Eurex Clearing C7

Eurex Clearing FIXML Interface

Interface Specification

Volume 5: Public Broadcasts

Document Version

- Simulation: valid from 21 September 2020
- Production: valid from 23 November 2020

Change History

Date	Ver.	Change
28 February 2014	1.0.0	– Initial version for C7 Release 1.0
10 June 2014	1.1.0	– Promoted simulation version to production version
22 July 2014	1.1.1	– OTC Trade Entry rebranding
29 October 2014	2.0	– Initial version for C7 Release 2.0; no change of content
26 January 2014	3.0	– Initial version for C7 Release 3.0; no change of content
11 June 2015	3.1	– Promoted preliminary to simulation version, no change of content
26 June 2015	3.2	– Updated *SenderCompID* information
18 November 2015	3.3	– Typo correction: *MonthMaturityYear* → *MaturityMonthYear*
18 March 2016	3.4	– Promoted simulation version to production version; no change of content
28 July 2016	3.5	– Simulation version for C7 Release 3.1 – End-of-Stream: Adapted text to new broker behavior (all queues are emptied → expired messages are deleted.)
17 October 2016	3.6	– Production version for C7 Release 3.1 – 6.1: New end-of-stream message text.
8 May 2017	4.0	– Initial version for C7 Release 4.0
7 May 2018	4.1	– Introduction of public broadcast messages for Dividend Adjustments
30 July 2018	4.2	- Introduction of public broadcast messages for settlement price corrections. The introduced messages are MarketDataInc Message, which are extended and replacing the initially published MrktDataInc Message for adjustments due to dividend payments - The end of stream message is deprecated and kept for backward compatibility only
28 January 2019	4.3	- Add ECC as valid value for SID - Rename Single Stock Dividend Adjusted Futures (SSDAF) to Stock Tracking Futures (STF)
26 August 2019	4.4	- Add TrdDt to End-of-assignment messages
02 June 2020	4.5	- Changes to price broadcasts with C7 January 2021 update

Table of Contents

1 Introduction

The Eurex Clearing FIXML Interface provides Eurex and ECC members with a highly flexible, standards-compliant and cost-effective way to enter, access and modify their clearing data. Based upon and compliant to the widely used FIX (**F**inancial **I**nformation e**X**change) standard, the interface allows members to choose and deploy their own operating systems and access interfaces. The transport layer is AMQP (**A**dvanced **M**essage **Q**ueuing **P**rotocol), the syntax is FIXML.

To learn more about connecting to the Eurex Clearing FIXML Interface, please refer to the Eurex Clearing Interfaces – Connectivity documentation, which is available for download in the member section of the Eurex website.

1.1 Intended audience

This document is intended for system designers and programmers who wish to develop/adapt their client application to interact with the services offered by the Eurex Clearing FIXML Interface. It assumes that readers have a basic understanding of FIXML.

1.2 Eurex Clearing FIXML Interface documentation

The Eurex Clearing FIXML Interface documentation is organized as follows:

- Volume 1: Overview
- Volume 3: Transaction & Position Confirmation
- Volume 4: Transaction & Position Maintenance
- **Volume 5: Public Broadcasts** (this document)
- Volume 6: Message Samples

All documents are available for download on the Eurex website under the following path:

www.eurexclearing.com → Technology → Eurex Clearing's C7 → System Documentation

1.3 Eurex Clearing Messaging Interfaces – Connectivity documentation

The Eurex Clearing FIXML Interface, Eurex Clearing FpML Interface and Margin Calculator share common connectivity documents for AMQP and WebSphere MQ:

- A: Overview
- B: AMQP Programming Guide
- E: AMQP Setup & Internals

All "Eurex Clearing Messaging Interfaces – Connectivity" documents are available for download on the Eurex website under the following path:

www.eurexclearing.com → Technology → Eurex Clearing's C7 → System Documentation

1.4 Conventions used in this document

Cross references to other chapters within this document are always clickable, but not marked separately.

Hyperlinks to websites are underlined.

Changes applied to this document after the last version has been published (other than grammar/spelling corrections) are marked with a change bar in the left margin as demonstrated in this paragraph. Old change bars will be removed from version to version.

1.5 Valid values for FIXML fields

The message structures printed below contain valid values for the FIXML fields described. Please note that the respective column is only filled if the list of valid values is limited. Whenever the column is empty for a given field, all values specified by the FIXML standard may be used.

