

T7 Release 8.1

Extended Market Data Service

Trade Prices, Settlement Prices and Open Interest Data Manual - Production Version

Version V8.12

Date 28. May 2020

T7 Release 8.1	Deutsche Börse Group	
Extended Market Data Service		

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1. Introduction

The Trading System T7 provides market and reference data via a set of multicast interfaces.

In addition to the Market Data Interface (MDI) for netted market data, the Enhanced Market Data Interface (EMDI) for un-netted market data, Enhanced Order Book Interface (EOBI) and the Reference Data Interface (RDI) for reference data, the Extended Market Data Service (EMDS) is also provided.

All interfaces distribute information via UDP multicast, following FIX 5.0 SP2 semantics and are FAST 1.1/1.2 encoded (except EOBI). Messages are in general published on two identical services (A and B) with different multicast addresses (live-live concept).

The present document describes the Extended Marked Data Service for Xetra and Eurex.

The Extended Market Data Service provides participants of T7 with:

- Intraday Settlement prices and Open Interest data (for Derivatives only)
- Trade Price information

This document lists the multicast addresses and describes the message layouts of the interface. FAST 1.1 and 1.2 templates will be provided for this Interface on the Eurex website at www.eurexchange.com and on the Xetra website www.eurexchange.com and on the Yetra website <a href="https://www.eurexchange.com

Based on an internal, reliable data stream an All Trade Price (ATP) stream is offered which disseminates in real time all trade prices for the T7 cash markets.

Furthermore, an additional 'Replay Service' is provided which allows users to 'recover' from loss for the following data items:

- Intraday Settlement prices,
- · Open Interest data and
- Trades from T7 (on-exchange and off-book trades)

Concerning undeferred market data, the Replay service is simply a re-send of the data that was sent out before in real-time to give applications a chance to re-capture data again in its full format. There is no linkage in sequence numbers etc. between the real-time data and the replay data. The replay service for the cash market products is based on the ATP stream mentioned above.

Concerning TES trades (trades from the T7 Entry Service) which under MiFID II regulations are eligible for *deferred publication* (e.g. due to the size of a block trade), the Replay service is the mechanism for publication via multicast channels. The only other feed disseminating deferred TES trade reports is CEF Core – there are no such trade messages available on EMDI, however. The deferred messages are of type Trade Price (TID=175).

As this service is based on multicast, no individual requests are possible. Instead these messages are sent out at predefined times in replay cycles which start with a heading 'start of service' message and end with a trailing 'end of service' message (MDReport message). The number of messages is provided at each start of a cycle. All replay messages are sequenced within the appropriate multicast channel. Each cycle for the Eurex replay service for the US-allowed and the US-restricted products is triggered separately. The replay service should be processed for each channel separately. There are

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at least two replay cycles per multicast channel per trading day. Within one replay cycle the data is replayed several times directly in a row.

Please note: The present document explains the Extended Market Service only. The other market and reference data interfaces listed above are described in the Market and Reference Data Interfaces Manual, which explains the general rules regarding FIX messages, FAST encoding and the live-live concept.

The Extended Market Data Interface described in this manual has a version number. The version number is also listed at the beginning of the FAST XML templates.

This manual relates to the interface version number 008.100.000.

Details regarding the EMDS Service 'Ticker data' are described in the separate document 'T7 Extended Market Data Service - Underlying Ticker Data Manual'.

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2. Multicast addresses

The Settlement prices, Open Interest and Trade prices are disseminated via the following multicast addresses and port combinations in the Deutsche Börse Group network (the addresses for market place XFRA are only available with migration to T7):

2.1 Production multicast addresses and ports

2.1.1 For Real-time Service

Service	Multicast - A	Multicast - B	Ports
Settlement prices – Eurex T7 Settlement prices – Eurex T7/FX Adj. Open Interest – Eurex T7 Adj. Open Interest – Eurex T7/FX	224.0.50.77 224.0.29.64 224.0.50.78 224.0.29.65	224.0.50.205 224.0.30.64 224.0.50.206 224.0.30.65	Eurex T7: US-allowed products: 59000 US-restricted products: 59032 Eurex T7/FX: US-allowed products: 57000 US-restricted products: 57032
Xetra trades (XETR) - ATP Xetra trades (XBUL) - ATP	224.0.161.64	224.0.163.64	59000
	224.0.161.76	224.0.163.76	59000
Xetra trades (XMAL) - ATP Xetra trades (XVIE) - ATP Xetra trades (XFRA) - ATP	224.0.161.77	224.0.163.77	59000
	224.0.161.68	224.0.163.68	59000
	224.0.161.72	224.0.163.72	56000

