeCond 32 = Last Auction Price. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book Block Trade, used to report T7 Entry Service (TI	
			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

Depth Snapsh	ot Message	– Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
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	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	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

Depth Snapsh	ot Message -	- Xetra T	7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)
Field name	Optional	Description	
		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	Y	When a	absent, there is no potential security trading event ed.
		1	Price volatility, auction is extended
SoldOutIndicator	Υ	Identifi	es the sold out status (applicable for Continuous
			Issuer trading model only).
		1	Sold out
TradeCondition	Y		ues can be added together to form combinations of the If Exchange Last, High Price are sent then $1 + 4 = 5$ is
			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 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	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	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	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 Snapsh	Depth Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)				
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.			
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	Y	Total Number of trades during the day. Only present for MDEntryType = 7.			
<mdsshgrp> sequence 6</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	essage sequence number sent regardless of message
ssed		type.	
RefreshIndicator	Υ	Always	empty.
MarketSegmentID	Ν	Produc	t identifier, e.g. 89.
SecurityID	Ν	Instrum	nent identifier, e.g. 8852.
SecurityIDSource	Ν		Identification. Always M = Marketplace-assigned
		identifi	er.
ProductComplex	N	Type of instrument	
		0	Simple Instrument
SecurityStatus	Ν	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.

Depth Snapshor	t Message –	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional		Description
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of	f last change for SecurityID (nanoseconds).
		This car	n be any trade, change of the orderbook on any price
		level, o	r also a product or instrument state change information
		convey	ed 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
		10	Imbalance
			Applicable for Continuous Auction Issuer trading
			model only. Is used instead of QuoteCondition 1 =
			Order Imbalance for products for which the
MDRookTyrs	\ <u>\</u>	1	imbalance side is not disclosed.
MDBookType	Y	1	Price Depth
MDSubBookType TrdType	Y	Always	· ·
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, 9, 10, 11, and 12 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)

Depth Snapsho	t Message – I	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional		Description
		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 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
		4	Continuous
		5	Opening Auction
	l .	l	, ,

Depth Snapshot	: Message – :	Xetra T7	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional	Description	
		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 absent, there is no potential security trading event signalled.	
		1 Price volatility, auction is extended	
SoldOutIndicator	Υ		es the sold out status (applicable for Continuous n Issuer trading model only).
		1	Sold out
HighPx	Υ	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	
		any lon	s absent, any previous upper boundary price is not valid
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	Υ	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	

Depth Snapshot	: Message –	Xetra T7 I	Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)
Field name	Optional	Description	
		through 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	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	Υ		y or trade volume when MDEntryType is 2 = Trade or 7
			Volume. TES disclosed quantity when MDOriginType is
No see house Countries	V	1 = Off-I	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	Y	Book level. Absent for implied bid/offer prices.	
MDEntryTime	Υ		entry (nanoseconds) for last trade entry
			ondition = 1 Exchange Last) and for one auction
		-	ondition 32 = Last Auction Price) entry (e.g. when there ning, intraday and volatility auction trades, only for the
		•	tion 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
			the same entry.
NonDisclosedTradeVol	Υ		s the TES trade volume that is not displayed during the
ume		day. On	ly present for MDEntryType 7 = Trade Volume. Used
		when tr	ade volume is finally disclosed and also for recovery.
TotalNumberOfTrades	Υ	Total Nu	umber of trades during the day. Only present for
		MDEntr	yType = 7.
<mdsshgrp> sequence e</mdsshgrp>	ends		

3.3.1.1. Depth snapshot, T7 Release 12.0 (from 20/11/2023)

Depth Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)			
Field name	Optional Description		
MsgType	Ν	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.	