1.6 FIX version

The Eurex Clearing FIXML Interface follows **FIX Version 5.0 SP2** with Extension Packs. In a few instances, additional valid values have been specified. To learn more about the standard, visit the FIX Protocol's website at:

https://www.fixtrading.org/standards/fix-5-0-sp-2/

The latest FIX version with extensions is available at http://fiximate.fixtrading.org/latestEP.

2 End-of-assignment

2.1 Introduction

Members receive assignment information before the batch starts. The end of the assignment process, per product, is indicated by the transmission of a product-specific “end-of assignment” message to Eurex Members.

The end of the assignment process is indicated for (1) all options products and finally for (2) all products.

2.2 End-of-assignment: Product

The product-specific end of assignment is indicated via *TradingSessionStatus* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
TrdgSesStat		–	–		
SesID	TradingSessionID	1=Day	336	A	
Stat	TradSesStatus	3=Closed	340	A	
TradSesEvent	TradSesEvent	200=End of Assignment	1368	A	
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	ECAG, ECC	49	A	
Snt	SendingTime		52	A	
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	

2.3 End-of-assignment: All options

Once all end-of-assignment message for options have been sent, a final *TradingSessionStatus* message is sent indicating the overall end of assignment for options products. This is indicated by *SecurityType=OPT:*

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
TrdgSesStat		–	–		
SesID	TradingSessionID	1=Day	336	A	
Stat	TradSesStatus	3=Closed	340	A	
TradSesEvent	TradSesEvent	200=End of Assignment	1368	A	
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	ECAG, ECC	49	A	
Snt	SendingTime		52	A	
Instrmt	Instrument	–	–		

SecTyp	SecurityType	OPT=Option	167	A	

2.4 End-of-assignment: All products

Once **all** end-of-assignment message for all products have been sent, a final *TradingSessionStatus* message is sent indicating the overall end of the assignment process. Note that no *Instrument* component is present in this message:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
TrdgSesStat		–	–		
SesID	TradingSessionID	1=Day	336	A	
Stat	TradSesStatus	3=Closed	340	A	
TradSesEvent	TradSesEvent	200=End of Assignment	1368	A	
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	ECAG, ECC	49	A	
Snt	SendingTime		52	A	

3 Capital adjustment/R-factor

When a capital adjustment affects an instrument that is the underlying instrument for a contract traded at Eurex, the ratio that is applied to exercise prices and to contract sizes is provided to members via *SecurityStatus* messages on the public broadcast. The R-factor enables members to handle the capital adjustment in their own back office systems according to guidelines provided by Eurex.

3.1 R-factor message structure

R-factor and position conversion factor are sent in a *SecurityStatus* message:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
SecStat		–	–		
SecTrdEvnt	SecurityTradingEvent	9=Corporate Action	1174	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	
Snt	SendingTime		52	A	
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
StrkMult	StrikeMultiplier		967	A	R-Factor
Fctr	Factor		228	A	Position Conversion Factor, set to 1 if no position conversion takes place.
Evnt	EvntGrp	–	–	A	
EventTyp	EventType	5=Activation	865	A	
Dt	EventDate		866	A	

4 Contract changes

SecurityListUpdateReport messages are sent for each addition or deletion of a contract.

When the contract specifications for a particular series change due to capital adjustment, “change” messages are sent.

4.1 Contract add message structure

When a new contract (regular or LEPO) is added by Eurex for trading, the contract specifications are sent in *SecurityListUpdateReport* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
SecListUpd		–	–	–	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	
Snt	SendingTime		52	A	
SecL	SecLstUpdRelSymGrp	–	–	–	
ListUpdActn	ListUpdateAction	A=Add	1324	A	
Instrmt	Instrument	–	–	–	
Sym	Symbol		55	A	
MMY	MaturityMonthYear		200	A	
Status	SecurityStatus	1=Active	965	A	
StrkPx	StrikePrice		202	O	Always present for options.
OptAt	OptAttribute		206	O	Version number of an options series, always present for options.
Mult	ContractMultiplier		231	A	
PutCall	PutOrCall		201	O	Always present for options.

4.2 Contract change message structure

Contract changes apply only to stock options, stock futures and physically settled Energy Futures (BOM contracts). When contract specifications are modified due to capital adjustment or physical settlement of BOM-contracts, change information is sent via public broadcast as well.

