eurofidai

UAR CNRS / ESSEC 3390

EUROPEAN HIGH FREQUENCY FINANCIAL DATABASE (BEDOFIH)

Euronext Paris

CBOE Europe BXE CXE DXE

London Stock Exchange

Turquoise

Xetra

Version 12.0 – December 2024

Contents

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	Euronext 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 2017[1]). 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

<u>Orders submitted during the current trading day</u>

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.

<u>Orders submitted during previous trading day that are still present in the order book</u>

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	ISIN 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	
		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	Microsecond of order modification or cancelation by the broker, represented by a number between 0 and 999999.	
o_d_en	19	Date at which the order entered the system, YYYYMMDD.	
o_t_en	20	Time at which the order entered the system. Always 00:00:00.	
o_sq_nb	21	Sequence number of the order, queuing identifier.	
o_sq_nbm	22	Sequence number of the modified order when o_state = 5 (modified). It is the new queuing identifier of the modified order.	
o_d_p	23	Priority date of the order, YYYYMMDD. The set (o_d_p, o_t_p, o_m_p) gives the exact date-time-microsecond of order priority.	
o_t_p	24	Priority time of the order, hh:mm:ss.	
o_m_p	25	Priority microsecond of the order, represented by a number between 0 and 999999.	
o_state	26	State of the order.	
		O	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
		C	Canceled by the trading system
		P	Canceled by the self-trade prevention (STP) mechanism
o_currency	27	Currency.	
o_bs	28	Order side.	
		B	Buy
		S	Sell
o_type	29	Order type.	
		1	Market order
		2	Limit order
		3	Stop Market order
		4	Stop Limit order
		P	Pegged order
		K	Market to Limit order
o_execution	30	Execution instruction (if any).	
		R	Primary peg (track the best bid (ask) for buy (sell) orders) when o_type = P

<table>
<tr><th colspan="4">Order file – AMF Euronext Paris</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td>m</td><td>Market to Limit (execute at the prevailing price) when o_type = K</td></tr>
<tr><td>o</td><td>Market on Opening (order to execute at the opening price) when o_type = K</td></tr>
<tr><td>X</td><td>Cross (match a buy and a sell order at a specified price in a single transaction) when o_type = 2</td></tr>
<tr><td rowspan="8">o_validity</td><td rowspan="8">31</td><td colspan="2">Order validity.</td></tr>
<tr><td>0</td><td>Good for Day</td></tr>
<tr><td>1</td><td>Good till Cancel</td></tr>
<tr><td>2</td><td>Valid for Auction, this order is processed during the opening or closing auction</td></tr>
<tr><td>3</td><td>Immediate or Cancel (Fill and kill)</td></tr>
<tr><td>4</td><td>Fill or Kill</td></tr>
<tr><td>6</td><td>Good until Specified date</td></tr>
<tr><td>7</td><td>Valid for Closing, this order is processed only during the closing auction</td></tr>
<tr><td>o_d_expiration</td><td>32</td><td colspan="2">Date of the expiration of the order, YYYYMMDD. The set (o_d_expiration, o_t_expiration) gives the date-time of potential order expiration, given that the order is not executed, modified or canceled earlier (the maximum lifetime of an order in the Euronext Paris platform is 365 days).</td></tr>
<tr><td>o_t_expiration</td><td>33</td><td colspan="2">Time of the expiration of the order, hh:mm:ss.</td></tr>
<tr><td>o_price</td><td>34</td><td colspan="2">Order price. For market orders (pure market, stop market or market to limit orders) it is zero.</td></tr>
<tr><td>o_price_stop</td><td>35</td><td colspan="2">Outbreak threshold price for orders with stop condition (e.g., stop limit orders).</td></tr>
<tr><td>o_price_dfpg</td><td>36</td><td colspan="2">Price difference for a pegged order. Always 0.</td></tr>
<tr><td>o_disoff</td><td>37</td><td colspan="2">Discretionary offset component for pegged orders. Always 0. Reserved until discretionary offsets are introduced in France.</td></tr>
<tr><td>o_q_ini</td><td>38</td><td colspan="2">Initial order size.</td></tr>
<tr><td>o_q_min</td><td>39</td><td colspan="2">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 order remains on the market. If the minimum quantity is not immediately executed, the entire order is canceled.</td></tr>
<tr><td>o_q_dis</td><td>40</td><td colspan="2">Disclosed quantity for iceberg orders. For any other type of orders it is equal to 0.</td></tr>
<tr><td>o_q_neg</td><td>41</td><td colspan="2">Cumulative quantity negotiated for a given fundamental ID.</td></tr>
<tr><td rowspan="3">o_app</td><td rowspan="3">42</td><td colspan="2">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). This service uses a trading algorithm privileging a Price-Member-Time priority, which allows buy and sell orders at the best price originated by the same member firm subscribing to this service to be matched in Euronext’s central order book.</td></tr>
<tr><td>0</td><td>No application</td></tr>
<tr><td>1</td><td>Cross order (act of matching a buy order with a sell order through a single transaction)</td></tr>
</table>

<table>
<tr><th colspan="4">Order file – AMF Euronext Paris</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td rowspan="5"></td><td rowspan="5"></td><td>3</td><td>Basket cross order (act of matching an order to buy or sell a group of securities simultaneously)</td></tr>
<tr><td>4</td><td>Valuation trade, orders from market makers aiming at initiate the trading day for illiquid securities</td></tr>
<tr><td>5</td><td>No application (IMS)</td></tr>
<tr><td>6</td><td>Cross order (IMS)</td></tr>
<tr><td>7</td><td>Basket cross order (IMS)</td></tr>
<tr><td rowspan="6">o_origin</td><td rowspan="6">43</td><td colspan="2">Trading origin (initiative) of the order (if filled by the member).</td></tr>
<tr><td>I</td><td>Index trading arbitrage, index arbitrage focuses on index components</td></tr>
<tr><td>P</td><td>Portfolio strategy</td></tr>
<tr><td>G</td><td>Unwind order, order aiming at hedging a position</td></tr>
<tr><td>A</td><td>Other orders</td></tr>
<tr><td>C</td><td>Cross margining, market participants transfer excess margin from one account to another account with margin less than the required maintenance margin</td></tr>
<tr><td rowspan="7">o_account</td><td rowspan="7">44</td><td colspan="2">User account.</td></tr>
<tr><td>1</td><td>Client account, the member operates for a client</td></tr>
<tr><td>2</td><td>Own account, the member of operates for himself</td></tr>
<tr><td>3</td><td>Retail Liquidity Provider (RLP), orders submitted by an RLP can only match with an order submitted by an RMO (available from January 28, 2013)</td></tr>
<tr><td>4</td><td>Retail Market Organization (RMO), these orders interact with both RLP and non RLP orders (available from January 28, 2013)</td></tr>
<tr><td>6</td><td>Liquidity provider (market maker)</td></tr>
<tr><td>7</td><td>Parent company account</td></tr>
<tr><td>o_nb_tr</td><td>45</td><td colspan="2">Number of transactions attributed to the order. Note that if an order is involved in partial executions and, subsequently, modified, then O_NB_TR restarts from zero. Therefore, there exist rows with O_NB_TR equal to 0 while O_Q_NEG is different from 0.</td></tr>
<tr><td>o_q_rem</td><td>46</td><td colspan="2">Remaining quantity. This variable is equal to the initial quantity minus the negotiated quantity.</td></tr>
<tr><td>o_d_upd</td><td>47</td><td colspan="2">Date of order update, YYYYMMDD.</td></tr>
<tr><td>o_t_upd</td><td>48</td><td colspan="2">Time of order update,hh:mm:ss. The set (O_D_UP, O_T_UP) gives the date-time of order update. The date-time of update is always greater than the date-time of order release.</td></tr>
<tr><td rowspan="4">o_member</td><td rowspan="4">49</td><td colspan="2">AMF High Frequency Trading classification of the trader who sent the order.</td></tr>
<tr><td>HFT</td><td>Pure high-frequency trader</td></tr>
<tr><td>MIXED or MIX</td><td>Mixed high-frequency trader (investment bank with HFT activity)</td></tr>
<tr><td>NON HFT or NON</td><td>Non high-frequency trader</td></tr>
<tr><td>o_d_ob (available in VHOR files only)</td><td>50</td><td colspan="2">Current trading day, YYYYMMDD.</td></tr>
</table>

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.

<table>
<tr><th colspan="4">Trade file – AMF Euronext Paris</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td>t_seq</td><td>1</td><td colspan="2">AMF internal sequential number. Empty in 2011, 2012, and 2013.</td></tr>
<tr><td>t_capital</td><td>2</td><td colspan="2">Value of the transaction, in Euros.</td></tr>
<tr><td>t_price</td><td>3</td><td colspan="2">Transaction price.</td></tr>
<tr><td>t_price_max</td><td>4</td><td colspan="2">Highest trading price reached since the beginning of the session.</td></tr>
<tr><td>t_price_min</td><td>5</td><td colspan="2">Lowest trading price reached since the beginning of the session.</td></tr>
<tr><td>t_d_b_en</td><td>6</td><td colspan="2">Date the buy order entered the book, YYYYMMDD.</td></tr>
<tr><td>t_t_b_en</td><td>7</td><td colspan="2">Time the buy order entered the book. Always 00:00:00.</td></tr>
<tr><td>t_d_s_en</td><td>8</td><td colspan="2">Date the sell order entered the book, YYYYMMDD.</td></tr>
<tr><td>t_t_s_en</td><td>9</td><td colspan="2">Time the sell order entered the book. Always 00:00:00.</td></tr>
<tr><td>t_d_neg</td><td>10</td><td colspan="2">Date of the trade, YYYYMMDD. The set (t_d_neg,t_t_neg,t_m_neg) gives the date-time-microsecond of the trade.</td></tr>
<tr><td>t_t_neg</td><td>11</td><td colspan="2">Time of the trade, hh:mm:ss.</td></tr>
<tr><td>t_m_neg</td><td>12</td><td colspan="2">Microsecond of the negotiation.</td></tr>
<tr><td>t_currency</td><td>13</td><td colspan="2">Currency.</td></tr>
<tr><td>t_cd_gc</td><td>14</td><td colspan="2">Code of the trading group. See the Appendix to Euronext Notices n°4-01 & 4-03 (Trading Manuals) for the trading group list.</td></tr>
<tr><td>t_id_b_fd</td><td>15</td><td colspan="2">Fundamental identifier of the buy order (see o_id_fd).</td></tr>
<tr><td>t_id_s_fd</td><td>16</td><td colspan="2">Fundamental identifier of the sell order (see o_id_fd).</td></tr>
<tr><td>t_id_u_fd</td><td>17</td><td colspan="2">Fundamental identifier of an order that is undone (see o_id_fd). The cancelation (undo) is a specific operation conducted by the system.</td></tr>
<tr><td rowspan="3">t_undo</td><td rowspan="3">18</td><td colspan="2">Undone indicator.</td></tr>
<tr><td>1</td><td>Not undone</td></tr>
<tr><td>2</td><td>Undone</td></tr>
<tr><td rowspan="3">t_app</td><td rowspan="3">19</td><td colspan="2">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).</td></tr>
<tr><td>0</td><td>No application</td></tr>
<tr><td>1</td><td>Cross order (act of matching a buy order with a sell order through a single transaction)</td></tr>
</table>

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 of the instrument.	
t_origin	21	Origin of the message	
		01	Opening trade
		02	Rest of the session
t_b_sq_nb	22	Sequence number of the buy order involved in the trade (see o_sq_nb).	
t_s_sq_nb	23	Sequence number of the sell order involved in the trade (see o_sq_nb).	
t_b_account	24	Buyer account (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 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_exchanged	27	Negotiated quantity, in number of shares.	
t_tr_nb	28	Day/instrument-specific transaction number.	
t_id_tr	29	Transaction identifier.	
t_agg	30	Trade classification. Empty during auction phases.	
		A	Buyer initiated trade
		V	Seller initiated trade
		2	Application
t_yield	31	Yield (for instruments traded on BondMatch only).	
t_spread	32	Swap spread (for instruments traded on BondMatch only).	
t_b_type	33	AMF High Frequency Trading classification of the trader who sent the order.	
		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	AMF High Frequency Trading classification of the seller (see t_b_type above).	

2.4. Event file

File: VHE_ISIN_YYYYMMDD.csv[2]

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.	
		A	Order entry has been authorized for the instrument
		C	Start trading
		D	Cancellation of a delayed opening or auction
		E	Orders in the book have been eliminated
		F	Instruments in Fast-Market state
		G	Instrument has been frozen or unfrozen
		I	Order entry has been forbidden for the instrument
		M	Halted instrument
		N	The instrument is being initialized (beginning of the trading day)
		O	Go to open state
		P	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 action of the warrant robot
e_d_upd	3	Update date, YYYYMMDD.	
e_d_me	4	Date of the market event, YYYYMMDD. The set (e_d_me, e_t_me) gives the date-time of the market event.	
e_t_me	5	Time of the market event, hh:mm:ss.	
e_d_suspension	6	Date of suspension, YYYYMMDD. The set (e_d_suspension, e_t_suspension) gives the 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	State of the instrument.	
		A	Authorized
		I	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 Number	Mandatory	Assigned by Market Data Gateway (MDG) for each message. 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 Code	Optional	Trading code is a 12-character string, the only instrument identifier that is unique in the feed in addition to the symbol index.

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

Standing Data Message – 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).

Standing Data Message – 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

Standing Data Message – 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).

Standing Data Message – 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		
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		

3.2. Technical notification file

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

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

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

3.3. Timetable file

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

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

Timetable Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Sequence Number	Mandatory	Assigned by MDG for each message.
Message Type	Mandatory	Always Timetable.
Rebroadcast Indicator	Mandatory	Indicates if this message is resent or new (1 – resent, 0 – otherwise).
EMM	Optional	Defines the Exchange Market Mechanism applied on each platform. 1 – Cash and Derivative Central Order Book (COB) 5 – Cash On Exchange Off book
Pattern ID	Optional	Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message.
Symbol Index	Optional	Exchange identification code of the instrument.
<Timetable> sequence starts		
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		

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		
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 Change 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 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. 1 – Opening 2 – Standard 3 – Closing
Trading Side	Optional	Indicates the Trading Side. 1 – Bid Only 2 – Offer Only 3 – PAKO 4 – Both Sides
Price Limits	Optional	Always empty.
Quote Spread Multiplier	Optional	Always empty.

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

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		
NoMarketUpdate	Mandatory	Number of market updates.

Market Update Message – Euronext Paris Version 2 (from 2018)		
Field name	Presence	Description
Market Data Update Type	Mandatory	Type of market data update. 1 – Best Bid 2 – Best Offer 3 – New Bid 4 – New Offer 5 – Updated Bid 6 – Updated Offer 12 – Request for Size 14 – High Dynamic Collar 15 – Low Dynamic Collar 24 – Conventional Trade 35 – Dark Trade 46 – BoB Trade 50 – Trade Cancellation 51 – Out of Market Trade 52 – Delta Neutral Trade - Underlying Cash Leg 55 – Secondary Listing Trade 63 – Low Static Collar 64 – High Static Collar 65 – Market VWAP Operation Trade 66 – Request for Size Bid 67 – Request for Size Offer 79 – Guaranteed Cross – Negotiated deal NLIQ (Liquid) 80 – Guaranteed Cross – Negotiated deal OILQ (illiquid) 81 – Large in Scale (LIS) Trade 90 – Bid Execution Summary 97 – Offer Execution Summary 101 – High Order Price Control Collar (from November 28, 2022) 102 – Low Order Price Control Collar (from November 28, 2022) 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		

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		
NoOrderUpdate	Mandatory	Number of order updates.
Symbol Index	Mandatory	Exchange identification code of the instrument.
Market Data Action Type	Mandatory	Identifies if the order is a New Order, a Deletion, a Modification or a Retransmission. 1 – New Order 2 – Deletion of order identified by Previous Priority 3 – Deletion of all orders for the given instrument (depending on the side. If side is not provided, it means both) 4 – Modification of existing order Without Loss Of Priority 5 – Retransmission of all orders for the given instrument 6 – Modification of existing order With Loss Of Priority 7 – RFQ Answer creation 8 – RFQ Answer deletion
Order Priority	Optional	Rank giving the priority of the order. The order with the lowest value of Order Priority has the highest priority.
Previous Priority	Optional	Previous Priority is populated only when there is a "Modification of existing order With Loss Of Priority" or order deletions. Then clients have to remove from their market sheet the order identified with the field "Previous Priority" and add a new order with the field "Order Priority" newly provided.
Order Type	Optional	Type of Order. 1 – Market 2 – Limit 5 – Primary Peg 6 – Market to limit 7 – Market Peg 11 – Market On close (MOC)
Order Price	Optional	Instrument price per quantity unit.

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

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		
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 26 – Uncrossing 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		

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		
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		

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	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 102 – Large in Scale (LiS) Package Trade Provisional price
MiFID Instrument ID Type	Optional	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 Opening Auction (= Uncrossing) U – Unscheduled Auction (= Uncrossing)
MMT Transaction Category	Optional	Defines the transaction category following MMT level 3.1. D – Dark Trade RPRI – Trade that has Received Price Improvement TPAC– Package Trade (excluding Exchange for Physicals) XFPH – Exchange for Physicals Trade - – None apply (a standard trade for the Market Mechanism and Trading Mode)

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

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

Full Trade Information 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 (this trade is always an update from a previous 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	Optional	Reference of the trade reported to the Exchange.

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

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

3.10. How to read Euronext messages

3.10.1. Rules

Single variable

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

Sequence

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

3.10.2. Example: Market update message

File: MarketUpdate_20240212_FR0000120271.csv

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

Example: Market Update Message – Euronext Paris Version 2 (from 2018)			
Field name	Presence	Value	Description
Market Data Sequence Number	Mandatory	1040867	Assigned by MDG for each message.
Message Type	Mandatory	MarketUpdate	Always MarketUpdate.
Rebroadcast Indicator	Mandatory	0	This message is new.
EMM	Mandatory	1	Cash and Derivative Central Order Book (COB)
Event Time	Mandatory	1707726653722575262	Time when an event has been processed (Epoch Time in Nanoseconds, UTC). Paris Time: Monday 12 February 2024 09:30:53.722575262
<MarketUpdate> sequence starts			
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 update 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> sequence ends			

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

1. Overview

1.1. Versions

There are 2 versions of the BEDOFIH CBOE Europe database:

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

1.2. Data file

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

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

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

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

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

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

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

1.3. Available instruments

File: Symbols.csv (one file per year)

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

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

1.4. Sources and further readings

Further readings:

- MMT Initiative Mapping Matrix

2. Files

2.1. Message file

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

2.1.1. Version 1 (until February 14, 2019)

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

<table>
<tr><th colspan="4">Bats Chi-X messages (until February 14, 2019)</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td colspan="4">Order executed message – MessageType = E or e</td></tr>
<tr><td>OrderID</td><td>4</td><td colspan="2">Order ID of a previously sent Add Order message.</td></tr>
<tr><td>ExecutedShares</td><td>5</td><td colspan="2">Number of shares executed.</td></tr>
<tr><td>ExecutionID</td><td>6</td><td colspan="2">Day-unique execution ID.</td></tr>
<tr><td>ExecutionFlag (available from March 28, 2014)</td><td>7</td><td colspan="2">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.</td></tr>
<tr><td colspan="4">Order cancel message – MessageType = X or x</td></tr>
<tr><td>OrderID</td><td>4</td><td colspan="2">Order ID of a previously sent Add Order message.</td></tr>
<tr><td>CancelledShares</td><td>5</td><td colspan="2">Number of shares canceled.</td></tr>
<tr><td colspan="4">Trade message – MessageType = P or q</td></tr>
<tr><td>OrderID</td><td>4</td><td colspan="2">Obfuscated Order ID (by default) or Order ID of the invisible order or negotiated trade.</td></tr>
<tr><td>SideIndicator</td><td>5</td><td colspan="2">Always B.</td></tr>
<tr><td>Shares</td><td>6</td><td colspan="2">Incremental number of shares executed.</td></tr>
<tr><td>Symbol</td><td>7</td><td colspan="2">Bats Chi-X internal instrument identifier.</td></tr>
<tr><td>Price</td><td>8</td><td colspan="2">Execution price.</td></tr>
<tr><td rowspan="6">ExecutionID</td><td rowspan="6">9</td><td colspan="2">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.</td></tr>
<tr><td>0</td><td>BXE integrated order book</td></tr>
<tr><td>1</td><td>CXE integrated order book</td></tr>
<tr><td>D</td><td>BXE dark order book</td></tr>
<tr><td>E</td><td>CXE dark order book</td></tr>
<tr><td>R</td><td>Negotiated trade (until its replacement by the Trade extended message on May 10, 2013)</td></tr>
</table>

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

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

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

Bats Chi-X messages (until February 14, 2019)			
Name	Field	Description	
Symbol	4	Bats Chi-X internal instrument identifier.	
AuctionType	5	O	Opening auction
		C	Closing auction
		H	Halt auction
		V	Volatility auction
		P	Periodic auction
ReferencePrice	6	Reference price used in tie-breaker situations.	
IndicativePrice	7	Price at 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.	
		O	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.	
		P	Includes Primary
		N	Excludes Primary
		-	Not specified
Auction summary message – MessageType = j			
Symbol	4	Bats Chi-X internal instrument identifier.	
AuctionType	5	O	Opening auction
		C	Closing auction
		H	Halt auction
		V	Volatility auction
		P	Periodic auction
Price	6	Auction price.	
Shares	7	Cumulative number of shares executed during auction.	

