



T7 Release 8.0

Final Release Notes Eurex

Date 18 September 2019

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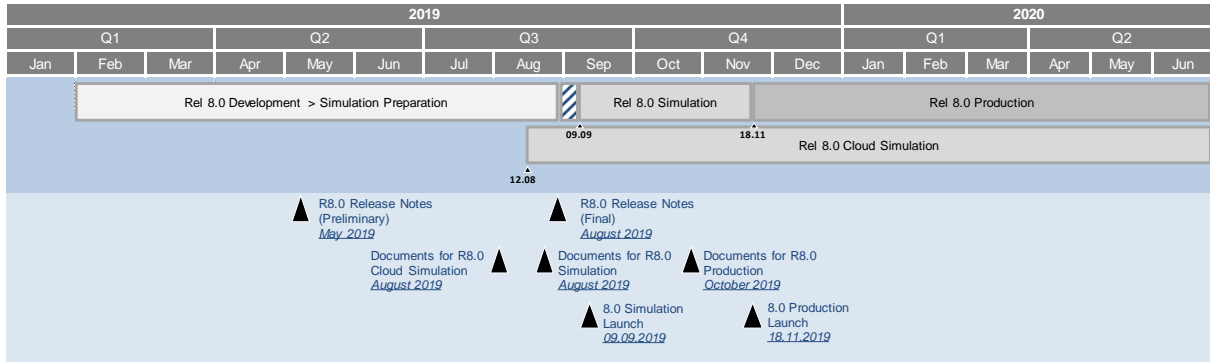
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1. Overview T7 Release 8.0

Deutsche Börse AG is planning to launch T7 Release 8.0 on 18 November 2019.

The following diagram gives an overview of the introduction schedule:



Deutsche Börse AG provides a dedicated release simulation environment to give trading participants the opportunity to perform comprehensive testing of their trading applications, independent from the T7 production environment. The simulation period for T7 Release 8.0 is planned to start on 9 September 2019.

In addition to the T7 release simulation, Deutsche Börse AG offers a T7 Release 8.0 Cloud Simulation to allow trading participants and Independent Software Vendors (ISVs) to test against the current T7 production and simulation software versions. In the Cloud Simulation, participants can initiate predefined market scenarios and test specific strategies more easily than in a shared environment. Cloud Simulation is available around the clock for a fixed price per hour and started on 12 August 2019. For more information on the T7 Cloud Simulation, please refer to <http://www.eurexchange.com/exchange-en/technology/t7-cloud-simulation>.

1.1 New Features and Enhancements Overview

The following new features and enhancements will be introduced with T7 Release 8.0:

- Enhancements to Options Volatility Strategies and Standard Options Strategies.
- Further Enhancements to ETRF and Basket Trading
- Split Snapshot Cycles in MDI.

Note on Interfaces

T7 Release 8.0 is a mandatory release and will **not** be backwards compatible to version 7.1. All interface versions of 7.1 will no longer be supported with the production launch of T7 Release 8.0.

1.2 Further Reading

The existing documents have been or will be revised for T7 Release 8.0. The following table provides an overview of the preliminary schedule for the publication.

T7 Release 8.0	Eurex	Xetra	Combined	Q2 2019			Q3 2019			Q4 2019			Q1 2020		
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
T7 Release 8.0 – Release Notes	X	X			◆			●							
T7 Functional Reference			X					●							
T7 Functional and Interface Overview			X					●							
T7 Participant Simulation Guide			X					●							
T7 Cross System Traceability			X					●							
T7 Incident Handling Guide			X					●							
T7 Participant and User Maintenance Manual	X	X						●							
Contract Notes Description		X							●						
T7 Known Limitations			X						■		●				
T7 Trader, Admin and Clearer GUI – User Manual	X	X						■			●				
T7 Trader, Admin and Clearer GUI – Installation Manual			X					●							
T7 Enhanced Trading Interface – Manual incl. Repository and Header files			X					◆■			●				
T7 Enhanced Trading Interface – XML Representation			X					◆■			●				
T7 FIX Gateway – FIX 4.2 and 4.4 Manual incl. Fiximate and Repository			X					◆■			●				
T7 Market-, Enhanced Order Book- and Reference Data Interfaces, Manual incl. Fast Message Template, Repository & FIXML Schema Files			X					◆■			●				
T7 Extended Market Data Services – Manual incl. Fast Message Template and Underlying Ticker Data			X					■			●				
Cash Market Instrument Reference Data Guide		X						●							
T7 XML Report Reference Manual	X	X							■	●					
Common Report Engine User Guide			X					●							
N7 Network Access Guide			X					●							
Exchange Rules & Regulations		X							●						
Market Model Continuous Trading in connection with Auctions		X								●					
Market Model Continuous Auction		X												●	

◆ Preliminary Version ■ Simulation Version ● Final Version

The documents will be available on the Eurex website www.eurexchange.com under the link:

> Technology > T7 Trading Architecture > System Documentation > Release 8.0.

Please note that the outlined schedule is preliminary and subject to change.

1.3 Contacts

If you have any questions or require further information, please contact your Global Key Account Manager Trading. Alternatively, please contact your Technical Key Account Manager using your VIP number or via e-mail to cts@deutsche-boerse.com.

1.4 Definitions and Abbreviations

Term / Abbreviation	Description
BTRF	Basket Total Return Futures
CGW	Connection Gateway
CM	Clearing Member
DC	Direct Client
DBAG	Deutsche Börse AG
EMDI	T7 Enhanced Market Data Interface
EMDS	T7 Extended Market Data Service
EOBI	T7 Enhanced Order Book Interface
ETI	T7 Enhanced Trading Interface
ETRF	Equity Total Return Futures
Eurex EnLight	Eurex EnLight is a price discovery service offered by Eurex on the T7 platform to negotiate off-book transactions electronically. It is also called Selective Request for Quote Service(SRQS)
FIX	Financial Information eXchange (protocol)
GCM	General Clearing Member
GFD	Good-For-Day
GTC	Good-Till-Cancelled
GUI	Graphical User Interface
IPS	Inter-Product Spreads
LF	Low Frequency
MDI	T7 Market Data Interface
NCM	Non-Clearing Member
OVS	Options Volatility Strategy
PAG	Product Assignment Group
PS	Partition Specific
RDF	T7 Reference Data File
RDI	T7 Reference Data Interface

RfQ	Request for Quote
SOS	Standard Options Strategy
STP	Straight Through Processing
SRQS	Selective Request for Quote Service
T7	T7 is the trading architecture developed by Deutsche Börse Group
TES	T7 Entry Service
TSL	Transaction Size Limits

2. Enhancements to Standard Options Strategies and Options Volatility Strategies

Eurex will introduce new ratios and combinations of Standard Options Strategies and Options Volatility Strategies with Release 8.0.