Note that for a capital adjustment with odd lot product, the contract change message is only sent for the odd lot product. Contract changes are sent as *SecListUpdateReport* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
SecListUpd		–	–		
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	
Snt	SendingTime		52	A	
SecL	SecLstUpdRelSymGrp	–	–	–	
ListUpdActn	ListUpdateAction	M=Modify	1324	A	

Always present, Optionally present ↓

	FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
	Instrmt	Instrument	–	–	–	
	Sym	Symbol		55	A	
	MMY	MaturityMonthYear		200	A	
Original series	Status	SecurityStatus	2=Inactive	965	A	
	StrkPx	StrikePrice		202	O	Always present for options.
	OptAt	OptAttribute		206	O	Pre-change version number of the options series. Always present for options.
	Mult	ContractMultiplier		231	A	
	PutCall	PutOrCall		201	O	Always present for options.
	SecL	SecLstUpdRelSymGrp	–	–	–	
	ListUpdActn	ListUpdateAction	M=Modify	1324	A	
	Instrmt	Instrument	–	–		
	Sym	Symbol		55	A	
	MMY	MaturityMonthYear		200	A	
New series	Status	SecurityStatus	1=Active	965	A	
	StrkPx	StrikePrice		202	O	Always present for options.
	OptAt	OptAttribute		206	O	New version number of the options series. Always present for options.
	Mult	ContractMultiplier		231	A	Trading Unit
	PutCall	PutOrCall		201	O	Always present for options.

4.3 Contract delete message structure

Contract deletion messages are sent for:

- expiring options and futures contracts on expiration date,
- for Payment-vs-Payment-settled currency futures contracts on settlement date, and
- for contracts deleted manually by Eurex or ECC.

Contract deletions are sent as *SecurityListUpdateReport* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
SecListUpd		–	–	–	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	
Snt	SendingTime		52	A	
SecL	SecLstUpdRelSymGrp	–	–	–	
ListUpdActn	ListUpdateAction	D=Delete	1324	A	
Instrmt	Instrument	–	–	–	

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
Sym	Symbol		55	A	
MMY	MaturityMonthYear		200	A	
StrkPx	StrikePrice		202	O	Always present for options.
OptAt	OptAttribute		206	O	Version number of an options series, always present for options.
PutCall	PutOrCall		201	O	Always present for options.

5 Settlement prices

Settlement price information is sent after the end of trading each day. The settlement prices sent to members are used by Eurex and ECC in the calculation of the margin requirements of clearing members during the nightly batch run. Settlement price transactions provide members with the price information necessary to margin their customer positions, to calculate their variation margin receivable or payable and to calculate their total margin requirement to Eurex or ECC. The following types of settlement price transactions are sent:

- **Underlying Closing Price**
  The closing price of each instrument that underlies an options contract traded on Eurex or EEX is sent to member back office systems. The underlying settlement price for stock options is the closing price from the designated Stock Exchange. If no closing price is available for an underlying, Eurex or ECC determines the respective settlement price.
- **Contract Settlement Price**
  In general, the last traded prices are the basis for the settlement prices. If neither last traded prices are available within a certain period nor a settlement price can be derived from existing orders or quotes in the order book, they are determined by authorized clearing personnel at the close of trading each day. When prices are approved, the information is sent via public broadcast.
- **Contract Settlement Price Correction**
  Settlement prices as determined above are sent in *MarketDataIncrementalRefresh* messages via public broadcast. If there was an error in the price determination process, the settlement price can be corrected by authorized clearing personnel. The new price is sent as a *MarketDataIncrementalRefresh* message with *MDUpdateAction* (279) set to *1=Change*.

With C7 January 2021 update the following changes will be applied to the price information:

- the SendingTime (@Snt) will be in UTC
- settlement price corrections will no longer be marked as "update", in case of an update the settlement prices of all contracts will be published with a new timestamp SendingTime (52) and MDUpdateAction (279) set to 0=New
- the SenderCompID (49) will contain the clearing house of the product (ECAG or ECC)
- the expiration date for regular contracts will be added in the settlement price messages in field MaturityDate (541)

5.1 Settlement prices – regular series

Once settlement prices have been approved by Eurex, *MarketDataIncrementalRefresh* messages are sent via broadcast. Note that settlement price messages may be sent at any given time intraday. Prices are disseminated per product, i.e. data for all series of a product are contained in one message.