2.1.2 For Replay Service

Service	Multicast - A	Multicast - B	Ports
Settlement prices – Eurex T7	224.0.50.77	224.0.50.205	Eurex T7:
Settlement prices – Eurex T7/FX	224.0.29.66	224.0.30.66	US-allowed products: 59001
Adj. Open Interest – Eurex T7	224.0.50.78	224.0.50.206	US-restricted products: 59033
Adj. Open Interest – Eurex T7/FX	224.0.29.67	224.0.30.66	Eurex T7/FX:
Eurex T7 trades (incl. TES)	224.0.50.79	224.0.50.207	US-allowed products: 57001
Eurex T7/FX trades (incl. TES)	224.0.29.68	224.0.30.66	US-restricted products: 57033
Xetra trades (XETR) – ATP based	224.0.161.64	224.0.163.64	59001
Xetra trades (XBUL) – ATP based	224.0.161.76	224.0.163.76	59001
Xetra trades (XMAL) – ATP based	224.0.161.77	224.0.163.77	59001

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Xetra trades (XVIE) – ATP based	224.0.161.68	224.0.163.68	59001
Xetra trades (XFRA) – ATP based (except prices without turnover)	224.0.161.72	224.0.163.72	56001

Non-disclosed (deferred) TES trades are disseminated under the same multicast addresses like the other T7 trades.

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2.2 Simulation multicast addresses and ports

2.2.1 For Real-time Service

Service	Multicast - A	Multicast - B	Ports
Settlement prices – Eurex T7	224.0.50.93	224.0.50.221	<u>T7:</u>
Settlement prices – Eurex T7/FX	224.0.29.80	224.0.30.80	US-allowed products: 59500
Adj. Open Interest – Eurex T7	224.0.50.94	224.0.50.222	US-restricted products: 59532
Adj. Open Interest – Eurex T7/FX	224.0.29.81	224.0.30.81	<u>T7/FX:</u>
			US-allowed products: 57500
			US-restricted products: 57532
Xetra trades (XETR) - ATP	224.0.164.120	224.0.165.120	59500
Xetra trades (XBUL) - ATP	224.0.164.120	224.0.165.120	59520
Xetra trades (XMAL) - ATP	224.0.164.120	224.0.165.120	59510
Xetra trades (XVIE) - ATP	224.0.164.121	224.0.165.121	59500
Xetra trades (XFRA) - ATP	224.0.164.122	224.0.165.122	56500

2.2.2 For Replay Service

Service	Multicast - A	Multicast - B	Ports
Settlement prices – Eurex T7 Settlement prices – Eurex T7/FX	224.0.50.93 224.0.29.82	224.0.50.221 224.0.30.82	T7: US-allowed products: 59501
Adj. Open Interest – Eurex T7 Adj. Open Interest – Eurex T7/FX	224.0.50.94 224.0.29.83	224.0.50.222 224.0.30.83	US-restricted products: 59533 T7/FX:
Eurex T7 trades (incl. TES) Eurex T7/FX trades (incl. TES)	224.0.50.95 224.0.29.84	224.0.50.223 224.0.30.84	US-allowed products: 57501 US-restricted products: 57533
Xetra trades (XETR) – ATP based	224.0.164.120	224.0.165.120	59501
Xetra trades (XBUL) - ATP based	224.0.164.120	224.0.165.120	59521
Xetra trades (XMAL) – ATP based	224.0.164.120	224.0.165.120	59511
Xetra trades (XVIE) - ATP based	224.0.164.121	224.0.165.121	59501
Xetra trades (XFRA) – ATP based (except prices without turnover)	224.0.164.122	224.0.165.122	56501

Non-disclosed (deferred) TES trades are disseminated under the same multicast addresses like the other T7 trades.