Various subtypes of Options Volatility Strategies (OVS) and Standard Options Strategies (SOS) are currently defined using a fixed rule for strike prices, thus defining a price gap strictly equal to a previous gap, although more freedom is sometimes desired. Eurex will relax equidistant price constraints for all strategies that are not part of the Strategy Building Block of the General Supplement to the Eurex Liquidity Provider Agreement.

The following table lists the new strategies:

Instrument Type	ID	Description	Name	Long Description
Standard Option Strategy	45	2x3x2 Ratio Call Butterfly	CB232	Buy 2 Call, sell 3 Calls at higher exercise price, buy 2 Call at even higher exercise price
Standard Option Strategy	46	2x3x2x Ratio Put Butterfly	PB232	Buy 2 Put, sell 3 Puts at higher exercise price, buy 2 Put at even higher exercise price
Standard Option Strategy	47	3x2 Ratio Put Spread	BR23	Sell 2 Puts, buy 3 Puts at lower exercise price
Standard Option Strategy	48	3x2 Ratio Call Spread	BU23	Sell 2 Calls, buy 3 Calls at higher exercise price
Standard Option Strategy	49	Straddle Fly	STDF	Buy Call, buy Put at same exercise price, sell two Calls and two Puts at same exercise price in far month, buy Put and Call at same exercise price in further month
Standard Option Strategy	50	Risky Swap	RSWP	Sell Put, buy Call at higher exercise price, buy Put in far month at near month Put exercise price, sell Call in far month at near month Call exercise price
Standard Option Strategy	51	Call Spread Swap	BUSWP	Buy Call, sell Call at higher exercise price, sell Call in far month at 1st leg exercise price of near month, buy Call in far month at 2nd leg exercise price of near month
Standard Option Strategy	52	Put Spread Swap	BRSWP	Buy Put, sell Put at lower exercise price, sell Put in far month at 1st leg exercise price of near month, buy Put in far month at 2nd leg exercise price of near month

Instrument Type	ID	Description	Name	Long Description
Option Volatility Strategy	79	Straddle Fly versus Long Underlying	STDF+U	Buy Call, buy Put at same exercise price, sell two Calls and two Puts at same exercise price in far month, buy Put and Call at same exercise price in further month, buy Underlying
Option Volatility Strategy	80	Straddle Fly versus Short Underlying	STDF-U	Buy Call, buy Put at same exercise price, sell two Calls and two Puts at same exercise price in far month, buy Put and Call at same exercise price in further month, sell Underlying
Option Volatility Strategy	81	2x3x2 Ratio Call Butterfly versus long Underlying	CB232+U	Buy 2 Call, sell 3 Calls at higher exercise price, buy 2 Call at even higher exercise price, buy Underlying
Option Volatility Strategy	82	2x3x2 Ratio Call Butterfly versus short Underlying	CB232-U	Buy 2 Call, sell 3 Calls at higher exercise price, buy 2 Call at even higher exercise price, sell Underlying
Option Volatility Strategy	83	2x3x2x Ratio Put Butterfly versus long Underlying	PB232+U	Buy 2 Put, sell 3 Puts at higher exercise price, buy 2 Put at even higher exercise price, buy Underlying
Option Volatility Strategy	84	2x3x2x Ratio Put Butterfly versus short Underlying	PB232-U	Buy 2 Put, sell 3 Puts at higher exercise price, buy 2 Put at even higher exercise price, sell Underlying
Option Volatility Strategy	85	3x2 Ratio Put Spread long Underlying	BR23+U	Sell 2 Puts, buy 3 Puts at lower exercise price, buy underlying
Option Volatility Strategy	86	3x2 Ratio Put Spread short Underlying	BR23-U	Sell 2 Puts, buy 3 Puts at lower exercise price, sell underlying
Option Volatility Strategy	87	3x2 Ratio Call Spread long Underlying	BU23+U	Sell 2 Calls, buy 3 Calls at higher exercise price, buy underlying
Option Volatility Strategy	88	3x2 Ratio Call Spread short Underlying	BU23-U	Sell 2 Calls, buy 3 Calls at higher exercise price, sell underlying
Option Volatility Strategy	89	Call Spread Swap versus Long Underlying	BUSWP+U	Buy Call, sell Call at higher exercise price, sell Call in far month at 1st leg exercise price of near month, buy Call in far month at 2nd leg exercise price of near month, buy Underlying

Instrument Type	ID	Description	Name	Long Description
Option Volatility Strategy	90	Call Spread Swap versus Short Underlying	BUSWP-U	Buy Call, sell Call at higher exercise price, sell Call in far month at 1st leg exercise price of near month, buy Call in far month at 2nd leg exercise price of near month, sell Underlying
Option Volatility Strategy	91	Put Spread Swap versus Long Underlying	BRSWP+U	Buy Put, sell Put at lower exercise price, sell Put in far month at 1st leg exercise price of near month, buy Put in far month at 2nd leg exercise price of near month, buy Underlying
Option Volatility Strategy	92	Put Spread Swap versus Short Underlying	BRSWP-U	Buy Put, sell Put at lower exercise price, sell Put in far month at 1st leg exercise price of near month, buy Put in far month at 2nd leg exercise price of near month, sell Underlying
Option Volatility Strategy	93	Risky Swap versus Long Underlying	RSWP+U	Sell Put, buy Call at higher exercise price, buy Put in far month at near month Put exercise price, sell Call in far month at near month Call exercise price, buy Underlying
Option Volatility Strategy	94	Risky Swap versus Short Underlying	RSWP-U	Sell Put, buy Call at higher exercise price, buy Put in far month at near month Put exercise price, sell Call in far month at near month Call exercise price, sell Underlying

Table 1 New SOS and OVS

3. Further Enhancements to ETRF and Basket Trading

3.1 Functional Description

The following enhancements for the trading of Equity Total Return Futures (ETFs) and Basket Total Return Futures (BTRFs) will be introduced.