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
MktDataInc		–	–	–	
MDFeedTyp	MDFeedType	R=Regular	1022	A	
TrdDt	TradeDate		75	A	

Settlement prices

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	With C7 January 2021 update ECAG or ECC will be used only
Snt	SendingTime		52	A	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	0=New	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	
Instrmt	Instrument	–	–	–	
Sym	Symbol		55	A	
MMY	MaturityMonthYear	<YYYYMM>	200	A	
MatDt	MaturityDate	<YYYY-MM-DD>	541	A	The expiration date for regular contracts will be available with C7 January 2021 update
StrkPx	StrikePrice		202	O	
OptAt	OptAttribute		206	O	
PutCall	PutOrCall		201	O	

Repeating group, n-times

In order to reduce message size, full *Instrument* groups are only sent in the first *MDIncGrp*. Subsequent *Instrument* groups contain only fields that are different to the first group, i.e. *StrikePrice* and *MaturityMonthYear*.

Sample structure:

The message excerpt below details settlement prices for the ODAX Call, December 2013, Strikes 7050 to 7150 and January 2014 Strikes 7050 to 7150.

```
[…]
<Inc UpdtAct="0" Typ="6" Px="1488.8">
 <Instrmt Sym="ODAX" MMY="201312" MatDt="2013-12-19" StrkPx="7050" OptAt="0"
PutCall="1"/>
</Inc>
<Inc UpdtAct="0" Typ="6" Px="1438.8">
 <Instrmt StrkPx="7100"/>
</Inc>
<Inc UpdtAct="0" Typ="6" Px="1388.8">
 <Instrmt StrkPx="7150"/>
</Inc>
 […]
<Inc UpdtAct="0" Typ="6" Px="1498.8">
 <Instrmt MMY="201401" MatDt="2014-01-17" StrkPx="7050"/>
</Inc>
<Inc UpdtAct="0" Typ="6" Px="1448.9">
 <Instrmt StrkPx="7100"/>
</Inc>
<Inc UpdtAct="0" Typ="6" Px="1399">
 <Instrmt StrkPx="7150"/>
</Inc>
[…]
```

5.2 Settlement prices – Flexible Contracts

Settlement prices for Flexible Contracts are sent in *MarketDataIncrementalRefresh* messages when the respective products are moved to phase post-restricted. Prices are disseminated per product, i.e. data for all series of a product are contained in one message.

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
MktDataInc		–	–	–	
MDFeedTyp	MDFeedType	F=Flexible	1022	A	
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	With C7 January 2021 update ECAG or ECC will be used only
Snt	SendingTime		52	A	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	0=New	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	
Instrmt	Instrument	–	–	–	
Sym	Symbol		55	A	
ProdCmplx	ProductComplex		1227	A	Synthetical flexible product ID (e.g. OD8X).
MatDt	MaturityDate	<YYYY-MM-DD>	541	A	
StrkPx	StrikePrice		202	O	
OptAt	OptAttribute		206	O	
ExerStyle	ExerciseStyle	0=European 1=American	1194	O	
PutCall	PutOrCall		201	O	

Repeating group, n-times

As per regular series, full *Instrument* groups are only sent in the first *MDIncGrp*. Subsequent *Instrument* groups contain only fields that are different to the first group.

5.3 Underlying closing price

The Underlying Closing Price will be disseminated via *MarketDataSnapshotFullRefresh* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
MktDataFull		–	–		
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–		
SID	SenderCompID	CCP	49	A	With C7 January 2021 update ECAG or ECC will be used only
Snt	SendingTime		52	A	

Settlement prices

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
Full	MDFullGrp	–	–		
Typ	MDEntryType	5=Closing Price	269	A	
Px	MDEntryPx		270		

5.4 Settlement price correction – regular series

In case of settlement price corrections, a settlement price change message is sent via broadcast. The price correction is contained in a *MarketDataIncrementalRefresh* message. Change messages will always contain exactly one *MDIncGrp*, i.e. a single price update for one contract.