Depth Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)				
Field name	Optional	Description		
RefreshIndicator	Y	Always empty.		
MarketSegmentID	N	Product identifier, e.g. 89.		
SecurityID	N	Instrume	ent identifier, e.g. 8852.	
SecurityIDSource	N		dentification. Always M = Marketplace-assigned	
,		identifier		
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 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	
TECC - avait Chatus			trading model Continuous Auction Issuer	
TESSecurityStatus	Υ	1	the instrument for TES trading.	
		0	Active	
		1	Inactive	
		2	Expired	
		5	Suspended	
LastUpdateTime	N		ast change for SecurityID (nanoseconds).	
			be any trade, change of the orderbook on any price	
			also a product or instrument state change information	
<ndcchcrp> coguence cta</ndcchcrp>	rtc	conveyed	d in this message.	
<mdsshgrp> sequence sta NoMDEntries</mdsshgrp>	N	Number	of market data (MD) entries.	
	N	0		
MDOriginType	IN	_	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	
in Dentry Type	I N	1	Offer	
		2	Trade	
		3		
		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	

Depth Sn	apshot Me	ssage – X	etra T7 Release 12.0 (from 20/11/2023)
Field name	Optional	Description	
			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 6	empty.
TrdType	Υ		OriginType 0 = Book defines when the trade happens.
			esent for MDEntryType 2 = Trade and TradeCondition 32
			uction Price.
			4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 only present for
			yType 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
		11	Xetra Eurex Enlight Triggered Trade may be set
			together with MDOriginType 1 = Off-Book and
		4.2	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

Depth S	napshot Me	ssage – >	Ketra T7 Release 12.0 (from 20/11/2023)
Field name	Optional	Description	
	·	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	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
MarketCondition	Υ	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Υ	0	No
		1	Yes
	1	i .	1

Depth Sn	apshot Me	ssage – Xetra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional	Description	
SecurityTradingEvent	Υ	1 Price volatility, auction is extended	
		2 Price volatility, auction is extended again	
PotentialSecurityTradingE	Υ	When absent, there is no potential security trading event	
vent		signalled.	
		1 Price volatility, auction is extended	
SoldOutIndicator	Υ	Identifies the sold out status (applicable for Continuous Aucti	ion
		Issuer trading model 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.	
TradeCondition	Υ	The values can be added together to form combinations of the	าе
		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 Exchange Last	
		2 Opening Price	
		4 High Price 8 Low Price	
		16 Official Closing Price 32 Last Auction Price	
		128 Previous Closing Price	
Multil og Donouting -Tono	\/	4096 Retail Price	
MultiLegReportingType	Y	Always empty.	
MultiLegPriceModel	Y	Always empty.	
QuoteCondition	Y	1 Order imbalance together with MDEntryType 0 = Bio 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 Snapshot Message – Xetra T7 Release 12.0 (from 20/11/2023)			
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 en</mdsshgrp>	ds		

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		The sequence number is incremented per product across all message types on a particular feed.		
SenderCompID	N	Unique i	d of a sender.		
MarketSegmentID	N	Product	dentifier, 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.		
		2	Delete, delete a specified price level.		

Depth Ir	ncremental N	Лessage – Х	Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)		
Field name	Optional	Description			
		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		
2 9 91		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	Instrument identifier, e.g. 8852.			
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.			
MDEntryPx	Υ	-	de or order).		
MDEntrySize	Υ	Quantity or trade volume when MDEntryType = 2 or 7. TES			
NumberOfOrders	Y	disclosed quantity when MDOriginType 1 = Off-Book.			
MDPriceLevel			Number of orders.		
	Y	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	Υ	1	Order imbalance together with MDEntryType 0 = Bid or 1		
Quotecondition	'	'	= Offer to define a surplus		
<tradeentrygrp> (or</tradeentrygrp>	ptional) grou	ıp starts, o	nly present for MDEntryType=2 (Trade).		
TrdType	Υ	1	riginType 0 = Book defines when the trade happens. Only		
31			or MDEntryType = 2 and TradeCondition = 32 Last Auction		
		Price Pric	e, with the exception of cross auction trades which do not		
			a last auction price, i.e. TradeCondition = 32 is not set for		
			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		

Depth Incremental Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)					
Field name	Optional		Description		
		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		
TradeCondition	Υ	Defines t	he type of price for MDEntryPx. Only present for		
			Type 2 = Trade.		
		The value	es can be added together to form combinations of the		
			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	Υ		e incoming order, which created the trade. Only present		
			tryType = 2 Trade.		
		0	Buy		
		1	Sell		
NumberOfBuyOrd ers	Y		of buy orders involved in this trade. Only present for Type = 2 Trade.		
NumberOfSellOrd	Υ	-	of sell orders involved in this trade. Only present for		
ers	'	MDEntryType = 2 Trade.			
TotalNumberOfTr	Υ		nber of trades during the day. Only present for		
ades			MDEntryType = 2 Trade.		
RestingCxlQty	Υ	Quantity	that was cancelled due to SMP. Only present for		
			Гуре = 2 Trade.		
MDEntryID	Y	_	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTrad	Υ		the TES trade volume that is not displayed during the day.		
eVolume			sent for MDEntryType 7 = Trade Volume. Used when trade		
		volume is finally disclosed and also for recovery.			
<tradeentrygrp> (optional) group ends</tradeentrygrp>					
<tradeentrygrp> (or</tradeentrygrp>	l ptional) grou		initially disclosed diffe disc for recovery.		