3.1.1 Introduction of Profiles for BTRFs

For BTRF trading, the full support of registered BTRF Profiles will be added to the ETI interface.. However, please note that T7 will not validate if the entered BTRF fits the profile definition.

3.1.2 New TES Basket Position View

The actual start of day basket positions will be displayed in the *TES Basket Position* view of the T7 Trader GUI. Amendment operations can be triggered by selecting a row and thereby opening a pre-filled TES Entry view.

3.1.3 Handling of Obsolete Products in Buckets

A BTRF Bucket defines the set of eligible products. The instruments of those products can be put together to form a BTRF. If the exchange removes a product from a BTRF Bucket, its instruments can no longer be used as components of a BTRF that is related to that bucket. In order to allow the closing of existing BTRF positions in such instruments, it will still be possible to add position reducing trades in basket amendment operations, provided they are flagged accordingly by setting the *EffectOnBasket* field to *Remove volume*.

3.2 Impact on Interfaces

The following chapter outlines the changes to Reference Data, ETI, GUI and Reports to support the functionality. The changes are described in a general fashion to provide an indication of upcoming changes. For detailed changes, please refer to the production versions of the interface manuals once they are published, and to the *Online Help* in the GUIs.

3.2.1 ETI

- The field *BasketProfileID* will be added to the following messages
 - Amend Basket Trade Request,
 - Approve Basket
 - Trade Request,
 - Approve Basket Broadcast,
 - Basket Trading Broadcast,
 - Delete Basket Broadcast,
 - Basket Execution Broadcast,
 - Delete Basket Trade Request,
 - Enter Basket Trade Request, and
 - Modify Basket Trade Request .
- The following fields will be removed from the Delete Basket Broadcast:
 - *BasketTradeReportText*,
 - *BasketSideTradeReportID*

3.2.2 GUI

- In the *TES* view of the Trader GUI, customers will be able to add registered profiles to Baskets.
- The *Profile filter* feature will be added to the *Conversion Parameter* view.
- The new view *TES Basket Position* will be added.

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3.2.3 Reports

- The new field *basketProfile* will be added to the report TE546 - T7 Daily Basket TES Maintenance.

4. Eurex EnLight Straight-Through-Processing

4.1 Functional Description

With Release 8.0, Eurex will introduce Straight Through Processing (STP) for Eurex EnLight. The motivation is to optimise the Eurex EnLight workflow such that a SRQS Deal results in a legally binding TES Trade of type Eurex EnLight with minimum user interaction. The functionality will be MiFID compliant.

Therefore, Eurex EnLight will offer the following negotiation modes:

1. Straight-Through-Processing (STP) mode
 - a. STP will be the default method for Eurex EnLight in the Trader GUI since the STP flag will be checked by default when initiating the negotiation.
 - b. In ETI, the requester will have to provide the valid value 4 = *Auto Trade / Eurex EnLight Straight-Through-Processing (STP)* in the mandatory field *QuoteQualifier*.
2. Manual mode
 - a. The STP flag will need to be unchecked while initiating the negotiation in the Trader GUI.
 - b. In ETI, the requester will have to provide the valid value 0 = *Manual Trade* in the mandatory field *QuoteQualifier*.

For Eurex EnLight STP, it will be ensured that the applied checks are consistent with the corresponding TES checks. Eurex EnLight Trades will be published to the market via T7 Market Data streams based on the configured non-disclosure limits like the TES Trades.

4.1.1 Eurex EnLight STP Workflow

1. The requester sends an RFQ either with STP flag set to True¹ for STP mode negotiation or STP flag set to False for manual mode negotiation. The RFQ request is then validated based on the STP flag and user roles of responder/ requester (TES Approver, TES Broker) combination. Manual mode negotiation is only allowed, if one of the involved responders or requesters does not have the TES Approver role.
2. A STP mode Negotiation Event can only be initiated for Simple Instruments or for existing Complex Instruments. Flexible instruments are not enabled for Eurex EnLight.
3. Once a Negotiation Event is generated, the requester and the respondent are informed about the STP flag and the time when the RFQ session will be automatically terminated.
4. When a new respondent is added to a Negotiation Event using the Negotiation Event Update request, the new respondent will also be informed about the time when RFQ session will be automatically terminated. T7 validates that the newly added respondent complies to the user role depending on the STP flag.
5. To answer the RFQ, the respondent sends a SRQS Quote with all the relevant information for a TES Trade including MiFID and clearing fields. Each SRQS Quote entry should be validated with all TES related validations and if any one of the validation fails then the request should be rejected with a valid error message. The clearing and MiFID fields in SRQS Quote message are not visible to the requester.
6. To answer the SRQS Quote, the requester sends a SRQS order (HitQuote) with all the relevant information for a Eurex EnLight Trade (TES Type = Eurex EnLight) including MiFID and clearing fields, so that it can result into a SRQS Deal. Each SRQS order (HitQuote) entry should be validated and, if any one of the validation fails, then the request should be rejected with a valid error message. The clearing and MiFID fields in SRQS order (HitQuote) message are not visible to the respondent.

¹ In ETI, the Quote Qualifier 4 (Auto Trade / Eurex EnLight Straight-Through-Processing (STP)) resembles the STP Flag being set to true. Quote Qualifier 0 (Manual Trade), false.

7. It should be possible to change the SRQS Deal status by both the counterparties as long as it has not been converted into a trade. If the SRQS Deal status is PENDING, then it can be cancelled from either side but if the status is FINAL, then the deal can be cancelled only by mutual agreement. If the SRQS Deal status is WORKING, then the respondent can cancel it directly but the requester has no possibility to cancel the WORKING deal.
8. Regardless of how the RFQ is closed, manually or automatically due to the timeout, all the FINAL SRQS Deals on the Negotiation Event will be stored/queued inside the Eurex EnLight database for further processing.
9. All the involved participants are informed about the SRQS Deal via the deal notification. RFQ close triggers delayed trade execution (T2).
10. FINAL SRQS Deals which are stored inside the Eurex EnLight database for a configurable period (T2) must have all the information provided and relevant for TES entry and approval. Upon expiry of T2, STP will be triggered and all the SRQS FINAL Deals will be moved straight away from Eurex EnLight to TES and converted to TES Deal followed by TES Trade Execution with TES Type Eurex EnLight; without any manual intervention in between.