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2.3 Service availability

The required bandwidth for this service will be limited to 50 kbit/second per channel. The service will be technically available at least between 7:00 CET and 23:10 CET.

The Adjusted Open Interest will be available after 13:00 CET. The intraday Settlement Prices will be available as soon as they are determined by Eurex in the afternoon (different product groups have different schedules).

Replay dissemination schedule

•	8:10 am CET	Eurex trades – 1st cycle
•	1:00 pm CET	Xetra trades – 1st cycle
•	1:30 pm CET	Xetra Frankfurt trades – 1st cycle
•	2:00 pm CET	Eurex Adjusted Open interest – 1st cycle
•	5:45 pm CET	Eurex trades – 2 nd cycle
•	6:00 pm CET	Xetra trades – 2 nd cycle
•	6:15 pm CET	Eurex Settlement prices – 1st cycle
•	6:30 pm CET	Eurex Adjusted Open interest – 2 nd cycle
•	8:15 pm CET	Eurex trades – 3 rd cycle
•	10:10 pm CET	Xetra Frankfurt trades – 2 nd cycle
•	10:30 pm CET	Eurex trades – 4 th cycle
•	10:40 pm CET	Eurex Settlement prices – 2 nd cycle
•	10:55 pm CET	Eurex Adjusted Open interest – 3 rd cycle
	11:00 pm CET	Eurex non-disclosed TES trades

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3. Data and service messages

3.1 Settlement prices (TID = 172)

FIX Tag	FIX Field Name	Req'd	FAST Data Type	Description		
35	MsgType	Υ	string	Message type		
				Always 'W' = MarketDataSnapshotFullRefresh		
48	SecurityID	Y	Int64	Instrument ID from T7 Trading System		
22	SecurityIDSource	Y	string	Source Identification		
				Always 'M' = Marketplace-assigned Identifier		
1300	MarketSegmentID	Y	ulnt32	Product ID from T7 Trading System		
<mdfull(< td=""><td colspan="6"><mdfullgrp> sequence starts</mdfullgrp></td></mdfull(<>	<mdfullgrp> sequence starts</mdfullgrp>					
268	NoMDEntries	Y	length	Defines the number of entries to follow.		
269	> MDEntryType	Υ	MDEntryType	Type of Market Data entry		
			(enum)	Always '6' = Settlement Price		
270	> MDEntryPx	Y	decimal	Intraday Settlement Price		
29830	> MDSecPx	N	decimal	Settlement Price in trading notation (only for Variance Futures)		
273	> MDEntryTime	Y	timestamp	Time of entry		
<mdfull0< td=""><td colspan="6"><mdfullgrp> sequence ends</mdfullgrp></td></mdfull0<>	<mdfullgrp> sequence ends</mdfullgrp>					

Note: The settlement prices of the previous business day are provided with Reference data feed RDI in the instrument snapshot message and the Reference data file (RDF).

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3.2 Adjusted open Interest (TID = 171)

FIX Tag	FIX Field Name	Req'd	FAST Data Type	Description		
35	MsgType	Y	string	Message type Always 'W' = MarketDataSnapshotFullRefresh		
48	SecurityID	Y	Int64	Instrument ID from T7 Trading System		
22	SecurityIDSource	Y	string	Source Identification Always 'M' = Marketplace-assigned Identifier		
1300	MarketSegmentID	Y	ulnt32	Product ID from T7 Trading System		
<mdf< td=""><td colspan="6"><mdfullgrp> sequence starts</mdfullgrp></td></mdf<>	<mdfullgrp> sequence starts</mdfullgrp>					
268	NoMDEntries	Y	length	Defines the number of entries to follow. Here always '1'.		
269	> MDEntryType	Y	MDEntryType (enum)	Type of Market Data entry Always 'C' = Open Interest		
271	> MDEntrySize	Y	decimal	Adjusted Open Interest Quantity		
273	> MDEntryTime	Υ	timestamp	Time of entry		
<mdf< td=""><td colspan="5"><mdfullgrp> sequence ends</mdfullgrp></td></mdf<>	<mdfullgrp> sequence ends</mdfullgrp>					

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3.3 Trade prices (TID = 175)

For the dissemination of the trades from T7 Trading System template id 175 is used which closely resembles the template id 94 that is defined for EMDI/MDI trades (DepthIncremental messages), but those parts that relate to orderbook information were removed.