2.1.2. Version 2 (from February 15, 2019)

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

CBOE Europe messages (since February 15, 2019)			
Name	Field	Description	
		v	Trade extended message
		w	Trade message - unknown symbol
		a	Trading status message
		Y	Statistic message
		b	Auction update message
		f	Auction summary message
Symbol clear message – MessageType = h			
Symbol	4	Internal instrument identifier.	
Add order message – MessageType = K or M			
OrderID	4	Day-specific order ID.	
SideIndicator	5	B	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.	
Display	9	Always Y, maintained for compatibility reasons.	
Order executed message – 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	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 = F or G			
OrderID	4	Order ID of a previously sent Add Order message.	
CancelledShares	5	Number of shares canceled.	
Trade message – MessageType = V or W			
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	Internal instrument identifier.	
Price	8	Execution price.	
ExecutionID	9	Day-unique execution ID.	
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 flags are "P" for level 3.8 and "-" for other levels.	
Trade extended message – MessageType = v			

<table>
<tr><th colspan="4">CBOE Europe messages (since February 15, 2019)</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td>Shares</td><td>4</td><td colspan="2">Number of shares executed.</td></tr>
<tr><td>Symbol</td><td>5</td><td colspan="2">Internal instrument identifier.</td></tr>
<tr><td>Price</td><td>6</td><td colspan="2">Execution price. This may be zero if the price is pending as denoted by level 3.8 of ExtendedTradeFlag.</td></tr>
<tr><td>TradeID</td><td>7</td><td colspan="2">Trade ID. Guaranteed to be unique for at least 7 calendar days.</td></tr>
<tr><td>TradeDate</td><td>8</td><td colspan="2">Date on which the trade occurred YYYYMMDD.</td></tr>
<tr><td>TradeTime</td><td>9</td><td colspan="2">Time at which the trade occurred in milliseconds since midnight, on the day represented by TradeDate, London time.</td></tr>
<tr><td rowspan="13">ExecutionVenue</td><td rowspan="13">10</td><td colspan="2">Venue (MIC) on which the trade executed, when applicable.</td></tr>
<tr><td>BATE</td><td>Cboe UK Equities (BXE)</td></tr>
<tr><td>CHIX</td><td>Cboe UK Equities (CXE)</td></tr>
<tr><td>CEUX</td><td>Cboe NL Equities (DXE)</td></tr>
<tr><td>SINT</td><td>Systematic Internaliser</td></tr>
<tr><td>XOFF</td><td>OTC</td></tr>
<tr><td>BATF</td><td>BXE off-book (negociated) trades</td></tr>
<tr><td>CHIO</td><td>CXE off-book (negociated) trades</td></tr>
<tr><td>CEUO</td><td>DXE off-book (negociated) trades</td></tr>
<tr><td>BARO</td><td>Cboe UK REGM off-book (negociated) trades (BXE)</td></tr>
<tr><td>BEUO</td><td>Cboe NL REGM off-book (negociated) trades (DXE)</td></tr>
<tr><td>LISX</td><td>Cboe UK Large-in-Scale (LIS) trades (CXE)</td></tr>
<tr><td>LISZ</td><td>Cboe NL Large-in-Scale (LIS) trades (DXE)</td></tr>
<tr><td>Currency</td><td>11</td><td colspan="2">Traded currency.</td></tr>
<tr><td rowspan="5">TradeFlag</td><td rowspan="5">12</td><td colspan="2">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, D, E, and F indicate that the trade was executed under an ESMA non-recognised third-country venue.</td></tr>
<tr><td>1 or 5 or D</td><td>The trade was reported "late"</td></tr>
<tr><td>2 or 6 or E</td><td>The trade was reported out of the Main Session</td></tr>
<tr><td>3 or 7 or F</td><td>The trade was reported late and out of the Main Session</td></tr>
<tr><td>- or 4 or C</td><td>The trade was reported on time and in the Main Session</td></tr>
<tr><td>ExtendedTradeFlag</td><td>13</td><td colspan="2">14-character flag based on MMT v3.04 until December 31, 2023. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.
14-character flag based on MMT v4.1 from January 1, 2024. It is no longer the case that each character of the MMT string represents 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</td></tr>
</table>

<table>
<tr><th colspan="4">CBOE Europe messages (since February 15, 2019)</th></tr>
<tr><th>Name</th><th>Field</th><th colspan="2">Description</th></tr>
<tr><td></td><td></td><td colspan="2">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.</td></tr>
<tr><td colspan="4">Trade message - unknown symbol – MessageType = w</td></tr>
<tr><td>Shares</td><td>4</td><td colspan="2">Number of shares traded.</td></tr>
<tr><td>Symbol</td><td>5</td><td colspan="2">ISIN.</td></tr>
<tr><td>Price</td><td>6</td><td colspan="2">Reported price of the trade (zero if the price is pending as denoted by level 3.8 of ExtendedTradeFlag).</td></tr>
<tr><td>TradeID</td><td>7</td><td colspan="2">Trade ID. Guaranteed to be unique for at least 7 calendar days.</td></tr>
<tr><td>TradeDate</td><td>8</td><td colspan="2">Date on which the trade occurred YYYYMMDD.</td></tr>
<tr><td>TradeTime</td><td>9</td><td colspan="2">Time at which the trade occurred in microseconds since midnight, on the day represented by TradeDate, London time.</td></tr>
<tr><td>ExecutionVenue</td><td>10</td><td colspan="2">Venue on which the trade executed, when applicable (either a MIC, SINT for Systematic Internaliser or XOFF for OTC).</td></tr>
<tr><td>Currency</td><td>11</td><td colspan="2">Reported currency.</td></tr>
<tr><td rowspan="5">TradeFlag</td><td rowspan="5">12</td><td colspan="2">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, D, E, and F indicate that the trade was executed under an ESMA non-recognised third-country venue.</td></tr>
<tr><td>1 or 5 or D</td><td>The trade was reported "late"</td></tr>
<tr><td>2 or 6 or E</td><td>The trade was reported out of the Main Session</td></tr>
<tr><td>3 or 7 or F</td><td>The trade was reported late and out of the Main Session</td></tr>
<tr><td>- or 4 or C</td><td>The trade was reported on time and in the Main Session</td></tr>
<tr><td>ExtendedTradeFlag</td><td>13</td><td colspan="2">14-character flag based on MMT v3.04 until December 31, 2023. Each character refers to a MMT level. In order, levels 1, 2, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2 and 5.
14-character flag based on MMT v4.1 from January 1, 2024. It is no longer the case that each character of the MMT string represents 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 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.</td></tr>
<tr><td colspan="4">Trading status message – MessageType = a</td></tr>
<tr><td>Symbol</td><td>4</td><td colspan="2">Internal instrument identifier.</td></tr>
<tr><td rowspan="3">Status</td><td rowspan="3">5</td><td>T</td><td>Trading</td></tr>
<tr><td>R</td><td>Off-Book Reporting</td></tr>
<tr><td>C</td><td>Closed</td></tr>
</table>

CBOE Europe messages (since February 15, 2019)			
Name	Field	Description	
		S	Suspended
		N	No Reference Price
		V	Volatility Interruption
		O	Opening Auction
		E	Closing Auction
		H	Halt
		M	Market Order Imbalance
		P	Price Monitoring Extension
		U	Cboe closing cross
Reserved	6	Always 0, reserved.	
Statistics message – MessageType = Y			
Symbol	4	Internal instrument identifier.	
Price	5	Price.	
StatisticType	6	C	Closing price
		H	High price
		L	Low price
		O	Opening price
		P	Previous opening price
PriceDetermination	7	0	Normal
		1	Manual (price override by market supervision)
Auction update message – MessageType = b			
Symbol	4	Internal instrument identifier.	
AuctionType	5	O	Opening auction
		C	Closing auction
		H	Halt auction (reserved for future use)
		V	Volatility auction (reserved for future use)
		P	Periodic auction
		U	Cboe closing cross
ReferencePrice	6	Reference price used in tie-breaker situations.	
IndicativePrice	7	Price at 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 CBOE EBBO collar.	
		O	Outside tolerance
		I	Inside tolerance
		-	Not specified
IncludesPrimary	10	Indicates whether the CBOE EBBO used to collar this update includes the Primary Market quotes.	
		P	Includes Primary
		N	Excludes Primary
		-	Not specified
Auction summary message – MessageType = f			

CBOE Europe messages (since February 15, 2019)			
Name	Field	Description	
Symbol	4	Internal instrument identifier.	
AuctionType	5	O	Opening auction
		C	Closing auction
		H	Halt auction (reserved for future use)
		V	Volatility auction (reserved for future use)
		P	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 CBOE Europe Reference Data Specification for details.

London Stock Exchange

1. Overview

1.1. Versions

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

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

1.2. Data files

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

Version 1 consists of 4 files:

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

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

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

Version 2 consists of 3 files:

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

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

1.3. Available instruments

File: Symbols.csv (one file per year)

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

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

1.4. Sources and further readings

Sources:

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

Further readings:

- Millennium Exchange Business Parameters

2. Version 1 (until March 10, 2017)

2.1. Instrument reference file

File:

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

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

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

2.2. Order detail file

File:

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

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

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

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

2.3. Order history file

File:

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

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

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

Order History – LSE Version 1 (until March 10, 2017)			
Name	Field	Description	
AggregatedSize	7	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	B	Buy order
		S	Sell order
OrderType	9	Type of the order.	
		CP	Committed Principal Order
		LO	Limit Order
		MO	Market Order
		IB	Iceberg Order (not disseminated to the market, iceberg peak always shown as a Limit Order for each refresh)
		ST	Stop Order
		SL	Stop Limit
		EQ	Executable Quote (market making)
		FQ	Firm Quote (market making)
SequenceNumber	10	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 the hour, mm denotes the minute, ss denotes the second and SSS denotes the millisecond	

2.4. Trade report file

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

File:

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

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

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

Trade Report – LSE Version 1.1 (2011 – 2013 & 2016 – 10/03/2017)			
Name	Field	Description	
BroadcastUpdateAction	8	Type of action to be taken by customers when they receive the message.	
		E	Automatic executions
		A	Manual trade additions
		D	Manual trade cancellations
TradeType	9	Type of trade.	
		AT	Automatic trade
		UT	Uncrossing trade
		PT	Closing price crossing session trade
		CT	Contra trade
		PC	Previous day contra trade
		O	Ordinary trade
		OK	Ordinary trade - delayed publication requested
		NT	Negociated trade
		NK	Negociated trade - delayed publication requested
		GC	Cancellation of GILT & UKGT segment trades after date of submission
		OT	OTC Trade
		TK	OTC trade - delayed publication requested
		IF	Inter fund cross - delayed publication requested
		OC	Cancellation of OTC trade after date of publication
		SI	SI trade
ReportTime	10	Indicates the time when the trade was reported.	
		N	Normal trade period report
		L	Late report
		O	Overnight report
Bargain	11	Indicates whether the trade includes bargain conditions.	
		Y	Yes
		N	No
ConvertedPrice	12	Each trade is recorded at a specific price and currency. The purpose of this variable is to indicate if the aforementioned parameters are those entered into the trade report (N), or if they have been converted 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)	

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.	
BroadcastUpdateAction	8	Type of action to be taken by customers when they receive the message.	
		E	Automatic executions
		A	Manual trade additions
		D	Manual trade cancellations
TradeType	9	Type of trade.	
		AT	Automatic trade
		UT	Uncrossing trade
		PT	Closing price crossing session trade
		CT	Contra trade
		PC	Previous day contra trade
		O	Ordinary trade
		OK	Ordinary trade - delayed publication requested
		NT	Negociated trade
		NK	Negociated trade - delayed publication requested
		GC	Cancellation of GILT & UKGT segment trades after date of submission
		OT	OTC Trade
		TK	OTC trade - delayed publication requested
		IF	Inter fund cross - delayed publication requested
		OC	Cancellation of OTC trade after date of publication
		SI	SI trade
ReportTime	10	Indicates the time when the trade was reported.	
		N	Normal trade period report
		L	Late report
		O	Overnight report
Bargain	11	Indicates whether the trade includes bargain conditions.	
		Y	Yes
		N	No
ConvertedPrice	12	Each trade is recorded at a specific price and currency. The purpose of this variable is to indicate if the aforementioned parameters are those entered into the trade report (N), or if they have been converted according to the valid currency for the particular instrument (stock) (Y).	
PublicationDate	13	Date of publication of the particular transaction ddMMyyyy.	

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

3. Version 2 (from March 11, 2017)

3.1. Instrument reference file

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

This file contains reference information about the instrument traded.

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

3.2. Execution report file

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

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

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

Execution Report – LSE Version 2 (from March 11, 2017)			
Name	Field	Description	
TransactTime	2	Time of this event stamped by the Trading system YYYYMMDD hh:mm:ss.000000 until December 2022 and YYYYMMDD hh:mm:ss.000000000 from January 2023.	
Sequencenumber	3	Sequence number, unique to an instrument.	
InstrumentID	4	The Instrument Identifier allocated by the Millennium Trading system, can be referenced in the InstrumentRef table.	
BuySellInd	5	B	Buy
		S	Sell
OrderCode	6	Code unique to the order, this field is case sensitive.	
MemberID	7	Member ID, only populated if the order is named.	
OrderType	8	LO	Limit order, Visible part of an Iceberg order, Stop Order or Stop Limit Order once it has been elected to the orderbook
		MO	Market Order
		EQ	Executable Quotes
		FQ	Firm Quote (Not eligible for automatic Execution)
OrderPrice	9	Price of the order in the currency for the instrument.	
RemainingVisibleSize	10	Number of shares for the order.	
MatchingOrderCode	11	Order code for the other side of the execution.	
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 Instrument Identifier allocated by the Millennium Trading system, can be referenced in the InstrumentRef table.	
TradeCode	3	Unique Trade Code for the execution.	
TradePrice	4	Price for the execution.	
TradeSize	5	Number of Shares traded.	
TradeDateTime	6	Date Time of execution YYYYDDMM hh:mm:ss.000000 until December 2022 and YYYYMMDD hh:mm:ss.000000000 from January 2023.	
	7	A	Add

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

Turquoise

1. Overview

1.1. Data files

The data consist of the following files:

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

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

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

1.2. Available instruments

File: Symbols.csv (one file per year)

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

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

2. Files

2.1. Order files

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

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

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

2.2. Trade files

Files:

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

Trades – Turquoise	
Name	Description
PartitionID	Trading partition, e.g. 1, 2 or 3.
TransactTime	Time of the event YYYYMMDD hh:mm:ss.000000.
MITSequenceNumber	Sequence number.
Symbol	Instrument identifier.
ISIN	International Security Identification Number (ISIN).
Currency	Currency.
MIC	Market Identifier Code.
ActionType	Fill – Transaction (partial or full match)
Orderbook	I – Turquoise Lit Order Book M – Turquoise Plato Order Book A – Turquoise Plato Lit Auctions Order Book
Side	B – Buy S – Sell
Venue (since November 19, 2018)	TGHE – Turquoise Global Holdings Europe B.V. (Turquoise) 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 TQ501 – Guide to Reference Data Services for details.

Xetra

1. Overview

1.1. Versions

There are multiple versions of the BEDOFIH Xetra database:

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

1.2. Data files

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

Xetra EnBS Versions 12 to 16 consist of 4 files:

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

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

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

Xetra T7 Versions consists of:

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

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

1.3. Available instruments

File: Symbols.csv (one file per year)

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

1.3.1. Until June 2017

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

1.3.2. From July 2017

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

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

1.4. Sources and further readings

Sources:

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

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

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

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

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

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
seqNum	N	Sequence number.	
srcId	N	Identifier 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			
noOfStreams (available from 2015)	N	Number of streams.	
streamService	N	Service class of the stream.	
		A	Service A
		B	Service B
streamType	N	Type of stream.	

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
		1	Snapshot
		2	Delta / Incremental
		3	All Trade Price
		4	Maintenance Stream
		5	External Ticker
		6	Snapshots / Deltas
		7	Maintenance Stream
		8	All Trade Price/Price Without Turnover
inetAddr	N	Multicast address of the stream.	
port	N	Port number.	
mktDepth	Y	Defined order book depth for the stream.	
mdBookType	Y	Book type. Always 2 = Price depth.	
<MDFeedTypes> sequence ends			
<SecListGroup> sequence starts			
NoRelatedSym (available from 2015)	N	Number of instruments.	
isix	N	Xetra internal instrument identifier.	
isin	N	ISIN code of the instrument.	
instMnem	Y	Abbreviated form of the instrument name, e.g. DB1 for Deutsche Börse AG.	
instShtNam	Y	Instrument Long Name.	
wknNo	Y	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	Y	Instrument 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 data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
		44	Regulated Market
		45	Regulated Market – Prime Standard
		46	Regulated Market – General Standard
		47	Official Market
		48	Unofficial Market
		60	Budapest Stock Exchange MTF (available from V16)
		80	STRUCTURED PRODUCTS Regulated Market
		81	STRUCTURED PRODUCTS Open Market
		82	Xetra Frankfurt 2 – Regulated Market, Prime Standard
		83	Xetra Frankfurt 2 – Regulated Market, General Standard
		84	Xetra Frankfurt 2 – Open Market, Entry Standard
		85	Xetra Frankfurt 2 – Open Market
		86	Xetra Frankfurt 2 – Regulated Market General Quoted
		87	Official List Main Security Market Xetra
		88	Irish Enterprise Security Market Xetra
		97	Eurex
		98	Eurex Repo
		99	Global Exchange Market Xetra
		318	Budapest Stock Exchange Regulated Market (available from V16)
		437	WBAG Dritter Markt (MTF)
		568	LJSE Official Market
		735	Prague Stock Exchange Official Market (available from V16)
		736	Prague Stock Exchange MTF (available from V16)
		738	Prague Stock Exchange Free Market (available from V16)
		930	WBAG – Wiener Wertpapierbörse
		931	WBAG – Amtlicher Handel
		934	WBAG – Geregelter Freiverkehr
mktSegCod	Y	Market Segment code.	
		BGA	Market A
		BGB	Market B
		DED	US Stars
		DEE	European Stars
		DEL	XTF Exchange Traded Funds
		DER	Structured products Qualitätsstandard
		DES	Deutschland – Fonds
		DEX	Boerse Frankfurt (Fonds)
		DEZ	Exchange Traded Commodities, ETC
		DE0	Structured products Select
		DE1	Structured products
		DE2	Select Bonds
		DE3	Prime Bonds

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
		DE4	Deutsche Boerse REITs
		DE5	Deutsche Boerse First Quotation Board
		DE7	Structured products Asia
		DE8	Structured products Premium Asia
		DE9	Structured products Sec
		DX1	Structured products Currency
		DX2	Structured products North
		DX3	Structured products East
		DX7	Xetra Bonds
		DX8	Exchange Traded Notes (ETN)
		DX9	Open Market Plus
		LJA	LJSE Prime Market
		LJB	LJSE Standard Market
		LJC	LJSE Entry Market
		LJD	LJSE Bonds
		LJE	LJSE Fund Market
		LJG	LJSE Closed-end Fund Shares
		LJL	LJSE T-Bills
		PRX	PSE Qualified investors funds (available from V16)
		PRY	PSE Collective investment funds (available from V16)
		VIB	WBAG Bonds Financial Sector
		VIC	WBAG Equities Standard Market Auction
		VIE	WBAG ETFs
		VIG	WBAG Bonds Public Sector
		VIK	WBAG Bonds Corporate Sector
		VIL	WBAG Performance Linked Bonds
		VIM	WBAG Mid Market
		VIO	WBAG Other Securities
		VIP	WBAG Equities Prime Market
		VIS	WBAG Equities Standard Market Continuous
		VIW	WBAG Warrants
		VIZ	WBAG Certificates
<TickRules> sequence starts			
NoTickRules (available from 2015)	N	Number of tick rules.	
TickIncrement	N	Tick Increment.	
EndTickPriceRange	Y	End of Tick range for each Tick increment.	
<TickRules> sequence ends			
trdmdl	N	Trading Model identifier.	
		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	Reference price.	
frstTrdDat	Y	First trading date, earliest date for which an instrument becomes tradable YYYYMMDD.	
lstTrdDat	Y	Last trading date, last date on which an instrument may be traded YYYYMMDD.	
bonMrtyDat	Y	Maturity date YYYYMMDD.	
minOrdrSiz	N	Minimum Order Size for this instrument.	
minTrdbUnt	N	Minimum Tradable Unit of this instrument.	
rondLotQty	N	Round Lot quantity, in number of units of the instrument.	
tradCal	N	Trading Calendar, e.g. XCAL for Standard calendar.	
untOfQotn	N	The unit, in which an instrument is quoted / stated.	
		1	Pieces (EQU/WAR)
		2	Percent (BON/BAS)
		4	Points (Indices)
indicators	N	Array of supported order types and other flags. The values can be added together to form combinations of the values. If Closed Book Indicator, Iceberg Order Indicator, Limit Order Indicator and Matching instruction Cross Id are sent then 1 + 8 + 16 + 8192 = 8217 is received.	
		2^0	Closed Book Indicator
		2^1	Discretionary Order Indicator
		2^2	Hidden Order Indicator
		2^3	Iceberg Order Indicator
		2^4	Limit Order Indicator
		2^5	Midpoint Order Indicator
		2^6	Market Imbalance Indicator
		2^7	Market Order Indicator
		2^8	Market-to-Limit Order Indicator
		2^9	Quote Book Indicator
		2^10	Market maker protection flag (available from V14)
		2^11	Liquidity Interruption Indicator (available from V15)
		2^12	Mini Auction Indicator (available from V15)
		2^13	Matching Instruction Cross Id (available from V16)
minHiddOrdrVal	Y	Minimum Hidden Order Value, specified as cash amount.	
minMidPntOrdrVal	Y	Minimum Midpoint Order Value.	
minIceQty	Y	Minimum Iceberg Order Quantity.	
minPeakQty	Y	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.	