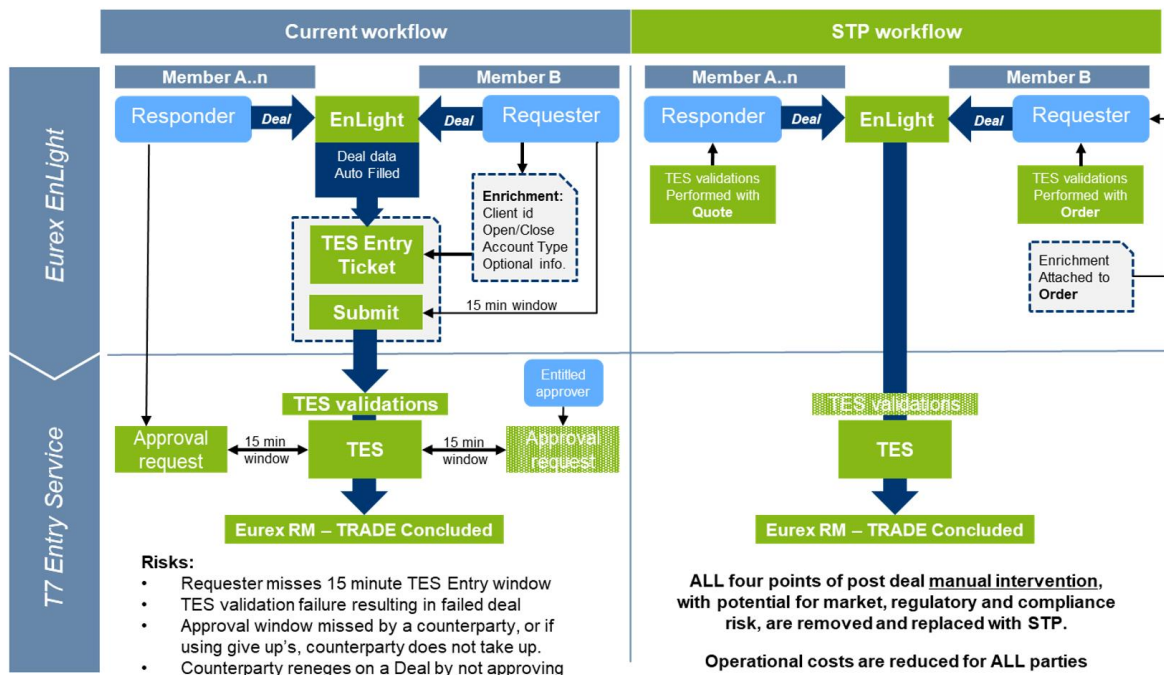


Figure 1: Eurex EnLight STP Workflow

4.2 Impact on Interfaces

The following chapter outlines the changes to Reference Data, ETI, GUI and Reports to support the functionality. The changes are described in a general fashion to provide an indication of upcoming changes. For detailed changes, please refer to the production versions of the interface manuals once they are published, and to the *Online Help* in the GUIs.

4.2.1 ETI

- The following fields will be added to the messages SRQS Create Deal Notification, SRQS Deal Notification, and SRQS Quote Notification for Responder:
 - *OrderAttributeLiquidityProvision,*
 - *TradingCapacity,*

- *FreeText2*,
- *PositionEffect*,
- *Account*,
- *PartyIDBeneficiary*,
- *CustOrderHandlingInst*,
- *PartyIDOrderOriginationFirm*,
- *PartyIDPositionAccount*,
- *PartyIDLocationID*,
- *ComplianceText*,
- *PartyIDTakeUpTradingFirm*
- The following fields will be added to the messages SRQS Enter Quote Request and SRQS Order(HitQuote) Request:
 - *OrderAttributeLiquidityProvision*,
 - *TradingCapacity*,
 - *FreeText2*,
 - *PositionEffect*,
 - *Account*,
 - *PartyIDBeneficiary*,
 - *CustOrderHandlingInst*,
 - *PartyIDOrderOriginationFirm*,
 - *PartyIDPositionAccount*,
 - *PartyIDLocationID*,
 - *ComplianceText*,
 - *PartyIDTakeUpTradingFirm*
 - *PartyIDClientID*,
 - *PartyIDInvestmentDecisionMaker*,
 - *ExecutingTrader*,
 - *ExecutingTraderQualifier*,
 - *PartyIDInvestmentDecisionMakerQualifier*,
- The field *EffectiveTime* will be added to the messages SRQS Negotiation Notification for Respondent and SRQS Negotiation Notification for Requester.
- A new valid value *Ref_Price (3)* will be added to the field *QuoteRefPriceSource*
- The new fields *QuoteQualifier* and *ExpireTime* will be added to the messages SRQS Open Negotiation Notification for Respondent and SRQS Open Negotiation Notification for Requester.
- The new fields *ValidUntilTime* and *QuoteQualifier* will be added to the message SRQS Open Negotiation Request.

4.2.2 GUI

The functionality will be included in the Eurex EnLight related views.

4.2.3 Reference Data

The timers will be added to the reference data of the products in RDI/RDF:

- *NegotiationDuration*
- *MaxOffsetRFQExpireTime*
- *OffsetSTPEffectiveTime*

4.2.4 Reports

TE600 Eurex EnLight Maintenance and *TE610 Eurex EnLight Best Execution Summary* will be enhanced to include new fields for STP mode.

5. Split Snapshot Cycles in MDI

Currently incremental messages are not sent during a snapshot cycle of a given product. For products with thousands of instruments, this means that no incremental messages are sent for a longer period of time in a MDI stream.