FIX Tag	FIX Field Name	Req' d	FAST Data Type	Description
35	MsgType	Υ	string	Message type
				Always 'X' = MarketDataIncrementalRefresh
34	MsgSeqNum	Y	ulnt32	The sequence number is incremented per product across all message types on a particular feed.
49	SenderCompID	Υ	uInt32	Unique ID of a sender.
1300	MarketSegmentID	Υ	ulnt32	Technical Product ID from T7 Trading System
<mdinc< td=""><td>cGrp> sequence starts</td><td></td><td></td><td></td></mdinc<>	cGrp> sequence starts			
268	NoMDEntries	Υ	length	Defines the number of entries to follow.
				Here always '1'.
1024	> MDOriginType	Υ	MDOriginT	Market Data origin
			ype (enum)	0 = Book (On-exchange trading) 1 = Off-Book (TES trades only)
279	> MDUpdateAction	Υ	MDUpdate	Type of Market Data update action
			Action (enum)	0 = New 1 = Change
				2 = Delete
269	> MDEntryType	Y	MDEntryTy pe (enum)	Type of Market Data entry
			pe (enum)	'2' = Trade 'B' = Trade Volume
48	> SecurityID	Υ	Int64	Technical Instrument ID from T7 Trading System
22	> SecurityIDSource	Υ	string	Source Identification
				Always 'M' = Marketplace-assigned Identifier
270	> MDEntryPx	N	decimal	Trade Price
271	> MDEntrySize	N	decimal	Quantity or trade volume when MDEntryType = "2" or "B". TES disclosed quantity when MDOriginType is 1 = Off-Book.
273	> MDEntryTime	N	timestamp	Official time of execution (in nanoseconds)

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	T			Trade Type
828	> TrdType	N	TrdType (enum)	0 = Regular Trade
			(Gridini)	1 = Block Trade / Large in Scale (LIS)
				2 = Exchange for Physical (EFP)
				12 = Exchange for Swap (EFS)
				54 = OTC (not used)
				55 = Exchange Basis Facility (obsolete)
				1000 = Vola Trade
				1001 = EFP-Fin Trade
				1002 = EFP-Index-Futures Trade
				1004 = Block Trade at Market
				1006 = Xetra/Eurex Enlight triggered Trade
				1007 = Block QTPIP Trade 1100 = Opening Auction Trade
				1100 - Opening Auction Trade 1101 = Intraday Auction Trade
				1102 = Volatility Auction Trade
				1103 = Closing Auction Trade
				1104 = Cross Auction Trade
				1107 = IPO Auction Trade
				1108 = Liquidity Improvement Cross
2667	> AlgorithmicTrade-	N	Algorithmic	A trade has to be flagged as "algorithmic", if at
	Indicator		Trade-	least one of the matched orders was submitted by
				a trading algorithm. Applicable for cash market
			Indicator	products only.
			(enum)	1 = Algorithmic Trade
277	> TradeCondition	N	TradeCond	Defines the type of price for MDEntryPx.
			ition (set)	U = Exchange Last
				R = Opening Price
				AX = High Price
				AY = Low Price AJ = Official Closing Price
				AW = Last Auction Price
				k = Out of sequence
				BD = Previous Closing Price
				a = Volume Only
				BB = Midpoint price
				BC = Trading on Terms of Issue
				SA = Special Auction
442	> Multil og Donorting Turns	N.I	Multil on	Only applicable for TES trades of derivatives
442	> MultiLegReportingType	N	MultiLeg-	market products.
			Reporting-	1 = Single Security
			Туре	2 = Individual Leg of a Multileg Security - Used to
				report a TES leg trade price of a complex
			(enum)	instrument trade
				3 = Multi Leg Security - Used to report a TES
				trade price on the complex instrument.
28750	> MultiLegPriceModel	N	MultiLeg-	Only applicable for TES trades of derivatives
	-		PriceModel	market products. 0 = Standard
			1-1106MOUEL	1 = User Defined - Used to report TES leg trade
			(enum)	prices entered by a user.
		<u> </u>		photo chilorou by a uoth.