<table>
<tr><th colspan="4">Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)</th></tr>
<tr><th>Name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>clgloc</td><td>Y</td><td colspan="2">Clearing Location, e.g. BOFRA, BECCP.</td></tr>
<tr><td>postTrdAty</td><td>N</td><td colspan="2">Post Trade Anonymity indicator. Field indicating, whether post trade anonymity is enabled (P), the central counterpart is used (C) or not (blank).</td></tr>
<tr><td>stlPeriodFlag</td><td>N</td><td colspan="2">Number of business days from trade execution after which settlement is to be effected.</td></tr>
<tr><td>stlCurrCod</td><td>N</td><td colspan="2">Settlement Currency Code.</td></tr>
<tr><td>stlCal</td><td>N</td><td colspan="2">Settlement Calendar, e.g. XCAL for Standard calendar.</td></tr>
<tr><td>homeMkt</td><td>N</td><td colspan="2">Market Identifier Code (ISO 10383) of the market where the IPO took place.</td></tr>
<tr><td>refMkt</td><td>N</td><td colspan="2">MIC of the market from which the reference price is derived.</td></tr>
<tr><td>reportMarket</td><td>N</td><td colspan="2">MIC required for reporting to supervisory authority</td></tr>
<tr><td rowspan="4">cmexind</td><td rowspan="4">Y</td><td colspan="2">Indicator for CUM/EX events or capital adjustment.</td></tr>
<tr><td>C</td><td>Cum Capital Adjustment or Dividend</td></tr>
<tr><td>A</td><td>Change of price determination frequency in Continuous Auction</td></tr>
<tr><td>E</td><td>Ex Capital Adjustment or Dividend</td></tr>
<tr><td colspan="4"><subscription> (optional) group starts</td></tr>
<tr><td>issueDate</td><td>N</td><td colspan="2">Date on which a security is issued;</td></tr>
<tr><td rowspan="3">inSubscription</td><td rowspan="3">N</td><td colspan="2">Indicator for subscription trading (primary market);</td></tr>
<tr><td>Y</td><td>instrument in subscription trading. Only provided for instruments that are currently in subscription trading.</td></tr>
<tr><td>N</td><td>Instrument is not in subscription period</td></tr>
<tr><td colspan="4"><subscription> group ends</td></tr>
<tr><td colspan="4"><bond> (optional) group starts</td></tr>
<tr><td>bonCpnRatWss</td><td>Y</td><td colspan="2">The coupon rate of a bond.</td></tr>
<tr><td>bonCurPoolFact</td><td>Y</td><td colspan="2">Bond Current Pool Factor.</td></tr>
<tr><td>bonYldTrdInd</td><td>Y</td><td colspan="2">Bond Yield Trading Indicator, indicates whether the corresponding price contains a yield. Always Y = Yes.</td></tr>
<tr><td>bonCrtCpnDat</td><td>Y</td><td colspan="2">Beginning of current coupon period YYYYMMDD.</td></tr>
<tr><td>bonNxtCpnDat</td><td>Y</td><td colspan="2">End of current coupon period YYYYMMDD.</td></tr>
<tr><td>dnomCurrCod</td><td>N</td><td colspan="2">Denomination Currency.</td></tr>
<tr><td rowspan="4">bonFlatInd</td><td rowspan="4">N</td><td colspan="2">Bond Flat Indicator.</td></tr>
<tr><td>0</td><td>Accrued interest calculation and pool factoring enabled</td></tr>
<tr><td>1</td><td>flat, no accrued interest calculation</td></tr>
<tr><td>2</td><td>x-flat, no accrued interest calculation and no pool factoring</td></tr>
<tr><td rowspan="7">bonAcrIntCalcMd
(available from V13)</td><td rowspan="7">Y</td><td colspan="2">Accrued interest calculation method.</td></tr>
<tr><td>0</td><td>No interest calculation</td></tr>
<tr><td>1</td><td>German (30/360)</td></tr>
<tr><td>2</td><td>English (ACT./365/6)</td></tr>
<tr><td>3</td><td>French (ACT./360)</td></tr>
<tr><td>4</td><td>US TRSY 2</td></tr>
<tr><td>5</td><td>ACT/365 (no leap year)</td></tr>
</table>

Instrument reference data file – Xetra 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
xetraIssrMnem (available from V15)	Y	Bond issuer, e.g. BUND.	
<bond> group ends			
<warrant> (optional) group starts			
warSeg	N	Warrant 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
		BO	Bonus Certificates
		DS	Discount Certificates
		GC	Guarantee Certificates
		IX	Index Certificates
		OP	Out Performance Certificates
		MS	Misc. Investment Products
		blank	Other
warStrPrc	Y	Warrant Strike Price.	
warTyp	N	Warrant Type.	
		C	Call
		P	Put
		R	Range
		F	Certificate
		O	Others
warUnd	Y	Warrant underlying.	
<warrant> (optional) group ends			
<continuousauction> (optional) group starts			
exchangeSegment	N	Exchange Segment code in which the instrument is traded, e.g. XEXC XEXD.	
issrMembId	N	Member ID of the issuer (Quote Provider) comprising institution (3 characters) and branch (2 characters).	

Instrument reference data file – Xetra Versions 12 – 16 (28/11/2011 – 30/06/2017)			
Name	Optional	Description	
issrSubGrp	N	Trader subgroup to which a user of an issuer (Quote Provider) has been assigned to.	
specMembId	Y	Member ID of the Specialist.	
specSubGrp	Y	The Specialist's subgroup; its users are authorized to act as Specialists for the instrument.	
knockOutInd	Y	Indicator for knocked-out instruments.	
		blank	Default
		R	Reversed
		K	Knocked out
		L	Locked knock out
singleAuctionIndicator (available from V13)	Y	Single auction indicator, a flag to indicate whether the information is there or not. Always Y = Yes.	
specialAuctionIndicator (available from V13)	Y	Special auction indicator, a flag to indicate whether the information is there or not. Always Y = Yes.	
<continuousauction> group ends			
<marketmaker> (optional) group starts			
<license> sequence starts			
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	Y	Maximum Spread permissible for the license.	
sprdminqty	N	Minimum allowable size of a Quote by license.	
<license> sequence ends			
maxsrpqty		Maximum surplus quantity which can be taken by a member in the Betreuer OBB phase.	
<marketmaker> group ends			
<basisinstrument> (optional) group starts			
basund	Y	Underlying ISIN of a basis instrument.	
<basisinstrument> group ends			
<SecListGroup> sequence ends			

2.2. Order book snapshot file

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

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

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

Order book snapshot file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description	
timestamp	N	Timestamp when the message was created, in milliseconds since midnight CET/CEST.	
srcId	N	Identifier of the message disseminating source.	
isix	N	Xetra internal instrument identifier.	
<NoOfChannelSeqNum> sequence starts			
consolSeqNum	N	Sequence number for the last "consolidated" delta message for this instrument in order to be able to position the snapshot among the delta messages.	
<NoOfChannelSeqNum> sequence ends			
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
		43	Hol
moiInd	Y	Market order interruption indicator.	
		P	Potential market order interruption
		M	Market order interruption
		X	Volatility interruption after market order interruption
volInd	Y	Volatility indicator type.	
		E	Extended volatility interruption
		F	Freeze
		P	Potential volatility interruption

Order book snapshot file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description	
		V	Volatility interruption
		X	Expired
cmexInd	Y	Capital adjustment indicator.	
		C	Cum dividend
		A	Capital adjustment
		E	Ex dividend
<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	Potential auction price or matching range bid/ask price.	
entryQty	N	Potential auction quantity, matching range BID/ASK quantity or surplus BID/ASK quantity.	
<EntriesPrcQty> sequence ends			
<EntriesPrc> sequence starts, filled whenever there is a new daily high, daily low, opening price, closing price, valuation price			
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			
<EntriesQty> sequence starts, filled when there is a surplus, either bid or ask side			
entryType	N	15	Surplus bid
		16	Surplus ask
entryQty	N	Surplus ask/bid quantity.	
<EntriesQty> sequence ends			
<EntriesAtp> sequence starts, filled when there is any information on last trade price, last best trade price with Bundesbank, last auction 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 price.	
entryQty	N	Traded quantity (shares).	
totTrdQty	N	Total traded 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> sequence ends			

Order book snapshot file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description	
<EntriesDepth> sequence starts, filled 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 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			

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

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description	
entryTime	N	Time of the last order book update, in microseconds since midnight CET/CEST.	
srcId	N	Identifier of the message disseminating source.	
isix	N	Xetra internal instrument identifier.	
consolSeqNum	N	Sequence number for the last "consolidated" delta message for this instrument in order to be able to position the snapshot among the delta messages.	
instrStatus	N	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

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description	
		43	Hol
<EntriesAtp> sequence starts, filled when there is any information on last trade price, in subscription price, last auction price, last midpoint trade, last BEST price or last trade price with Bundesbank participation			
noEntriesAtp (available from 2015)	N		
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	Traded price.	
entryQty	N	Traded quantity (shares).	
totTrdQty	Y	Total traded quantity (shares).	
entryTime	N	Match time, in microseconds since midnight CET/CEST.	
numTrades	Y	Number of trades, cumulative total of the number of trades for the current day in a given instrument.	
tranMtchIdNo	Y	Internal transaction matching identifier.	
<EntriesAtp> sequence ends			
<EntriesDepth> sequence starts, filled when 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	Price for the level below (price = 0 and entryType = 23 or 24 for market orders).	
entryQty	N	Quantity offered at above price.	
numOrders	N	Number of orders.	
entryPrcLvl	N	Level of price in OB, 1 is for top-of-book for instance.	
<EntriesDepth> sequence ends			
<auctionGroup> (optional) group starts, only active in an auction			
moiInd	Y	Market order interruption indicator.	
		P	Potential market order interruption
		M	Market order interruption
		X	Volatility interruption after market order interruption
volInd	Y	Volatility indicator type.	
		E	Extended volatility interruption
		F	Freeze
		P	Potential volatility interruption

Order book snapshot file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description	
		V	Volatility interruption
		X	Expired
<EntriesAuction> sequence 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	Y	Potential auction price or matching range bid/ask price.	
entryQty	Y	Potential auction quantity, matching range BID/ASK quantity or surplus BID/ASK quantity.	
<EntriesAuction> sequence ends			
<auctionGroup> group ends			
<EntriesPrc> sequence starts, filled whenever there is a new daily high, daily low, opening price, closing price, valuation 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			

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 / incremental 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
moiInd	Y	Market order interruption indicator.	
		P	Potential market order interruption
		M	Market order interruption
		X	Volatility interruption after market order interruption
volInd	Y	Volatility indicator type.	
		E	Extended volatility interruption
		F	Freeze
		P	Potential volatility interruption
		V	Volatility interruption
		X	Expired
cmexInd	Y	Capital adjustment indicator.	
		C	Cum dividend
		A	Capital adjustment
		E	Ex dividend
gapIndicator	Y	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.	
<EntriesPrcQty> sequence 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	Potential auction price or matching range bid/ask price.	

Order book delta / incremental file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description	
entryQty	N	Potential auction quantity, matching range BID/ASK quantity or surplus BID/ASK quantity.	
<EntriesPrcQty> sequence ends			
<EntriesPrc> sequence starts, filled whenever there is a new daily high, daily low, opening price, closing price, valuation price			
entryType	N	4	Last trade price
		5	Opening price
		6	Last auction price
		7	Valuation price
		8	Closing price
		20	Daily high price
		21	Daily low price
entryPrc	N	Price.	
<EntriesPrc> sequence ends			
<EntriesQty> sequence starts, filled 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> sequence ends			
<EntriesDepth> sequence starts, filled 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 offered at above price.	
numOrders	N	Number of orders.	
entryPrcLvl	N	Level of price in OB, 1 is for top-of-book for instance.	
updateAction	N	What operation will be performed with this entry to know in what way to update the order book. For all delete actions (delete, delete from, delete thru) the fields entryPrc, entryQty and numOrders have to be ignored in the repeating group noEntriesDepth.	
		1	New: creating a price level, adds the new price at the specified entryPrcLvl say x. All price levels y where y >= x are shifted to y + 1.
		2	Change: changing a price level, replaces the quantity of the price level specified by the entryPrcLvl with the information sent in the message.

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

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

Order book delta / incremental 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	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.	
instrStatus	N	Identifier of a trading phase or fast market status.	
		1	Pre-trading
		5	Opening auction call
		6	Intra day auction call
		7	Closing auction call
		10	Opening Auction IPO Call
		11	Opening Auction IPO Freeze
		12	Intra Day Auction IPO Call
		13	Intra Day Auction IPO Freeze
		26	Continuous trading
		28	Post trading
		29	End of trade
		30	Halt
		31	Suspended
		32	Volatility interruption of continuous trading
		39	Continuous Auction Pre-Call
		41	Continuous Auction Freeze
gapIndicator	Y	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.	
trdgapIndicator	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	
		case any trade price is not included in the delta message the full view of all trades may be obtained from the All Trade Price stream.	
<EntriesTrades> sequence starts, sent if a trade occurs			
entryType	N	4	Last trade price
		10	Last BEST trade price
		11	Last midpoint trade price
		26	List of trade prices
aggressorTime	Y	Entry time of the incoming order that triggered the trade. This time stamp is only available in case of a trade. The aggressorTime is empty if the trade resulted from an auction.	
totTrdQty	N	Total traded quantity, cumulated quantity of the instrument for the current business day.	
numTrades	N	Number of trades.	
prcTypCod	N	Price type code.	
		C	Continuous Trading
		O	Opening Auction
		A	Auction
		F	Closing Auction
		E	End-of-day Auction
		V	Volatility Interruption in Continuous Trading
<EntriesTradePrices> sequence starts			
entryType	N	4	Last trade price
		9	Price from subscription period
		25	Last best trade price with Bundesbank (currently not in use)
		29	Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation.
entryPrc	N	Traded price.	
entryQty	Y	Traded quantity.	
entryTime	N	Match time.	
actnCod	N	Action code, indicates what type of action should be performed in case of last trade price information.	
		4	Add
		5	Update
		6	Delete
tranMtchIdNo	N	Internal transaction matching identifier.	
<EntriesTradePrices> sequence ends			
<EntriesTrades> sequence ends			
<EntriesDepth> sequence starts, filled 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

Order 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	N	Quantity offered at above price.	
numOrders	N	Number of orders.	
entryPrcLvl	N	Level of price in the order book (1 = top of book, 1…20 = depth level).	
updateAction	N	What operation will be performed with this entry to know in what way to update the order book. For all delete actions (delete, delete from, delete thru) the fields entryPrc, entryQty and numOrders have to be ignored in the repeating group noEntriesDepth.	
		1	New: creating a price level, adds the new price at the specified 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> sequence ends			
<auctionGroup> (optional) group starts, only active in an auction			
moiInd	Y	Market order interruption indicator.	
		P	Potential market order interruption
		M	Market order interruption
		X	Volatility interruption after market order interruption
volInd	Y	Volatility indicator type.	
		E	Extended volatility interruption
		F	Freeze
		P	Potential volatility interruption
		V	Volatility interruption
		X	Expired
<EntriesAuction> sequence starts			
entryType	N	12	Potential auction price
		13	Matching range ask
		14	Matching range bid
		15	Surplus bid
		16	Surplus ask
entryPrc	Y	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			
<auctionGroup> group ends			
<EntriesPrc> sequence starts, filled whenever there is a new daily high, daily low, opening price, closing price, valuation price			
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			

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

Order book delta / incremental file – Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)			
Name	Optional	Description	
entryTime	N	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	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.	
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

Order book delta / incremental 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	Y	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.	
trdgapIndicator	Y	Always Y, indicates that all trade prices cannot be delivered within this message (if more than 20 trade prices only the 20 latest are sent). In case any trade price is not included in the delta message the full view of all trades may be obtained from the All Trade Price stream.	
<EntriesTrades> sequence starts, sent if a trade 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	Y	Entry time of the incoming order that triggered the trade. This time stamp is only available in case of a trade. The aggressorTime is empty if the trade resulted from an auction.	
totTrdQty	N	Total traded quantity, cumulated quantity of the instrument for the current business day.	
numTrades	N	Number of trades.	
<EntriesTradePrices> sequence starts			
noEntriesTradePrices (available from 2015)	N		
entryType	N	4	Last trade price
		9	Price from subscription period
		10	Best trade price (available from V16)
		11	Midpoint trade price (available from V16)
		25	Last best trade price with Bundesbank (currently not in use)
		29	Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation
		30	Cancelled quantity and limit of resting bid limit order due to self-matching prevention (SMP) reason (available from V16)
		31	Cancelled quantity and limit of resting ask limit order due to SMP reason (available from V16)
		32	Cancelled quantity of resting bid market order due to SMP reason (available from V16)
		33	Cancelled quantity of resting ask market order due to SMP reason (available from V16)
prcTypCod	N	Price type code.	
		C	Continuous Trading

Order book delta / incremental file – Xetra Versions 14 – 16 (28/10/2013 – 30/06/2017)			
Name	Optional	Description	
		O	Opening Auction
		A	Auction
		F	Closing Auction
		E	End-of-day Auction
		V	Volatility Interruption in Continuous Trading
entryPrc	N	Traded price.	
entryQty	Y	Traded quantity.	
entryTime	N	Match time.	
actnCod	N	Action code, indicates what type of action should be performed in case of last trade price information.	
		4	Add
		5	Update
		6	Delete
tranMtchIdNo	N	Internal transaction matching identifier.	
<EntriesTradePrices> sequence ends			
<EntriesTrades> sequence ends			
<EntriesDepth> sequence starts, filled when order book 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	Price for the level below. price = 0 and entryType = 23 or 24 for market orders	
entryQty	N	Quantity offered at above price.	
numOrders	N	Number of orders.	
entryPrcLvl	N	Level of price in the order book (1 = top of book, 1…20 = depth level).	
updateAction	N	What operation will be performed with this entry to know in what way to update the order book. For all delete actions (delete, delete from, delete thru) the fields entryPrc, entryQty and numOrders have to be ignored in the repeating group noEntriesDepth.	
		1	New: creating a price level, adds the new price at the specified 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.