Snapshot Cycle Subset: With T7 Release 8.0, this behaviour will change. A snapshot cycle will no longer be sent contiguously for all instruments, but in a disjunct subset of instruments of a specific product. This may result in the situation that a snapshot cycle subset may only contain one instrument. Incremental messages received any time in between snapshot cycles subsets may still belong to instruments of either previous snapshot cycle subsets or subsequent snapshot cycle subsets.

When receiving snapshots and incremental messages, the participant's applications will have to ensure the proper mapping of incremental messages to the correct snapshot to build an initial baseline using the message sequence number. Incremental messages have to be processed immediately *before reception of all* snapshot messages of a product. Multiple snapshots can be packaged together.

This means that a joining application which has just received snapshot messages for instruments 1,2,3, and 4 of product XYZ should process only the instructions of incremental messages for instruments 1,2,3, and 4 while discarding all included instructions for instruments 5 and 6 sent in the incremental message of product XYZ. The subsequent snapshot message for instrument 5 and 6 will already include the incremental messages which have been discarded before.

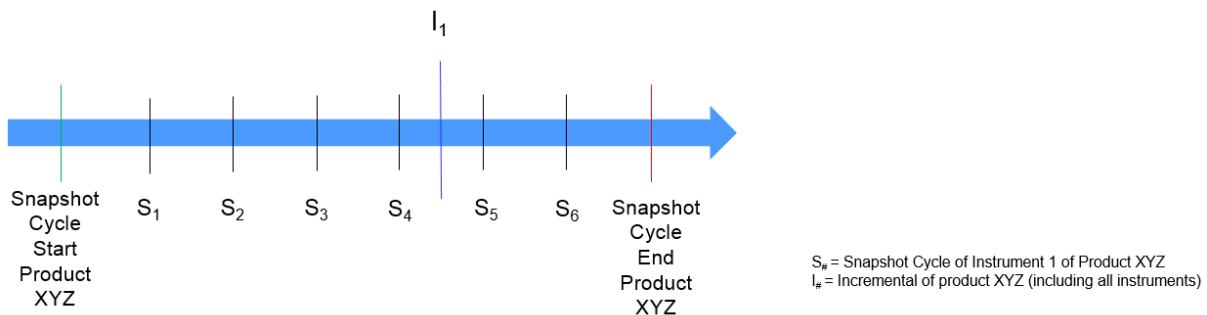


Figure 2 Snapshots and Incremental Processing

The following description illustrates the changes in more technical detail:

5.1 Current Behavior - *Contiguous* Snapshot Cycle before T7 Release 8.0

Definitions:

A product P has n instruments,

$S_{i,r}$ is the snapshot for instrument $i, i = 1, \dots, n$

whereby $lastMsgSeqNumProcessed = r$.

As the incremental message I_{r+1} with $msgSeqNum = r + 1$ has product scope P , all n instrument snapshots $S_{1,r}, S_{2,r}, \dots, S_{n,r}$ from product P with all its instruments may be collected by the participant's application, *before* applying any incremental messages to that initial baseline.

Up to T7 Release 8.0, MDI sends a snapshot cycle for product P without interruption by any incremental message I as in the following sample:

$$\dots, I_r, S_{1,r}, S_{2,r}, \dots, S_{n,r}, I_{r+1}, \dots$$

Because of the *in-band* nature of T7 MDI, snapshots do not carry a *lastMsgSeqNumProcessed* explicitly, but essentially all snapshots from the sequence above were *implicitly* based on same last received incremental message sequence number I_r , so $S_{1,r}, S_{2,r}, \dots, S_{n,r}$ was essentially equivalent to

$$S_{1,r}, S_{2,r}, \dots, S_{n,r}.$$

Please note that any of those snapshots still might be flagged as a *mandatory refresh*, but while building an initial baseline any *newly* received snapshot is implicitly a mandatory refresh for a joining application.

A straight forward member application had the chance to build a full and complete product baseline from $S_{1,r}, S_{2,r}, \dots, S_{n,r}$, *before* it had to apply any following incremental message I_{r+1} .

So, the following sequence of message might be a valid scenario for T7 MDI up to Release 8.0:

$$\dots, S_{1,r}, S_{2,r}, \dots, S_{n,r}, I_{r+1}, I_{r+2}, \dots, I_{r+k}, S_{1,r+k}, S_{2,r+k}, \dots, S_{n,r+k}, I_{r+k+1}, \dots, K > 1.$$

5.2 Future Behavior – Split Snapshot cycle with T7 Release 8.0

Definitions are the same as defined in the previous paragraph (i.e. Product P with n Instruments, $S_{i,r}$ denotes the snapshot message). With T7 Release 8.0, MDI will no longer guarantee anymore that the product cycle for snapshots S_1, \dots, S_n is sent *without* interruption by any incremental message I . So, the following sample sequence might be a totally valid scenario

$$\dots, S_{1,r}, I_{r+1}, \dots, I_{r+k_1}, S_{2,r+k_1}, I_{r+k_1+1}, \dots, I_{r+k_1+k_2}, S_{3,r+k_1+k_2}, \dots, S_{n,r+k_1+\dots+k_{n-1}}, \dots, K_1, \dots, K_{n-1} > 1.$$

Please note that each optional incremental message $I_{r+1}, \dots, I_{r+k_1}$ may carry instructions for all n instruments $1, \dots, n$ of product P . This means, that a joining application, which so far has just received snapshot $S_{1,r}$, needs to apply all instructions from $I_{r+1}, \dots, I_{r+k_1}$ for instrument 1 to snapshot $S_{1,r}$, *but* it *must* ignore all instructions for snapshots $S_{2,r+k_1}, \dots, S_{n,r+k_1}$, as all following snapshots will already have $I_{r+1}, \dots, I_{r+k_1}$ incorporated.

6. Further Technical and Functional Enhancements

6.1 Enhancements of Quote Deletion Context

Eurex can define whether single-sided quotes or double-sided quotes are allowed at a product level. For this reason, the parameter *QuoteSideIndicator* with three valid values (*NotSSQAllowed*, *SSQOnEntryAllowed*, *SSQSupported*), was introduced with T7 Release 7.0. Currently the value *SSQOnEntryAllowed* is set for all Eurex markets implying that single sided quote entry is supported but quote deletions (e.g. because of failed price non-reasonability check or because of violation of BOC criterion) are affecting both quote sides (i.e. double-sided quote deletion context).