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2445	> AggressorTime	N	timestamp	Entry time of the incoming order that triggered the trade. Only present for MDEntryType = 2.
2446	> AggressorSide	N	Aggressor- Side (enum)	Side of the incoming order that triggered the trade. Only present for MDEntryType = 2. 1 = Buy 2 = Sell
2449	> NumberOfBuyOrders	N	ulnt32	Number of buy orders involved in this trade. Only present for MDEntryType=2 and Trade Condition other than "a" (Volume Only).
2450	> NumberOfSellOrders	N	ulnt32	Number of sell orders involved in this trade. Only present for MDEntryType=2 and Trade Condition other than "a" (Volume Only).
6139	> TotalNumberOfTrades	N	ulnt32	Total number of trades during the day. Only present for MDEntryType=2. Applicable for cash market products only. An increment of TotalNumberOfTrades is defined as the maximum of NumberOfBuyOrders (2449) and
				NumberOfSellOrders (2450) per trade.
28869	> RestingCxlQty	N	decimal	Quantity that was cancelled due to SMP. Only present for MDEntryType = 2.
278	> MDEntryID	N	ulnt32	Represents the match step ID. This field is unique together with MarketSegmentID.
28873	> NonDisclosedTrade Volume	N	decimal	Contains the TES trade volume that is not displayed during the day. Only present for MDEntryType B = Trade Volume. Used when trade volume is finally disclosed and for recovery.
<parties< td=""><td>s> (optional) sequence starts</td><td></td><td></td><td></td></parties<>	s> (optional) sequence starts			
453	>NoPartyIDs	N	length	Number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries. Here always '1'.
448	>>PartyID	N	string	Execution Venue ID
447	>>PartyIDSource	N	string	Market Identifier Code (ISO 10383) MIC Here always 'G'.
452	>>PartyRole	N	uInt32	Identifies the type or role of the PartyID (448) specified. Here always '73' (Execution Venue)
<parties< td=""><td>s> (optional) sequence ends</td><td></td><td></td><td></td></parties<>	s> (optional) sequence ends			

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3.4 Packet header (TID = 75)

Each datagram contains a packet header which is used for identification of datagrams and is sent on a channel basis. Each header contains the following fields:

Field Name	FAST Data Type	Description
SenderCompID	uInt32	Unique id for a sender
		Each multicast channel uses the same logic.
		Constant value:
		Standard Value
		Failover Value
PacketSegNum ByteVector		Datagram/packet sequence number
1 acketocqivani	Dyte vector	Contiguous. Can be used for gap detection.
		Sequenced for each multicast channel itself.
		The PacketSeqNum's in the packet header are contiguous per
		SenderCompID, multicast address and port combination.
SendingTime	ByteVector	Time at which this packet left the sender
Sending rinie	Dyte vector	(in nanoseconds since epoch).

The following table shows the structure of the block header before FAST-decoding:

1 Byte	1 Byte	1 Byte	1 Byte	4 Bytes	1 Byte	8 Bytes
PMAP	TID	Sender Comp ID	Length	PacketSeqNum	Length	SendingTime
1	2	3	4	8	9	17

3.5 Extended technical heartbeat (TID = 170)

The heartbeat message is sent periodically as a 'line active' indicator when there are no messages generated on the feed for a preconfigured period of time. Each heartbeat contains the following fields:

Field Name	FAST Data Type	Description
SenderCompID	ulnt32	Unique id for a sender. Each multicast channel uses the same logic. Constant value: • Standard Value • Failover Value
LastPacketSeqNum	ulnt32	Contains the last PacketSeqNum of the corresponding multicast channel.

