X-pand into the Future

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Recipients: All Trading Participants of Eurex Deutschland and Eurex Zürich and Vendors
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Eurex Exchange's T7: Introduction of Release 4.0 on 21 November 2016

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Content may be most important for:	**Attachments:**
➲ All departments	none

Summary:

Eurex Exchange is planning to launch T7 Release 4.0 of Eurex Exchange's T7 on **21 November 2016**. The simulation period for T7 Release 4.0 is currently planned to start on 23 September 2016.

This circular provides Trading Participants and Independent Software Vendors (ISVs) with an overview of the enhancements planned for T7 Release 4.0, including:

- Mandatory Java 8 Upgrade
- Migration of Eurex Trade Entry Services (TES) functionality from the Eurex Clearing Classic System to Eurex Exchange's T7 trading platform
- Enhancement of the Order Mass Cancellation Request
- Enhancement of Trading Functionality for Total Return Products
- Reports

Please note that the migration of the TES functionality to Eurex Exchange's T7 trading platform involves a comprehensive and non-backward compatible interface change. Those Eurex Participants who are currently using the FIXML interface for accessing the TES functionality will be required to migrate their applications to the ETI interface.

An implementation and communication schedule together with the T7 Release 4.0 milestones is also included in this circular.

Eurex Exchange's T7: Introduction of Release 4.0 on 21 November 2016

Eurex Exchange is planning to launch T7 Release 4.0 of Eurex Exchange's T7 on 21 November 2016. An overview of the release content is provided in this circular.

Eurex Exchange is committed to providing Participants and ISVs with information updates throughout the development of T7 Release 4.0 in order to support adequate planning and ensure a successful launch.

Eurex Exchange's T7 documentation currently available on the website www.eurexchange.com will be updated for T7 Release 4.0 and published well in advance of the launch. Please see the implementation and communication schedule in section 3.3.

To ensure effective information distribution, we kindly ask Participants to register contact persons in the Member Section on www.eurexchange.com.

1 Mandatory Java 8 upgrade

For T7 Release 4.0, installation of Java 8 (minimum: Version 1.8.0_73) for the Eurex T7 Trader GUI and Eurex T7 Admin GUI on the Participants' side is **mandatory**. Usage of the GUIs with older Java versions will not be possible. In the event that the correct Java version is not installed, the respective Eurex T7 Trader GUI and Eurex T7 Admin GUI will not start.

Please also be aware that Oracle ceased public availability of security fixes and upgrades for Java 7 as of April 2015.

2 Migration of Trade Entry Service (TES) functionality from the Eurex Clearing Classic System to Eurex Exchange's T7 trading platform

2.1 Overview

Eurex Trade Entry Services enable Trading Participants to enter off-book transactions in standardised and tailor-made (also denoted as flexible) contracts. With these services, Participants benefit from the customised trading in Eurex markets and the advantages of standardised clearing and settlement services provided by Eurex Clearing.

Trade Entry Services are currently supported by the Eurex Clearing Classic System. With T7 Release 4.0, the TES functionality will be migrated to Eurex Exchange's T7 trading platform which is already available for on-exchange trading. The migration will lead to a consolidation of the on-exchange and off-book trading activities in a single state-of-the-art trading platform on the one side and to a clearer separation of trading and clearing services on the other.

As a consequence of the migration of TES functionality from the Eurex Clearing Classic System to Eurex Exchange's T7 trading platform, Trading Participants and ISVs using the current FIXML interface for accessing the TES functionality need to take into account comprehensive and non-backward compatible interface changes (see also section 2.2 below). At the same time, Trading Participants focusing on the T7 Trader GUI will be less affected since conceptual changes of the TES functionality will be covered by the GUI convenience layer in order to provide similar TES GUI functionality as today.

The migration of TES functionality to the T7 platform will offer Eurex Trading Participants and ISVs the following benefits:

- Common trading as well as market and reference data interfaces for on-exchange and off-book derivatives trading
- Consolidated user management for on-exchange and off-book trading, hence there will be no need to maintain users separately on the Eurex Clearing Classic System
- Support of off-book trading of complex instruments that are already available for on-exchange trading such as:
  - Futures Calendar Spreads
  - Non-standard options strategies
  - Standard options and options volatility strategies currently only supported for on-exchange trading
  - Packs, Bundles and Strips for trading in STIRs products
- Support of off-book trading for variance futures

Please note that

- TES migration for EEX products will be performed at a later point in time
- Options Volatility Strategies for stock options which includes the stocks as underlying leg are not in the scope of the TES migration for T7 Release 4.0 and will be supported at a later point in time

2.2 Eurex TES interface landscape

Eurex Enhanced Trading Interface (Eurex ETI), the high performance trading interface supporting full access to the on-exchange trading functionality will be enhanced to support the Eurex Trade Entry Services (TES) on T7. Existing low frequency sessions present for on-exchange trading can also be used for Eurex TES transactions without any modifications. TES is not possible via high frequency sessions.