After the launch of T7 Release 8.0, Eurex plans to switch to the configuration *SSQSupported* which means that the single-sided quote will be supported as well and a rejection of one quote side of a double-sided quote may lead to a situation that only the other quote side remains in the book. To properly communicate this one-sided quote deletion context via the ETI interface, the quote status respectively quote rejection responses to the sessions will be enhanced. Please note that the change of the quote status and quote rejection response also contributes to the non-backward compatibility to the Release 8.0. There will be additional communication when Eurex will switch the configuration to *SSQSupported* at a later point.

The configurations will be published on the Eurex web page.

6.2 Leg Price and Quantity Information in TES Trade to Initiator

The initiator of a TES trade in a complex instrument will be provided the quantity and price information also of the leg instruments with the TES Broadcast.

6.2.1 Impact on Interfaces

The following subsection outlines the changes to ETI, GUI and Reports to support the functionality.

- ETI
 - The *TrdInstrmntLegGrp* in the TES Broadcast will be enhanced with an optional attribute *LegQty* which will be filled only for the Initiator.
 - The field *LegQty* will be added to the messages Enter TES Trade Request and Modify TES Trade Request.
 - The field *LegQty* will be added to the message Approve TES Trade Broadcast and TES Broadcast
- GUI
 - The TES View in the GUI will be enhanced to provide the quantity information at leg level.
- Reports
 - In the report TE545 Daily TES Maintenance the *legPriceByInitiatingUserGrp* field will be renamed to *legPriceGrp*.

6.3 Valid Expiration field added to TES profile

The TES Profile of the T7 trading platform already supports different sets of TES parameters for the same product – instrument type – TES type combination but valid for different expirations. The *MinExpiryRange* is an integer number indicating the shortest expiration the corresponding product - instrument type - TES type combination is referring to and included to the TES profile table.

In case that the TES parameter of the product - instrument type - TES type combination is valid for all expirations, there is only one TES profile record with a unique product - instrument type - TES type combination and the *MinExpiryRange* is identical to 1 (default *MinExpiryRange*).

In case that there are two (or more) different sets of TES parameters, the first set of TES parameters valid for the first m expirations of the corresponding product - instrument type - TES type combination and the second set of TES parameters is valid for the remaining expirations starting with the expiration represented by the integer value $m+1$. Consequently, there are two TES profile records with the same product - instrument type - TES type combination, the first TES profile record denoted by $MinExpiryRange = 1$ and the second TES profile record denoted by $MinExpiryRange = m+1$.

As an example below, the TES Profile of the EuroStoXX Index Option OESX specifies a minimum quantity threshold of 1500 lots for the first 10 expirations of OESX with respect to block traded simple instruments (outright contracts) and a minimum quantity threshold of 1000 lots for the remaining expirations of OESX starting with the 11th expiration of the OESX - simple instrument - block combination.

ProductSymbol	InstrumentType	TESType	MinExpRange	BrokerAllowed	MaxParticipants	MinimumLotSize	NonDisclosureLimit	PriceValidationRule	LegPriceEntry
OESX	SIMPLE_INSTRUMENT	BLOCK	1	YES	30	1500	25000	OPTION SIMPLE INSTRUMENT	
OESX	SIMPLE_INSTRUMENT	BLOCK	11	YES	30	1000	25000	OPTION SIMPLE INSTRUMENT	
OESX	SIMPLE_INSTRUMENT	ENLIGHT	1	YES	10	1000	25000	OPTION SIMPLE INSTRUMENT	
OESX	FLEXIBLE_INSTRUMENT	BLOCK	1	YES	2	1000	25000	OPTION SIMPLE INSTRUMENT	
OESX	STANDARD_OPTION_STRATEGY	BLOCK	1	YES	30	1000	25000	STANDARD OPTION STRATEGY	ALLOWED
OESX	STANDARD_OPTION_STRATEGY	ENLIGHT	1	YES	10	1000	25000	STANDARD OPTION STRATEGY	ALLOWED
OESX	NON_STANDARD_OPTION_STRATEGY	BLOCK	1	YES	30	1000	25000	NON STANDARD OPTION STRATEGY	ALLOWED
OESX	NON_STANDARD_OPTION_STRATEGY	ENLIGHT	1	YES	10	1000	25000	NON STANDARD OPTION STRATEGY	ALLOWED
OESX	OPTION_VOLATILITY_STRATEGY	BLOCK	1	YES	30	1000	25000	OPTION VOLATILITY STRATEGY	ALLOWED
OESX	OPTION_VOLATILITY_STRATEGY	ENLIGHT	1	YES	10	1000	25000	OPTION VOLATILITY STRATEGY	ALLOWED

Table 2 TES Profile Examples for OESX

The TES Profile table published on the Eurex Web Page will be enhanced by the new column *MinExpiryRange*.

6.4 Vola Trade Functionality for Flexible Options Trades

The Vola trade functionality in T7 will be enhanced to support delta-hedging of flexible options trades. TES trades in flexible option instruments can also be used as reference for a Vola TES trade in the standard futures instrument of the underlying product.

GUI: The Trades View of the T7 Trader GUI will be enhanced to allow entering Vola trade when selecting a Flexible Options trade. The Vola Trade Entry window will be enhanced to allow flexible options trade to be used as reference.

6.5 Direct Market Access flagging for Orders

T7 will be enhanced to offer participants the possibility to directly flag orders using the newly introduced field *OrderOrigination* in the ETI and FIX interfaces. The flag will be optional and is only available for orders with *Trading Capacity* set to "Customer (Agency)."

Note when flagging an order using the order entry/modification requests of the ETI and FIX order entry requests as DMA (i.e. *OrderOrigination = 5*) and the *Trading Capacity* of the order differs from "Customer (Agency)", the order will be rejected.

The DMA flag is available for all Eurex trading participants. In compliance with the Exchange Rules, Eurex requires the registration of a DMA system via a respective DMA application form.

