



T7 Release 7.1

Final Release Notes

Date

03 June 2019

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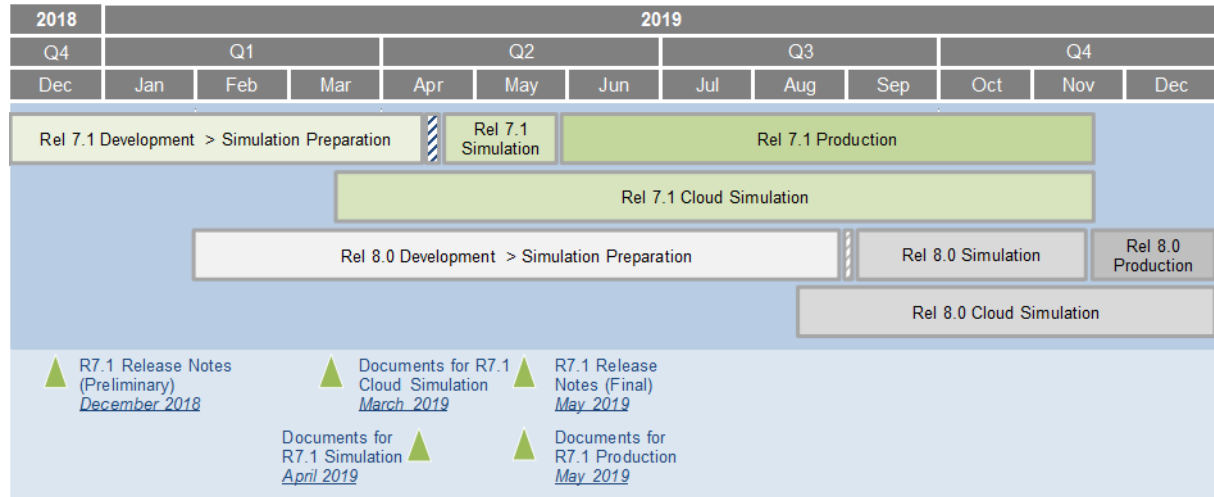
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1. Overview T7 Release 7.1

Deutsche Börse AG is planning to launch T7 Release 7.1 on 27 May 2019.

The following diagram gives an overview of the introduction schedule:



Deutsche Börse AG provides a dedicated release simulation environment in order 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 7.1 already started on 15 April 2019.

In addition to the T7 release simulation, Deutsche Börse AG offers a T7 Release 7.1 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 started on 22 March 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 7.1:

- Introduction of Baskets for Total Return Futures
- Enhancements to Eurex EnLight
- Inter Product Spread for Fixed Income Futures
- New Option Volatility Strategies and Standard Option Strategies
- Gateway Changes

Note on Interfaces

T7 Release 7.1 will provide backwards compatibility for the T7 ETI/FIX interface version 7.0 except for Eurex EnLight related functionality, i.e. participants who do not want to use the new functionality will still be able to connect to T7 with the interface layout version 7.0 even after production launch of T7 Release 7.1.

Please note that due to the final decommissioning of the Connection Gateways (CGWs), all participants have to migrate at least to the ETI/FIX interface version 7.0 (see chapter 6.1).

The market and reference data interfaces will **not** provide backwards compatibility to the previous releases.

1.2 Further Reading

The existing documents have been or will be revised for T7 Release 7.1. The following table provides an overview of the preliminary schedule for the publication.

T7 Release 7.1	Eurex	Xetra	Combined	Dec 2018	Q1 2019			Q2 2019	
					Jan	Feb	Mar	Apr	May
T7 Release 7.1 – 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				◆	■	●
Xetra Instrument Reference Data Guide		X						●	
T7 Extended Market Data Services – Manual incl.			X					■	●
T7 XML Reports – Reference Manual	X	X						■	●
Common Report Engine User Guide			X					●	
N7 Network Access Guide			X					●	
Xetra Rules & Regulations		X							●
Market Model for the Trading Venue Xetra		X						●	

◆ Preliminary Version ■ Simulation Version ● Final Version

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

> **Technology** > **Eurex Exchange's T7** > **System Documentation** > **Release 7.1.**

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
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, introduced as the Selective Request for Quote Service (SRQS) with release 6.0, is a price discovery service offered by Eurex on the T7 platform to negotiate off-book transactions electronically.
FIX	Financial Information eXchange (protocol)
GUI	Graphical User Interface
GTC	Good-Till-Cancelled
HF	High Frequency
ISV	Independent Software Vendor
LF	Low Frequency
MDI	T7 Market Data Interface
PLP	Passive Liquidity Protection
PS	Partition Specific Gateway
RDF	T7 Reference Data File
RDI	T7 Reference Data Interface
RfQ	Request for Quote
SRQS	Selective Request for Quote Service, see Eurex EnLight
T7	T7 is the trading architecture developed by Deutsche Börse Group
TES	T7 Entry Service

2. Basket Total Return Futures

After the introduction of Equity Total Return Futures (ETRF) and the preparations of Basket Total Return Futures (BTRF) with T7 Release 7.0, Eurex plans to activate them both with T7 Release 7.1 introduction in 2019.