3.3.2.2. Depth incremental, T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)

Depth Incremental Me	ssage – Xetr	a T7 Rel	eases 6.0 – 6.1 (03/12/2017 – 30/11/2018)
Field name	Optional		Description
MsgType	N	Always	X = Market Data Incremental Refresh.
MsgSeqNum	N	The se	quence number is incremented per product
		across	all message types on a particular feed.
SenderCompID	Ν	Unique	e id of a sender.
MarketSegmentID	Ν	Produc	ct identifier, e.g. 89.
<mdincgrp> sequence starts</mdincgrp>			
NoMDEntries	Ν	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
MDEntryType	N	0	change. Bid
Moentry type	14	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	Source identifi	e identification. Always M = Marketplace-assigned ier.
MDEntryPx	Υ	Price (t	rade or order).

Depth Incremental Me	ssage – Xetr	ra T7 Rel	eases 6.0 – 6.1 (03/12/2017 – 30/11/2018)
Field name	Optional		Description
MDEntrySize	Y	-	ty or trade volume when MDEntryType = 2 or 7. closed quantity when MDOriginType 1 = Off-
NumberOfOrders	Υ	Numbe	er of orders.
MDPriceLevel	Υ	Book le	evel. Absent for implied bid/offer prices.
MDEntryTime	Υ	For bid	s and offers the official time of book entry, for
-		trades	official time of execution (all in nanoseconds).
PotentialSecurityTradingEven t	Y	When a trading	absent, there is no change in potential security gevent.
		0	None Signals a reset. Snapshot will change to
			absent in this case.
		1	Price volatility, auction is extended
QuoteCondition	Y	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		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
		not set	rades. For trades outside the auctions, this field is
			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
			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
		+ 4 =	5 is received.

Depth Incremental Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional		Description
		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
		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
		0.1	from BEST executions
		1024	Midpoint price, prices resulting from Volume
			Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Υ	Always	s empty.
MultiLegPriceModel	Υ	Always	s empty.
AggressorTime	Y	Entry t	ime of the incoming order that triggered the trade
			oseconds). Only present for MDEntryType = 2
		Trade.	
RequestTime	Y		ay-In timestamp (in nanoseconds).
AggressorSide	Υ		f the incoming order, which created the trade.
			resent for MDEntryType = 2 Trade.
		0	Buy
N		1	Sell
NumberOfBuyOrders	Y		er of buy orders involved in this trade. Only
NumberOfSellOrders	Υ		nt for MDEntryType = 2 Trade. er of sell orders involved in this trade. Only
Number Orsellorders	ı		it for MDEntryType = 2 Trade.
TotalNumberOfTrades	Υ		Number of trades during the day. Only present for
. stantamaci or irrades			ryType = 2 Trade.
RestingCxlQty	Υ		ity that was cancelled due to SMP. Only present
			EntryType = 2 Trade.
MDEntryID	Y	Repres	sents the match step ID. This field is unique
		togeth	er with MarketSegmentID. Only present for
			ryType = 2.
NonDisclosedTradeVolume	Υ		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 r recovery.
<pre><tradeentrygrp> (optional) gr</tradeentrygrp></pre>	nun ends	ais0 i0	i recovery.
<pre><mdincgrp> sequence ends</mdincgrp></pre>	oup crius		
Midifically sequence ends			

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		Description	
MsgType	N	Always	s 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	Produ	ct identifier, e.g. 89.	
<mdincgrp> sequenc</mdincgrp>	e starts			
NoMDEntries	N	Numb	er of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading	
3 71		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	
MDFraterities	N.I.	0	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	Instrui	nent identifier, e.g. 8852.	
SecurityIDSource	N	Source	e identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Υ	Quant	ity or trade volume when MDEntryType = 2 or 7. TES	
		disclosed quantity when MDOriginType 1 = Off-Book.		