The flag *OrderOrigination* will be included in the following ETI messages:

- New Order Single
- New Order Single (Short Layout)
- New Order Multi Leg
- New Order Multi Leg (Short Layout)
- Replace Order Single
- Replace Order Single (Short Layout)
- Replace Order Multi Leg
- Cancel Order Single
- Cancel Order Multi Leg
- Order Mass Cancellation Request on level as other MiFID II fields
- Trade Notification

The FIX interface will be enhanced accordingly in all affected FIX order- and trade-messages to include the *OrderOrigination*:

- NewOrderSingle (D)
- NewOrderMultileg (UAB/AB)
- OrderCancelReplaceRequest (G)
- User/MultilegOrderCancelReplaceRequest (UAC/AC)
- OrderCancelRequest (F)
- UserOrderMassActionRequest (UCA)
- User/TradeCaptureReport (UAE/AE)

The *dmaFlg* will be added to the following reports:

- TE540 Daily Order Maintenance
- TE550 Open Order Detail
- TE810 T7 Daily Trade Confirmation

6.6 New Types of Security

Two new types of security will be added to *SecurityType* (167) in the reference data, which are not relevant for Eurex:

- *Subscription Right (SR)*
- *Investment Funds (FUN)*

6.7 New Role to View Trades only

A new role "TM Trade Overview" will be introduced to provide the participants the possibility that users of a trading business unit can see only the trades, and no orders. The role is applied for an entire market and includes only three views:

- Market View
- Trade View
- Online Times and Sales Sheet View

6.8 Support of Publish Selection in Text Profile

With the release introduction, there will be the possibility in the GUI to create a text profile for TES trades storing the information whether the TES trade should be published immediately or with delay at the end of the day. Therefore, the text field configuration window will include a check box "Publish". Please note, that the preference setting of "not published" for a TES trade (e.g. publish is not checked) can only be applied during TES trade entry if the quantity is above the non-disclosure limits. It is strictly recommended to determine the quantity of the TES trade first in the sequence of entry, i.e. before selecting a profile. Otherwise, it may happen that the profile will be reset by accident. Any change/ modification will lead to a new check of the "publish" information, whether still the conditions are fulfilled or not.

6.9 Enhancements of Usage of Pre-Trade Risks Limits

Eurex supports the possibility to use pre-trade risk limits for on-book and off-book trading independent from each other. It is planned to support the pre-trade risk limits for off-book trading in all products but to configure pre-trade risk limits for on-book trading only for selected products primarily associated with the extended trading hours.

6.10 Decommissioning of Clearing Member Transaction Size Limits

With C7 release 6.0, Clearing Member Transaction Size Limits will be decommissioned from Eurex Classic. Clearing Members will have the following possibilities to restrict their Direct Client (DC) Market Participants:

In C7, Clearing Members will have the possibility to restrict one or several products from trading and clearing by changing the setting of the respective product within a capacity in C7 for themselves or their DC Market Participants (please refer to Eurex Clearing Release Notes).

This product assignment will then be reflected in T7. In case the Clearing Member restricts a product in C7, the TSL of that product for that business unit in T7 will be set to *null*. Therefore, the possibility to trade products within a Product Assignment Group (PAG) will be controlled by the TSL setting of that product for that business unit. As a consequence, all trading business units in T7 will automatically get all PAGs assigned, since trading restrictions are administrated by the Clearing Member in C7.

In T7, to allow Clearing Members to effectively manage pre-trade risk for their DC Market Participants, Eurex Exchange will offer a range of Pre-Trade Risk Position Limits. These offer GCMs the possibility to control DC Market Participants on a product level and to control their exposure in the on-book or off-book trading area (buy and sell order quantities plus on-book positions traded on the day or buy and sell off-book trades pending for approval plus off-book positions traded on that day, respectively).

T7 already offers Pre-Trade Risk Position Limits for all trading hours extended products as well as FX futures (on-book and TES). The functionality to set Pre-Trade Risk Position Limits for TES trading for all products will be allowed with T7 Release 8.0. Please refer to chapter 6.9 Enhancements of Usage of Pre-Trade Risks Limits for details.

"Max Order Quantities" as defined by Eurex/Eurex Clearing remain in place and the max order quantity on trader level can still be defined by Participants in T7.

6.11 New Product Type in RDI

The field *ParentMktSegmID* reflects existing Eurex product types (e.g.: FSTK, OINX) and it will include new upcoming types in the future. The content of this field may change release independent.

6.12 New Instrument Naming Convention (SARON Futures)

The market is currently in the midst of a shift to new interest rate benchmarks. Derivatives on alternative GBP and USD benchmark products - SONIA and SOFR, have already been launched to support the market in this initiative.

Eurex is actively involved in the reform process and its goal is to support members and markets to ensure a smooth transition. An important aspect of providing this support is Eurex' ability to launch products which will facilitate the transition process for clients and to match existing industry standards.

Eurex has launched a product to support this initiative for alternative CHF benchmarks, with the launch of the SARON futures in Oct 2018. However, the current Eurex naming convention of the new benchmarks futures (i.e. SARON) is different to the comparable SONIA and SOFR Futures. These contract names contain the end of the accrual period rather than the start, which is becoming the industry standard for these types of contracts.

In order to meet the industry standard naming convention, those new contracts will be named in the following way as outlined in the examples:

Current naming convention: FSO3 SI 20200319 CS + expiration date on 19.03.2020
commonly referred to as March 20 contract

New naming convention: FSO3 SI 20191219 CS + expiration date on 19.03.2020
in the future referred to as December 19 contract

The name change itself will not be done with Release 8.0, but at a later point in time. The release only introduces the newly required fields and information to ready the system for the naming change at a later point in time.

6.12.1 Impact on Interfaces

- RDI/RDF: ContractDate (30866) and ContractMonthYear (32340) will be introduced.

6.13 TES Trading for SEC Approved Products

With T7 release 8.0, TES trading including Eurex EnLight trading for SEC approved products will become available for users located in the US (*isUSLocated* = true) when the product is defined as SEC approved in the field *USApproval* distributed via RDI/RDF.

T7 Release 8.0 will prepare the trading platform by decommissioning the field *USFirmFlag* and exchanging it with the field *USApproval* using the following content:

- None: No approval given. This product cannot be traded by users marked as *isUSLocated* = true.
- CFTC: Product can be traded on-exchange and TES including Eurex EnLight by users marked as *isUSLocated* = true.
- SEC: Product can be traded via TES including Eurex EnLight by users marked as *isUSLocated* = true.