2.1 Functional Description

2.1.1 BTRF Overview

T7 will support the off-book trading of baskets of ETRF instruments, or Basket Total Return Futures (BTRF). A BTRF consists of a number of TES trades in different ETRF instruments denoted as BTRF components. The BTRF is assembled and entered by a trader or by a broker and is approved and executed as a whole. Each newly created BTRF will receive a basket ID generated by T7. After the successful execution, a BTRF is decomposed into its ETRF components and the individual trades with a reference to the basket are then forwarded to clearing.

T7 supports various types of basket amendment operations (amendments increasing or decreasing the existing BTRF and substitution exchanging components of the BTRF). In a basket amendment operation, participants can change the composition of a specific basket by adding more component trades to the basket, where the additional trades may also be counter trades, effectively reducing or removing individual positions in the basket.

2.1.2 BTRF Trading Principles

A basket is a collection of individual TES trades in ETRF instruments being entered, approved, and executed together.

Important note: Individual TES trades in ETRF instruments outside a BTRF basket are not allowed as specified in the contract specifications.

Even though most validations apply to the individual components of a basket, a basket transaction is always accepted or rejected as a whole. A failed validation in one component of a basket leads to the rejection of the whole basket transaction. It is therefore always guaranteed that the basket is entered, approved and executed as a whole or not at all.

A BTRF has exactly one buy and one sell counterparty. Multilateral BTRF trading is not supported. However, a BTRF can be entered by a broker, which is not a counterparty. The basket buy counterparty of a new BTRF is the buy counterparty of all component trades, and the basket sell counterparty is the sell counterparty of all component trades.

Contrary to normal TES trading arranged via the broker functionality, there is no counterparty anonymity in BTRF trading. The identity of a BTRF counterparty is disclosed to the other BTRF counterparty.

The component instruments in a BTRF must all have the same contract month and year. The corresponding ETRF products must belong to the same BTRF Bucket. BTRF Buckets are T7 product groups set up by Eurex specifically for the purpose of defining the instruments which may occur together in the same BTRF. This will be validated on entry of a BTRF and any subsequent amendment operations.

The price of a BTRF is given in the trading notation (TRF spread). Each component trade in a BTRF must have the same common price in trading notation. As this overall price may not be an adequate market price in all component instruments, the price validations in a basket are more relaxed than those for normal TES trades.

Like for the existing Total Return Futures implementation, both Block and Trade-At-Market (TAM) are supported TES types for BTRFs. However, all component trades of a specific BTRF must have the same TES type.

The T7 Trader GUI will support a check that the weights of each basket component are approximately equal in terms of notional value of underlying shares. However, the entry of an unbalanced BTRF will not be rejected by T7.

To further illustrate this, the T7 GUI will provide an overview on the Shares Equivalent of the ETRF in the basket and the weight of the notional of the stock in the basket.

$$\text{Shares_Equivalent}_i = \text{Volume_ETRF}_i * \text{Multiplier_ETRF}_i$$

$$\text{Notional_Value_Stock}_i = \text{Shares_Equivalent_Stock}_i * \text{Equity_Price}_i$$

$$\text{Weight \%_Stock}_i = (\text{Notional_Value_Stock}_i) / \sum_{i=1}^T \text{Notional_Value_Stock}_i$$

2.1.3 BTRF Initial Execution

The BTRF initial execution reflects the situation when a new basket is entered, approved and executed in the T7 trading system.

As shown in figure 1, a basket can be entered by third-party broker or by one of the two counterparties.

The broker functionality allows third parties to allege the trade to both counterparties for approval. These third parties will only act as a facilitator, but not act as principal.

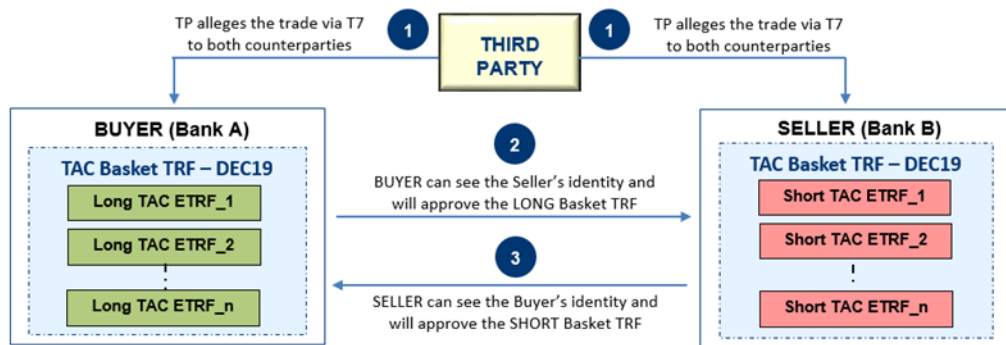


Figure 1: Initial Execution of BTRF via Third Party

Direct Negotiation: One bank submits directly the basket TRF to another bank for approval. They can see each other's identity.