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> sequence ends			
<auctionGroup> (optional) group starts, only active in an auction			
moiInd	Y	Market order interruption indicator.	
		P	Potential market order interruption
		M	Market order interruption
		X	Volatility interruption after market order interruption
volInd	Y	Volatility indicator type.	
		E	Extended volatility interruption
		F	Freeze
		P	Potential volatility interruption
		V	Volatility interruption
		X	Expired
<EntriesAuction> sequence 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	Y	Potential auction price or matching range bid/ask price.	
entryQty	Y	Potential auction quantity, matching range bid/ask quantity or surplus bid/ask quantity.	
<EntriesAuction> sequence ends			
<auctionGroup> group ends			
<EntriesPrc> sequence starts, filled whenever there is a new daily high, daily low, opening price, closing price, valuation price or new reference price			
noEntriesPrc (available from 2015)	N		
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			

2.4. All trade price file

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

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

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

All trade price file – Xetra Version 12 (28/11/2011 – 22/11/2012)			
Name	Optional	Description	
timestamp	N	Timestamp when the message was created, in milliseconds since midnight CET/CEST.	
srcId	N	Identifier of the message disseminating source.	
isix	N	Xetra internal instrument identifier.	
gapIndicator	Y	Always Y, indicates that some intermediate trades had occurred for the instrument which may not be reported due to heavy processing load.	
<EntriesAtp> sequence starts			
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
		O	Opening Auction
		A	Auction
		F	Closing Auction
		E	End-of-day Auction
		V	Volatility Interruption in Continuous Trading
entryPrc	N	Traded price.	
entryQty	N	Traded quantity.	
entryTime	N	Time of entry HHMMSSCC.	
tranMtchIdNo	N	Internal transaction matching identifier.	
tpSeqNum	N	Sequence number.	
actnCod	N	Action code, indicates what type of action should be performed in case of last trade price information.	
		4	Add (default)
		5	Update
		6	Delete (trade reversal)
<EntriesAtp> sequence ends			

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

All trade price file – Xetra Versions 13 – 16 (23/11/2012 – 30/06/2017)			
Name	Optional	Description	
timestamp	N	Timestamp when the message was created, in microseconds since midnight CET/CEST.	
srcId	N	Identifier of the message disseminating source.	
isix	N	Xetra internal instrument identifier.	
seqNum	N	Sequence number.	
prcTypCod	N	Price type.	
		C	Continuous Trading
		O	Opening Auction
		A	Auction
		F	Closing Auction
		E	End-of-day Auction
		V	Volatility Interruption in Continuous Trading
		M	Mini Auction (since version 15)
		L	Liquidity Interruption (since version 15)
entryType	N	4	Last trade price
		9	Price from subscription period
		10	Last BEST trade price
		11	Last midpoint trade price
		29	Special auction, for Federal Bonds the Special Auction indicator is used for prices determined with Bundesbank participation
entryPrc	N	Traded price.	
entryQty	Y	Traded quantity.	
entryTime	N	Match time, in microseconds since midnight CET/CEST.	
tranMtchIdNo	N	Internal transaction matching identifier, corresponds to the field in the delta and snapshot message.	
actnCod	N	Action code, indicates what type of action should be performed in case of last trade 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 Message – Xetra T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)		
Field name	Optional	Description
MsgType	N	Always BU = Market Definition.
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.
MarketID	N	Market Identifier Code as specified in ISO 10383. XETR Xetra
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.
EffectiveBusinessDate	N	Current business date, e.g. 20131128.
NextEffectiveBusinessDate	N	Next business date.
MarketSegment	N	Product ISIN, e.g. DE0009653147.
MarketSegmentStatus	N	Defines if on-exchange trading on T7 is available for a product (=Active) or not (=Published). Reason for a published product can be for the following reasons: a) The product is still traded on the current platform prior to migration, b) First trading day of the new product has not yet been reached, or c) the product is setup on the current T7 platform for Off-book trading with no intention for on-exchange trading. 0 Active 4 or 2 Published (2 since Release 6.1)
PartitionID	N	Partition of the product.
<DerivativesDescriptor> (optional) group starts, always empty {}		
<DerivativesDescriptor> (optional) group ends		
<UnderlyingDescriptor> (optional) group starts, always empty {}		
<UnderlyingDescriptor> (optional) group ends		
<InstrumentScopes> (optional) sequence starts, always empty []		
<InstrumentScopes> sequence ends		
<RelatedMarketSegments> (optional) sequence starts, always empty []		
<RelatedMarketSegments> sequence ends		
<BaseTradingRules> group starts		
<TickRules> (optional) sequence starts		
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.
TickRuleID	Y	Table identifier, only for cash. Used in field RefTickTableID from the Instrument Snapshot message.
TickRuleProductComplex	N	Defines the instrument type for the tick rule. 0 Simple Instrument
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).

Product Snapshot Message – Xetra T7 Releases 5.0 – 6.1 (03/07/2017 – 30/11/2018)		
Field name	Optional	Description
EndTickPriceRange	N	Ending price range for the specified tick increment (noninclusive).
TickIncrement	N	Tick increment for stated price range. Specifies the valid price increments at which instrument of the product can be quoted and traded.
<TickRules> sequence ends		
<PriceRangeRules> (optional) sequence starts		
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.
PriceRangeRuleID	N	Table identifier
PriceRangeProductComplex	N	0 Simple Instrument
StartPriceRange	N	Start of price range (inclusive).
EndPriceRange	N	End of price range (non-inclusive).
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.
<PriceRangeRules> sequence ends		
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		
<BaseTradingRulesDerivatives> (optional) group starts, always empty {}		
<BaseTradingRulesDerivatives> (optional) group ends		
<BaseTradingRulesCash> (optional) group begins		
<AuctionTypeRuleGrp> sequence starts		
NoAuctionTypeRules	N	Number of rules. Always 1.
AuctionType	N	Defines the type of auction. Always 0. 0 Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading. 0 No. Applicable for cash market products only. 1 Yes
MarketImbalanceIndicator	N	Controls if during auction call/volatility 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 ends			
<BaseTradingRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	
PrimaryServiceLocationSubID	N	Port number for IP address Service A.	
SecondaryServiceLocationID	Y	IP Address Service B.	
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.	
<Feeds> sequence ends			

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

Product Snapshot Message – 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.	
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.	
		0	Active
		2	Published
PartitionID	N	Partition of the product.	
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<UnderlyingDescriptor> (optional) group starts, always empty {}			
<UnderlyingDescriptor> (optional) group ends			
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTradingRules> group starts			
<TickRules> (optional) sequence starts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.	
TickRuleID	Y	Table identifier, only for cash. Used in field RefTickTableID from the Instrument Snapshot message.	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		0	Simple Instrument
StartTickPriceRange	N	Starting price range for specified tick increment (inclusive).	
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 Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
<TickRules> sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	N	Defines if one sided quotes are allowed.	
		0	One-sided quote not allowed
		1	One-sided quote allowed
QuoteSideModelType	N	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	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> group ends			
<BaseTradingRulesDerivatives> (optional) group starts, always empty {}			
<BaseTradingRulesDerivatives> (optional) group ends			
<BaseTradingRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	N	Controls if during auction call/volatility interruption/extended volatility 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> sequence ends			
<BaseTradingRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	
PrimaryServiceLocationSubID	N	Port number for IP address Service A.	
SecondaryServiceLocationID	Y	IP Address Service B.	
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.	
<Feeds> sequence ends			

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

Product Snapshot Message – 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.
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. 0 – Active 2 – Published
PartitionID	N	Partition of the product.
<DerivativesDescriptor> (optional) group starts, always empty {}		
<DerivativesDescriptor> (optional) group ends		
<UnderlyingDescriptor> (optional) group starts, always empty {}		
<UnderlyingDescriptor> (optional) group ends		
<InstrumentScopes> (optional) sequence starts, always empty []		
<InstrumentScopes> sequence ends		
<RelatedMarketSegments> (optional) sequence starts, always empty []		
<RelatedMarketSegments> sequence ends		
<BaseTradingRules> group starts		
<TickRules> sequence starts		
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 Snapshot Message – 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> sequence 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).	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		0	Simple Instrument
TrdType	N	Defines the (TES) trade type for this tick rule scope.	
		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	OTC
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index Futures Trade
		9	Block Trade At Market
		10	Xetra / Eurex Enlight triggered Trade
<TickRulesScopes> sequence ends			
<TickRules> sequence ends			
<PriceRangeRules> sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 sided quote rejection or cancellation.	

Product Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
		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.	
<BaseTradingRules> group ends			
<BaseTradingRulesDerivatives> (optional) group starts, always empty {}			
<BaseTradingRulesDerivatives> (optional) group ends			
<BaseTradingRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
<BaseTradingRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If MatchType is not filled the same matching algorithm is used for continuous trading and auction trades.	

Product Snapshot Message – Xetra 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 ends			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	
PrimaryServiceLocationSubID	N	Port number for IP address Service A.	
SecondaryServiceLocationID	Y	IP Address Service B.	
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.	
<Feeds> sequence ends			

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

Product Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
MsgType	N	Always BU = Market Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
MarketID	N	Market Identifier Code as specified in ISO 10383.	
		XETR	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.	

Product Snapshot 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. 0 Active 2 Published
PartitionID	N	Partition of the product.
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.
<DerivativesDescriptor> (optional) group starts, always empty {}		
<DerivativesDescriptor> (optional) group ends		
<UnderlyingDescriptor> (optional) group starts, always empty {}		
<UnderlyingDescriptor> (optional) group ends		
<InstrumentScopes> (optional) sequence starts, always empty []		
<InstrumentScopes> sequence ends		
<RelatedMarketSegments> (optional) sequence starts, always empty []		
<RelatedMarketSegments> sequence ends		
<BaseTradingRules> group starts		
<TickRules> sequence starts		
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> (optional) sequence starts		

Product Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
NoTickRuleScopes	N	Number of tick rule scope definitions. Each combination of TickRuleProductComplex and TrdType defines a valid scope for which this tick rule is used for. Please note, that for cash market products a tick rule with a TickRuleID may additionally be referenced by the same RefTickTableID for on book trading as well (see Instrument snapshot message).	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		0	Simple Instrument
TrdType	N	Defines the (TES) trade type for this tick rule scope.	
		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	OTC
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index Futures Trade
		9	Block Trade At Market
		10	Xetra / Eurex Enlight triggered Trade
		11	Block QTPIP (Qualified Third Party Information Provider) Trade (since 8.1)
<TickRulesScopes> sequence ends			
<TickRules> sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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

Product Snapshot 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> group ends			
<BaseTradingRulesDerivatives> (optional) group starts, always empty {}			
<BaseTradingRulesDerivatives> (optional) group ends			
<BaseTradingRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
<BaseTradingRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	

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

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

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)			
Field name	Optional	Description	
MsgType	N	Always BU = Market Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
MarketID	N	Market Identifier Code as specified in ISO 10383.	
		XETR	Xetra
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.	
EffectiveBusinessDate	N	Current business date, e.g. 20131128.	
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	

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)			
Field name	Optional	Description	
		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	Y	Contains the default and maximum duration of negotiation event in seconds.	
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<UnderlyingDescriptor> (optional) group starts, always empty {}			
<UnderlyingDescriptor> (optional) group ends			
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> (optional) sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTrdgRules> group starts			
<TickRules> sequence starts			
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> (optional) sequence 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).	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		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 Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)			
Field name	Optional	Description	
		4	Portfolio Compression Trade
		5	OTC
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index Futures Trade
		10	Block Trade At Market
		11	Xetra / Eurex Enlight triggered Trade
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
<TickRulesScopes> sequence ends			
<TickRules> sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	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.	
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			

<table>
<tr><th colspan="4">Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td colspan="4"><BaseTrdgRulesCash> (optional) group begins</td></tr>
<tr><td colspan="4"><AuctionTypeRuleGrp> sequence starts</td></tr>
<tr><td>NoAuctionTypeRules</td><td>N</td><td colspan="2">Number of rules. Always 1.</td></tr>
<tr><td rowspan="2">AuctionType</td><td rowspan="2">N</td><td colspan="2">Defines the type of auction. Always 0.</td></tr>
<tr><td>0</td><td>Any Auction</td></tr>
<tr><td rowspan="3">ClosedBookIndicator</td><td rowspan="3">N</td><td colspan="2">Indicates whether the order book is closed during auction trading.</td></tr>
<tr><td>0</td><td>No. Applicable for cash market products only.</td></tr>
<tr><td>1</td><td>Yes</td></tr>
<tr><td rowspan="3">MarketImbalanceIndicator</td><td rowspan="3">N</td><td colspan="2">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.</td></tr>
<tr><td>0</td><td>No</td></tr>
<tr><td>1</td><td>Yes. Applicable for cash market products only.</td></tr>
<tr><td colspan="4"><AuctionTypeRuleGrp> sequence ends</td></tr>
<tr><td colspan="4"><BaseTrdgRulesCash> (optional) group ends</td></tr>
<tr><td colspan="4"><MatchRules> sequence starts, used to convey allocation rules for matching</td></tr>
<tr><td>NoMatchRules</td><td>N</td><td colspan="2">Number of match rules.</td></tr>
<tr><td rowspan="2">MatchRuleProductComplex</td><td rowspan="2">N</td><td colspan="2">Indicates the instrument type.</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="4">MatchAlgorithm</td><td rowspan="4">N</td><td colspan="2">Defines the order allocation method.</td></tr>
<tr><td>0</td><td>Price-time</td></tr>
<tr><td>1</td><td>Pro-rata</td></tr>
<tr><td>2</td><td>Time pro-rata</td></tr>
<tr><td rowspan="3">MatchType</td><td rowspan="3">Y</td><td colspan="2">If MatchType is not filled the same matching algorithm is used for continuous trading and auction trades.</td></tr>
<tr><td>0</td><td>Auto Match (for continuous trading)</td></tr>
<tr><td>1</td><td>Call Auction (for auction trades)</td></tr>
<tr><td colspan="4"><MatchRules> sequence ends</td></tr>
<tr><td colspan="4"><Feeds> sequence starts</td></tr>
<tr><td>NoMDFeedTypes</td><td>N</td><td colspan="2">Number of feeds.</td></tr>
<tr><td rowspan="4">MDFeedType</td><td rowspan="4">N</td><td colspan="2">Type of feed.</td></tr>
<tr><td>0</td><td>High Incremental (unnetted feed)</td></tr>
<tr><td>1</td><td>High Snapshot (unnetted feed)</td></tr>
<tr><td>2</td><td>Low (netted feed)</td></tr>
<tr><td rowspan="3">MDBookType</td><td rowspan="3">N</td><td colspan="2">Type of book data.</td></tr>
<tr><td>1</td><td>Price Depth</td></tr>
<tr><td>2</td><td>Order Depth</td></tr>
<tr><td>MarketDepth</td><td>Y</td><td colspan="2">Maximum number of available price levels (order book depth) for the product.</td></tr>
</table>

Product Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020 – 19/11/2021)		
Field name	Optional	Description
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).
PrimaryServiceLocationID	N	IP Address for Service A.
PrimaryServiceLocationSubID	N	Port number for IP address Service A.
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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.	
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.	
		0	Active
		2	Published
PartitionID	N	Partition of the product.	
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.	
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<UnderlyingDescriptor> (optional) group starts, always empty {}			

Product Snapshot Message – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)			
Field name	Optional	Description	
<UnderlyingDescriptor> (optional) group ends			
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> (optional) sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTrdgRules> group starts			
<TickRules> sequence starts			
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> (optional) sequence 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).	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		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	OTC
		7	Vola Trade
		8	EFP-Fin Trade
		9	EFP-Index Futures Trade
		10	Block Trade At Market
		11	Xetra / Eurex Enlight triggered Trade

Product Snapshot Message – 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> sequence ends			
<TickRules> sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Y	Always empty.	
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			
<BaseTrdgRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	

Product Snapshot Message – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)			
Field name	Optional	Description	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
<BaseTrdgRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	

Product Snapshot Message – Xetra T7 Release 10.0 (22/11/2021 – 24/06/2022)		
Field name	Optional	Description
PrimaryServiceLocationSubID	N	Port number for IP address Service A.
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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

Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)			
Field name	Optional	Description	
MsgType	N	Always BU = Market Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
MarketID	N	Market Identifier Code as specified in ISO 10383.	
		XETR	Xetra
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.	
EffectiveBusinessDate	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.	
		0	Active
		2	Published
PartitionID	N	Partition of the product.	
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.	
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<UnderlyingDescriptor> (optional) group starts, always empty {}			
<UnderlyingDescriptor> (optional) group ends			
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> (optional) sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTrdgRules> group starts			

<table>
<tr><th colspan="4">Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td colspan="4"><TickRules> sequence starts</td></tr>
<tr><td>NoTickRules</td><td>N</td><td colspan="2">Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.</td></tr>
<tr><td>TickRuleID</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td>StartTickPriceRange</td><td>N</td><td colspan="2">Starting price range for specified tick increment (inclusive).</td></tr>
<tr><td>EndTickPriceRange</td><td>N</td><td colspan="2">Ending price range for the specified tick increment (noninclusive).</td></tr>
<tr><td>TickIncrement</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td colspan="4"><TickRulesScopes> (optional) sequence starts</td></tr>
<tr><td>NoTickRuleScopes</td><td>N</td><td colspan="2">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).</td></tr>
<tr><td rowspan="2">TickRuleProductComplex</td><td rowspan="2">N</td><td colspan="2">Defines the instrument type for the tick rule.</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="11">TrdType</td><td rowspan="11">N</td><td colspan="2">Defines the (TES) trade type for this tick rule scope.</td></tr>
<tr><td>1</td><td>Block Trade / Large in Scale (LIS)</td></tr>
<tr><td>3</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>4</td><td>Portfolio Compression Trade</td></tr>
<tr><td>5</td><td>OTC</td></tr>
<tr><td>7</td><td>Vola Trade</td></tr>
<tr><td>8</td><td>EFP-Fin Trade</td></tr>
<tr><td>9</td><td>EFP-Index Futures Trade</td></tr>
<tr><td>10</td><td>Block Trade At Market</td></tr>
<tr><td>11</td><td>Xetra / Eurex Enlight triggered Trade</td></tr>
<tr><td>12</td><td>Block QTPIP (Qualified Third Party Information Provider) Trade</td></tr>
<tr><td colspan="4"><TickRulesScopes> sequence ends</td></tr>
<tr><td colspan="4"><TickRules> sequence ends</td></tr>
<tr><td colspan="4"><PriceRangeRules> (optional) sequence starts</td></tr>
<tr><td>NoPriceRangeRules</td><td>N</td><td colspan="2">Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.</td></tr>
</table>

Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)			
Field name	Optional	Description	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Y	Always empty.	
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			
<BaseTrdgRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	N	Controls if during auction call/volatility interruption/extended volatility interruption/market order interruption phase a	

Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)			
Field name	Optional	Description	
		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 ends			
DisableOnBookTrading	Y	Defines if On Book trading is disabled.	
		0	No
		1	Yes
<BaseTrdgRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	
PrimaryServiceLocationSubID	N	Port number for IP address Service A.	
SecondaryServiceLocationID	Y	IP Address Service B.	

Product Snapshot Message – Xetra T7 Release 10.1 (27/06/2022 – 18/11/2022)		
Field name	Optional	Description
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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

Product Snapshot 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	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.	
		0	Active
		2	Published
PartitionID	N	Partition of the product.	
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.	
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<UnderlyingDescriptor> (optional) group starts, always empty {}			
<UnderlyingDescriptor> (optional) group ends			
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> (optional) sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTrdgRules> group starts			
<TickRules> sequence starts			
NoTickRules	N	Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.	