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3.6 Market Data Report Message (TID = 152)

The MDReport message is used for the Replay Service. It is sent as a wraparound bracket for distributing the product and instrument snapshots. Since the replay service is also a dissemination cycle, start and end marks are needed. Each MDReport contains the following fields:

FIX Tag	FIX Field Name	Req'd	FAST Data Type	Description
35	MsgType	Υ	string	U20 - MarketDataReport
2536	MDReportCount	N	ulnt32	Count of messages in the replay cycle. Only sent for MDReportEvent 3, 5, 7 and 9
369	LastMsgSeqNumProce ssed	N	ulnt32	
2535	MDReportEvent	Y	MDReport Event (enum)	1 = Start of instrument reference Data (not used) 2 = End of instrument reference Data (not used) 3 = Start of off-market trades 4 = End of off-market trades 5 = Start of order book (exchange) trades 6 = End of order book (exchange) trades 7 = Start of open interest 8 = End of open interest 9 = Start of settlement prices 10 = End of settlement prices 11 = Start of statistics reference data 12 = End of statistics (not used) 14 = End of statistics (not used)
60	TransactTime	Υ	timestamp	Transaction Time

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4. Change log

No	Chapter, page	Date	Change
1.0	General	July 18, 2012	Creation of document
1.1	General	Oct. 9, 2012	Created Simulation Version of this document
			Added the description for the Replay Service
1.2	Ch. 1, Pg.5	Nov 21,2012	Updated the related xml template number
	Ch. 3.3, Pg. 10		Changed tag 1020 (TradeVolume) to optional
	Ch. 3.4, Pg. 11		Changed tag 762 (SecuritySubType) to optional
	Ch. 3.4, Pg. 12		Changed tag 1020 (TradeVolume) to optional
	Ch. 3.4, Pg. 12		Moved the <instrmntleggrp> sequence end</instrmntleggrp>
	Ch. 3.7, Pg. 14		Added tag 60 (TransactTime)
	Ch. 3.7, Pg. 14		Changed tag 369 to optional
	Ch. 3.8, Pg. 16		Changed tag 1020 (TradeVolume) to optional
2.0	Ch. 1, Pg. 4	Aug 12, 2013	Clarified relation between real-time and replay data
	Ch. 1, Pg. 5		Adjusted interface version number
	Ch. 3.3, Pg. 9		Added enum value 1 for MDUpdateAction
	Ch. 3.4, Pg. 11		Added enum value 1 for MDUpdateAction
	Ch. 3.4, Pg. 11		Corrected FAST Data Type for ProductComplex to uInt32
	Ch. 3.5, Pg. 13		Added sentence for PacketSeqNum
	Ch. 3.8, Pg. 14		Added enum value 1 and 2 for MDReportEvent
	Ch. 3.9, Pg. 17		Added Ticker Message
2.01	Ch. 3.8, Pg. 16	Nov 12, 2013	"PreviousClosingPrice" moved to the end of the TradeConditionSet bitmask flag
2.02	Ch. 3.1, 3.2, 3.3, 3.4 and 3.8	Nov 20, 2013	Changed FAST Data Type for SecurityID and LegSecurityID from uInt64 to Int64
2.03	Ch. 3.4, Pg. 11	Nov 26, 2013	Changed FAST Data Type for ProductComplex to enum
2.1.0	Ch. 1, Pg. 5	Jan 30, 2014	Updated interface version number
	Ch. 3.5, Pg. 13		Updated Template ID for Packet Header to TID=114
	Ch. 3.8, Pg. 16		Added set value 'a' for Fix tag 277 (TradeCondition)
2.1.1	Ch. 3.8, Pg. 15	Feb 14, 2014	Changed tag 270 (MDEntryPx) to optional (Volume only)
	Ch. 3.8, Pg. 16		Changed tag 278 (MDEntryID) to mandatory
2.5	Ch. 1, Pg. 5	Jul 31, 2014	Updated interface version number
	General		Renamed OTC to Off-book
	Ch. 2, Pg. 6		Removed IP addresses for Ticker Data
	Ch. 3.1, 3.2, 3.3,		Changed FAST Data Type for MDEntryType from string to