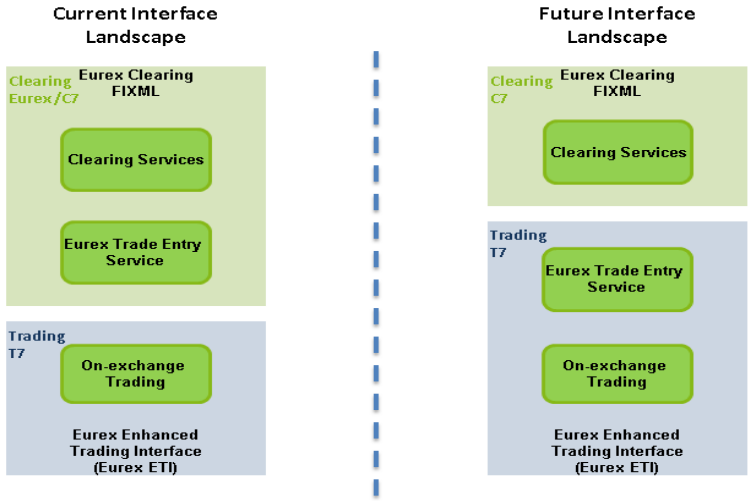


Figure 1: Interface landscape changes

Please note: As a result of moving the Eurex Trade Entry Services (TES) to T7, the Eurex Clearing FIXML Interface used primarily for Eurex Clearing services will no longer provide access to the TES functionality. With T7 Release 4.0 the **Eurex Trader GUI** will continue to support the T7 TES functionality.

Public Market Data Interfaces Eurex MDI and **Eurex EMDI** support TES by publishing off-book trades in real-time. The same product and instrument identifiers used for on-exchange trading are also used for off-book trades. TES trades are not supported by **Eurex EOBI** interface and will therefore be removed from the Eurex Extended Market Data Service.

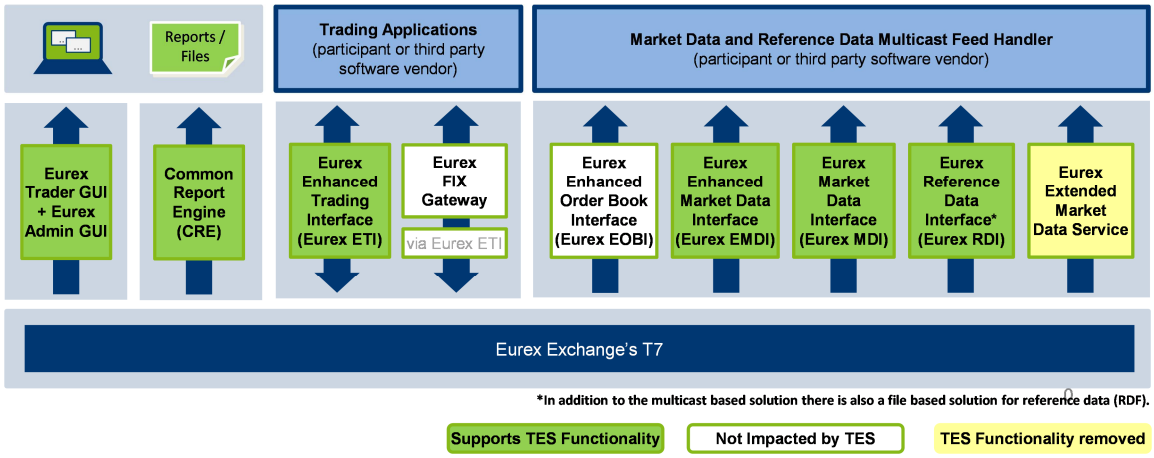


Figure 2: TES supported interfaces

Figure 1 and Figure 2 depict changes only for Eurex products; interface changes mentioned in this section are not applicable to EEX products.

2.3 Consolidation of TES and on-exchange functionality

The functional concepts for Eurex TES will be streamlined on T7 extending existing T7 concepts already applied for on-exchange trading.