Depth Inc	remental Me	essage – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)		
Field name	Optional	Description		
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	Υ	When absent, there is no change in potential security trading		
dingEvent		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 1		
T 15 . C . (.	. 15	= Offer to define a surplus		
		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 trades outside the auctions, this field is not set.		
		0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade		
		and 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		
		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		
		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		
T 1.0 100	.,	submitted by a trading algorithm.		
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		
		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.		
		received.		

Depth Inc	remental Me	essage -	- Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)	
Field name	Optional		Description	
		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.	
		512	Systematic Internalizer, prices resulting from from BEST executions	
		1024	Midpoint price, prices resulting from Volume Discovery	
	.,	Orders (VDO) executed at midpoint		
MultiLegReportingT ype	Y	Always	s empty.	
MultiLegPriceModel	Y	Always empty.		
AggressorTime	Y	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		f the incoming order, which created the trade. Only present DEntryType = 2 Trade.	
		0	Buy	
		1	Sell	
NumberOfBuyOrde rs	Y	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.		
NumberOfSellOrder s	Y	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.		
TotalNumberOfTrad	Y	Total Number of trades during the day. Only present for		
RestingCxlQty	Y	MDEntryType = 2 Trade. Quantity that was cancelled due to SMP. Only present for		
MDEntryID	Y	MDEntryType = 2 Trade. Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.		
NonDisclosedTrade Volume	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> (opt</tradeentrygrp>	ional) group	ends		
<mdincgrp> sequenc</mdincgrp>	e ends			

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

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 starts N Number of market data (MD) entries. MDOriginType N Number of market data (MD) entries. MDOriginType N Number of market data (MD) entries. MDOriginType N O Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDUpdateAction N New, indicates either that a new price level is created in the order book or a trade. 1 Change, indicates either that a new 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 ≤ specified price level. 4 Delete From, delete all price levels ≤ specified price level. 5 Overlay, change the price o</mdincgrp>	Depth Incren	nental Mess	age – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)		
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 starts Sequence starts NOMDEntries N Number of market data (MD) entries. MDOriginType N Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDUpdateAction N 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 Cl</mdincgrp>	•				
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 starts N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading MDOriginType 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume MDUpdateAction N 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 MDEntryType N 4 Delete Thru, 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.</mdincgrp>	MsgType	•			
SenderCompID N Unique id of a sender. MarketSegmentID N Product identifier, e.g. 89. <mdincgrp> sequence starts N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading MDOriginType 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</mdincgrp>		N	-		
MarketSegmentID N Product identifier, e.g. 89. MDIncGrp> sequence starts N Number of market data (MD) entries. MDOriginType N 0 Book for on-exchange trading MDUpdateAction 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 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			message types on a particular feed.		
MDIncGrp> sequence starts NoMDEntries N	SenderCompID	N	Unique id of a sender.		
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 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	MarketSegmentID	N	Product identifier, e.g. 89.		
MDOriginType N O Book for on-exchange trading 1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume N N N N N N N N N N N N N	<mdincgrp> sequenc</mdincgrp>	e starts			
1 Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume N 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	NoMDEntries	N	Number of market data (MD) entries.		
MDEntryType 2 = Trade or 7 = Trade Volume N	MDOriginType	N	0 Book for on-exchange trading		
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					
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					
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	MDUpdateAction	N	·		
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					
level should be updated. 2					
Delete, delete a specified price level. Delete Thru, delete all price levels from 1 to the specified price level. Delete From, delete all price levels ≥ specified price level. Delete From, delete all price levels ≥ specified price level. Overlay, change the price of a given price level, other parameters, e.g quantity might also change. MDEntryType N Bid Offer Trade Auction Clearing Price Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total			·		
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					
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			1 1		
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			, '		
Ievel. 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					
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			5 Overlay, change the price of a given price level, other		
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					
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	MDEntryType	N			
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			1 Offer		
7 Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total			2 Trade		
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			3.		
when TESTradSesStatus changes to 3 = Pre-Close.					
8 Market Bid					
9 Market Offer					
10 Imbalance. Applicable for Continuous Auction Issuer			10 Imbalance. Applicable for Continuous Auction Issuer		
trading model only. Is used instead of QuoteCondition					
1 = Order Imbalance for products for which the			1 = Order Imbalance for products for which the		
imbalance side is not disclosed.			imbalance side is not disclosed.		
SecurityID N Instrument identifier, e.g. 8852.	SecurityID	N	Instrument identifier, e.g. 8852.		
SecurityIDSource N Source identification. Always M = Marketplace-assigned identifier.		N	Source identification. Always M = Marketplace-assigned identifier.		
MDEntryPx Y Price (trade or order).	MDEntryPx	Υ			