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
MktDataInc		–	–	–	
MDFeedTyp	MDFeedType	R=Regular	1022	A	
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	With C7 January 2021 update ECAG or ECC will be used only
Snt	SendingTime		52	A	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	1=Change	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
MMY	MaturityMonthYear	<YYYYMM>	200	A	
MatDt	MaturityDate	<YYYY-MM-DD>	541	A	The expiration date for regular contracts will be available with C7 January 2021 update
StrkPx	StrikePrice		202	O	
OptAt	OptAttribute		206	O	
PutCall	PutOrCall		201	O	

5.5 Final settlement prices

Final settlement prices are sent in *MarketDataSnapshotFullRefresh* messages:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
MktDataFull		–	–		
TrdDt	TradeDate		75	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	With C7 January 2021 update ECAG or ECC will be used only
Snt	SendingTime		52	A	
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
Full	MDFullGrp	–	–		
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	Can be "0" (zero) for cash-settled futures

Note: With C7 January 2021 update Final Settlement Prices will no longer be available for futures.

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6 Settlement prices due to special cases

Settlement price corrections for special cases can occur. The corrected price as well as the details of the correction are sent in a MarketDataIncrementalRefresh message. The message always contains exactly two MDIncGrp, i.e. the unadjusted and the adjusted price for one contract are sent. The messages are sent intra-day, as a public broadcast.

6.1 Settlement price corrections for regular contracts

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Prese	Remarks
MktDataInc		–	–	–	
MDFeedTyp	MDFeedType	R=Regular	1022	A	
TrdDt	TradeDate		75	A	Effective Business Date
Hdr	Standard Header	–	–	–	
SID	SenderCompID	ECAG	49	A	
Snt	SendingTime		52	A	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	0=New	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	Adjusted settlement price
NetChgPrevDay	NetChgPrevDay		451	O	Dividend amount (provided only for Stock Tracking Futures)
SetPxAdjmtInd	SettlPriceAdjustmentIndicator	1=Adjusted	29017	O	Indicates that the price in *MDEntryPx* is the price after adjustment.
CorpAcnFctr	CorporateActionFactor		25157	O	R-Factor multiplier for adjustment of the settlement price.
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
MMY	MaturityMonthYear	<YYYYMM>	200	A	
MatDt	MaturityDate	<YYYY-MM-DD>	541	A	The expiration date for regular contracts will be available with C7 January 2021 update
StrkPx	StrikePrice		202	O	
OptAt	OptAttribute		206	O	
PutCall	PutOrCall		201	O	
SettlMeth	SettlMethod		1193	O	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	1=Change	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	

Px	MDEntryPx		270	A	Unadjusted settlement price
NetChgPrevDay	NetChgPrevDay		451	O	Dividend amount (relevant only for Stock Tracking Futures)
SetPxAdjmtlInd	SettlPriceAdjustmentIndicator	0=Unadjusted	29017	O	Indicates that the price in *MDEntryPx* is the price before adjustment.
CorpAcnFctr	CorporateActionFactor		25157	O	R-Factor multiplier for adjustment of the settlement price.
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
MMY	MaturityMonthYear	<YYYYMM>	200	A	
MatDt	MaturityDate	<YYYY-MM-DD>	541	A	The expiration date for regular contracts will be available with C7 January 2021 update
StrkPx	StrikePrice		202		
OptAt	OptAttribute		206	O	
PutCall	PutOrCall		201	O	

6.2 Settlement price corrections for flexible contracts

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Prese	Remarks
MktDataInc		–	–	–	
MDFeedTyp	MDFeedType	F=Flexible	1022	A	
TrdDt	TradeDate		75	A	Effective Business Date
Hdr	Standard Header	–	–	–	
SID	SenderCompID	ECAG	49	A	
Snt	SendingTime		52	A	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	0=New	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	Adjusted settlement price
NetChgPrevDay	NetChgPrevDay		451	O	Dividend amount (provided only for Stock Tracking Futures)
SetPxAdjmtlInd	SettlPriceAdjustmentIndicator	1=Adjusted	29017	O	Indicates that the price in *MDEntryPx* is the price after adjustment.
CorpAcnFctr	CorporateActionFactor		25157	O	R-Factor multiplier for adjustment of the settlement price.
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	