<table>
<tr><th colspan="4">Product Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>TickRuleID</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td>StartTickPriceRange</td><td>N</td><td colspan="2">Starting price range for specified tick increment (inclusive).</td></tr>
<tr><td>EndTickPriceRange</td><td>N</td><td colspan="2">Ending price range for the specified tick increment (noninclusive).</td></tr>
<tr><td>TickIncrement</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td colspan="4"><TickRulesScopes> (optional) sequence starts</td></tr>
<tr><td>NoTickRuleScopes</td><td>N</td><td colspan="2">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).</td></tr>
<tr><td rowspan="2">TickRuleProductComplex</td><td rowspan="2">N</td><td colspan="2">Defines the instrument type for the tick rule.</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="11">TrdType</td><td rowspan="11">N</td><td colspan="2">Defines the (TES) trade type for this tick rule scope.</td></tr>
<tr><td>1</td><td>Block Trade / Large in Scale (LIS)</td></tr>
<tr><td>3</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>4</td><td>Portfolio Compression Trade</td></tr>
<tr><td>5</td><td>OTC</td></tr>
<tr><td>7</td><td>Vola Trade</td></tr>
<tr><td>8</td><td>EFP-Fin Trade</td></tr>
<tr><td>9</td><td>EFP-Index Futures Trade</td></tr>
<tr><td>10</td><td>Block Trade At Market</td></tr>
<tr><td>11</td><td>Xetra / Eurex Enlight triggered Trade</td></tr>
<tr><td>12</td><td>Block QTPIP (Qualified Third Party Information Provider) Trade</td></tr>
<tr><td colspan="4"><TickRulesScopes> sequence ends</td></tr>
<tr><td colspan="4"><TickRules> sequence ends</td></tr>
<tr><td colspan="4"><PriceRangeRules> (optional) sequence starts</td></tr>
<tr><td>NoPriceRangeRules</td><td>N</td><td colspan="2">Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.</td></tr>
<tr><td>PriceRangeRuleID</td><td>N</td><td colspan="2">Table identifier.</td></tr>
<tr><td>PriceRangeProductComplex</td><td>N</td><td>0</td><td>Simple Instrument</td></tr>
</table>

Product Snapshot Message – Xetra T7 Releases 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). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Y	Always empty.	
<HHIIntervals> (optional) sequence starts			
NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.	
HHIIndicator	N	The HHIInterval value.	
HHIIntervalEnd	N	The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd$_1$], HHIIndicator = n for (HHIIntervalEnd$_{(n-1)}$; HHIIntervalEnd$_n$], for n > 1.	
<HHIIntervals> (optional) sequence ends			
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			
<BaseTrdgRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		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

Product Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)			
Field name	Optional	Description	
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
DisableOnBookTrading	Y	Defines if On Book trading is disabled.	
		0	No
		1	Yes
<BaseTrdgRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).	
PrimaryServiceLocationID	N	IP Address for Service A.	
PrimaryServiceLocationSubID	N	Port number for IP address Service A.	

Product Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)		
Field name	Optional	Description
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)		
Field name	Optional	Description
MsgType	N	Always BU = Market Definition.
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.
MarketID	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. 0 | Active 2 | Published
PartitionID	N	Partition of the product.
CapacityGroupID	N	Capacity group identifier of the product.
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.
<DerivativesDescriptor> (optional) group starts, always empty {}		
<DerivativesDescriptor> (optional) group ends		
<UnderlyingDescriptor> (optional) group starts, always empty {}		
<UnderlyingDescriptor> (optional) group ends		
<InstrumentScopes> (optional) sequence starts, always empty []		
<InstrumentScopes> (optional) sequence ends		
<RelatedMarketSegments> (optional) sequence starts, always empty []		
<RelatedMarketSegments> sequence ends		
<BaseTrdgRules> group starts		
<TickRules> sequence starts		

<table>
<tr><th colspan="4">Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>NoTickRules</td><td>N</td><td colspan="2">Number of tick rules defining the price step table for the product. See T7 Functional Reference, section Limit Price.</td></tr>
<tr><td>TickRuleID</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td>StartTickPriceRange</td><td>N</td><td colspan="2">Starting price range for specified tick increment (inclusive).</td></tr>
<tr><td>EndTickPriceRange</td><td>N</td><td colspan="2">Ending price range for the specified tick increment (noninclusive).</td></tr>
<tr><td>TickIncrement</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td colspan="4"><TickRulesScopes> (optional) sequence starts</td></tr>
<tr><td>NoTickRuleScopes</td><td>N</td><td colspan="2">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).</td></tr>
<tr><td rowspan="2">TickRuleProductComplex</td><td rowspan="2">N</td><td colspan="2">Defines the instrument type for the tick rule.</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="11">TrdType</td><td rowspan="11">N</td><td colspan="2">Defines the (TES) trade type for this tick rule scope.</td></tr>
<tr><td>1</td><td>Block Trade / Large in Scale (LIS)</td></tr>
<tr><td>3</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>4</td><td>Portfolio Compression Trade</td></tr>
<tr><td>5</td><td>OTC</td></tr>
<tr><td>7</td><td>Vola Trade</td></tr>
<tr><td>8</td><td>EFP-Fin Trade</td></tr>
<tr><td>9</td><td>EFP-Index Futures Trade</td></tr>
<tr><td>10</td><td>Block Trade At Market</td></tr>
<tr><td>11</td><td>Xetra / Eurex Enlight triggered Trade</td></tr>
<tr><td>12</td><td>Block QTPIP (Qualified Third Party Information Provider) Trade</td></tr>
<tr><td colspan="4"><TickRulesScopes> sequence ends</td></tr>
<tr><td colspan="4"><TickRules> sequence ends</td></tr>
<tr><td colspan="4"><PriceRangeRules> (optional) sequence starts</td></tr>
<tr><td>NoPriceRangeRules</td><td>N</td><td colspan="2">Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.</td></tr>
<tr><td>PriceRangeRuleID</td><td>N</td><td colspan="2">Table identifier.</td></tr>
</table>

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Y	Always empty.	
<HHIIntervals> (optional) sequence starts			
NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.	
HHIIndicator	N	The HHIInterval value.	
HHIIntervalEnd	N	The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd$_1$], HHIIndicator = n for (HHIIntervalEnd$_{(n-1)}$; HHIIntervalEnd$_n$], for n > 1.	
<HHIIntervals> (optional) sequence ends			
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			
<BaseTrdgRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
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
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
DisableOnBookTrading	Y	Defines if On Book trading is disabled.	
		0	No
		1	Yes
<BaseTrdgRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
NoMDFeedTypes	N	Number of feeds.	
MDFeedType	N	Type of feed.	
		0	High Incremental (unnetted feed)
		1	High Snapshot (unnetted feed)
		2	Low (netted feed)
MDBookType	N	Type of book data.	
		1	Price Depth
		2	Order Depth
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.	
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).	

Product Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)		
Field name	Optional	Description
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).
PrimaryServiceLocationID	N	IP Address for Service A.
PrimaryServiceLocationSubID	N	Port number for IP address Service A.
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)		
Field name	Optional	Description
MsgType	N	Always BU = Market Definition.
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.
MarketID	N	Market Identifier Code as specified in ISO 10383.
		XETR Xetra
MarketSegmentID	N	Product identifier, e.g. 89. Can also be a product pool id.
EffectiveBusinessDate	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.
		0 Active
		2 Published
PartitionID	N	Partition of the product.
CapacityGroupID	N	Capacity group identifier of the product.
NegotiationDuration	Y	Contains the default and maximum duration of negotiation event in seconds.
<DerivativesDescriptor> (optional) group starts, always empty {}		
<DerivativesDescriptor> (optional) group ends		
<UnderlyingDescriptor> (optional) group starts, always empty {}		
<UnderlyingDescriptor> (optional) group ends		

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
<InstrumentScopes> (optional) sequence starts, always empty []			
<InstrumentScopes> (optional) sequence ends			
<RelatedMarketSegments> (optional) sequence starts, always empty []			
<RelatedMarketSegments> sequence ends			
<BaseTrdgRules> group starts			
<TickRules> sequence starts			
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> (optional) sequence 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).	
TickRuleProductComplex	N	Defines the instrument type for the tick rule.	
		0	Simple Instrument
TrdType	N	Defines the (TES) trade type for this tick rule scope.	
		1	Block Trade / Large in Scale (LIS)
		3	Exchange For Swap (EFS)
		4	OTC
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index Futures Trade
		9	Block Trade At Market
		10	Xetra / Eurex Enlight triggered Trade
		11	Block QTPIP (Qualified Third Party Information Provider) Trade
<TickRulesScopes> sequence ends			

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
<TickRules> sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Number of price range tables. See T7 Functional Reference, section Price Range Table Basics.	
PriceRangeRuleID	N	Table identifier.	
PriceRangeProductComplex	N	0	Simple Instrument
StartPriceRange	N	Start of price range (inclusive).	
EndPriceRange	N	End of price range (non-inclusive).	
PriceRangeValue	Y	Maximum allowable quote spread (absolute value). Conditionally required if PriceRangePercentage is absent.	
PriceRangePercentage	Y	Maximum allowable quote spread (percentage value). Conditionally required if PriceRangeValue is absent.	
<PriceRangeRules> sequence ends			
QuoteSideIndicator	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 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	Percentage by which range resulting from PriceRangeValue and PriceRangePercentage has to be extended to obtain the valid price range during Fast Market (for all Releases) or Stressed Market Conditions in derivatives markets: 0 = no change to normal range, e.g. 80->80 50 = increase by half, e.g. 80->120 100 = range to be doubled, e.g. 80->160 More details are available in the T7 Functional Reference.	
CheckMarketOrder	Y	Always empty.	
<HHIIntervals> (optional) sequence starts			
NoHHIIntervals	N	Number of Herfindahl-Hirschman Index (HHI) intervals.	
HHIIndicator	N	The HHIInterval value.	
HHIIntervalEnd	N	The HHIInterval upper boundary (incl.), e.g. HHIIndicator = 1 for [0; HHIIntervalEnd$_1$], HHIIndicator = n for (HHIIntervalEnd$_{(n-1)}$; HHIIntervalEnd$_n$], for n > 1.	
<HHIIntervals> (optional) sequence ends			
<BaseTrdgRules> group ends			
<BaseTrdgRulesDerivatives> (optional) group starts, always empty {}			
<BaseTrdgRulesDerivatives> (optional) group ends			

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
<BaseTrdgRulesCash> (optional) group begins			
<AuctionTypeRuleGrp> sequence starts			
NoAuctionTypeRules	N	Number of rules. Always 1.	
AuctionType	N	Defines the type of auction. Always 0.	
		0	Any Auction
ClosedBookIndicator	N	Indicates whether the order book is closed during auction trading.	
		0	No. Applicable for cash market products only.
		1	Yes
MarketImbalanceIndicator	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.	
		0	No
		1	Yes. Applicable for cash market products only.
<AuctionTypeRuleGrp> sequence ends			
DisableOnBookTrading	Y	Defines if On Book trading is disabled.	
		0	No
		1	Yes
<BaseTrdgRulesCash> (optional) group ends			
<MatchRules> sequence starts, used to convey allocation rules for matching			
NoMatchRules	N	Number of match rules.	
MatchRuleProductComplex	N	Indicates the instrument type.	
		0	Simple Instrument
MatchAlgorithm	N	Defines the order allocation method.	
		0	Price-time
		1	Pro-rata
		2	Time pro-rata
MatchType	Y	If 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			
<Feeds> sequence starts			
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

Product Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)		
Field name	Optional	Description
MarketDepth	Y	Maximum number of available price levels (order book depth) for the product.
MarketDepthTimeInterval	Y	Netting interval for low bandwidth feeds (0=no netting).
MDRecoveryTimeInterval	Y	Recovery interval (duration of one cycle).
PrimaryServiceLocationID	N	IP Address for Service A.
PrimaryServiceLocationSubID	N	Port number for IP address Service A.
SecondaryServiceLocationID	Y	IP Address Service B.
SecondaryServiceLocationSubID	Y	Port number for IP address Service B.
<Feeds> sequence ends		

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 all tradable instruments.

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 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			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument identifier.	
SecurityAltIDSource	N	4	ISIN
		8	Exchange symbol
		B	Wertpapier
<SecurityAlt> (optional) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
		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. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages.	
		0	Active
		1	Inactive
		4	Published
SecurityDesc	Y	Instrument's long name.	
SecurityExchange	Y	Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place.	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to tick size table identifier from product level message.	
Currency	N	Currency as published in ISO 4217	
SettlCurrency	N	Settlement currency.	
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
<InstrumentParties> (optional) sequence ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<CashDescriptor> (optional) group ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling. Only for cash.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	0	Disabled
		1	Enabled
		2	Central counterparty
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.	

Instrument Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)		
Field name	Optional	Description
<QuoteSizeRules> (optional) sequence starts		
NoQuoteSizeRules	N	Always 1.
MinBidSize	N	Bid side minimum quote quantity.
MinOfferSize	N	Offer side minimum quote quantity.
<QuoteSizeRules> (optional) sequence ends		
<PriceRangeRules> (optional) sequence starts		
NoPriceRangeRules	N	Always 1.
PriceRangeRuleID	N	Reference to table identifier from product level messages.
<PriceRangeRules> (optional) sequence ends		
<TradingSessionRules> (optional) sequence starts		
NoTradingSessionRules	N	Always 1.
TradingSessionID	N	Always 0 = Day.
TradingSessionSubID	N	0 Continuous Trading
		1 One Auction
		2 Multiple Auctions
<TradingSessionRules> (optional) sequence ends		
<MarketSegmentGrp> sequence ends		

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	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		
NoSecurityAltID	N	Number of alternate identifiers.
SecurityAltID	N	Alternate instrument identifier.
SecurityAltIDSource	N	4 ISIN
		8 Exchange symbol
		B Wertpapier
<SecurityAlt> (optional) sequence ends		
SecurityType	N	Type of security.
		5 Common stock
		8 Exchange traded fund
		9 Exchange traded commodity
		10 Exchange traded note
		11 Other

Instrument Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional	Description	
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
		1	Inactive
		4	Published
		5	Pending deletion (since Release 6.1), used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
SecurityDesc	Y	Description of security.	
SecurityExchange	Y	Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place.	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to tick size table identifier from product level message.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
<InstrumentParties> (optional) sequence ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			

Instrument Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional	Description	
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	VDO Minimum Execution Quantity
		12	Illiquid As Defined By Exchange
		13	Market Making Obligation
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Eligible For Systematic Internaliser
		17	Multi CCP-eligibility (since Release 6.1)
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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> sequence starts			

Instrument Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (03/12/2017 – 30/11/2018)			
Field name	Optional	Description	
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence 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.

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.	
SecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<SecurityAlt> (optional) sequence starts			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument identifier.	
SecurityAltIDSource	N	4	ISIN
		8	Exchange symbol
		B	Wertpapier
<SecurityAlt> (optional) sequence ends			
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.	
		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	Y	Instrument's long name.	
SecurityExchange	Y	Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place.	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to tick size table identifier from product level message.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
Issuer	Y	Issuer of instrument. Always empty.	
IssueDate	Y	Issue date of instrument. Always empty.	
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
<InstrumentParties> (optional) sequence ends			
<BondDescriptor> (optional) group starts, always empty {}			
<BondDescriptor> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		13	Market Making Obligation
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Eligible For Systematic Internaliser

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
		17	Multi CCP-eligibility
		18	Pool Factor
		19	Indexation Coefficient
		20	Traded Before Issue Date
		21	Issuer Business Unit
		22	Allow Knock Out
		23	Has PLP
		24	PLP Deferral Time
		25	Warrant Strike
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	

Instrument Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	0	Disabled (no)
		1	Enabled (yes)
		2	Central counterparty
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.	
<QuoteSizeRules> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
MsgType	N	Always d = Security Definition.	
MsgSeqNum	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			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument identifier.	
SecurityAltIDSource	N	4	ISIN

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
		8	Exchange symbol
		B	Wertpapier
<SecurityAlt> (optional) sequence ends			
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.	
		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	Y	Instrument's long name.	
SecurityExchange	Y	Market Identifier Code (ISO 10383). For cash this is the exchange where the IPO took place.	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
		2	Streifbandverwahrung
		3	Wertpapierrechnung
Issuer	Y	Issuer of instrument. Always empty.	
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
<InstrumentParties> (optional) sequence ends			
<BondDescriptor> (optional) group starts, always empty {}			
<BondDescriptor> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		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 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
		22	Allow Knock Out
		23	Has PLP
		24	PLP Deferral Time
		25	Warrant Strike
		26	Reporting Market TES
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	0	Disabled (no)

Instrument Snapshot Message – Xetra T7 Release 7.1 (27/05/2019 – 15/11/2019)			
Field name	Optional	Description	
		1	Enabled (yes)
		2	Central counterparty
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.	
<QuoteSizeRules> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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

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

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
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
		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").	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
		4	NCSC via T2S
Issuer	Y	Issuer of instrument. Always empty.	
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		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
		17	Multi CCP-eligibility
		18	Pool Factor

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
		19	Indexation Coefficient
		20	Trading On Terms Of Issue
		21	Issuer Business Unit
		22	Allow Knock Out
		23	Has PLP
		24	PLP Deferral Time
		25	Warrant Strike
		26	Reporting Market TES
		27	Liquidity Provider User Group
		28	Specialist User Group
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	

Instrument Snapshot Message – Xetra T7 Releases 8.0 – 8.1 (18/11/2019 – 20/11/2020)			
Field name	Optional	Description	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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		

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument identifier.	
SecurityAltIDSource	N	4	ISIN
		8	Exchange symbol (mnemonic)
		B	Wertpapier
<SecurityAlt> (optional) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
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
		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").	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message.	

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
		It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
Issuer	Y	Issuer of instrument. Always empty.	
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		13	Market Making Obligation
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Multi CCP-eligibility
		17	Pool Factor
		18	Indexation Coefficient
		19	Trading On Terms Of Issue
		20	Issuer Business Unit
		21	Allow Knock Out
		22	Has PLP
		23	PLP Deferral Time
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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.	