Depth Incren	nental Mess	age – Xetra	T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)	
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	Υ	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.		
		0	None Signals a reset. Snapshot will change to absent in this case.	
		1	Price volatility, auction is extended	
QuoteCondition	Y	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	Only pres Auction P not estab set for th	riginType 0 = Book defines when the trade happens. sent for MDEntryType=2 and TradeCondition=32 Last Price, with the exception of cross auction trades which do which a last auction price, i.e. TradeCondition = 32 is not esse trades. Suchange 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		he type of price for MDEntryPx. Only present for Type 2 = Trade.	
			es 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.	
		512	Systematic Internalizer, prices resulting from 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 er	npty.	
AggressorTime	Y	_	e of the incoming order that triggered the trade (in onds). 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 prese for MDEntryType = 2 Trade.		
		0	Buy	
		1	Sell	
NumberOfBuyOrde rs	Y		of buy orders involved in this trade. Only present for Type = 2 Trade.	
NumberOfSellOrder s	Y		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 In	cremental M	essage – X	Zetra T7 Release 8.1 (29/06/2020 – 20/11/2020)	
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> sequen</mdincgrp>	ce 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	
		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 Inc	remental Me	essage – Xe	etra T7 Release 8.1 (29/06/2020 – 20/11/2020)
Field name	Optional		Description
			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	Instrume	nt identifier, e.g. 8852.
SecurityIDSource	N	Source id	entification. 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	Υ	When absent, there is no change in potential security trading event.	
		0	None Signals a reset. Snapshot will change to absent in this case.
		1	Price volatility, auction is extended
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
<pre><tradeentrygrp> (optional) group starts, only present for MDEntryType=2 (Trade).</tradeentrygrp></pre>		y present for MDEntryType=2 (Trade).	
TrdType	Y		
		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 Inc	remental Me	essage – Xe	etra 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 icator	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	Υ	MDEntry The value	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.		
		512	Systematic Internalizer, prices resulting from 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.		

Depth Inc	remental Me	essage – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)	
Field name	Optional	Description	
		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.	
MultiLegReportingT ype	Y	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	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade. 0 Buy 1 Sell	
NumberOfBuyOrde rs	Y	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.	
NumberOfSellOrder s	Y	Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.	
TotalNumberOfTrad es	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	Υ	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTrade Volume	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> 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 >	(= Market Data Incremental Refresh.		
MsgSeqNum	N	The seq	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 starts</mdincgrp>					
NoMDEntries	N	Number of market data (MD) entries.			
MDOriginType	N	0	Book for on-exchange trading		

Depth Increme	ntal Messag	e – Xetra	T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)
Field name	Optional		Description
		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
		2	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
		10	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	Source	identification. Always M = Marketplace-assigned
		identifie	er.
MDEntryPx	Υ	Price (tr	ade 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		vel. 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	Υ		bsent, there is no change in potential security trading
ngEvent	•	event.	,
		0	None Signals a reset. Snapshot will change to absent in
			this case.

Depth Increme	ntal Messag	e – Xetra	T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)	
Field name	Optional		Description	
		1	Price volatility, auction is extended	
QuoteCondition	Υ	1	Order imbalance together with MDEntryType 0 = Bid or	
			1 = Offer to define a surplus	
<tradeentrygrp> (option</tradeentrygrp>	nal) group s	tarts, onl	y present for MDEntryType=2 (Trade).	
TrdType	Υ	For MDOriginType 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.	
		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	Υ	0	Algorithmic Trade. A trade has to be flagged as	
ator			"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.	
			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	
		0	LOWITICE	