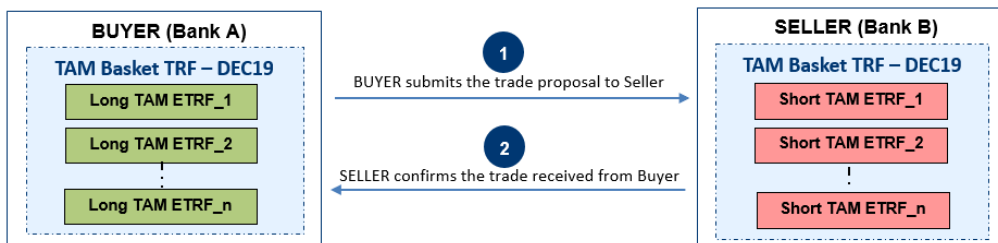


Figure 2: Direct Initial Execution of BTRF

2.1.4 BTRF Amendment

T7 will support changing the composition of a basket that has already been executed through so-called basket amendment operations, which is essentially adding new TES trades to an existing basket. The existing basket is referenced by its basket ID.

These additional trades may also be counter trades that have the effect to reduce or close a position in the basket. In particular, T7 supports substitution operations on a BTRF that consist of replacing one position in a basket with another. However, simply adding components or closing positions is possible as well.

In case a trader would like to change an already existing basket, then there are two choices:

- 1) enter a basket amendment with basket operation type "Substitution" if it is supposed to be a substitution
- 2) enter a basket amendment with basket operation type "Amendment" in all other cases

Technically, a basket amendment operation is the entry of another basket with a reference to the original basket where the new basket contains the additional trades or counter trades. The workflow is identical with a basket entry, approval and execution.

The counterparties of a basket amendment operation on a BTRF must be the same as for the original basket operation. For counter trades, the two counterparties change sides. Otherwise, the same rules as for the entry of a new BTRF apply. However, the price and the TES type need not to be the same as in the original BTRF.

A basket amendment operation on a BTRF is possible as long as the instruments in the basket have not yet expired. However, T7 has no information about any clearing transactions on the basket positions, nor does it store the list of actual basket components. T7 will therefore not perform any validations that would require the knowledge of such information.

2.1.5 BTRF Implementation

The TES basket trading workflow will handle a basket as a single entity, regarding basket entry, modification cancellation, approval and execution. However, the execution of a basket will then result in TES trades in the individual ETRF components of the basket. There will be no technical concept of a basket trade. The individual trades of a basket are forwarded to clearing and they are reported in T7's private (ETI, FIX) and public (MDI) interfaces. In ETI and FIX and in the GUI, T7 will nevertheless enrich TES trades that belong to a basket with the basket's identification.

The counterparties of a basket may add their own private basket reference ID. The initiator of the basket may add an own description to the basket, which is visible to the counterparties and can thus be used in the communication between the initiator and the counterparties.

The reference data interface will publish the BTRF Buckets that determine which ETRF products can be combined in a BTRF.

2.2 Impact on Interfaces

Off-book trading of BTRF in T7 will be an extension of the existing TES trading implementation. With T7 Release 7.1, there will be additional ETI requests and new GUI windows that support basket trading.

The following chapter outlines the changes to the ETI interface, FIX interface, Market and Reference Data, GUIs, and reports. 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.

2.2.1 ETI

In order to support BTRF trading, new ETI requests will be introduced that cover the TES workflow of basket trading. These new requests will support the entry, modification, deletion and approval of entire basket operations.

On initial entry of a new basket, T7 will return a unique ID of the basket. This ID must be referred to in all further requests regarding the basket. This refers not only to the modification, deletion and approval requests for the new basket. The basket ID must also be used to identify the basket in basket amendment operations.

The execution of a basket will however result in trades in the basket component instruments, which will be reported individually with the help of the existing TES Trade Broadcast messages. The layout of the TES Trade Broadcast messages is enriched with a new Basket ID field, which helps to identify that a trade was part of a basket and of which basket.

A BTRF must belong to a BTRF Bucket. The BTRF Buckets available will be published via RDI. The ID of the applicable BTRF Bucket must be stated in all ETI requests used for trading a BTRF.

2.2.2 FIX

BTRF trading will not be supported via the T7 FIX interface. However, TES trades are reported via trade notification messages. These messages include already the *BasketTradMatchID* and the *BasketSideTradeReportID* to identify that a trade was part of a specific basket.

2.2.3 Market and Reference Data

Trade prices of TES trades that have been executed as part of a basket will be flagged as such.

The Reference Data Interface (RDI) will publish the BTRF Buckets available. BTRF Buckets determine which products can be grouped together in a specific BTRF. The ID of the BTRF Bucket must be stated in all ETI requests regarding a BTRF that refers to that BTRF Bucket.

2.2.4 GUI

The T7 Trader GUI will support the BTRF trading workflow in the following views:

- TES Basket Trade Entry
- TES view.

2.2.5 Reports

TES trades that result from the execution of a basket will appear in the existing TE545 Daily TES Maintenance report. The corresponding basket ID will be given in this report.

An additional new report TE546 Daily TES Basket Maintenance will document the TES trading activity on basket level.

3. Enhancements to Eurex EnLight

With T7 Release 7.1, several enhancements will be introduced. In addition, the new negotiation model Eurex EnLight “Working Delta” is active which has already been part of T7 7.0 from an interface perspective.