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S.4 and 3.8				
Ch. 3.3, 3.4		3.4 and 3.8		enum
Ch. 3.9, Pg. 17 Removed Eurex Underlying Ticker Message		Ch. 3.3, 3.4, 3.8		Removed tag 1020 (TradeVolume)
2.5.1 General Oct 13, 2014 Creation of 'Final version' 3.0 General July 16, 2015 Created Simulation Version for Eurex T7 3.0 Ch. 1, Pg. 5 Updated interface version number Added tag 29830 (MDSecPx) for Settlement Prices for Variance Futures in Trading Notation Ch. 3.1, Pg. 8 Added tag 29830 (MDSecPx) for Settlement Prices for Variance Futures in Trading Notation Ch. 3.5, Pg. 13 Updated Template ID for Packet Header to TID=76 4.0 General June 27, 2016 Created Simulation Version for Eurex T7 4.0 Ch. 1, Pg. 5 Updated interface version number Ch. 2, Pg. 6 Removed multicast addresses for off-book trade prices Ch. 3, Pg. 9 Removed replay schedules for off-book trades Moved and Renamed chapter 3.8 for Template ID 175 (Trades) Template IDs 173 and 174 for off-book trades Ch. 3.3, Pg. 10 Template 175: Added FIX tags 28869 and 28873 and values for T7 4.0. Updated Some FIX tags and names to latest FIX standard Updated Template ID for Packet Header to TID=77 Replaced FIX tags 5488 and 28827 by 2536 and 2535 4.01 Ch. 3.6, Pg. 13 Replaced FIX tags 5488 and 28827 by 2536 and 2535 4.02 Ch. 3.3, Pg. 10 Added MDEntryType IB for dissemination of T		Ch. 3.3, 3.4		Tag 269: Added MDEntryType=B
3.0 General July 16, 2015 Created Simulation Version for Eurex T7 3.0		Ch. 3.9, Pg. 17		Removed Eurex Underlying Ticker Message
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Variance Futures in Trading Notation Ch. 3.5, Pg. 13 Updated Template ID for Packet Header to TID=76 4.0 General Ch. 1, Pg. 5 Ch. 2, Pg. 6 Ch. 2, Pg. 7 Ch. 3, Pg. 9 Ch. 3, Pg. 9 Ch. 3, Pg. 15 Ch. 3.3, Pg. 10 Ch. 3.4, Pg. 12 4.01 Ch. 3.6, Pg. 13 Ch. 3.7, Pg. 10 Ch. 3.8, Pg. 10 Ch. 3.8, Pg. 10 Ch. 3.9, Pg. 10 Ch. 3.9, Pg. 10 Ch. 3.9, Pg. 10 Ch. 3.1, Pg. 12 4.01 Ch. 3.2, Pg. 10 Ch. 3.3, Pg. 10 Ch. 3.3, Pg. 10 Ch. 3.4, Pg. 12 4.02 Ch. 3.7, Pg. 13 Ch. 3.8, Pg. 10 Added MDEntryType 'B' for dissemination of Trade Volume in Eurex Trades (TID=77) Added MDEntryType 'B' for dissemination of Trade Volume in Eurex Trades (TID=178) Changed tag 271 (MDEntrySize) and tag 278 (MDEntryID) to optional. Removed tag 5979 (RequestTime) Ch. 2.1, Pg. 6-7 Sep 29, 2016 Minor updates regarding Eurex interface landscape Added Eurex T7/FX multicast addresses Created Preliminary Version for T7 Release 5.0 Created Preliminary Version for T7 Release 5.0 Created Production Version for T7 5.0 Updated Port numbers for Xetra trades in Simulation Added FIX tag 6139 (TotalNumberOfTrades) Updated Port numbers for T7/FX to 57xxx		Ch. 1, Pg. 5		Updated interface version number
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Ch. 1, Pg. 5		Ch. 3.5, Pg. 13		Updated Template ID for Packet Header to TID=76
