

T7 Release 12.1

Final Release Notes Eurex

Version 1

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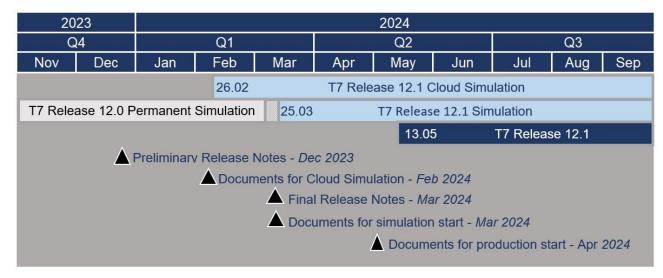
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1. Overview of T7 Release 12.1

Deutsche Börse AG is planning to launch T7 Release 12.1 on 13 May 2024.

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 12.1 is planned to start on 25 March 2024.

In addition, and prior to the T7 release simulation, Deutsche Börse AG offers a T7 Release 12.1 Cloud Simulation to allow trading participants and Independent Software Vendors (ISVs) to test the T7 Release 12.1 ETI, FIX LF interface changes, the T7 Trader GUI and T7 Admin GUI changes, as well as the RDI, MDI, EMDI and EOBI interface changes. The GUIs are accessible via the established VPN. In the Cloud Simulation, participants can initiate predefined market scenarios and test specific strategies more easily than in a shared environment. The Cloud Simulation is available around the clock for a fixed price per hour and started on 26 February 2024.

For more information on the T7 Cloud Simulation, please refer to https://www.eurex.com/ex-en/support/technology/t7-cloud-simulation.

1.1 New Features and Enhancements Overview

The following new features and enhancements will be introduced with or after T7 Release 12.1:

- Introduction of market-wide Self-Match Prevention
- Introduction of Non-Standard Options Volatility Strategies
- Volatility Interruption Enhancements
- Extension of Trading Hours for MSCI Index Total Return Futures
- Further Changes and Enhancements

With circular <u>98/2023</u> it was announced that MiFID II/MiFIR enhancements for the Short Code (SC) and Algo ID solution will be introduced with T7 Release 12.1. These enhancements will now be introduced at a later stage. Information about the new introduction schedule will be provided at a later point in time.

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Please note that the actual activation date of each new feature may differ from the release introduction date. The actual activation dates for features which will be activated at a later point in time will be communicated via a separate circular.

1.2 Notes on Interfaces

1.2.1 Backwards compatibility

T7 Release 12.1 will provide backwards compatibility for the T7 ETI / FIX interface version 12.0, 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 12.0, even after the production launch of T7 Release 12.1.

Public market and reference data interfaces, including EOBI, EMDI, MDI, RDI/RDF, as well as reports and data files, will not provide backwards compatibility.

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1.3 Further Reading

The existing documents have been or will be revised for T7 Release 12.1. The following table provides an overview of the schedule for the publication.

	sts			2023	Q	1/20)24	Q2/	2024
T7 Release 12.1	Derivatives Markets	Cash Markets	Combined	Dec	Jan	Feb	Mar	Apr	Мау
Preliminary Release Notes	Х	X		•					
Enhanced Trading Interfaces Manual, incl. XSD, XML Representation and Layouts			Х			*		•	
FIX LF Manual, incl. XSD, XML Representation and Layouts			X			•		•	
Market-, Enhanced Order Book- and Reference Data Interfaces Manual incl. XML Fast Templates & FIXML Schema Files			Х			*		•	
Trader, Admin and Clearer GUI – User Manual	Х	Х				\		•	
Final Release Notes	Х	Х					•		
Extended Market Data Services Manual & Underlying Ticker Data Manual incl. XML Fast Templates			Х				•	-	
XML Report Reference Manual, Modification Notes & XML Schema files			х				•		
Functional Reference			Х				•		
Functional and Interface Overview			Х				•		
Trader, Admin and Clearer GUI – Installation Manual			Х				•		
Participant and User Maintenance Manual	X	X					•		
Cross System Traceability			Х				•		
Incident Handling Guide			X				•		
Participant Simulation Guide			X				•		
T7 Known Limitations for Simulation			Х				•		
Cash Market Instrument Reference Data Guide		Χ					•		
Exchange Rules & Regulations		Χ						•	
Market Models		X						•	
T7 Known Limitations for Production			Х						•

◆ Version 1 ■ Version 2 (optional) ● Version 3 (optional)

Please note that the outlined schedule is subject to change.

