X-pand into the Future

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Eurex Exchange's T7: Introduction of release 2.1 on 12 May 2014

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

Summary:

Eurex Exchange is planning to launch T7 Release 2.1 on **12 May 2014**.

This circular provides Exchange Participants and Independent Software Vendors (ISVs) with an overview of the enhancements planned for release 2.1, including:

- Technical and functional enhancements for the launch of variance futures,
- Introduction of the Eurex/TAIFEX Link,
- Non-backward compatible improvements to trade volume reporting,
- Other smaller functional and technical enhancements.

An implementation and communication schedule together with the release 2.1 milestones is also included in this circular.

Eurex Exchange's T7: Introduction of release 2.1 on 12 May 2014

Eurex Exchange is planning to launch T7 Release 2.1 on 12 May 2014. An overview of the release content is provided in this circular.

Eurex Exchange is committed to providing Participants with information updates throughout the development of release 2.1 in order to support adequate planning and to ensure a successful launch. Eurex Exchange's T7 documentation currently available on the website www.eurexchange.com will be updated for release 2.1 and published well in advance of the launch. Please see the implementation and communication schedule in section 2 of this circular.

To ensure effective information distribution, we kindly ask Participants to register contact persons for T7 Release 2.1 in the Member Section on the Eurex website, which will be possible from 15 February 2014 onwards.

1 Functional and technical enhancements

Release 2.1 of Eurex Exchange's T7 will include important enhancements, such as:

- Support of trading of variance futures
- Support of trading of the Eurex TAIFEX Products
- Mandatory improvements to trade volume reporting in the market data interfaces

Additionally, some smaller functional and technical improvements will be implemented.

1.1 Major enhancements

1.1.1 Variance futures

Variance futures on equity indexes represent a new asset class of Eurex Exchange and will be supported with T7 Release 2.1. A variance future enables Participants to hedge risks associated with the movement (variance) of the corresponding underlying equity index.

Trading of variance futures on T7 will be done in the trading notation "volatility" and "notional vega" (σ, v) where all order and quote maintenance activities are based on the volatility strike σ as order or quote limit price and on the vega notional v as order or quote quantity.

Matching will also be performed in the (σ, v) trading notation. Once a match occurs, the matched volatility and vega values (σ, v) are converted immediately afterwards into a clearing notation (P_t, Q_t) representing the clearing price P_t and the clearing quantity Q_t of the match. The conversion from the trading into the clearing notation depends on the business day t of the life time of the corresponding variance futures instrument ($t = 0$ denotes its first trading day, $t = 1$ is the second trading day, etc.). As an example to illustrate the dependency of the conversion on the futures life cycle, the clearing quantity Q_{t_1} converted at the beginning of the life time t_1 of a variance futures instrument is smaller than the clearing quantity Q_{t_2} converted at the end of the life time t_2 for the same matched volatility-vega values (σ, v) (i.e. $Q_{t_1}(v) < Q_{t_2}(v)$ for $t_1 < t_2$) representing the vega decay during the life time of a variance futures instrument.

Since the conversion from the (σ, v)-trading to the (P_t, Q_t)-clearing notation also depends on the daily underlying equity index closing price which is only available after the trading session of business day t is terminated, the conversion immediately performed after each (σ, v)-match results to a preliminary clearing price $\widetilde{P_t}$ which is replaced by a final clearing price P_t after the trading session was terminated and the underlying equity index closing price was published.

The accumulated daily variation margin payments in the clearing notation resulting from a variance futures position reproduce the cash flow of an OTC variance swap whose contract period is identical to the holding time of the futures position. Thus, the clearing notation ensures a variation margin flow which is reproducing

the cash flow of an OTC variance swap, while the trading notation is based on the common volatility-vega representation also used in the OTC variance swap market for price discovery.

The conversion from the trading into the clearing notation is based on a standard variance which stays constant during the whole lifetime of the variance futures instrument and which represents the observed variance of the underlying equity index prevailing at the end of the first trading day of the corresponding variance futures instrument. The standard variance determined by Eurex Exchange may be interpreted as the intrinsic value of the corresponding variance futures instrument, and the clearing price $\widetilde{P}_t$ or P_t involves the difference between the traded variance (which depends on the square of the matched volatilityσ) and the standard variance.

Interface changes related to the variance futures were already implemented and communicated in T7 Release 2.0, thus enabling an early start for the adaptations on the Participant's and Vendor's sides.

The related variance futures system functionality will be described in the document "Eurex Exchange's T7 Functional Reference". A preliminary version will be published in January 2014, the final version will follow in April 2014.

1.1.2 Eurex/TAIFEX link

Eurex Exchange and Taiwan Futures Exchange (TAIFEX) will introduce extended trading hours for the Taiwanese futures and options products by establishing a clearing link between the two markets. Eurex Exchange will list daily futures contracts on TAIEX futures and options. The Eurex TAIFEX Products will expire daily into obligations to deliver the corresponding futures/options positions into the TAIFEX market, following the closing at Eurex Exchange, and prior to the market opening at TAIFEX.