2.3.1 Common instrument identifiers

The instrument identifiers source for on-exchange and off-book trades will be the same. Similar to on-exchange trading the instrument Id's of complex instrument for off-book trades have to be used for entering TES trades.

2.3.2 TES Types and instrument types

Eurex Trade Entry Services on T7 will support the following services referred as TES Types:

- Block Trade Service
- Exchange for Physicals (EFP) Fin which contains a cash reference to specific bonds
- Exchange for Physicals (EFP) Index which contains a cash reference to an equity basket
- Exchange for Swaps (EFS) which contains a cash reference to a swap contract
- Vola Trade Service which contains a reference to an options off-book (Block TES Trade) trade. On-exchange options trades are not allowed any longer to be used as reference for a Vola trade

The TES Types defined above are independent from the instrument types but will be made available for specific instrument types (e.g. block trades for simple instruments, futures calendar spreads, options volatility strategy).

Flexible Contracts are considered as a new instrument type ("flexible"). The current Flexible Contract service offered by Eurex Trade Entry Service will be available as TES Type "Block Trade" for instrument type "flexible".

2.3.3 TES roles and activity

TES roles are provided in T7 on business unit level to participants and, afterwards, the business unit administrator can provide the corresponding TES roles to a user belonging to that business unit similar to the roles assignment procedure in the on-exchange area. The following TES roles will be supported:

- TES Trader: A TES Trader must be involved in the TES trade as one of the counterparties and can Enter, Modify, Approve and Delete a TES trade.
- TES Broker: A TES Broker is not involved in the TES trade as counterparty and can Enter, Modify and Delete TES trades involving other TES Traders, but is not allowed to approve a TES trade.
- TES View: The TES View role will be assigned to Participants.

By default, each Eurex Participant will receive the TES Trader, TES Broker and TES Viewer role. However, the TES Broker role will only be supported for specific product – instrument type – TES type combinations.

The counterparty information will be provided on a more granular level as of today. With the migration to T7, the complete counterparty's User ID (eleven digits, e.g. ABCFR TRD 001) will have to be entered. Currently the Member ID and Subgroup of the user is supported (eight digits, e.g. ABCFR TRD).

2.4 Activation of TES Functionality in T7

To reduce the migration effort for Eurex Participants, the Eurex Trade Entry Service will be activated on T7 in a single step for all Eurex products. Activation of TES functionality on T7 is assumed to take place together with the launch of T7 Release 4.0 or shortly after and will be announced in a separate communication.

By default, Eurex Participants allowed for TES trading in Eurex Clearing Classic System will be enabled for TES Trading on Eurex T7 by assigning the respective roles, entitlement and the TES Transaction Size Limits on business unit level.

In addition, the entitlement, Transaction Size Limits and respective roles for TES users actively involved in TES trading will also be migrated. After the TES migration has taken place, participants will be required to validate the results of the migration process and, if necessary, to modify role assignments to meet their individual requirements. More details about the new entitlement structure and the migration approach will be published in separate documents ahead of the start of the simulation phase.

3 Other functional and technical enhancements

3.1 Enhancement of Order Mass Cancellation Request

With T7 Release 4.0 the Order Mass Cancellation Request on **Eurex ETI** and **Eurex FIX** interfaces will be enhanced to help Participants manage their open orders in the book more efficiently.

- Side and Price will be included to the filter criteria of the Order Mass Cancellation Request on both **Eurex ETI** and **Eurex FIX** interfaces
- Side and Price will also be included in Order Mass Cancellation Notification on both **Eurex ETI** and **Eurex FIX** interfaces
- Side and Price will also be included in the Order Mass Cancellation Response on **Eurex FIX** interface but the Order Mass Cancellation Response on **Eurex ETI** will not be changed.

Using a single Order Mass Cancellation Request with Side and Price as filters, Participants will be able to delete their multiple orders on either Buy or Sell Side of the order book until a particular price level. The request can only be sent for single instruments.

3.2 Enhancement of trading functionality for Total Return Products

To facilitate the introduction of Total Return Products on T7 both for on-book and off-book trading, Eurex intends to introduce further use of double price notation functionality. This functionality allows for the traded price in T7 (referred to as Trading Notation) – e.g., an interest rate spread – to be handled in a different format from the one used in C7. Operationally, the traded price is converted by T7 into a more standard format ("Clearing Notation") prior to forwarding to C7.