Ch. 2. Pg. 6 Ch. 2. Pg. 7 Ch. 2. Pg. 7 Ch. 3. Pg. 9 Ch. 3. Pg. 9 Ch. 3. Pg. 15 Ch. 3. A. Pg. 10 Ch. 3. A. Pg. 10 Ch. 3. A. Pg. 12 Ch. 3. A. Pg. 12 Ch. 3. A. Pg. 13 Ch. 3. A. Pg. 10 Ch. 3. A. Pg. 12 Ch. 3. A. Pg. 10 Added MDEntryType 'B' for dissemination of Trade Volume in Eurex Trades (TID=175) Changed tag 271 (MDEntrySize) and tag 278 (MDEntryID) to optional. Removed tag 5979 (RequestTime) Ch. 2. 1, Pg. 6-7 Sep 29, 2016 Ch. 2. 1, Pg. 6-7 Ch. 2. 2, Pg. 6 Ch. 2. 2, Pg. 6 Ch. 3. 3, Pg. 12 Added FIX tag 6139 (TotalNumberOfTrades) Ch. 2. Pg. 5 Feb 03, 2017 Removed Template IDs or off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 173 and 174 for off-book trades Removed Template IDs 175 and 174 to 575 and 28873 and values for TY 4.0. Updated Port numbers for T7/FX to 57xxx	4.0	General	June 27, 2016	Created Simulation Version for Eurex T7 4.0
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5.03	Ch. 1, Pg.5	Feb 15, 2017	Added 2 sentences in Introduction regarding Cash market migration and ATP stream
	Ch. 6, Pg. 6		-
			Replaced 'T7' with more specific wording regarding 'Eurex T7' or similar
	Ch. 3.3, Pg. 11		More clearly stated that the IDs for products and instruments are the technical T7 IDs (and not e.g. ISIN)
5.04	General	Apr 10, 2017	Creation of Production Version for T7 5.0
5.05	Ch. 3.4, Pg. 12	Apr 20, 2017	Updated Template ID for Packet Header to TID=75
6.00	General	Aug 13, 2017	Created initial simulation version for T7 6.0
6.01	Ch. 2, Pg. 7	Aug. 30, 2017	Added hint for (deferred) TES trade dissemination
6.02	General	Oct. 06, 2017	Creation of production version for T7 6.0
6.03	Ch. 1, Pg. 4	Oct. 26, 2017	Clarification reg. deferred and non-deferred TES trades.
6.10	General	Feb 28, 2018	Created initial simulation version for T7 6.1
6.11	Ch. 3.4, Pg. 14	Mar 19, 2018	Updated Template ID for Packet Header to TID=77
6.12	General	May 16, 2018	Creation of production version for T7 6.1
6.13	General	May 29, 2018	Creation of sign-off version, Review comments included.
7.00	General	Aug 03, 2018	Created initial simulation version for T7 7.0
7.01	Ch. 3.2 and 3.3	Aug 20, 2018	Changed FAST data type for quantity fields from uInt32 to decimal
7.02	General	Nov 05, 2018	Creation of Production Version for T7 7.0
7.03	General	Nov 13, 2018	Updated interface version no and TrdType description
7.04	General	Jan 31, 2019	Removed Multicast addresses for Dublin, added Malta and Bulgaria
7.10	General	Feb 26, 2019	Creation of simulation version for T7 7.1, added sequence for parties in 'Trade price' message, added Multicast addresses Vienna partner exchanges
7.11	Ch. 2.3 and 3.3	Mar 05, 2019	Added Trade replay cycle for Eurex and a new trade type 1006 for Enlight
7.12	Ch. 2	Apr. 03, 2019	Removed entries for Vienna partner exchanges
7.13	Ch. 3.3, Pg. 12	May 08, 2019	Added trade type 0 (Regular Trade); updated version numbers
8.00	General	Jul 24, 2019	Creation of simulation version for T7 8.0
8.01	Ch. 2	Aug 14, 2019	Minor updates for XFRA (Replay times and content)

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8.02	General + Ch. 3.3	Oct 18, 2019	Creation of Production Version for T7 8.0, renamed some TradeConditions
8.03	Ch. 2.1 and 2.2	Nov 01, 2019	Aligned Ports for XFRA with Network Access Guide
8.04	Pg. 2 + Ch. 2	Jan 31, 2020	Updated Disclaimer / Corrected Multicast-B address for XFRA Simulation
8.10	General	Mar 19, 2020	Creation of simulation version for T7 8.1
8.12	General	May 28, 2020	Creation of production version for T7 8.1