Instrument Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
MaturityDate	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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	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			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument 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) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
		15	Digital Assets
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop 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
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional	Description	
			soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages.
SecurityDesc	Y	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
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
Issuer	Y	Issuer of instrument. Always empty.	
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<VolaCorridorGroup> (optional) group starts			

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional	Description	
VolatilityCorridorOpeningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments	
VolatilityCorridorIntradayAuction	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	
VolatilityCorridorClosingAuction	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	
VolatilityCorridorContinuous	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> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		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

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional	Description	
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	0	Disabled (no)

Instrument Snapshot Message – Xetra T7 Releases 10.0 – 10.1 (22/11/2021 – 18/11/2022)			
Field name	Optional	Description	
		1	Enabled (yes)
		2	Central counterparty
SettlBusinessDays	Y	Indicates the number of business days from trade execution after which settlement is to be effected.	
<QuoteSizeRules> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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 = 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			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument identifier.	
SecurityAltIDSource	N	4	ISIN
		8	Exchange symbol (mnemonic)
		B	Wertpapier

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)			
Field name	Optional	Description	
		102	Redundant To SecurityID, the SecurityAltID will point to the instrument with the same SecurityID which "replaces" this inactivated instrument.
<SecurityAlt> (optional) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
		15	Digital assets
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop 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
		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").	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)			
Field name	**Optional**	**Description**	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<VolaCorridorGroup> (optional) group starts			
VolatilityCorridorOpeningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments	
VolatilityCorridorIntradayAuction	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	
VolatilityCorridorClosingAuction	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	
VolatilityCorridorContinuous	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> (optional) group ends			
<CashDescriptor> (optional) group ends			

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

Instrument Snapshot Message – Xetra T7 Releases 11.0 – 11.1 (21/11/2022 – 17/11/2023)			
Field name	Optional	Description	
MinPriceIncrement	Y	Defines the minimum increment for trade prices (tick size). This value is identical for all simple instruments of a product. Trading and clearing tick sizes, i.e. increments for trade prices in trading and clearing notation are the same unless MinPriceIncrementClearing is present.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	

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

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

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
MsgType	N	Always d = Security Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.	
SecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<SecurityAlt> (optional) sequence starts			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument 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) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
		15	Digital assets
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop	

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
		trading. These will still be distributed until they expire but as inactive. Active instruments can also expire intra-day or be suspended which is conveyed with the same field but only within intraday state change messages.	
		0	Active, is used when the first trading date is in future and the product state is Active. The SecurityStatus switches to Active as soon the first trading date is equal or later than current business date.
		1	Inactive
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted 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").	
ProductComplex	N	Type of instrument.	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<VolaCorridorGroup> (optional) group starts			
VolatilityCorridorOpeningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments	
VolatilityCorridorIntradayAuction	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	
VolatilityCorridorClosingAuction	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	
VolatilityCorridorContinuous	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> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		13	Market Making Obligation

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Multi CCP-eligibility
		17	Pool Factor
		18	Indexation Coefficient
		19	Trading On Terms Of Issue
		20	Issuer Business Unit
		21	Allow Knock Out
		22	Has PLP
		23	PLP Deferral Time
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<RelatedInstrumentGrp> (optional) group starts			

Instrument Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
RelatedSecurityID	N	The instrument identifier uniquely identifies the related instrument.	
RelatedSecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<RelatedInstrumentGrp> (optional) group ends			
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
MsgType	N	Always d = Security Definition.	
MsgSeqNum	N	Contiguous across all messages on the reference data snapshot feed regardless of message type. See T7 Market and Reference Data Interfaces – Manual, section General structure of the snapshot cycle.	
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.	
SecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<SecurityAlt> (optional) sequence starts			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument 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) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
		15	Digital assets
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop 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
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
			soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change messages.
SecurityDesc	Y	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
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
MaxTradeVol	Y	This field contains the maximum quantity of a regular order or quote, which is allowed to be traded in a given instrument.	
MaxTradeVal	Y	This field contains the maximum value of a regular order or quote, which is allowed to be traded in a given instrument.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			
<BondsAndWarrantsGroup> (optional) group ends			
<VolaCorridorGroup> (optional) group starts			
VolatilityCorridorOpeningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments	
VolatilityCorridorIntradayAuction	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	
VolatilityCorridorClosingAuction	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	
VolatilityCorridorContinuous	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> (optional) group ends			
<CashDescriptor> (optional) group ends			
<InstrumentAttributes> (optional) sequence starts			
NoInstrAttrib	N	Number of instrument attributes.	
InstrAttribType	N	0	Minimum Reserve Order Volume
		1	Minimum Display Volume
		2	Issuer Name
		3	Issuer Number
		4	Market Type
		5	Market Type Supplement
		6	Reporting Market
		7	Cum-Ex Indicator
		8	Product Assignment Group
		9	Product Assignment Group Description
		10	Domestic Indicator
		11	Pre Trade LIS Value
		12	Illiquid As Defined By Exchange
		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

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
		21	Allow Knock Out
		22	Has PLP
		23	PLP Deferral Time
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<RelatedInstrumentGrp> (optional) group starts			
RelatedSecurityID	N	The instrument identifier uniquely identifies the related instrument.	
RelatedSecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<RelatedInstrumentGrp> (optional) group ends			
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	

Instrument Snapshot Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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

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

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional	Description	
SecurityID	N	The instrument identifier uniquely identifies an instrument, e.g. 72057800196358145.	
SecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<SecurityAlt> (optional) sequence starts			
NoSecurityAltID	N	Number of alternate identifiers.	
SecurityAltID	N	Alternate instrument 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) sequence ends			
SecurityType	N	Type of security.	
		5	Common stock
		8	Exchange traded fund
		9	Exchange traded commodity
		10	Exchange traded note
		12	Other
		13	Subscription Right
		14	Investment Funds
		15	Digital assets
SecurityStatus	N	Instruments may be published prior to becoming active for trading. Status is identical to the product level, i.e. all instruments of a product are either published or active with the exception of those that expire one or more business days after they stop 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
		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").	
ProductComplex	N	Type of instrument.	

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional	Description	
		0	Simple Instrument
<DerivativesDescriptor> (optional) group starts, always empty {}			
<DerivativesDescriptor> (optional) group ends			
<CashDescriptor> (optional) group starts			
RefTickTableID	N	Reference to price step table alias tick rule table identifier TickTableID from product snapshot message. It is also used as the reference to the default tick rule table for TES.	
Currency	N	Currency as published in ISO 4217.	
SettlCurrency	N	Settlement currency.	
DepositType	Y	0	Auslandskassenverein
		1	Girosammelverwahrung
		2	Streifbandverwahrung
		3	Wertpapierrechnung
		4	NCSC via T2S
IssueDate	Y	Issue date of instrument. Always empty.	
RoundLot	Y	Minimum Tradable Unit.	
MinTradeVol	Y	Minimum Order Quantity.	
MaxTradeVol	Y	This field contains the maximum quantity of a regular order or quote, which is allowed to be traded in a given instrument.	
MaxTradeVal	Y	This field contains the maximum value of a regular order or quote, which is allowed to be traded in a given instrument.	
QuotingStartTime	Y	Quoting Period Start Time (HH:mm:ss).	
QuotingEndTime	Y	Quoting Period End Time (HH:mm:ss).	
InstrumentAuctionType	Y	0	Default
		1	Single Auction
		2	Special Auction
MidpointTrading	Y	Indicates whether the instrument is enabled for Midpoint trading.	
		0	Disabled
		1	Enabled
MidpointExecVenueID	Y	Market Identifier Code (ISO 10383) used for reporting midpoint trades to the supervisory authority.	
<InstrumentParties> (optional) sequence starts			
NoInstrumentParties	N	Number of parties.	
InstrumentPartyID	N	Identifies a party associated with an instrument.	
InstrumentPartyIDSource	N	0	Proprietary
InstrumentPartyRole	N	0	Clearing Organization
		1	Market Maker
InstrumentPartyRoleQualifier	Y	0	Designated Sponsor
		1	Specialist
<InstrumentParties> (optional) sequence ends			
<BondsAndWarrantsGroup> (optional) group starts, always empty {}			

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional	Description	
<BondsAndWarrantsGroup> (optional) group ends			
<VolaCorridorGroup> (optional) group starts			
VolatilityCorridorOpeningAuction	Y	Reference to Volatility Corridor Table for Opening Auction. The mapping of integer values to the corresponding corridor table is available at: www.xetra.com > Instruments > All tradable instruments	
VolatilityCorridorIntradayAuction	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	
VolatilityCorridorClosingAuction	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	
VolatilityCorridorContinuous	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> (optional) group ends			
<SecurityClassificationGrp> (optional) sequence starts			
NoSecurityClassifications	N	Always 1.	
SecurityClassificationReason	N	Always 3 = Entitlement / Eligibility.	
SecurityClassificationValue	N	0	Eligible for all trading activities
		1	Not eligible for OTC Trade Upload
		2	Eligible only for OTC Trade Upload
<SecurityClassificationGrp> (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
		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

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional	Description	
		14	Liquid As Defined By Regulator
		15	Eligible For Stressed Market Conditions
		16	Multi CCP-eligibility
		17	Pool Factor
		18	Indexation Coefficient
		19	Trading On Terms Of Issue
		20	Issuer Business Unit
		21	Allow Knock Out
		22	Has PLP
		23	PLP Deferral Time
		24	Warrant Strike
		25	Reporting Market TES
		26	Liquidity Provider User Group
		27	Specialist User Group
		28	Liquidity Class
InstrAttribValue	N	Value of instrument attribute.	
<InstrumentAttributes> (optional) sequence ends			
<Events> (optional) sequence 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 event YYYYMMDD.	
<Events> (optional) sequence ends			
InstrumentPricePrecision	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.	
MinPriceIncrementClearing	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.	
MinPriceIncrementAmount	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	Y	Always empty.	
MaturityMonthYear	Y	Always empty.	
SecuritySubType	Y	Always empty.	
<RelatedInstrumentGrp> (optional) group starts			

Instrument Snapshot Message – Xetra T7 Release 13.0 (from 18/11/2024)			
Field name	Optional	Description	
RelatedSecurityID	N	The instrument identifier uniquely identifies the related instrument.	
RelatedSecurityIDSource	N	Always M = Marketplace-assigned identifier.	
<RelatedInstrumentGrp> (optional) group ends			
<MarketSegmentGrp> sequence starts			
NoMarketSegments	N	Always 1.	
MarketSegmentID	N	Product identifier or product pool identifier, e.g. 89.	
ImpliedMarketIndicator	Y	Always empty.	
MultilegModel	Y	Always empty.	
PriceType	Y	The unit in which an instrument is quoted/stated when buying or selling.	
		0	Percent
		1	Shares
		2	Points
PostTradeAnonymity	Y	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> (optional) sequence starts			
NoQuoteSizeRules	N	Always 1.	
MinBidSize	N	Bid side minimum quote quantity.	
MinOfferSize	N	Offer side minimum quote quantity.	
<QuoteSizeRules> (optional) sequence ends			
<PriceRangeRules> (optional) sequence starts			
NoPriceRangeRules	N	Always 1.	
PriceRangeRuleID	N	Reference to table identifier from product level messages.	
<PriceRangeRules> (optional) sequence ends			
<TradingSessionRules> (optional) sequence starts			
NoTradingSessionRules	N	Always 1.	
TradingSessionID	N	Always 0 = Day.	
TradingSessionSubID	N	1	Continuous
		4	Scheduled Intraday Auction
		6	Any Auction
		7	Continuous Auction Issuer
		8	Continuous Auction Specialist
<TradingSessionRules> (optional) sequence ends			
<MarketSegmentGrp> sequence ends			

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	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
TradingSessionID	N	0	Day
		1	Morning
		2	Evening
		3	After Hours
		4	Holiday
TradingSessionSubID	N	0	Pre-Trading
		1	Trading
		2	Closing
		3	Post-Trading
		4	Quiescent
		Only for quiescent product states, the field TradingSessionID must be evaluated additionally to determine the actual product state. TradingSessionSubID=4 and TradingSessionID = 1 indicates the product state Start of Day, TradingSessionID = 2 End of Day, TradingSessionID = 0 Halt and TradingSessionID = 3 Holiday.	
TradSesStatus	N	0	Halted
		1	Open
		2	Closed
FastMarketIndicator	N	Indicates if product is in the state Fast Market.	
		0	No
		1	Yes
TransactTime	N	(nanoseconds)	
TESTradSesStatus	Y	0	Halted
		1	Open

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

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

Product State Change Message – Xetra T7 Releases 6.0 – 13.0 (from 04/12/2017)			
Field name	Optional	Description	
MsgType	N	Always h = Trading Session Status.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
TradingSessionID	N	0	Day
		1	Morning
		2	Evening
		3	After Hours
		4	Holiday
TradingSessionSubID	N	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
		Only for quiescent product states, the field TradingSessionID must be evaluated additionally to determine the actual product state. TradingSessionSubID=5 and TradingSessionID = 1 indicates the product state Start of Day, TradingSessionID = 2 End of Day, TradingSessionID = 0 Halt, TradingSessionID = 3 Post End of Day and TradingSessionID = 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	(nanoseconds)	
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close

3.2.2. Mass instrument state change

File:

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

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

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

Mass Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
MsgType	N	Always CO = Security Mass Status.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
InstrumentScopeProductComplex	N	Instrument type of affected instruments.	
		0	Simple Instrument
SecurityMassTradingStatus	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
SecurityMassTradingEvent	Y	Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only.	
		0	None
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again

Mass Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	
<SecMassStatGrp> (optional) sequence starts, when not all indicated instruments are affected by the new state			
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
		1	Inactive
		2	Expired
		3	Suspended
SecurityTradingStatus	Y	0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
SecurityTradingEvent	Y	Identifies 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
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		3	Suspended
<SecMassStatGrp> sequence ends			

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

Mass Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
MsgType	N	Always CO = Security Mass Status.	
MsgSeqNum	N	The 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.	
InstrumentScopeProductComplex	N	Instrument type of affected instruments.	
		0	Simple Instrument
SecurityMassTradingStatus	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
MassMarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityMassTradingEvent	Y	Identifies an event related to a SecurityMassTradingStatus. Applicable 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).	
<SecMassStatGrp> (optional) sequence starts, when not all indicated instruments are affected by the new state			
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

Mass Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		1	Inactive
		2	Expired
		3	Suspended
		5	Pending deletion (since Release 6.1), used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
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
MarketCondition	N	0	Normal
		1	Stressed
SecurityTradingEvent	Y	Identifies 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
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		3	Suspended
<SecMassStatGrp> sequence ends			

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.

<table>
<tr><th colspan="4">Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>MsgSeqNum</td><td>N</td><td colspan="2">The sequence number is incremented per product across all message types on a particular feed.</td></tr>
<tr><td>SenderCompID</td><td>N</td><td colspan="2">Unique id of a sender.</td></tr>
<tr><td>MarketSegmentID</td><td>N</td><td colspan="2">Product identifier, e.g. 89.</td></tr>
<tr><td rowspan="2">InstrumentScopeProductComplex</td><td rowspan="2">N</td><td colspan="2">Instrument type of affected instruments.</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="17">SecurityMassTradingStatus</td><td rowspan="17">Y</td><td>0</td><td>Trading Halt</td></tr>
<tr><td>1</td><td>Closed</td></tr>
<tr><td>2</td><td>Restricted</td></tr>
<tr><td>3</td><td>Book</td></tr>
<tr><td>4</td><td>Continuous</td></tr>
<tr><td>5</td><td>Opening Auction</td></tr>
<tr><td>6</td><td>Opening Auction Freeze</td></tr>
<tr><td>7</td><td>Intraday Auction</td></tr>
<tr><td>8</td><td>Intraday Auction Freeze</td></tr>
<tr><td>9</td><td>Circuit Breaker Auction</td></tr>
<tr><td>10</td><td>Circuit Breaker Auction Freeze</td></tr>
<tr><td>11</td><td>Closing Auction</td></tr>
<tr><td>12</td><td>Closing Auction Freeze</td></tr>
<tr><td>13</td><td>IPO Auction</td></tr>
<tr><td>14</td><td>IPO Auction Freeze</td></tr>
<tr><td>15</td><td>Pre Call</td></tr>
<tr><td>16</td><td>Call</td></tr>
<tr><td rowspan="2">MassMarketCondition</td><td rowspan="2">N</td><td>0</td><td>Normal</td></tr>
<tr><td>1</td><td>Stressed</td></tr>
<tr><td rowspan="3">FastMarketIndicator</td><td rowspan="3">N</td><td colspan="2">Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.</td></tr>
<tr><td>0</td><td>No</td></tr>
<tr><td>1</td><td>Yes</td></tr>
<tr><td rowspan="4">SecurityMassTradingEvent</td><td rowspan="4">Y</td><td colspan="2">Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only.</td></tr>
<tr><td>0</td><td>None</td></tr>
<tr><td>1</td><td>Price volatility, auction is extended</td></tr>
<tr><td>2</td><td>Price volatility, auction is extended again</td></tr>
<tr><td>TransactTime</td><td>N</td><td colspan="2">Time when request was processed by the matcher (nanoseconds).</td></tr>
<tr><td colspan="4"><SecMassStatGrp> (optional) sequence starts, when not all indicated instruments are affected by the new state</td></tr>
<tr><td>NoRelatedSym</td><td>N</td><td colspan="2">Number of instruments in the exception list of instruments that have a different instrument state.</td></tr>
<tr><td>SecurityID</td><td>N</td><td colspan="2">Instrument identifier, e.g. 8852.</td></tr>
<tr><td>SecurityIDSource</td><td>N</td><td colspan="2">Always M = Marketplace-assigned identifier.</td></tr>
<tr><td>SecurityStatus</td><td>N</td><td>0</td><td>Active</td></tr>
</table>

Mass Instrument State Change Message – Xetra T7 Releases 7.0 – 7.1 (03/12/2018 – 15/11/2019)			
Field name	Optional	Description	
		3	Knocked-Out
		4	Knock-Out Revoked
		5	Suspended
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
		8	Knocked-Out And Suspended
SecurityTradingStatus	Y	0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre Call
		16	Call
MarketCondition	N	0	Normal
		1	Stressed
SecurityTradingEvent	Y	Identifies 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	Y	Identifies 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> sequence 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	Description	
MsgType	N	Always CO = Security Mass Status.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
InstrumentScopeProductComplex	N	Instrument type of affected instruments.	
		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.
		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.
SecurityMassTradingStatus	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 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.

Mass Instrument State Change Message – Xetra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)			
Field name	Optional	Description	
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
MassMarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityMassTradingEvent	Y	Identifies 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
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			
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.
		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	Y	0	Trading Halt
		1	Closed

Mass Instrument State Change Message – Xetra T7 Releases 8.0 – 9.1 (18/11/2019 – 19/11/2021)			
Field name	Optional	Description	
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
MarketCondition	N	0	Normal
		1	Stressed
SecurityTradingEvent	Y	Identifies an event related to a SecurityTradingStatus.	
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
SoldOutIndicator	Y	Identifies the sold out status (applicable for Continuous Auction Issuer trading model only).	
		1	Sold out
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		5	Suspended
<SecMassStatGrp> sequence 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 fully joint exception list.	

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

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

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

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)			
Field name	Optional	Description	
		15	Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
		19	Circuit Breaker Auction Triggered By Static Limit Breach (since 12.1, 13/05/2024)
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze (since 12.1, 13/05/2024)
MassMarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityMassTradingEvent	Y	Identifies 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
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			
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.
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer.
		5	Suspended

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

Mass Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)			
Field name	Optional	Description	
HighPx	Y	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.	
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		5	Suspended
<SecMassStatGrp> sequence 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 fully joint exception list.	
		0	Not Last Message
		1	Last Message

3.2.3. Instrument state change

File:

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

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

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

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

Instrument State Change Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
SecurityID	N	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	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
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityTradingEvent	Y	Identifies an event related to a SecurityMassTradingStatus. Applicable 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	Y	0	Active
		1	Inactive
		2	Expired
		3	Suspended

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

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
MsgType	N	Always f = Security Status.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	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
		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	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
MarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityTradingEvent	Y	Identifies an event related to a SecurityMassTradingStatus. Applicable for cash market products only.	
		0	None
		1	Price volatility, auction is extended

Instrument State Change Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		2	Price volatility, auction is extended again
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	
TESSecurityStatus	Y	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.	
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.
		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 messages.
		8	Knocked-Out And Suspended, only applicable in 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

Instrument State Change Message – Xetra T7 Releases 7.0 – 9.1 (03/12/2018 – 19/11/2021)			
Field name	Optional	Description	
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre Call, applicable for trading model Continuous Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only (applicable since 8.0 only).
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
MarketCondition	N	0	Normal
		1	Stressed
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityTradingEvent	Y	Identifies 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	Y	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 when request was processed by the matcher (nanoseconds).	
TESSecurityStatus	Y	0	Active
		1	Inactive
		2	Expired
		5	Suspended

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

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

Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)			
Field name	Optional	Description	
SecurityIDSource	N	Always M = Marketplace-assigned identifier.	
SecurityStatus	N	0	Active
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer.
		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 messages.
		8	Knocked-Out And Suspended, only applicable in 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 Auction Issuer and Specialist only.
		16	Call, applicable for trading model Continuous Auction Issuer only.
		17	Freeze, applicable for trading model Continuous Auction Specialist only (applicable since 8.0 only).
		18	Trade At Close, used for trades resulting from Trade At Close security trading phase and is applicable for cash market instruments only (applicable since 9.0 only).
		19	Circuit Breaker Auction Triggered By Static Limit Breach (since 12.1, 13/05/2024)
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze (since 12.1, 13/05/2024)
MarketCondition	N	0	Normal
		1	Stressed

Instrument State Change Message – Xetra T7 Releases 10.0 – 13.0 (from 22/11/2021)			
Field name	Optional	Description	
FastMarketIndicator	N	Indicates if product is in the state Fast Market. This indicator refers to a product but is provided on instrument level.	
		0	No
		1	Yes
SecurityTradingEvent	Y	Identifies 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	Y	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
HighPx	Y	Upper boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous upper boundary price is not valid any longer.	
LowPx	Y	Lower boundary price. For scheduled auctions (e.g. opening auction), it may be set together with SecurityTradingEvent 1 = Price volatility, auction is extended. For volatility auctions it may be set immediately without SecurityTradingEvent. If the value is absent, any previous lower boundary price is not valid any longer.	
TransactTime	N	Time when request was processed by the matcher (nanoseconds).	
TESSecurityStatus	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. Depth snapshot, T7 Release 5.0 (03/07/2017 – 01/12/2017)

Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
MsgType	N	Always W = Market Data Snapshot Full Refresh.	
MsgSeqNum	Y	Always empty.	
SenderCompID	N	Unique id of a sender.	
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.	
RefreshIndicator	Y	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
TESSecurityStatus	Y	Status of the instrument for TES trading.	
		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 this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N		
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states "Start-Of-Day" and "Pre-Trading" or when no price levels exist. During "Post-Trading" and "End-Of-Day" ToB prices are distributed.
		4	Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction.
		7	Trade Volume The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that