3.1 Functional Description

3.1.1 Eurex EnLight “Working Delta”

With the Working Delta negotiation model, the respondent can hedge the underlying and may provide a new reference (underlying) price and/or option quantity as a part of the deal update request. Based on the new reference price, Eurex EnLight will calculate a new option price using the agreed delta and disseminate it to the counterparties. Once the respondent has managed to hedge all (or some) of the agreed quantity, he can then update and finalize the deal correspondingly.

3.1.1.1 Working Delta Principles

The negotiation model Working Delta will work on the following principles:

- The Working Delta functionality will only be available for option instruments for the asset classes Equity, Equity Index, Fixed Income, and for standard and non-standard strategies. Option Volatility Strategies cannot be supported as Delta Exchange is not supported, but a negotiation of the underlying delta/reference price will still be possible as part of the Request for Quote (RfQ).
- The Working Delta functionality is only allowed for negotiation type *Indicative*.
- The requester can allocate the deal only to one respondent at a time.

3.1.1.2 Working Delta Workflow

The Working Delta workflow is illustrated as follows:

1. The requester initiates a negotiation event by sending a RfQ with the *Working Delta* indicator. Eurex EnLight will notify all the counterparties via broadcast.
2. The respondents can answer to the RfQ by sending a quote.
3. The requester can answer the quotes by either sending an order resulting in a deal with the deal status *Pending* or may also choose not to respond to the quote.

Additionally, the requester can also define an *Underlying Price Boundary (Underlying Limit Price)* while sending the order, which is then communicated to the respondent. The requester can modify this Underlying Price Boundary as long as the deal is not final and only in favour of the respondent. If the Underlying Price Boundary is above the reference price, it can only be further increased; if it is below the reference price it can only be further decreased.

4. The respondent can respond to the pending deal with one of the following actions:

Action	Description	Deal status
Working	Possibility to update the deal.	<i>Working</i>
Reject	The respondent rejects the deal.	<i>Rejected</i>
Accept	The respondent accepts the deal.	<i>Final</i>

5. In the *Working* mode, the respondent is allowed to make adjustments to the following two parameters (optional) of the deal:
 - a. **Reference (Underlying) price.** The modified reference price can be higher or lower than the initial one and has to satisfy the Underlying Price Boundary validation if provided by the requester. The new reference price cannot be below the Underlying Price Boundary if the Underlying Price Boundary was below the initial reference price of the deal and it cannot be above the Underlying Price Boundary if the Underlying Price Boundary was above the initial reference price of the deal.
 - b. **Quantity of the Option.** In the first modification of the option's quantity, the respondent will be allowed to only decrease the quantity in the range of Minimum Block Trade Size and the initially agreed quantity of the deal. If the respondent wants to make any further modifications, then only increasing the quantity compared to the last provided option quantity will be permitted.
6. Based on the new reference price, Eurex EnLight will calculate the new option price according to the formula as follows:

$$\text{New option price} = \text{Previous option price} + \text{underlying Delta} \times (\text{New reference price} - \text{Old reference price})$$

whereby *underlying Delta* is positive, if underlying hedge is bought, and = -1, if it is sold, from the responder's perspective.

7. The deal will be adjusted with the new option price, the option quantity and the adjusted deal will be distributed to the involved requester and respondent.
8. The respondent can accept the deal, reject the deal, or continue to update the deal in this *Working* Delta negotiation model.
9. In the case when the respondent accepts the deal, the following will be performed by Eurex EnLight:
 - a. The resulting new option price (if any) is rounded to the closest tick/subtick (if the subtick factor is greater than 1). If subtick is enabled, then Eurex EnLight will first assign the nearest subtick and validate the deal split; and in case the validation fails, then the new option price is rounded to the nearest tick.
 - b. In case the new option price and new option quantity are missing, then Eurex EnLight will verify the deal split for the initially agreed deal price and quantity.
 - c. Finally, Eurex EnLight will generate the new deal (or split deals) with new deal ID(s), deal status *Final*, and notify the counterparties about deal finalization.
10. In case the requester wants to reject the deal, the following possibilities will be applied:
 - a. The requester will be able to reject a deal as long as it is in the status *Pending* or the deal can become expired due to a time out.
 - b. The requester will not be able to reject a deal if it is in *Working* or *Final*.
 - c. The requester will not be able to close the RfQ session as long as the deal is in *Working*.

3.1.2 Various Enhancements

With the production launch of T7 Release 7.1, the following enhancements will be introduced for Eurex EnLight:

- **Support of complex instruments in the T7 Trader GUI**
The T7 Trader GUI will support the requester in creating complex instruments directly via a *Publish Strategy* button in the *Request Details* screen.
- **Two new feedback alternatives for Market Maker**
Currently, after the requester sends the *RfQ* message, the respondent has the possibility to provide quotes in response or not to respond at all. In future, the respondent will have the possibility to react:
 - *Working* – Communicate the intention to send a quote, yet time for calculating is needed.
 - *Decline* – Communicate the intention not to send a quote.If a respondent sends “Working” or “Decline” after he sent a quote, this quote is deleted. The “Working” is not related to the working delta workflow.
- **Introduction of Free Text Field for Eurex EnLight**
To allow more flexibility and communication outside the T7 GUI, all Eurex EnLight related order, quote and deal messages will contain a new free text field of length 132 characters (*FreeText5*). The new text field will also be reflected in the reports.
- **Enhancement in the T7 Trader GUI Order Entry Mask**
The user will have the possibility to transfer the data in the *Order Entry* screen directly to Eurex EnLight via a “*Add Eurex EnLight*” button. All relevant product and client information will be pre-filled in the Eurex EnLight *Order Entry* mask.
- **Display of Minimum Block Trade Size**
To simplify the user workflow, the Eurex EnLight Minimum Block Trade Size (*MBTS*) will be displayed to the requester and respondent in all relevant Eurex EnLight screens and as well as in the Deal Entry mask.
- **New TES Type “ENLIGHT”**
A new TES type explicitly used for off-book trades created by Eurex EnLight will be introduced and denoted as “ENLIGHT”. The new TES type will support a minimum quantity threshold which is assumed to be equal to or lower than the minimum quantity threshold of the TES type “block”. The TES type “ENLIGHT” will also supporting multi-lateral off-book trades with up to 10 different counterparties. The non-disclosure quantity threshold of TES type “ENLIGHT” is assumed to be identical to the TES type “block”. The configuration details of the new TES type can be found in the TES profile table published on the Eurex web page.
The new TES type “ENLIGHT” will be available immediately after the launch of T7 Release 7.1.
- **Deal Aggregation**
The requester can aggregate multiple finalized deals in the context of the same negotiation, same counterparty, and same price. A partial deal aggregation will not be possible, meaning that the requester has to use the complete aggregated deal quantity in the TES request (entry, modification) arising out of Eurex EnLight deals.
- **TES Type Eligibility**
 - Currently, the ability to use EnLight is controlled by the assignment of the TES Type Eligibility “BLOCK”. This will be changed to “ENLIGHT” with the T7 Release 7.1.
 - Initial setup/migration: All users currently having the TES Type Eligibility “BLOCK” assigned will automatically get assigned the TES Type Eligibility “ENLIGHT”. This ensures that all users can use the new functionality from day 1 onwards.

3.2 Impact on Interfaces

The following chapter outlines the changes to the ETI interface, GUIs, and reports. 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 following will apply for the T7 ETI interface:

- Incorporation of *FreeText5* field in all Eurex EnLight related order, quote and deal requests and messages
- New ETI message "*QuoteStatusRequest*" to set the state to *Decline* or *Working*
- Enhancement of Quotes Notification by the new states of *Decline* and *Working*
- New text field *FreeText5* in Open Negotiation Event transaction, Update Negotiation Event transaction, SRQS Quote Entry transaction (request + SRQS Quote notification), SRQS Hit Quote transaction (request + SRQS create deal notification)
- New valid value "EnLight triggered trade" (1006) for the *TrdType* (828)

3.2.2 GUI

The following applies for the T7 Trader GUI:

- Enhancement of *Request Details* screen by *Publish Strategy* button
- Enhancement of Acknowledgment Status by *Working* and *Decline*
- Enhancement of Eurex EnLight *Deal Entry* mask to display the MBTS
- Enhancement of *Order Entry* mask to start a new Eurex EnLight request
- Enhancement of T7 Trader GUI workflow to register off-book trades resulting from EnLight to automatically considering the new TES type "EnLight"

3.2.3 Reports

The following reports will be enhanced with T7 Release 7.1:

- Incorporation of the *FreeText5* field in Eurex EnLight reports TE600/TE610 (Maintenance/Best Execution Summary)
- New Liquidity Provider reports TD963 (Daily Eurex EnLight RFQ Fulfillment) and TD964 (Eurex EnLight Performance)
- Adaptation of billing report CB169 (MM Fee Refund)

As announced in Eurex Circular 022/19, a new Liquidity Provider Building Block "EnLight" (Eurex EnLight Building Block, EBB) has been introduced on 02 May 2019. These reports complement the two Liquidity Provider reports TD961 (Daily Eurex EnLight LP Performance) and TD962 (MTD Eurex EnLight LP Performance) which were introduced in the Release 7 Report Reference Manual. Report TD963 contains additional information on the fulfilment of each EnLight RFQ that is received by a Liquidity Provider. Report TD964 (MTD Eurex EnLight Performance) contains MTD fulfilment information on the EBB fulfilment, including the respective thresholds that are valid per day, per Liquidity Provider and per total market.

Please note that the billing report CB169 "MM Fee Refund" will be renamed into "LP Rebates". The report will be amended by the Eurex EnLight Building Block, including the Liquidity Provider rebate for that Building Block. The adapted CB169 report will be available in production by the beginning of June 2019.

4. Inter Product Spread for Fixed Income Futures

4.1 Functional Description

Eurex is planning to introduce Inter-Product Spreads (IPS) for Fixed Income Futures in Q3 2019.

- The proposed range of IPS will provide investors with:
 - A capital efficient hedge against a parallel shift of the yield curve
 - Direct exposure to changes in the flatness and steepness of the yield curve
 - The ability to trade the spread between different government bond futures without legging risk
- Inter-product spreads will be quoted and traded in price terms in a separate order book. Implied matching will not be supported.
- The initial set of IPS instruments will include the following pairs of leg products
 - FGBL / FGBX,
 - FGBL / FBTP
 - FGBS / FBTS
- The leg ratios of Fixed Income inter-product spreads aim at DV01 neutrality of the spread and, consequently, might be different from 1.
- Fixed Income inter-product spreads are set up by the exchange. Participants will not be able to create user defined inter-product spreads.
- Trading of IPS will be enabled for on-book trading only, but not for TES trading.