6.14 Cross-Partition IPS

The T7 Trading Platform currently supports IPS strategies with leg products located on the same partition ("single partition IPS"). As a consequence, the fixed income futures FBTP and FGBX were moved from Partition 3 and 6, respectively, to Partition 2 enabling the launch of the fixed income IPS strategies IPLX (FGBL-FGBX) and IPPL (FBTP-FGBL) located on Partition 2. For more details, please refer to Eurex Circulars 055/2019 and 067/2019.

With T7 Release 8.0, the T7 Trading Platform will also support IPS strategies with leg products located on different partitions ("cross-partition IPS"). Eurex will consider the increased flexibility of cross-partition IPS for work load balancing. As a consequence, a partition reshuffling with respect to some fixed income futures will be executed after the launch of T7 Release 8.0. More details will be communicated via circular at a later point in time.

Please note that moving products from one partition to another may result to a change of IP addresses of the corresponding MDI / EMDI / EOBI market data streams and may lead to a scenario where GTC/GTD orders entered and owned by one high-frequency session come to reside on two different partitions.

6.15 Topology Changes of Low Frequency Gateways

The partition specific (PS) gateway is the single low-latency order entry point. The low-frequency gateways (LF) are usually slower than the PS gateways. However, the PS gateway queues requests during high loads. When this happens, requests sent to LF gateways may overtake PS gateway requests.

With T7 Release 8.0, preparatory steps will be taken to remove this overtaking possibility. After activation of the new routing, all traffic requests entered via LF gateway will be routed through the PS gateway to fix the above-mentioned situation.

To keep the additional latency as low as possible, the network access to the LF gateways will be changed before the new routing will be activated. The LF gateways will be directly connected to the distribution switch of the Co-Location network and thus the access to the LF gateways will be the same as for the PS gateways. There will be an additional delay of approximately 50 μ s between LF and PS gateway if the route between LF and PS gateway involves a change of rooms, e.g. requests sent to an odd LF gateway target on an even partition.

Note that the feature will not be activated with release start but is scheduled for early 2020. An appropriate communication about the activation of the new routing and the change in network access will be provided well in advance. For markets without PS gateways (e.g. EEX) the routing via PS gateways will not be enabled.

The below diagram illustrates the planned changes.

Topology as of now



Move of LF gateway



Rerouting of LF gateway requests



Figure 3: Topology of PS and LF Gateways

The PS gateway entry timestamp will be available in the following protocols:

- The *RequestTime* field in the ETI responses will be filled with the *PS Gateway In* timestamp once routing is activated
- In EMDI and EOBI, all fields referencing the *Matching Engine In* timestamp will be referencing the *PS Gateway In* timestamp instead, with the exception of the *AggressorTime* in the EOBI *Execution Summary* message. The number of existing LF gateways and the network access to the LF and PS gateways will remain unchanged.

For markets without PS gateways the *RequestTime* of the LF gateway will be used instead.

Please refer to the *ETI manual* and *Incident Handling Guide* for changes to the protocol.

Aspects of latency changes will be covered in an update of the *Insights into trading system dynamics* presentation available on www.eurexchange.com.

Special note for LF gateways customers: The incident handling for LF gateways will change because of the routing through PS gateways. Please be aware of the changes. DBAG will offer dedicated focus days in simulation T7 Eurex for customers to familiarize themselves with PS gateway specific failover scenarios. Please refer to the participant simulation guide and simulation calendar for more details of the dedicated focus days.

6.16 T7 GUI Launch Mechanism

Deutsche Börse offers a customized seamless solution to start and automatically receive updates of the T7 GUIs named "T7 GUI Launcher" independently of Oracle's Java SE Java Web Start mechanism for Windows. Additionally, Deutsche Börse will offer a Java SE 8 Runtime Environment without additional Java license charges to be used exclusively with the T7 GUI applications. Initially both T7 GUI launch mechanisms, the existing Java WebStart and new T7 GUI Launcher will be offered in parallel. The new T7 GUI Launcher and the Java SE 8 Runtime Environment are provided to the participants via the member section.

For additional information, please visit the Eurex website <https://www.eurexchange.com/exchange-en/resources/initiatives/technical-changes/t7-gui-launcher>

6.17 New Reports

The new daily report TR103 Eurex Daily OTR parameter will show the current parameters used for the Eurex OTR calculation.

The new daily report TR104 Eurex Daily ESU parameter show the current parameters used for the Eurex Excessive Usage Fee calculation.

The new report TR105 Minimum Quotation Requirement will replace the report 90FILMMPARPUBLI. The new report will list the Minimum Quotation requirements in contrast to report 90FILMMPARPUBLI, which was listing the monetary liquidity provision programs.

6.18 Changes to Reports

Further Enhancements will be made to some reports for which a functional description is listed below. For details, please refer to the XML Report Reference Manual.

6.18.1 Aggressive/Passive Information in TE540

The TE540 - Daily Order Maintenance report will incorporate a new field *sideLiquidityInd* to indicate whether an order was passively or aggressively executed.

6.18.2 TD955 Building Block Liquidity Provider Measurement

There will be two changes to this report. The first change expands the TD955 report into a general overview giving fulfilment information about all Eurex Liquidity Provider Building Blocks. Besides the fulfilment of the Basis, Spread and Size Building Blocks which are available today, the future version of this report will also indicate the fulfilment of the Package, Strategy and Eurex EnLight Building Blocks.

The second change will introduce information about Spread- and Size Classes that are used for a respective product/package combination.

6.18.3 TD956 Basis Building Block Liquidity Provider

The change will introduce information about Spread- and Size Classes that are used for a respective product/package combination.

6.18.4 TD957 Package Building Block Liquidity Provider Measurement and Advanced Designated Liquidity Provisioning

The change will introduce information about Spread- and Size Classes that are used for a respective product/package combination.

6.18.5 TD983 Regulatory Market Making MTD

The change will introduce information about the Spread Class that is used for a product for both regular as well as extended trading hours (THX) in the context of Regulatory Market Making (RMM).