Eurex Exchange’s T7

Eurex Ticker

Manual

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1. Introduction

Eurex Exchange provides market and reference data via a set of several multicast interfaces.

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

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.

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

The 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 004.000.000.

2. Multicast addresses

The Eurex Underlying Ticker data will be disseminated via the following multicast addresses and port combinations in the Eurex network:

2.1 Production multicast addresses and ports

Service	Multicast Group Service A	Multicast Group Service B	Port
Eurex Ticker Data	224.0.50.75	224.0.50.203	59000

2.2 Simulation multicast addresses and ports

Service	Multicast Group Service A	Multicast Group Service B	Port
Eurex Ticker Data	224.0.50.91	224.0.50.219	59500

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 22:30 CET.

3. Data and service messages

3.1 Packet header (TID = 78)

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.
PacketSeqNum	ByteVector	Datagram/packet sequence number 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 (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

3.2 Eurex Underlying Ticker Message (TID = 180)

FIX Tag	FIX Field Name	Req'd	FAST Data Type	Description
35	MsgType	Y	string	Constant Always ' X'=MarketDataIncrementalRefresh
34	MsgSeqNum	Y	uint32	The sequence number of the message is incremented per stream message
49	SenderCompID	Y	uint32	Source ID of the sender
<MDIncGrp> sequence starts				
268	NoMDEntries	Y	length	Defines the size of the array
269	> MDEntryType	Y	enum	Market Data Entry Type • 0 = Bid • 1 = Offer • 2 = Trade
279	> MDUpdateAction	Y	enum	Type of Market Data update action Always '0' = New
48	> SecurityID	Y	string	Internal identifier for instrument (ISIN)
22	> SecurityIDSource	Y	string	Source Identification Always '4' = ISIN
270	> MDEntryPx	Y	decimal	Price or index value
271	> MDEntrySize	N	decimal	Quantity (not set for indexes)
273	> MDEntryTime	N	timestamp	Time of market data entry
15	> Currency	N	string	Price currency
1500	> MDStreamID	Y	string	Name of the price source, e.g. • XETR • XFRA • XIDX • XSTX • XDUB • XEEE • XHEL • XKRX
< MDIncGrp> sequence ends				

4. Change log

No	Chapter, page	Date	Change
2.5	General	July 25, 2014	Creation of separate document for Eurex Ticker
2.5.1	General	Oct 8, 2014	Creation of Final version for T7 2.5
	Ch. 1, Pg. 2		Updated interface version number
	Ch. 3.3, Pg. 8		Added MDStreamID 'XKRX'
3.0	General	Sep 9, 2015	Creation of version for T7 3.0
	Ch. 3.2, Pg. 7		Removal of Ch. 3.2, 'Extended technical heartbeat'
4.0	General	Sep 7, 2016	Creation of version for T7 4.0
4.01	Cha. 1, Pg. 4	Sep 16, 2016	Minor updates of Eurex interface landscape