4.2 Impact on Interfaces

The information about the available inter-product spread instruments will be published via RDI with the Product Snapshot and Instrument Snapshot messages.

The Product Snapshot messages will include the product pool information. A product pool contains IPS instruments which have the same leg products.

The instrument snapshot messages will provide the information about the individual inter-product spread instruments (leg ratios, leg sides).

5. New Option Volatility Strategies and Standard Option Strategies

To further extend the current use of Standard Option Strategies and Option Volatility Strategies, Eurex will introduce new strategies with T7 Release 7.1. Based on several member inquiries, new ratios and spread strategies will be introduced. A complete list of the new strategies can be found in the Appendix of this document.

For a detailed view on how these strategies are defined, please refer to the respective trading parameters for each individual *InstrumentSubTypeID* that can be found at our Eurex website.

Impact on EOBI

In the course of this change, EOBI will be enhanced to include the leg price information in the *InstrmtLegGrp* for the underlying leg of the options volatility strategy.

6. Gateway Changes

6.1 Removal of Connection Gateways

As announced in the Release Notes for T7 Release 7.0, to simplify the ETI session logon process, the connection to the T7 trading system via the primary and secondary Connection Gateways (CWGs) will no longer be possible at all with the production launch of T7 Release 7.1.

Participants can either directly logon to the active (Partition-Specific) PS gateway for High Frequency (HF) sessions or to any of the Low Frequency (LF) and HF trading gateways for LF sessions. The IP addresses of the active/standby PS gateways and the LF trading gateways are provided in the N7 Network Access Guide available via the Eurex website.

In an attempt to maintain a uniform distribution of sessions across gateways, recommended trading gateways will continue to be assigned to a session. The recommended trading gateways for a session can be seen via the member portal in the fields "Connection Gateway 1" and "Connection Gateway 2".

Participants currently using ETI 6.1 backwards compatibility for T7 Release 7.0 must upgrade their applications to use the ETI 7.0 respectively ETI 7.1 interface layouts.

6.2 Introduction of FIX Gateway for FX Markets

With the launch of Release 7.1, Eurex will support a FIX gateway for the T7 / FX trading platform hosting the Eurex FX markets. Trading Participants will be able to use the full FIX message layout for trading in FX products. This also includes the creation of drop copies (trade confirmations) for Clearing Members.

6.3 Removal of Dual-Gateway Solution for T7-FX

In order to reduce the complexity on the participant side active in FX products on the T7-FX trading system, Eurex will replace the existing dual-gateway solution with the Passive Liquidity Protection (PLP).

With this change, Eurex Exchange only replaces a hardware-based solution with a software-based solution, but does not intend to change the overall FX market structure. The deferral time remains at the current level. The introduction will take place together with T7 Release 7.1 on 27 May 2019.

Please refer also to Eurex Circular 042/19 on the Eurex website.

7. Other Functional Enhancements

7.1 Sequence of Messages in EOBI

The Enhanced Order Book Interface (EOBI) provides order book information without any depth limitation. To support latency sensitive EOBI users in faster decision making, the EOBI feed will be enhanced to report aggressive side changes first, i.e. before matching information. The following examples outline the change:

1. Modifying a resting SELL order to match results in an EOBI message order:
 - Current implementation in EOBI:
ExecutionSummary - FullOrderExecution - OrderDelete
 - With T7 Release 7.1
*ExecutionSummary - **OrderDelete** - FullOrderExecution*
2. Modifying a resting BUY order to match results in an EOBI message order (*no change*):
 - Current implementation in EOBI will remain as it is:
*ExecutionSummary - **OrderDelete** - FullOrderExecution*

7.2 Segment MIC in (TES) Trade Notification

With the T7 Release 7.1 introduction, the current segment MIC will be provided newly in the (TES) trade notifications.

7.3 TES Price Step Tables in RDI/RDF

Currently, price step tables in the RDI/RDF refer to on-book trading only. With T7 Release 7.1, the RDI/RDF will be enhanced by a new field in the instrument snapshot to include the price step table for TES as well.

7.4 Good-Till-Cancelled only for Persistent Orders

With production launch, T7 will support the validity of Good-Till-Cancelled (GTC) only for persistent orders. Non-persistent orders with validity GTC entered before production launch, will remain and will not be removed by the T7 Release 7.1 introduction.

7.5 Outstanding Login Requests per BU/Session

The max number of outstanding logins per BU/session will be enforced with T7 Release 7.1. For more details, please refer to the "Incident Handling Guides" published on the website.

7.6 Additional Trade Replay Cycle

An additional "Trade Replay Cycle" via EMDS, to cover Eurex Exchange's trading hours extension, will be provided at 08:10 am CET following the introduction with Release 7.1.