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

Depth Snapshot Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
SecurityTradingEvent	Y	0	None
		1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	Y	0	None
		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
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y		
MDPriceLevel	Y	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	

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

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

<table>
<tr><th colspan="4">Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>MsgType</td><td>N</td><td colspan="2">Always W = Market Data Snapshot Full Refresh.</td></tr>
<tr><td>MsgSeqNum</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>SenderCompID</td><td>N</td><td colspan="2">Unique id of a sender.</td></tr>
<tr><td>LastMsgSeqNumProcessed</td><td>Y</td><td colspan="2">Last message sequence number sent regardless of message type.</td></tr>
<tr><td>RefreshIndicator</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>MarketSegmentID</td><td>N</td><td colspan="2">Product identifier, e.g. 89.</td></tr>
<tr><td>SecurityID</td><td>N</td><td colspan="2">Instrument identifier, e.g. 8852.</td></tr>
<tr><td>SecurityIDSource</td><td>N</td><td colspan="2">Source Identification. Always M = Marketplace-assigned identifier.</td></tr>
<tr><td rowspan="2">ProductComplex</td><td rowspan="2">N</td><td colspan="2">Type of instrument</td></tr>
<tr><td>0</td><td>Simple Instrument</td></tr>
<tr><td rowspan="4">SecurityStatus</td><td rowspan="4">N</td><td colspan="2">Status of the instrument.</td></tr>
<tr><td>0</td><td>Active</td></tr>
<tr><td>3</td><td>Suspended</td></tr>
<tr><td>5</td><td>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.</td></tr>
<tr><td rowspan="5">TESSecurityStatus</td><td rowspan="5">Y</td><td colspan="2">Status of the instrument for TES trading.</td></tr>
<tr><td>0</td><td>Active</td></tr>
<tr><td>1</td><td>Inactive</td></tr>
<tr><td>2</td><td>Expired</td></tr>
<tr><td>3</td><td>Suspended</td></tr>
<tr><td>LastUpdateTime</td><td>N</td><td colspan="2">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.</td></tr>
<tr><td colspan="4"><MDSshGrp> sequence starts</td></tr>
<tr><td>NoMDEntries</td><td>N</td><td colspan="2"></td></tr>
<tr><td>MDOriginType</td><td>N</td><td>0</td><td>Book for on-exchange trading</td></tr>
</table>

Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		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
MDBookType	Y	1	Price Depth
MDSubBookType	Y	Always empty.	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32. 0, 1, 2, 3, 4, 5, 6, and 7 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book.	
		0	Off-Book Block Trade
		1	Exchange For Physical (EFP)
		2	Exchange For Swap (EFS)
		3	Exchange Basis Facility
		4	Vola Trade
		5	EFP-Fin Trade
		6	EFP-Index-Futures Trade
		7	Block Trade at Market
		8	Opening Auction Trade
		9	Intraday Auction Trade
		10	Volatility Auction Trade
		11	Closing Auction Trade
		13	IPO Auction Trade
TradingSessionID	Y	Always attached to the first MDEntry.	
		0	Day
		1	Morning
		2	Evening
		3	After-Hours

Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	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
MarketCondition	Y	0	Normal
		1	Stressed
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	Y	When absent, there is no potential security trading event signalled.	
		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

Depth Snapshot Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		128	Previous Closing Price
		512	Systematic Internalizer, prices resulting from BEST executions
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always empty.	
MultiLegPriceModel	Y	Always empty.	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y		
MDPriceLevel	Y	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.	
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.	
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.	
<MDSshGrp> sequence ends			

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

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

Depth Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
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
		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	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states “Start-Of-Day” and “Pre-Trading” or when no price levels exist. During “Post-Trading“ and “End-Of-Day“ ToB prices are distributed.
		4	Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction.

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

Depth Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	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
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
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	

Depth Snapshot Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)		
Field name	Optional	Description
		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 BEST executions
		1024 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always empty.
MultiLegPriceModel	Y	Always empty.
QuoteCondition	Y	1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	
MDPriceLevel	Y	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.
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.
<MDSshGrp> sequence ends		

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	N	Always W = Market Data Snapshot Full Refresh.
MsgSeqNum	Y	Always empty.

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional	Description	
SenderCompID	N	Unique id of a sender.	
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.	
RefreshIndicator	Y	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
		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	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds).	
		This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states “Start-Of-Day” and “Pre-Trading” or when no price levels exist.

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

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional	Description	
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	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	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again

Depth Snapshot Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional	Description	
PotentialSecurityTradingEvent	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 (applicable for 7.1 only)
		1	Sold out
TradeCondition	Y	The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 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 BEST executions (applicable for 7.1 only)
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always empty.	
MultiLegPriceModel	Y	Always empty.	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	Number of orders.	
MDPriceLevel	Y	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.	
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume.	

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

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	Optional	Description	
MsgType	N	Always W = Market Data Snapshot Full Refresh.	
MsgSeqNum	Y	Always empty.	
SenderCompID	N	Unique id of a sender.	
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.	
RefreshIndicator	Y	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
		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	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	

Depth Snapshot Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)			
Field name	Optional	Description	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states “Start-Of-Day” and “Pre-Trading” or when no price levels exist. During “Post-Trading“ and “End-Of-Day“ ToB prices are 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	Y	1	Price Depth
MDSubBookType	Y	Always empty.	
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType 2 = Trade and TradeCondition 32 = Last Auction Price. 1, 2, 3, 4, 5, 6, 7, 8, and 9 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade

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

Depth Snapshot Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)			
Field name	Optional	Description	
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
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).	
		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
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always empty.	
MultiLegPriceModel	Y	Always empty.	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	Number of orders.	
MDPriceLevel	Y	Book level. Absent for implied bid/offer prices.	

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

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

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	Y	Always empty.	
SenderCompID	N	Unique id of a sender.	
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.	
RefreshIndicator	Y	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
		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

Depth Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
TESSecurityStatus	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states “Start-Of-Day” and “Pre-Trading” or when no price levels exist. During “Post-Trading“ and “End-Of-Day“ ToB prices are 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	Y	1	Price Depth
MDSubBookType	Y	Always empty.	
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.	

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

Depth Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)			
Field name	Optional	Description	
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	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).	
		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

Depth Snapshot Message – Xetra T7 Releases 9.0 – 9.1 (23/11/2020– 19/11/2021)		
Field name	Optional	Description
		512 Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always empty.
MultiLegPriceModel	Y	Always empty.
QuoteCondition	Y	1 Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	Number of orders.
MDPriceLevel	Y	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.
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.
<MDSshGrp> sequence ends		

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	Y	Always empty.
SenderCompID	N	Unique id of a sender.
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.
RefreshIndicator	Y	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

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

Depth Snapshot Message – Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)			
Field name	Optional	Description	
		10	Imbalance Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
MDBookType	Y	1	Price Depth
MDSubBookType	Y	Always empty.	
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)
		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	Y	Always attached to the first MDEntry.	
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Continuous
		2	Closing

Depth Snapshot Message – Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)			
Field name	Optional	Description	
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	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	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	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).	
		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	

<table>
<tr><th colspan="4">Depth Snapshot Message – Xetra T7 Releases 10.0 – 11.1 (22/11/2021 – 17/11/2023)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td></td><td></td><td colspan="2">may be set immediately without SecurityTradingEvent. If the value is absent, any previous upper boundary price is not valid any longer.</td></tr>
<tr><td>LowPx</td><td>Y</td><td colspan="2">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.</td></tr>
<tr><td rowspan="9">TradeCondition</td><td rowspan="9">Y</td><td colspan="2">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.</td></tr>
<tr><td>1</td><td>Exchange Last</td></tr>
<tr><td>2</td><td>Opening Price</td></tr>
<tr><td>4</td><td>High Price</td></tr>
<tr><td>8</td><td>Low Price</td></tr>
<tr><td>16</td><td>Official Closing Price</td></tr>
<tr><td>32</td><td>Last Auction Price</td></tr>
<tr><td>128</td><td>Previous Closing Price</td></tr>
<tr><td>512</td><td>Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint</td></tr>
<tr><td>MultiLegReportingType</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>MultiLegPriceModel</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>QuoteCondition</td><td>Y</td><td>1</td><td>Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus</td></tr>
<tr><td>MDEntryPx</td><td>Y</td><td colspan="2">Price.</td></tr>
<tr><td>MDEntrySize</td><td>Y</td><td colspan="2">Quantity or trade volume when MDEntryType is 2 = Trade or 7 = Trade Volume. TES disclosed quantity when MDOriginType is 1 = Off-Book.</td></tr>
<tr><td>NumberOfOrders</td><td>Y</td><td colspan="2">Number of orders.</td></tr>
<tr><td>MDPriceLevel</td><td>Y</td><td colspan="2">Book level. Absent for implied bid/offer prices.</td></tr>
<tr><td>MDEntryTime</td><td>Y</td><td colspan="2">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.</td></tr>
<tr><td>NonDisclosedTradeVolume</td><td>Y</td><td colspan="2">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.</td></tr>
</table>

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

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

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
MsgType	N	Always W = Market Data Snapshot Full Refresh.	
MsgSeqNum	Y	Always empty.	
SenderCompID	N	Unique id of a sender.	
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.	
RefreshIndicator	Y	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
		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	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	

<table>
<tr><th colspan="4">Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td rowspan="2">MDOriginType</td><td rowspan="2">N</td><td>0</td><td>Book for on-exchange trading</td></tr>
<tr><td>1</td><td>Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume</td></tr>
<tr><td rowspan="9">MDEntryType</td><td rowspan="9">N</td><td>0</td><td>Bid</td></tr>
<tr><td>1</td><td>Offer</td></tr>
<tr><td>2</td><td>Trade</td></tr>
<tr><td>3</td><td>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.</td></tr>
<tr><td>4</td><td>Auction Clearing Price
Auction Clearing Price is sent as indicative information during the auction.</td></tr>
<tr><td>7</td><td>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.</td></tr>
<tr><td>8</td><td>Market Bid</td></tr>
<tr><td>9</td><td>Market Offer</td></tr>
<tr><td>10</td><td>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.</td></tr>
<tr><td>MDBookType</td><td>Y</td><td>1</td><td>Price Depth</td></tr>
<tr><td>MDSubBookType</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td rowspan="11">TrdType</td><td rowspan="11">Y</td><td colspan="2">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, 12, and 13 only present for MDEntryType 2 = Trade and MDOriginType 1 = Off-Book.</td></tr>
<tr><td>1</td><td>Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)</td></tr>
<tr><td>2</td><td>Exchange For Physical (EFP)</td></tr>
<tr><td>3</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>4</td><td>Portfolio Compression Trade</td></tr>
<tr><td>5</td><td>OTC applicable for T7 Entry Service (TES)</td></tr>
<tr><td>6</td><td>Exchange Basis Facility</td></tr>
<tr><td>7</td><td>Vola Trade</td></tr>
<tr><td>8</td><td>EFP-Fin Trade</td></tr>
<tr><td>9</td><td>EFP-Index-Futures Trade</td></tr>
<tr><td>10</td><td>Block Trade at Market</td></tr>
</table>

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
		11	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		12	Block QTPIP (Qualified Third Party Information Provider) Trade
		13	Delta Trade At Market
		14	Opening Auction Trade
		15	Intraday Auction Trade
		16	Volatility Auction Trade
		17	Closing Auction Trade
		18	Cross Auction Trade
		19	IPO Auction Trade
		20	Liquidity Improvement Cross
TradingSessionID	Y	Always attached to the first MDEntry.	
		0	Day
		1	Morning
		2	Evening
		3	After-Hours
		4	Holiday
TradingSessionSubID	Y	0	Pre-Trading
		1	Continuous
		2	Closing
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	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

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous Auction Specialist only.
		18	Trade At Close
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	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).	
		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	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

Depth Snapshot Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)		
Field name	Optional	Description
		4096 — Retail Price
MultiLegReportingType	Y	Always empty.
MultiLegPriceModel	Y	Always empty.
QuoteCondition	Y	1 — Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	Number of orders.
MDPriceLevel	Y	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.
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 7.
<MDSshGrp> sequence ends		

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

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)		
Field name	Optional	Description
MsgType	N	Always W = Market Data Snapshot Full Refresh.
MsgSeqNum	Y	Always empty.
SenderCompID	N	Unique id of a sender.
LastMsgSeqNumProcessed	Y	Last message sequence number sent regardless of message type.
RefreshIndicator	Y	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

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
		3	Knocked-Out, only applicable in trading model Continuous Auction Issuer
		4	Knock-Out Revoked, only applicable in trading model Continuous Auction Issuer
		5	Suspended
		7	Pending deletion, used when the last trading date is exceeded and the instrument will be deleted soon. Those instruments might become 0 = Active again intraday via Market Data intraday State Change essages.
		8	Knocked-Out And Suspended, only applicable in trading model Continuous Auction Issuer
TESSecurityStatus	Y	Status of the instrument for TES trading.	
		0	Active
		1	Inactive
		2	Expired
		5	Suspended
LastUpdateTime	N	Time of last change for SecurityID (nanoseconds). This can be any trade, change of the orderbook on any price level, or also a product or instrument state change information conveyed in this message.	
<MDSshGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		3	Empty Book Empty Book is sent during product states “Start-Of-Day” and “Pre-Trading” or when no price levels exist. During “Post-Trading“ and “End-Of-Day“ ToB prices are distributed.
		4	Auction Clearing Price Auction Clearing Price is sent as indicative information during the auction.
		7	Trade Volume The total traded volume of units traded during the day can be found in the MDEntrySize field. Please note that the total traded volume may include coherent volume (from direct matching of complex instruments) as well.
		8	Market Bid
		9	Market Offer

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

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
		3	Post-Trading
		5	Quiescent
TESTradSesStatus	Y	0	Halted
		1	Open
		2	Closed
		3	Pre-Close
SecurityTradingStatus	Y	Trading status of an instrument.	
		0	Trading Halt
		1	Closed
		2	Restricted
		3	Book
		4	Continuous
		5	Opening Auction
		6	Opening Auction Freeze
		7	Intraday Auction
		8	Intraday Auction Freeze
		9	Circuit Breaker Auction
		10	Circuit Breaker Auction Freeze
		11	Closing Auction
		12	Closing Auction Freeze
		13	IPO Auction
		14	IPO Auction Freeze
		15	Pre-Call applicable for trading model Continuous Auction Issuer only
		16	Call applicable for trading model Continuous Auction Issuer only
		17	Freeze, applicable for trading model Continuous Auction Specialist only
		18	Trade At Close
		19	Circuit Breaker Auction Triggered By Static Limit Breach
		20	Circuit Breaker Auction Triggered By Static Limit Breach Freeze
MarketCondition	Y	0	Normal
		1	Stressed market conditions
FastMarketIndicator	Y	0	No
		1	Yes
SecurityTradingEvent	Y	1	Price volatility, auction is extended
		2	Price volatility, auction is extended again
PotentialSecurityTradingEvent	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).	

Depth Snapshot Message – Xetra T7 Releases 12.1 – 13.0 (13/05/2024 – 16/05/2024)			
Field name	Optional	Description	
		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	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
		4096	Retail Price
		8192	Midpoint Price resulting from midpoint orders (available since 13.0)
MultiLegReportingType	Y	Always empty.	
MultiLegPriceModel	Y	Always empty.	
QuoteCondition	Y	1	Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus
MDEntryPx	Y	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	Y	Number of orders.	
MDPriceLevel	Y	Book level. Absent for implied bid/offer prices.	
MDEntryTime	Y	Time of entry (nanoseconds) for last trade entry (TradeCondition = 1 Exchange Last) and for one auction (TradeCondition 32 = Last Auction Price) entry (e.g. when there are opening, intraday and volatility auction trades, only for the last auction the time is given). Statistics do not have an official timestamp in the snapshot,	

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

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 id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
<MDIncGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDUpdateAction	N	0	New, indicates either that a new price level is created in the order book or a trade.
		1	Change, indicates a change at a given price level, all fields but the price on the specified side at the price level should be updated.
		2	Delete, delete a specified price level.
		3	Delete Thru, delete all price levels from 1 to the specified price level.
		4	Delete From, delete all price levels ≥ specified price level.
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.
MDEntryType	N	0	Bid

Depth Incremental Message – Xetra T7 Release 5.0 (03/07/2017 – 01/12/2017)			
Field name	Optional	Description	
		1	Offer
		2	Trade
		4	Auction Clearing Price
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.
		8	Market Bid
		9	Market Offer
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	Y	0	None
		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) group 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 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	Off-Book Block Trade
		1	Exchange For Physical (EFP)
		2	Exchange For Swap (EFS)
		3	Exchange Basis Facility
		4	Vola Trade
		5	EFP-Fin Trade
		6	EFP-Index-Futures Trade
		7	Block Trade at Market
		8	Opening Auction Trade
		9	Intraday Auction Trade
		10	Volatility Auction Trade
		11	Closing Auction Trade

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

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

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

<table>
<tr><th colspan="4">Depth Incremental Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td>SenderCompID</td><td>N</td><td colspan="2">Unique id of a sender.</td></tr>
<tr><td>MarketSegmentID</td><td>N</td><td colspan="2">Product identifier, e.g. 89.</td></tr>
<tr><td colspan="4"><MDIncGrp> sequence starts</td></tr>
<tr><td>NoMDEntries</td><td>N</td><td colspan="2">Number of market data (MD) entries</td></tr>
<tr><td rowspan="2">MDOriginType</td><td rowspan="2">N</td><td>0</td><td>Book for on-exchange trading</td></tr>
<tr><td>1</td><td>Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume</td></tr>
<tr><td rowspan="6">MDUpdateAction</td><td rowspan="6">N</td><td>0</td><td>New, indicates either that a new price level is created in the order book or a trade.</td></tr>
<tr><td>1</td><td>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.</td></tr>
<tr><td>2</td><td>Delete, delete a specified price level.</td></tr>
<tr><td>3</td><td>Delete Thru, delete all price levels from 1 to the specified price level.</td></tr>
<tr><td>4</td><td>Delete From, delete all price levels ≥ specified price level.</td></tr>
<tr><td>5</td><td>Overlay, change the price of a given price level, other parameters, e.g quantity might also change.</td></tr>
<tr><td rowspan="7">MDEntryType</td><td rowspan="7">N</td><td>0</td><td>Bid</td></tr>
<tr><td>1</td><td>Offer</td></tr>
<tr><td>2</td><td>Trade</td></tr>
<tr><td>4</td><td>Auction Clearing Price</td></tr>
<tr><td>7</td><td>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.</td></tr>
<tr><td>8</td><td>Market Bid</td></tr>
<tr><td>9</td><td>Market Offer</td></tr>
<tr><td>SecurityID</td><td>N</td><td colspan="2">Instrument identifier, e.g. 8852.</td></tr>
<tr><td>SecurityIDSource</td><td>N</td><td colspan="2">Source identification. Always M = Marketplace-assigned identifier.</td></tr>
<tr><td>MDEntryPx</td><td>Y</td><td colspan="2">Price (trade or order).</td></tr>
<tr><td>MDEntrySize</td><td>Y</td><td colspan="2">Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.</td></tr>
<tr><td>NumberOfOrders</td><td>Y</td><td colspan="2">Number of orders.</td></tr>
<tr><td>MDPriceLevel</td><td>Y</td><td colspan="2">Book level. Absent for implied bid/offer prices.</td></tr>
<tr><td>MDEntryTime</td><td>Y</td><td colspan="2">For bids and offers the official time of book entry, for trades official time of execution (all in nanoseconds).</td></tr>
</table>

<table>
<tr><th colspan="4">Depth Incremental Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td rowspan="3">PotentialSecurityTradingEvent</td><td rowspan="3">Y</td><td colspan="2">When absent, there is no change in potential security trading event.</td></tr>
<tr><td>0</td><td>None Signals a reset. Snapshot will change to absent in this case.</td></tr>
<tr><td>1</td><td>Price volatility, auction is extended</td></tr>
<tr><td>QuoteCondition</td><td>Y</td><td>1</td><td>Order imbalance together with MDEntryType 0 = Bid or 1 = Offer to define a surplus</td></tr>
<tr><td colspan="4"><TradeEntryGrp> (optional) group starts, only present for MDEntryType=2 (Trade).</td></tr>
<tr><td rowspan="15">TrdType</td><td rowspan="15">Y</td><td colspan="2">For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType = 2 and TradeCondition = 32 Last Auction Price 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.</td></tr>
<tr><td>0</td><td>Off-Book Block Trade</td></tr>
<tr><td>1</td><td>Exchange For Physical (EFP)</td></tr>
<tr><td>2</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>3</td><td>Exchange Basis Facility</td></tr>
<tr><td>4</td><td>Vola Trade</td></tr>
<tr><td>5</td><td>EFP-Fin Trade</td></tr>
<tr><td>6</td><td>EFP-Index-Futures Trade</td></tr>
<tr><td>7</td><td>Block Trade at Market</td></tr>
<tr><td>8</td><td>Opening Auction Trade</td></tr>
<tr><td>9</td><td>Intraday Auction Trade</td></tr>
<tr><td>10</td><td>Volatility Auction Trade</td></tr>
<tr><td>11</td><td>Closing Auction Trade</td></tr>
<tr><td>12</td><td>Cross-Auction Trade</td></tr>
<tr><td>13</td><td>IPO Auction Trade</td></tr>
<tr><td>AlgorithmicTradeIndicator</td><td>Y</td><td>0</td><td>Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.</td></tr>
<tr><td rowspan="7">TradeCondition</td><td rowspan="7">Y</td><td colspan="2">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.</td></tr>
<tr><td>1</td><td>Exchange Last</td></tr>
<tr><td>2</td><td>Opening Price</td></tr>
<tr><td>4</td><td>High Price</td></tr>
<tr><td>8</td><td>Low Price</td></tr>
<tr><td>16</td><td>Official Closing Price</td></tr>
<tr><td>32</td><td>Last Auction Price</td></tr>
</table>

Depth Incremental Message – Xetra T7 Releases 6.0 – 6.1 (04/12/2017 – 30/11/2018)			
Field name	Optional	Description	
		64	Out of sequence used for trades entered manually by Market Supervision (mutually exclusive with 1).
		128	Previous Closing Price
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.
		512	Systematic Internalizer, prices resulting from BEST executions
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always 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	Y	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0	Buy
		1	Sell
NumberOfBuyOrders	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	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.	
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.	
<TradeEntryGrp> (optional) group ends			
<MDIncGrp> 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 X = Market Data Incremental Refresh.