Adjusted Price

Unadjusted Price

ProdCmplx	Product Complex		1227	A	
MatDt	Maturity Date	<YYYY-MM-DD>	541	A	
StrkPx	StrikePrice		202	O	
OptAt	AptAttribute		206	O	
ExerStyle	ExerciseSyle	0=European 1=American	1194	O	
PutCall	PutOrCall		201	O	
SettlMeth	SettlMethod		1193	O	
Inc	MDIncGrp	–	–	–	
UpdtAct	MDUpdateAction	1=Change	279	A	
Typ	MDEntryType	6=Settlement Price	269	A	
Px	MDEntryPx		270	A	Unadjusted settlement price
NetChgPrevDay	NetChgPrevDay		451	O	Dividend amount (relevant only for Stock Tracking Futures)
SetPxAdjmtlInd	SettlPriceAdjustmentIndicator	0=Unadjusted	29017	O	Indicates that the price in *MDEntryPx* is the price before adjustment.
CorpAcnFctr	CorporateActionFactor		25157	O	R-Factor multiplier for adjustment of the settlement price.
Instrmt	Instrument	–	–		
Sym	Symbol		55	A	
MMY	MaturityMonthYear	<YYYYMM>	200	A	
StrkPx	StrikePrice		202		
OptAt	OptAttribute		206	O	
PutCall	PutOrCall		201	O	

6.3 Usage of the MktDataInc Message per Use Case

Settlement price corrections in this context are adjustments due to product specific features. In order that the adjustments are cash flow effective, opening and closing technical transactions are booked. The parameters used for the generation of the technical transactions are described in the tables below.

Opening Technical Transaction for	MDUpdate Action (279)	MDEntryType (269)	MDEntryPx (270)	NetChgPrevDay (451)	SettlPriceAdjustment Indicator (29017)	CorporateActionFactor (25157)
FX Rolling Spot	0=New	6= Settlement Price	Booking-In price	*not present*	1=Adjusted	*Not present*
Stock Tracking Futures	0=New	6= Settlement Price	It will contain the STF adjusted Price. *STF Adjusted Price= Eurex Prev. Day Settl. Price – Dividend Amount* *or*	It will equal the Dividend Amount	1=Adjusted	*Not present*

Previous Booking-Out price in case of corrections of corrections

Closing Technical Transaction for	MDUpdate Action (279)	MDEntryType (269)	MDEntryPx (270)	NetChgPrevDay (451)	SettlPriceAdjustmentIndicator (29017)	CorporateActionFactor (25157)
FX Rolling Spot	1=Change	6= Settlement Price	Booking-Out price	*not present*	0=Unadjusted	*Not present*
Stock Tracking Futures	1=Change	6= Settlement Price	It will contain the unadjusted price, which will be equal Eurex Previous Day Settlement Price *or* *Previous Booking-Out price in case of corrections of corrections*	It will equal the Dividend Amount	0=Unadjusted	*Not present*

7 End-of-stream

The end-of-stream message was sent when the Eurex® System prepared the AMQP broker for maintenance. As there is no interruption due to a broker maintenance anymore, this message is deprecated and will be removed end of 2019. Until then, C7 will send this message for backward compatibility purposes. The message is sent by C7 at the same time as the end-of-assignment all products message is sent.

7.1 Message structure

The end-of-stream message is sent as News message via public broadcast queue and has the following structure:

Always present, Optionally present ↓

FIXML Name	Field/Component Name	Valid Values	FIX Tag	Presence	Remarks
News		–	–	–	
NewsCatgy	NewsCategory	3=Technical news	1473	A	
Headline	Headline	Shutdown notice	148	A	
Hdr	Standard Header	–	–	–	
SID	SenderCompID	CCP	49	A	
Snt	SendingTime		52	A	
TxtLn	LinesOfTextGroup	–	–	–	
Txt	Text	AMQP Broker will undergo maintenance in x minutes	58	A	*x* is configurable and should be understood as an indicated and minimum value, i.e. there will be at least *x* minutes between maintenance notice and actual maintenance, but depending on system load and other parameters the start may be delayed.

8 Appendix – dictionary of user-defined fields and values

The Eurex Clearing FIXML Interface uses a small amount of user-defined values and fields, which are listed below. As a committed member of the FIX community, Eurex will work closely with all concerned bodies towards transitioning user-defined fields in the protocol specification and/or adapting the Eurex Clearing FIXML Interface to match the specification as closely as possible.

8.1 User-defined fields

FIX Tag	Field	Field Name	Data Type	Valid Values	Used in
29017	SetPxAdjmtIInd	SettlPriceAdjustmentIndicator	Char	See 6	MarketDataIncrementalRefresh message
25157	CorpAcnFctr	CorporateActionFactor	PriceOffset	See 6	MarketDataIncrementalRefresh message