7.7 T7 GUI Launch Mechanism

In response to Oracle's Java SE Support Roadmap, Deutsche Börse will offer a customized seamless solution to start and automatically receive updates of the T7 GUIs named "T7 GUI Launcher" as a Java Web Start replacement. Deutsche Börse intends the deployment of a Java SE 8 Runtime Environment without additional Java license charges to be used exclusively with the T7 GUI applications. Both will become available during the course of the T7 Release 7.1 simulation phase. Please see the following webpages for details:

<https://www.eurexchange.com/exchange-en/resources/initiatives/technical-changes/t7-gui-launcher>.

8. Appendix

Complete list of newly available Standard Option Strategies:

Instrument_type	instrument_sub_type_id	description	name	long_description
STANDARD_OPTION_STRATEGY	33	Put Spread versus Put	BER-P	Buy Put, sell Put at lower exercise price, sell Put at any exercise price
STANDARD_OPTION_STRATEGY	34	Call Calendar 2x1 Ratio	BLT12	Sell 2 Calls near month, buy Call at same exercise price in far month
STANDARD_OPTION_STRATEGY	35	Put Calendar 2x1 Ratio	BRT12	Sell 2 Puts near month, buy Put at same exercise price in far month
STANDARD_OPTION_STRATEGY	36	Call Spread versus Call	BUL-C	Buy Call, sell Call at higher exercise price, buy Call at any exercise price
STANDARD_OPTION_STRATEGY	37	Call Spread versus Put Spread	BULBR	Buy Call, sell Call at a higher exercise price, sell any Put, buy Put at a lower exercise price than 3rd leg
STANDARD_OPTION_STRATEGY	38	Ratio Risky	RTRIS	Sell Put, buy two Calls at a higher exercise price
STANDARD_OPTION_STRATEGY	39	Risky Time Spread	RTSP	Sell Put near month, buy Call at a higher exercise price in far month
STANDARD_OPTION_STRATEGY	40	Call Calendar Fly	BLTF	Buy Call near month, sell two Calls in far month, buy Call in further month
STANDARD_OPTION_STRATEGY	41	Iron Condor	ICOND	Sell a Put, buy a Put at higher exercise price, buy a Call at higher exercise price than 2nd leg, sell a Call at a higher exercise price than 3rd leg
STANDARD_OPTION_STRATEGY	42	Put Calendar Fly	BRTF	Buy Put near month, sell two Puts in far month, buy Put in further month
STANDARD_OPTION_STRATEGY	43	Strangle Spread	STGS	Sell Put, sell Call at higher exercise price in near month, buy Put in far month, buy Call in far month at a higher exercise price than 3rd leg
STANDARD_OPTION_STRATEGY	44	Straddle versus Strangle	STD-G	Buy Call and Put at same exercise price in near month, sell any Put and sell Call at higher exercise price in far month

Complete list of newly available Option Volatility Strategies:

Instrument_type	instrument_sub_type_id	description	name	long_description
OPTION_VOLATILITY_STRATEGY	37	Call Calendar Fly versus Long Underlying	BLTF+U	Buy Call near month, sell two Calls in far month, buy Call in further month, buy Underlying
OPTION_VOLATILITY_STRATEGY	38	Call Calendar Fly versus Short Underlying	BLTF-U	Buy Call near month, sell two Calls in far month, buy Call in further month, sell Underlying
OPTION_VOLATILITY_STRATEGY	39	Call Calendar 2x1 Ratio versus Long Underlying	BLT12+U	Sell 2 Calls near month, buy Call at same exercise price in far month, buy underlying
OPTION_VOLATILITY_STRATEGY	40	Call Calendar 2x1 Ratio versus Short Underlying	BLT12-U	Sell 2 Calls near month, buy Call at same exercise price in far month, sell underlying
OPTION_VOLATILITY_STRATEGY	41	Call Spread versus Call/Long Underlying	BUL-C+U	Buy Call, sell Call at higher exercise price, buy Call at any exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	42	Call Spread versus Call/Short Underlying	BUL-C-U	Buy Call, sell Call at higher exercise price, buy Call at any exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	43	Call Spread versus Put Spread/Long Underlying	BULBR+U	Buy Call, sell Call at a higher exercise price, sell any Put, buy Put at a lower exercise price than 3rd leg, buy underlying
OPTION_VOLATILITY_STRATEGY	44	Call Spread versus Put Spread/Short Underlying	BULBR-U	Buy Call, sell Call at a higher exercise price, sell any Put, buy Put at a lower exercise price than 3rd leg, sell underlying
OPTION_VOLATILITY_STRATEGY	45	Iron Condor versus Long Underlying	ICOND+U	Sell a Put, buy a Put at higher exercise price, buy a Call at higher exercise price than 2nd leg, sell a Call at a higher exercise price than 3rd leg, buy Underlying
OPTION_VOLATILITY_STRATEGY	46	Iron Condor versus Short Underlying	ICOND-U	Sell a Put, buy a Put at higher exercise price, buy a Call at higher exercise price than 2nd leg, sell a Call at a higher exercise price than 3rd leg, sell Underlying
OPTION_VOLATILITY_STRATEGY	47	Put Calendar Fly versus Long Underlying	BRTF+U	Buy Put near month, sell two Puts in far month, buy Put in further month, buy Underlying
OPTION_VOLATILITY_STRATEGY	48	Put Calendar Fly versus Short Underlying	BRTF-U	Buy Put near month, sell two Puts in far month, buy Put in further month, sell Underlying
OPTION_VOLATILITY_STRATEGY	49	Put Calendar 2x1 Ratio versus Long Underlying	BRT12+U	Sell 2 Puts near month, buy Put at same exercise price in far month, buy underlying
OPTION_VOLATILITY_STRATEGY	50	Put Calendar 2x1 Ratio versus Short Underlying	BRT12-U	Sell 2 Puts near month, buy Put at same exercise price in far month, sell underlying
OPTION_VOLATILITY_STRATEGY	51	Put Spread versus Put/Long Underlying	BER-P+U	Buy Put, sell Put at lower exercise price, sell Put at any exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	52	Put Spread versus Put/Short Underlying	BER-P-U	Buy Put, sell Put at lower exercise price, sell Put at any exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	53	Ratio Risky versus Long Underlying	RTRIS+U	Sell Put, buy two Calls at a higher exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	54	Ratio Risky versus Short Underlying	RTRIS-U	Sell Put, buy two Calls at a higher exercise price, sell Underlying