Depth Increme	ntal Messag	e – Xetra	T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)
Field name	Optional		Description
		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	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
		1024	Trading On Terms Of Issue
		2048 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. Trade At Close
MultiLegReportingTyp	Υ	Always	
e	'	Aiways	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	Y		the incoming order, which created the trade. Only for MDEntryType = 2 Trade. Buy Sell
NumberOfBuyOrders	Υ		r of buy orders involved in this trade. Only present for yType = 2 Trade.
NumberOfSellOrders	Υ	Numbei	r of sell orders involved in this trade. Only present for yType = 2 Trade.
TotalNumberOfTrade s	Υ	Total Nu	umber of trades during the day. Only present for yType = 2 Trade.
RestingCxlQty	Υ	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Υ	Represe	ents the match step ID. This field is unique together with SegmentID. Only present for MDEntryType = 2.
NonDisclosedTradeVo lume	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> (optio</tradeentrygrp>	nal) group e	ends	
<mdincgrp> sequence</mdincgrp>	ends		

3.3.2.7. Depth incremental, T7 Release 12.0 (from 20/11/2023)

Depth Ir	ncremental I	Message	– Xetra T7 Release 12.0 (from 20/11/2023)
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	Ν	Unique	id of a sender.
MarketSegmentID	Ν	Product	identifier, e.g. 89.
<mdincgrp> sequence :</mdincgrp>	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
		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	l ent identifier, e.g. 8852.

Depth Ir	ncremental I	Message	– Xetra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional	Description		
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.		
MDEntryPx	Υ	Price (trade or order).		
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 lev	vel. Absent for implied bid/offer prices.	
MDEntryTime	Y		and offers the official time of book entry, for trades ime of execution (all in nanoseconds).	
PotentialSecurityTradi ngEvent	Υ	When all event.	osent, 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> (optio</tradeentrygrp>	nal) group s	tarts, only	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	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	Delta Trade At Market	
		14	Opening Auction Trade	
		15	Intraday Auction Trade	
		16	Volatility Auction Trade	

Depth I	ncremental	Message	– Xetra T7 Release 12.0 (from 20/11/2023)	
Field name	Optional	Description		
		17	Closing Auction Trade	
		18	Cross Auction Trade	
		19	IPO Auction Trade	
		20	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	
0.001			submitted by a trading algorithm.	
TradeCondition	Υ	Defines	the type of price for MDEntryPx. Only present for	
			yType 2 = Trade.	
		The valu	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	
			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	Υ	Always	empty.	
е		<u> </u>	· ·	
MultiLegPriceModel	Υ	Always empty.		
AggressorTime	Υ	-	ne of the incoming order that triggered the trade (in	
		nanosed	conds). Only present for MDEntryType = 2 Trade.	
RequestTime	Υ	Gateway	y-In timestamp (in nanoseconds).	
AggressorSide	Υ	0 ,		
			present for MDEntryType = 2 Trade.	
		0	Buy	

Depth Incremental Message – Xetra T7 Release 12.0 (from 20/11/2023)					
Field name	Optional	Description			
		1 Sell			
NumberOfBuyOrders	Y	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.			
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 – 12.0 (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 – 12.0 (from 03/07/2017)				
Field name	Optional	Description		
MsgType	Ν	Always R = Quote 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.		
<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	

Quote Request Message – Xetra T7 Releases 5.0 – 12.0 (from 03/07/2017)			
Field name	Optional Description		
OrderQty	Y	Defines the requested quantity which can be zero in a quote request.	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	
<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 – 12.0 (from 03/12/2018)

Cross Request Message – Xetra T7 Releases 7.0 – 12.0 (from 03/12/2018)			
Field name	Optional	Description	
MsgType	N Always U16 = Cross Request.		
MsgSeqNum	N	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.	