The aim is to allow products which would trade in spread terms, for example, where the traded spread could be in basis points (e.g. reflecting an annualised spread) and where this traded price may take positive, negative or zero values. However, the traded spread will be used in conjunction with an underlying price, such as an index or security, to calculate and determine a more standard clearing price which will only have a positive value, for example in index points or price terms – which will then be sent to the C7 system.

Such double price notation (Trading Notation vis-à-vis Clearing Notation) has previously been introduced for Variance Futures.

3.3 Reports

The following report changes are considered for T7 Release 4.0:

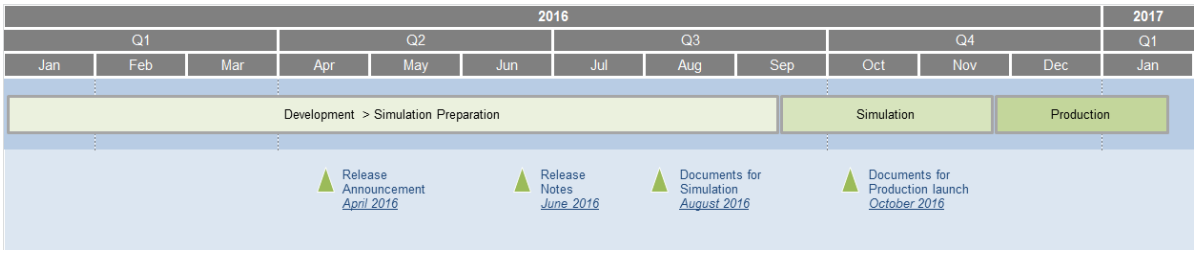
- TE545 – Daily TES Maintenance (new report)
- TE930 – Daily Trade Statistics (new report)
- TA113 – Complex Instrument Definition (modified report)
- TE910 – Daily Trade Activity (modified report)
- TE810 – T7 Daily Trade Confirmation (modified report)
- TC811 – Variance Futures Trade (deleted report)

Please note that additional new, modified or deleted reports not mentioned above might be affecting T7 Release 4.0.

4 Implementation and communication schedule

The production launch of T7 Release 4.0 of Eurex Exchange´s T7 is currently planned for 21 November 2016.

The following diagram gives an overview of the introduction schedule:



Eurex Exchange will provide a dedicated simulation environment in order to give Trading Participants the opportunity to perform comprehensive testing of their trading applications, independent from Eurex Exchange's production environment. The simulation period for T7 Release 4.0 is currently planned to start on 23 September 2016.

In June 2016, Eurex Exchange will publish detailed release notes listing all functional and technical enhancements that will be available in T7 Release 4.0.

The following existing documents will be revised for T7 Release 4.0. Preliminary versions (identified by ◆) will be published in June 2016 and final versions (identified by ●) will be published in September and October 2016 prior to the production launch.

Further support for the development of TES software is provided by the publication of ETI Header Files, Message Flows and Repositories as preliminary versions in June 2016.

Eurex Exchange's T7	Q2/2016			Q3/2016			Q4/2016		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Release Notes									
Eurex Exchange's T7 Release Notes			◆			●			
Simulation									
Participant Simulation Guide						●			
Overview and functionality									
Functional and Interface Overview					●				
Functional Reference						●			
Participant and User Maintenance Manual							●		
Eurex GUI solutions									
Eurex Trader and Admin GUI – Manual						◆	●		
Eurex Trader and Admin GUI – Installation Manual						◆	●		
Trading interfaces									
Eurex Enhanced Trading Interface – Manual					◆		●		
Eurex Enhanced Trading Interface – XML Representation					◆		●		
Eurex FIX Gateway – FIX 4.2 and 4.4 Manual					◆		●		
Eurex FIX Gateway – FIXimate FIX 4.2 and 4.4					◆		●		
Eurex FIX Gateway – FPL Repository					◆		●		
Market and reference data interfaces									
Eurex Market + Reference Data Interfaces, Manual					◆		●		
Eurex Market + Reference Data Interfaces, FAST Templates					◆		●		
Eurex Reference Data File – FIXML Schema Files					◆		●		
Eurex Extended Market Data Services – Manual					◆		●		
Eurex Extended Market Data Interfaces, FAST Templates					◆		●		
Eurex Enhanced Order Book Interface – Manual					◆		●		
Eurex reports									
Eurex XML Reports – Reference Manual						◆	●		
Network access									
Eurex Network Access Manual					◆		●		

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

Technology > Eurex Exchange's T7 > System documentation > Release 4.0

Please note that dates are preliminary and subject to change.

5 Contacts

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

19 April 2016