With this cooperation, trading will be available after TAIFEX trading hours and during European and U.S.-American core trading hours. At the end of each trading day at Eurex Exchange, open interest will be transferred to the TAIFEX clearing house.

Eurex Exchange Participants intending to trade Eurex TAIFEX Products must establish a partnership with one or more TAIFEX members for trading and/or clearing purposes. When entering standard (persistent and non-persistent) and/or lean orders, Eurex Exchange Participants must specify the corresponding TAIFEX Member ID and Final Beneficiary. Interested Participants should contact their Key Account Manager for the necessary procedures and forms. A readiness guide will be published in February 2014 in advance of the launch of T7, Release 2.1.

Quotes and orders entered using the short message layout will be supported for Eurex TAIFEX Products using the T7 trade enrichment rules which have already been implemented with release 2.0.

Eurex Exchange's T7 Release 2.0 already prepared for the introduction of the Eurex/TAIFEX Link. Related products will be available for testing starting in release 2.1 simulation planned for March 2014.

The Eurex/TAIFEX Link functionality is described in the following documents:

- T7 2.1 Release Notes
- Functional and Interface Overview
- Functional Reference
- Eurex Trader and Admin GUI

The documents are available for download on the Eurex website www.eurexchange.com under the following link:

Technology > Eurex Exchange's T7 > System Documentation > Release 2.1

Production launch of the Eurex/TAIFEX Link is planned for 15 May 2014. Further details will be announced in time in separate Eurex circulars.

1.1.3 Trade volume reporting

Currently in T7, trade statistics are reported only in those instruments where matching takes place. As a consequence, for complex instruments directly matching against each other, only information pertaining to the complex instruments is available and no information about the leg instruments is provided.

For market data interfaces, starting with T7 Release 2.1, the traded size of leg instruments derived from a complex instrument match is also provided in an additional message. Note that the prices for the legs of directly matching complex instruments will not be provided.

Please refer to section 1.2.3 for the non-backwards compatible impact of this modification on the market data interfaces. Note that this change does not affect the Eurex EOBI.

1.2 Impact of T7 Release 2.1 on existing interfaces

1.2.1 Eurex Enhanced Trading Interface (Eurex ETI)

In the very rare event of massive processing delays, the matching engine will delete all non-persistent orders and quotes for the affected products. Then for a certain period of time all order management transactions (including persistent orders) will be rejected except order cancellations.

In Mass Cancellation Event (TemplateID 10308) a new valid value (111 - Product temporarily not tradable) is added to the field MassActionReason (tag 28721).

Furthermore, the already existing valid value (102 - Service temporarily not available) will be returned in field SessionRejectReason (tag 373) of Reject (message template id 10010).

IMPORTANT: Please note that the Release 2.1 of the Eurex ETI is backwards compatible according to the definition in the ETI Manual.

Eurex ETI support for variance futures and the Eurex/TAIFEX Link was already introduced in release 2.0.

A new internal feature will be introduced to protect Participants if there are problems that result in blocked gateways (no ETI heartbeating). If a Participant disconnects and then attempts to reconnect using a session that is already logged in, T7 will cancel all non-persistent orders and quotes belonging to that session.

1.2.2 Eurex FIX Gateway

The following enhancements to the Eurex FIX Gateway are included in T7 Release 2.1:

- New FIX message “PartyActionReport” to deliver risk control event messages (halt trading and re-instate),
- Obsolete fields will be removed from the FIX message MassDelete-Response (UExecInst and MassActionReason).
- New valid valid value "111" (Product temporarily not tradable) will be defined for the fix-field MassActionReason (tag 28721) in the message "UserOrderMassActionReport" (UBZ)

Eurex FIX Gateway support of variance futures and Eurex/TAIFEX Link was already introduced in T7 Release 2.0.

Please note: these interface changes are not backwards compatible.

1.2.3 Market and reference data interfaces

The Eurex Reference Data Interface (Eurex RDI/RDF), Eurex Enhanced Market Data Interface (Eurex EMDI) and Eurex Market Data Interface (Eurex MDI) were already adapted in T7 Release 2.0 to provide public market data for variance futures and Eurex TAIEFX Products.

For release 2.1, and each new release thereafter, the template IDs of the packet header for market and reference data will be increased. For additional information on template IDs, please refer to the document "Eurex Market & Reference Data Interfaces Manual" which is available for download on the Eurex website under the link:

Technology > Eurex Exchange's T7 > System Documentation > Release 2.1 > Market and Reference Data Interfaces

Please note: the following interface modifications described are not backwards compatible.:

- **Eurex RDI/RDF**

Instrument snapshot messages for instruments that have passed their last day of trading but have not expired yet (e.g. variance futures) will use an additional value "Inactive" for the field SecurityStatus.

- **Eurex EMDI/Eurex MDI**

Eurex EMDI and Eurex MDI will be enhanced in T7 Release 2.1 to implement improvements to the trade volume reporting (see 1.1.3). Depth Incremental messages providing the traded size of leg instruments involved in a complex instrument match will use an additional value "Volume only" for the field TradeCondition. There will be no further layout changes to the messages, other than the template IDs.