Cross Request Message – Xetra T7 Releases 7.0 – 12.0 (from 03/12/2018)					
Field name	Optional	Description			
SecurityIDSource	N	Identifies class or source of the SecurityID value. Required if SecurityID is specified. Always M = Marketplace-assigned			
		identifier.			
OrderQty	Υ	Defines t	he requested quantity which cannot be zero in a		
		cross req	uest.		
CrossRequestType	Ν	0	Cross Announcement		
		1	Liquidity Improvement Cross		
<crossrequestsidegrp> (c</crossrequestsidegrp>	<crossrequestsidegrp> (optional) sequence starts</crossrequestsidegrp>				
NoCrossRequestSideGrp	Ν	Always 1.			
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

 $32668037104,7,16020,49,26,,,[],[[\{2,13.96,10000,1,1,2\}][\{2,13.95,7502,1,2,1\}][\{2,13.74,39001,1,3,1\}][\{2,13.59,35000,1,4,1\}][\{1,14.03,10000,1,1,2\}][\{1,14.04,7502,1,2,1\}][\{1,14.26,39001,1,3,1\}][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1\}][\{1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][\{1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,35000,1,4,1]][[1,14.37,350$

Example: Order book delta / incremental message Version 14				
Name	Optional	Value	Description	
entryTime	N	326680	Time of last order book update of all updates in the	
		37104	message, in microseconds since midnight CET/CEST.	
srcId	Ν	7	Identifier of the message disseminating source.	
isix	N	16020	Xetra internal instrument identifier.	
seqNum	Ν	49	Sequence number for synchronization purposes when	
			comparing messages coming from the same source.	
instrStatus	Ν	26	Identifier of a trading phase or fast market status, 26 =	
			Continuous trading.	
gapIndicator	Υ	Empty	Always Y, indicates that the Xetra interface may have	
			missed some of the latest orderbook changes.	
trdgapIndicator	Υ	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></entriestrades>	[] = The sequence is sent if a trade occurs, here it is empty.			
sequence				
<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	Ν	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.	

Example: Order book delta / incremental message Version 14			
Name	Optional	Value	Description
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> sequence</entriesprc>	[] = The sequence is filled whenever there is a new daily high, daily low, opening 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" <u>delta</u>		
			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>	This seque	This sequence is filled when there is any information on last trade price, in			
sequence	subscriptio	subscription price, last auction price, last midpoint trade, last BEST price or last			
	trade price	with Bund	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	Υ	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 active in an auction.				
(optional) group					

Order book snapshot message Version 14					
Nama					
Name	Optional	Value	Description		
moiInd	Υ	Empty	No market order interruption indicator.		
volInd	Υ	Empty	No Volatility indicator type.		
<entriesauction></entriesauction>	Here there	Here there are two repetitions.			
sequence					
entryType	N	14	14 = Matching range bid.		
entryPrc	Υ	102.713	Potential auction price or matching range bid/ask price.		
entryQty	Υ	50000	Potential auction quantity, matching range BID/ASK		
			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	price, closing price, valuation price. Here there are four repetitions.				
entryType	N	20	20 = Daily high price.		
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:

 $33844381829, \\ 13,20488, \\ 513,26, \\ [\{4,35.88,100,353,33073594084,4,210145\}][\{6,35.86,70,,32661012713,,\}]\\ [\{2,35.6,400,1,1\}][\{2,35.5,240,1,2\}][\{2,35.45,200,1,3\}][\{2,35.385,500,1,4\}][\{2,35.355,2500,1,5\}][\{2,35.35,30,1,6\}][\{2,35.25,200,1,7\}][\{2,35.24,150,1,8\}][\{2,35.185,1500,1,9\}][\{2,35.02,110,1,10\}][\{2,35,4805,9,11\}][\{2,34.94,6596,1,12\}][\{2,34.85,120,1,13\}][\{2,34.76,2724,1,14\}][\{2,34.06,7859,2,15\}][\{2,34,310,3,16\}][\{2,33.9,85,2,17\}][\{2,33.8,200,1,18\}][\{2,33.44,210,1,19\}][\{2,30,1650,1,20\}][\{1,35.67,300,1,1\}][\{1,35.75,500,1,2\}][\{1,35.78,2500,1,3\}][\{1,36.5,200,1,4\}][\{1,36.1,400,1,5\}][\{1,36.185,1500,1,6\}][\{1,36.28,300,1,7\}][\{1,36.365,5220,1,8\}][\{1,36.5,200,1,9\}][\{1,37.4,65,1,15\}][\{1,37.5,200,1,16\}][\{1,37.8,650,1,17\}][\{1,38,200,1,18\}][\{1,38.35,100,1,19\}][\{1,38.49,700,2,20\}]], [[\{20,35.88\}][\{21,35.77\}][\{5,35.86\}][\{8,35.625\}][\{7,35.625\}]]$

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).