Depth Incremental Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
<MDIncGrp> sequence starts			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
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	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	Y	Book level. Absent for implied bid/offer prices.	

Depth Incremental Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
MDEntryTime	Y	For bids and offers the official time of book entry, for trades official time of execution (all in nanoseconds).	
PotentialSecurityTradingEvent	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> (optional) group 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
AlgorithmicTradeIndicator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.
TradeCondition	Y	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

Depth Incremental Message – Xetra T7 Release 7.0 (03/12/2018 – 24/05/2019)			
Field name	Optional	Description	
		4	High Price
		8	Low Price
		16	Official Closing Price
		32	Last Auction Price
		64	Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision, CLIP trades outside BBO which are reported as Liquidity Improvement Cross and for simple instrument Off-Book trades which are part of a basket trade.
		128	Previous Closing Price
		256	Volume Only, used for coherent entries from direct matching of complex instruments (no simple instrument involved), mutually exclusive with 1.
		512	Systematic Internalizer, prices resulting from BEST executions
		1024	Midpoint price, prices resulting from Volume Discovery Orders (VDO) executed at midpoint
MultiLegReportingType	Y	Always 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	Y	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0	Buy
		1	Sell
NumberOfBuyOrders	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	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.	
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.	
<TradeEntryGrp> (optional) group ends			
<MDIncGrp> sequence ends			

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

Depth Incremental Message – Xetra 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			
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	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	

Depth Incremental Message – 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	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	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> (optional) group starts, only present for MDEntryType=2 (Trade).			
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market
		10	Xetra Eurex Enlight Triggered Trade may be set 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
AlgorithmicTradeIndicator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.

Depth Incremental Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)			
Field name	Optional	Description	
TradeCondition	Y	Defines the type of price for MDEntryPx. Only present for MDEntryType 2 = Trade. The values can be added together to form combinations of the values. If Exchange Last, High Price are sent then 1 + 4 = 5 is received.	
		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 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.
MultiLegReportingType	Y	Always 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	Y	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0	Buy
		1	Sell
NumberOfBuyOrders	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.	

Depth Incremental Message – Xetra T7 Releases 7.1 – 8.0 (27/05/2019 – 26/06/2020)		
Field name	Optional	Description
TotalNumberOfTrades	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.
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> (optional) group ends		
<MDIncGrp> sequence ends		

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

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

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)			
Field name	Optional	Description	
			For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.
		8	Market Bid
		9	Market Offer
		10	Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	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> (optional) group starts, only present for MDEntryType=2 (Trade).			
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market

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

Depth Incremental Message – Xetra T7 Release 8.1 (29/06/2020 – 20/11/2020)			
Field name	Optional	Description	
MultiLegReportingType	Y	Always 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	Y	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0	Buy
		1	Sell
NumberOfBuyOrders	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	Y	Total Number of trades during the day. Only present for MDEntryType = 2 Trade.	
RestingCxlQty	Y	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.	
MDEntryID	Y	Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.	
NonDisclosedTradeVolume	Y	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType 7 = Trade Volume. Used when trade volume is finally disclosed and also for recovery.	
<TradeEntryGrp> (optional) group ends			
<MDIncGrp> sequence 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 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			
NoMDEntries	N	Number of market data (MD) entries.	
MDOriginType	N	0	Book for on-exchange trading
		1	Off-Book for TES trading only. Only applicable for MDEntryType 2 = Trade or 7 = Trade Volume
MDUpdateAction	N	0	New, indicates either that a new price level is created in the order book or a trade.
		1	Change, indicates a change at a given price level, all fields but the price on the specified side at the price level should be updated.

Depth Incremental Message – Xetra T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)			
Field name	Optional	Description	
		2	Delete, delete a specified price level.
		3	Delete Thru, delete all price levels from 1 to the specified price level.
		4	Delete From, delete all price levels ≥ specified price level.
		5	Overlay, change the price of a given price level, other parameters, e.g quantity might also change.
MDEntryType	N	0	Bid
		1	Offer
		2	Trade
		4	Auction Clearing Price
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.
		8	Market Bid
		9	Market Offer
		10	Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	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> (optional) group starts, only present for MDEntryType=2 (Trade).			

<table>
<tr><th colspan="4">Depth Incremental Message – Xetra T7 Releases 9.0 – 11.1 (23/11/2020 – 17/11/2023)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td rowspan="20">TrdType</td><td rowspan="20">Y</td><td colspan="2">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.</td></tr>
<tr><td>1</td><td>Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)</td></tr>
<tr><td>2</td><td>Exchange For Physical (EFP)</td></tr>
<tr><td>3</td><td>Exchange For Swap (EFS)</td></tr>
<tr><td>4</td><td>Portfolio Compression Trade</td></tr>
<tr><td>5</td><td>OTC applicable for T7 Entry Service (TES)</td></tr>
<tr><td>6</td><td>Exchange Basis Facility</td></tr>
<tr><td>7</td><td>Vola Trade</td></tr>
<tr><td>8</td><td>EFP-Fin Trade</td></tr>
<tr><td>9</td><td>EFP-Index-Futures Trade</td></tr>
<tr><td>10</td><td>Block Trade at Market</td></tr>
<tr><td>11</td><td>Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.</td></tr>
<tr><td>12</td><td>Block QTPIP (Qualified Third Party Information Provider) Trade</td></tr>
<tr><td>13</td><td>Opening Auction Trade</td></tr>
<tr><td>14</td><td>Intraday Auction Trade</td></tr>
<tr><td>15</td><td>Volatility Auction Trade</td></tr>
<tr><td>16</td><td>Closing Auction Trade</td></tr>
<tr><td>17</td><td>Cross Auction Trade</td></tr>
<tr><td>18</td><td>IPO Auction Trade</td></tr>
<tr><td>19</td><td>Liquidity Improvement Cross</td></tr>
<tr><td>AlgorithmicTradeIndicator</td><td>Y</td><td>0</td><td>Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.</td></tr>
<tr><td rowspan="8">TradeCondition</td><td rowspan="8">Y</td><td colspan="2">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.</td></tr>
<tr><td>1</td><td>Exchange Last</td></tr>
<tr><td>2</td><td>Opening Price</td></tr>
<tr><td>4</td><td>High Price</td></tr>
<tr><td>8</td><td>Low Price</td></tr>
<tr><td>16</td><td>Official Closing Price</td></tr>
<tr><td>32</td><td>Last Auction Price</td></tr>
<tr><td>64</td><td>Out of sequence is mutually exclusive with 1. It is used for trades entered manually by Market Supervision,</td></tr>
</table>

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

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

Depth Incremental Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
MsgType	N	Always X = Market Data Incremental Refresh.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product identifier, e.g. 89.	
<MDIncGrp> sequence 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	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	

Depth Incremental Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	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> (optional) group starts, only present for MDEntryType=2 (Trade).			
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	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
		17	Closing Auction Trade
		18	Cross Auction Trade
		19	IPO Auction Trade

Depth Incremental Message – Xetra T7 Release 12.0 (20/11/2023 – 10/05/2024)			
Field name	Optional	Description	
		20	Liquidity Improvement Cross
AlgorithmicTradeIndicator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.
TradeCondition	Y	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	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
MultiLegReportingType	Y	Always 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	Y	Gateway-In timestamp (in nanoseconds).	
AggressorSide	Y	Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.	
		0	Buy
		1	Sell
NumberOfBuyOrders	Y	Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.	

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

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

Depth Incremental Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
MsgType	N	Always X = Market Data Incremental Refresh.	
MsgSeqNum	N	The 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			
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

Depth Incremental Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
		7	Trade Volume. Used only for recovery purposes after a failover on the exchange side. When 7 is sent, the total traded volume of units traded during the day can be found in the MDEntrySize field. For MDOriginType 1 = Off-Book, 7 is also send together with NonDisclosedTradeVolume and MDEntrySize when TESTradSesStatus changes to 3 = Pre-Close.
		8	Market Bid
		9	Market Offer
		10	Imbalance. Applicable for Continuous Auction Issuer trading model only. Is used instead of QuoteCondition 1 = Order Imbalance for products for which the imbalance side is not disclosed.
SecurityID	N	Instrument identifier, e.g. 8852.	
SecurityIDSource	N	Source identification. Always M = Marketplace-assigned identifier.	
MDEntryPx	Y	Price (trade or order).	
MDEntrySize	Y	Quantity or trade volume when MDEntryType = 2 or 7. TES disclosed quantity when MDOriginType 1 = Off-Book.	
NumberOfOrders	Y	Number of orders.	
MDPriceLevel	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).	
PotentialSecurityTradingEvent	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> (optional) group starts, only present for MDEntryType=2 (Trade).			
TrdType	Y	For MDOriginType 0 = Book defines when the trade happens. Only present for MDEntryType=2 and TradeCondition=32 Last Auction Price, with the exception of cross auction trades which do not establish a last auction price, i.e. TradeCondition = 32 is not set for these trades. For on-exchange trades outside the auctions, this field is not set.	
		1	Block Trade, used to report T7 Entry Service (TES) trades of TES Type Large in Scale (LIS)
		2	Exchange For Physical (EFP)
		3	Exchange For Swap (EFS)
		4	OTC applicable for T7 Entry Service (TES)
		5	Exchange Basis Facility

Depth Incremental Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)			
Field name	Optional	Description	
		6	Vola Trade
		7	EFP-Fin Trade
		8	EFP-Index-Futures Trade
		9	Block Trade at Market
		10	Xetra Eurex Enlight Triggered Trade may be set together with MDOriginType 1 = Off-Book and TradeCondition 1 = Exchange Last.
		11	Block QTPIP (Qualified Third Party Information Provider) Trade
		12	Delta Trade At Market
		13	Opening Auction Trade
		14	Intraday Auction Trade
		15	Volatility Auction Trade
		16	Closing Auction Trade
		17	Cross Auction Trade
		18	IPO Auction Trade
		19	Liquidity Improvement Cross
AlgorithmicTradeIndicator	Y	0	Algorithmic Trade. A trade has to be flagged as "algorithmic", if at least one of the matched orders was submitted by a trading algorithm.
TradeCondition	Y	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	Trading On Terms Of Issue

<table>
<tr><th colspan="4">Depth Incremental Message – Xetra T7 Release 12.1 (13/05/2024 – 15/11/2024)</th></tr>
<tr><th>Field name</th><th>Optional</th><th colspan="2">Description</th></tr>
<tr><td></td><td></td><td>1024</td><td>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.</td></tr>
<tr><td></td><td></td><td>2048</td><td>Trade At Close</td></tr>
<tr><td></td><td></td><td>4096</td><td>Retail Price</td></tr>
<tr><td>MultiLegReportingType</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>MultiLegPriceModel</td><td>Y</td><td colspan="2">Always empty.</td></tr>
<tr><td>AggressorTime</td><td>Y</td><td colspan="2">Entry time of the incoming order that triggered the trade (in nanoseconds). Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>RequestTime</td><td>Y</td><td colspan="2">Gateway-In timestamp (in nanoseconds).</td></tr>
<tr><td rowspan="3">AggressorSide</td><td rowspan="3">Y</td><td colspan="2">Side of the incoming order, which created the trade. Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>0</td><td>Buy</td></tr>
<tr><td>1</td><td>Sell</td></tr>
<tr><td>NumberOfBuyOrders</td><td>Y</td><td colspan="2">Number of buy orders involved in this trade. Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>NumberOfSellOrders</td><td>Y</td><td colspan="2">Number of sell orders involved in this trade. Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>TotalNumberOfTrades</td><td>Y</td><td colspan="2">Total Number of trades during the day. Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>RestingCxlQty</td><td>Y</td><td colspan="2">Quantity that was cancelled due to SMP. Only present for MDEntryType = 2 Trade.</td></tr>
<tr><td>MDEntryID</td><td>Y</td><td colspan="2">Represents the match step ID. This field is unique together with MarketSegmentID. Only present for MDEntryType = 2.</td></tr>
<tr><td>NonDisclosedTradeVolume</td><td>Y</td><td colspan="2">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.</td></tr>
<tr><td colspan="4"><TradeEntryGrp> (optional) group ends</td></tr>
<tr><td colspan="4"><MDIncGrp> sequence ends</td></tr>
</table>

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

<table>
<tr><th colspan="3">Depth Incremental Message – Xetra T7 Release 13.0 (from 18/11/2024)</th></tr>
<tr><th>Field name</th><th>Optional</th><th>Description</th></tr>
<tr><td>MsgType</td><td>N</td><td>Always X = Market Data Incremental Refresh.</td></tr>
<tr><td>MsgSeqNum</td><td>N</td><td>The sequence number is incremented per product across all message types on a particular feed.</td></tr>
<tr><td>SenderCompID</td><td>N</td><td>Unique id of a sender.</td></tr>
<tr><td>MarketSegmentID</td><td>N</td><td>Product identifier, e.g. 89.</td></tr>
<tr><td colspan="3"><MDIncGrp> sequence starts</td></tr>
<tr><td>NoMDEntries</td><td>N</td><td>Number of market data (MD) entries.</td></tr>
</table>

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

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

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

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

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

File:

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

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

Quote Request Message – Xetra T7 Releases 5.0 – 13.0 (from 03/07/2017)			
Field name	Optional	Description	
MsgType	N	Always R = Quote Request.	
MsgSeqNum	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			
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	Y	0	Buy
		1	Sell
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			

3.3.4. Cross request

File:

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

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

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

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

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

Cross Request Message – Xetra T7 Releases 7.0 – 13.0 (from 03/12/2018)			
Field name	Optional	Description	
MsgType	N	Always U16 = Cross Request.	
MsgSeqNum	N	The sequence number is incremented per product across all message types on a particular feed.	
SenderCompID	N	Unique id of a sender.	
MarketSegmentID	N	Product 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	Y	Defines the requested quantity which cannot be zero in a cross request.	
CrossRequestType	N	0	Cross Announcement
		1	Liquidity Improvement Cross
<CrossRequestSideGrp> (optional) sequence starts			
NoCrossRequestSideGrp	N	Always 1.	

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

4. How to read Xetra messages

4.1. Basic rules (2011 – 2014)

Single variable

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

Sequence

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

Group

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

4.2. Basic rules (from 2015)

Single variable

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

Sequence

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

Group

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

4.3. Examples

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

File: IMDI_16020_20140219.csv

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

Example: Order book delta / incremental message Version 14			
Name	Optional	Value	Description
entryTime	N	32668037104	Time of last order book update of all updates in the message, in microseconds since midnight CET/CEST.
srcId	N	7	Identifier of the message disseminating source.
isix	N	16020	Xetra internal instrument identifier.
seqNum	N	49	Sequence number for synchronization purposes when comparing messages coming from the same source.
instrStatus	N	26	Identifier of a trading phase or fast market status, 26 = Continuous trading.
gapIndicator	Y	Empty	Always Y, indicates that the Xetra interface may have missed some of the latest orderbook changes.
trdgapIndicator	Y	Empty	Always Y, indicates that all trade prices cannot be delivered within this message (if more than 20 trade prices only the 20 latest are sent). In case any trade price is not included in the delta message the full view of all trades may be obtained from the All Trade Price stream.
<EntriesTrades> sequence	[] = The sequence is sent if a trade occurs, here it is empty.		
<EntriesDepth> sequence	This sequence is filled when order book entries are sent, here it contains eight repetitions (here eight order book entries).		
entryType	N	2	2 = Bid price.
entryPrc	N	13.96	Price for the level below. price = 0 and entryType = 23 or 24 for market orders
entryQty	N	10000	Quantity offered at above price.
numOrders	N	1	Number of orders.
entryPrcLvl	N	1	Level of price in the order book , here top of the book.
updateAction	N	2	2 = Change: changing a price level, replaces the quantity of the price level specified by the entryPrcLvl with the information sent in the message.
There are 7 more order book entries (not detailed in this example).			
<auctionGroup> (optional) group	This optional group is only active in an auction, here it is empty.		
<EntriesPrc> sequence	[] = 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	61369510647	Time of the last order book update, in microseconds since midnight CET/CEST.
srcId	N	13	Identifier of the message disseminating source.
isix	N	4006	Xetra internal instrument identifier.
consolSeqNum	N	151	Sequence number for the last "consolidated" delta message for this instrument in order to be able to position the snapshot among the delta messages.
instrStatus	N	39	Identifier of a trading phase or fast market status, 39 = Continuous Auction Pre-Call.
<EntriesAtp> sequence	This sequence is filled when there is any information on last trade price, in subscription price, last auction price, last midpoint trade, last BEST price or last trade price with Bundesbank participation. Here it contains two repetitions		
entryType	N	4	4 = Last trade price.
entryPrc	N	102.725	Traded price.
entryQty	N	0	Traded quantity (shares).
totTrdQty	Y	Empty	Total traded quantity (shares).
entryTime	N	32775935277	Match time, in microseconds since midnight CET/CEST.
numTrades	Y	Empty	Number of trades, cumulative total of the number of trades for the current day in a given instrument.
tranMtchIdNo	Y	681	Internal transaction matching identifier.
There is one more repetition (not detailed in this example).			
<EntriesDepth> sequence starts,	[] = This sequence is filled when orderbook entries are sent, here it is empty.		
<auctionGroup> (optional) group	This group is only active in an auction.		
moiInd	Y	Empty	No market order interruption indicator.
volInd	Y	Empty	No Volatility indicator type.
<EntriesAuction> sequence	Here there are two repetitions.		
entryType	N	14	14 = Matching range bid.
entryPrc	Y	102.713	Potential auction price or matching range bid/ask price.
entryQty	Y	50000	Potential auction quantity, matching range BID/ASK quantity or surplus BID/ASK quantity.
There is one more repetition (not detailed in this example).			
<EntriesPrc> sequence	This sequence is filled whenever there is a new daily high, daily low, opening price, closing price, valuation price. Here there are four repetitions.		
entryType	N	20	20 = Daily high price.

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

4.3.3. Example: Synchronization of delta and snapshot messages

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

The following message is retrieved from the IMSI file:

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}][{1,35.94,60,1,4}][{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}][{1,36.535,2962,1,10}][{1,36.6,200,1,11}][{1,36.99,300,1,12}][{1,37,200,1,13}][{1,37.38,7152,2,14}][{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).