- **Eurex EOBI**

The Eurex EOBI will be enhanced in release 2.1 as follows:

- Transaction time-stamp to be added to order maintenance messages.
- Alternate (shorter) order modify message to be sent when order priority is not changed (e.g. decrease in quantity).
- Completion indicator to be provided per product instead of per entire snapshot.
- The ExecutionSummary message will be extended by a new field (RestingHiddenQty) that contains the quantity of matched invisible passive orders from the order book in the reported execution.Eurex Trader GUI and Eurex Admin GUI

The Eurex Trader GUI will be enhanced in release 2.1 by the following functional improvements:

- Suppport of variance futures
- Support of Eurex/TAIFEX link.

Please note: In release 2.1, the Eurex Admin GUI and Eurex Trader GUI will require Java 1.7.

1.2.4 Reports

Reports TE810 and TC810 were already implemented for variance futures with T7 Release 2.0.

In T7 Release 2.1, the following new reports will be introduced:

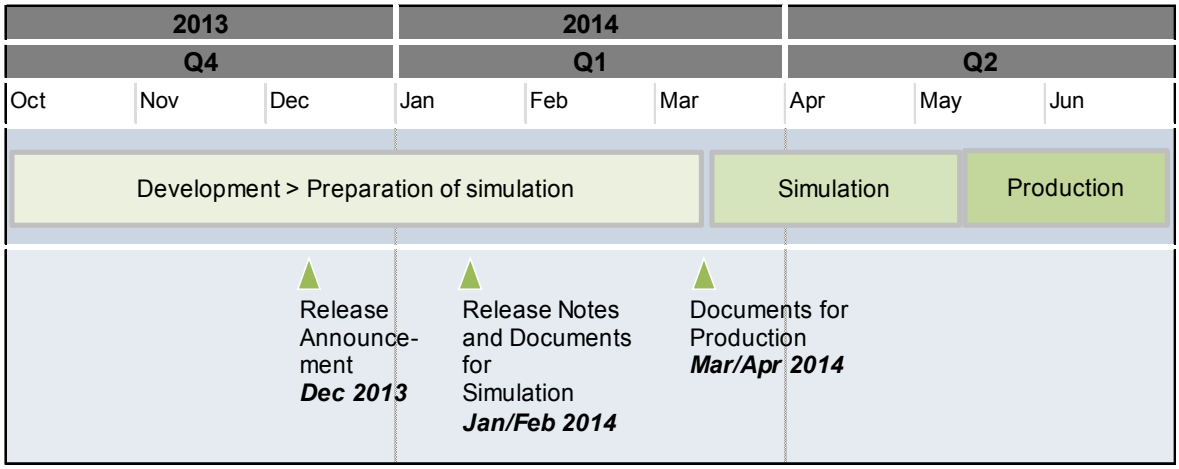
- TA114 Variance Futures Reference Data, providing information about conversion parameters used to transform the trading notation into the clearing notation.

- TC811 Variance Futures Trade Report, containing all on-exchange and OTC trades in both trading and final clearing notation.

2 Implementation and communication schedule

The production launch of Eurex Exchange's T7 Release 2.1 is currently planned for 12 May 2014.

The following figure provides an overview of the steps of the release introduction:



Eurex Exchange will provide a dedicated simulation environment, in order to give Participants and ISVs the opportunity to perform comprehensive testing of their trading applications, independent from Eurex Exchange's production environment. The simulation period for release 2.1 is currently planned to start on 12 March 2014.

In January 2014, Eurex Exchange will publish detailed release notes listing all of the functional and technical enhancements that will be available in release 2.1.

The following existing documents will be revised for release 2.1. Preliminary versions (flagged with ◆) will be published in January/February 2014, and final versions (flagged with ˜) will be published in March/April 2014:

Eurex Exchange's T7 Release 2.1	Q4 2013			Q1 2014			Q2 2014		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Release Notes									
Eurex Exchange´s T7 Release 2.1, Release Notes				◆			˜		
Simulation									
Member Simulation Guide						˜			
Overview and Functionality									
Funtional Reference				◆			˜		
Funtional and Interface Overview					◆		˜		
Eurex GUI Solutions									
Eurex Trader and Admin GUI – Manual						◆	˜		
Eurex Trader and Admin GUI - Installation Manual						◆	˜		
Trading Interfaces									
Eurex Enhanced Trading Interface					◆		˜		
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, XML FAST Templates				◆			˜		
Eurex Enhanced Order Book Interface - Manual				◆			˜		
Eurex Reports									
Eurex XML Reports - Reference Manual					◆		˜		

The documents will be available on the Eurex website under the link:

Technology > Eurex Exchange's T7 > System Documentation > Release 2.1

Please note that all interfaces need to be adapted.
Please note as well that the given dates are preliminary and are subject to change.

3 Contacts

If you have any questions or require further information, please contact your Key Account Manager via e-mail to: technology.roadmap@eurexchange.com.

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