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OPTION_VOLATILITY_STRATEGY	55	Risky Time Spread versus Long Underlying	RTSP+U	Sell Put near month, buy Call at a higher exercise price in far month, buy Underlying
OPTION_VOLATILITY_STRATEGY	56	Risky Time Spread versus Short Underlying	RTSP-U	Sell Put near month, buy Call at a higher exercise price in far month, sell Underlying
OPTION_VOLATILITY_STRATEGY	57	Straddle versus Strangle/Long Underlying	STD-G+U	Buy Call and Put at same exercise price in near month, sell any Put and sell Call at higher exercise price in far month, buy Underlying
OPTION_VOLATILITY_STRATEGY	58	Straddle versus Strangle/Short Underlying	STD-G-U	Buy Call and Put at same exercise price in near month, sell any Put and sell Call at higher exercise price in far month, sell Underlying
OPTION_VOLATILITY_STRATEGY	59	Strangle Spread versus Long Underlying	STGS+U	Sell Put, sell Call at higher exercise price, buy Put in far month, buy Call in far month at a higher exercise price than 3rd leg, buy Underlying
OPTION_VOLATILITY_STRATEGY	60	Strangle Spread versus Short Underlying	STGS-U	Sell Put, sell Call at higher exercise price, buy Put in far month, buy Call in far month at a higher exercise price than 3rd leg, sell Underlying
OPTION_VOLATILITY_STRATEGY	61	Straddle versus Call versus long Underlying	STD-C+U	Buy Call, buy Put at same exercise price, sell Call at different exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	62	Straddle versus Call versus short Underlying	STD-C-U	Buy Call, buy Put at same exercise price, sell Call at different exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	63	Straddle versus Put versus long Underlying	STD-P+U	Buy Call, buy Put at same exercise price, sell Put at different exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	64	Straddle versus Put versus short Underlying	STD-P-U	Buy Call, buy Put at same exercise price, sell Put at different exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	65	Skinny Call Butterfly versus long Underlying	CBUS+U	Buy Call, sell Call at higher exercise price, buy Call at even higher exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	66	Skinny Call Butterfly versus short Underlying	CBUS-U	Buy Call, sell Call at higher exercise price, buy Call at even higher exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	67	Skinny Put Butterfly versus long Underlying	PBUS+U	Buy Put, sell Puts at higher exercise price, buy Put at even higher exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	68	Skinny Put Butterfly versus short Underlying	PBUS-U	Buy Put, sell Puts at higher exercise price, buy Put at even higher exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	69	Straddle Calendar Spread versus long Underlying	STDT+U	Sell Call and Put in near month, Buy Call and Put in far month, all at same exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	70	Straddle Calendar Spread versus short Underlying	STDT-U	Sell Call and Put in near month, Buy Call and Put in far month, all at same exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	71	Diagonal Straddle Calendar Spread versus long Underlying	DISTD+U	Sell Call and Put in near month, buy Call and Put at different exercise price in far month, buy Underlying
OPTION_VOLATILITY_STRATEGY	72	Diagonal Straddle Calendar Spread versus short Underlying	DISTD-U	Sell Call and Put in near month, buy Call and Put at different exercise price in far month, sell Underlying
OPTION_VOLATILITY_STRATEGY	73	3x1 Ratio Call Spread versus long Underlying	BU13+U	Sell Call, buy 3 Calls at higher exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	74	3x1 Ratio Call Spread versus short Underlying	BU13-U	Sell Call, buy 3 Calls at higher exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	75	Iron Butterfly versus long Underlying	IBUT+U	Sell Put, buy Put and Call at higher exercise price, sell Call at equally higher exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	76	Iron Butterfly versus short Underlying	IBUT-U	Sell Put, buy Put and Call at higher exercise price, sell Call at equally higher exercise price, sell Underlying
OPTION_VOLATILITY_STRATEGY	77	3x1 Ratio Put Spread versus long Underlying	BR13+U	Sell Put, buy 3 Puts at lower exercise price, buy Underlying
OPTION_VOLATILITY_STRATEGY	78	3x1 Ratio Put Spread versus short Underlying	BR13-U	Sell Put, buy 3 Puts at lower exercise price, sell Underlying