The documents will be available on the Eurex Web site www.eurex.com under the menu path:

> Support > Initiatives & Releases > T7 Release 12.1

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1.4 Contacts

If you have questions or require further information, please contact us via e-mail to client.services@deutsche-boerse.com.

1.5 Definitions and Abbreviations

Term / Abbreviation	Description
DBAG	Deutsche Börse AG
EMDI	T7 Enhanced price level aggregated Market Data Interface
EOBI	T7 Enhanced Order Book Market Data Interface
ETI	T7 Enhanced Trading Interface
FIX LF	Financial Information eXchange (protocol) LF interface
GUI	Graphical User Interface
LC	Long Code
MDI	T7 netted price level aggregated Market Data Interface
NOS	Non-Standard Options Strategy
NOVS	Non-Standard Options Volatility Strategy
OVS	Options Volatility Strategy
RDF	T7 Reference Data File
RDI	T7 Reference Data Interface
SC	Short Code
SMP	Self-Match Prevention
SOS	Standard Options Strategy
T7	The trading architecture developed by Deutsche Börse Group
TES	T7 Entry Service
TRF	Total Return Futures

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2. Introduction of a market-wide Self-Match Prevention

With T7 Release 12.1, Eurex will introduce a mechanism for a market-wide Self-Match Prevention (SMP) of orders and quotes, based on the currently used SMP type "A".

2.1 Functional Description

2.1.1 Current Situation

The currently offered functionality of SMP type "A", as applied by Eurex, optionally allows to prevent certain orders or quotes for the same instrument from matching against each other during the instrument state *Continuous* in case these orders or quotes are sent by the same Trading Participant and tagged with the same SMP ID. The mechanism is also supported for cross- and pre-arranged trades.

With SMP type "A", it is not possible to share certain SMP IDs with other Trading Participants, i.e., for end clients trading via different entities.

2.1.2 Future Situation

With T7 Release 12.1, a new market-wide SMP functionality will be launched and will be offered optionally and in parallel with the existing SMP Type "A" functionality. Please note that when in the following orders are mentioned, the functionality also applies to quotes.

With the new functionality, Trading Participants will be able to create new unique, market-wide SMP IDs in T7. The market-wide SMP IDs will be stored and persisted in T7 for the lifetime of the market-wide SMP ID, given by the expiry date. Once successfully created, a market-wide SMP ID will become available for registration for other Trading Participants beginning on the same day, and for usage on the next business day. By selecting a dedicated new flag on the order layout while applying the market-wide SMP ID in the currently available field for the SMP ID, the market-wide SMP ID can be used on order entry or modification. Hence, for each order, a Trading Participant will be able to choose to use either the currently available functionality of SMP Type "A", or the new functionality of a market-wide SMP ID. It will not be possible to choose both.

The following information will have to be provided by the Trading Participants for the creation of a market-wide SMP ID:

Internal Description of market-wide SMP ID.

This information will be private to the creator, optional, format String.

E.g., the Customer number.

Beneficiary Owner of market-wide SMP ID.

This information will be public to all potential registrators, mandatory, format String. E.g., the Legal Entity Identifier.

Additional Information.

This information will be public to all potential registrators, mandatory, format String. E.g., the purpose or the depot number.

• Expiration date of market-wide SMP ID.

This information will be public, mandatory, format Date.

On creation, T7 will generate the following information:

Market-wide SMP ID. This information will be public, mandatory, format numeric.

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Once successfully created, a market-wide SMP ID will become available for registration for other Trading Participants beginning on the same day, and for usage on the next business day.

Other Trading Participants will be able to register to use the market-wide SMP ID created by another Trading Participant. For this, certain information of the market-wide SMP ID will have to be shared between the Trading Participants outside of T7. With this information, the Trading Participant who intends to use the same market-wide SMP ID, will be able to search and register for this ID via the Eurex Admin GUI.

Searching for a market-wide SMP ID will be possible via the Eurex Admin GUI and only by providing the following search information upfront:

- Market-wide SMP ID and Beneficiary Owner, or
- Market-wide SMP ID and Expiry.

After successfully registering for a market-wide SMP ID, the registered Trading Participants will be allowed to use this market-wide SMP ID, too, for their own orders. Orders sent by Trading Participants with a market-wide SMP ID, for which they did not register upfront, will be rejected.

Orders flagged with the same market-wide ID will be prevented from matching in the same instrument irrespective of whether the orders were sent by the same or by a different Trading Participant.

Via the Eurex Admin GUI, Trading Participants will be able to maintain their own market-wide SMP ID selection, be it self-created or registered from another Trading Participant, to be used to flag their own orders.

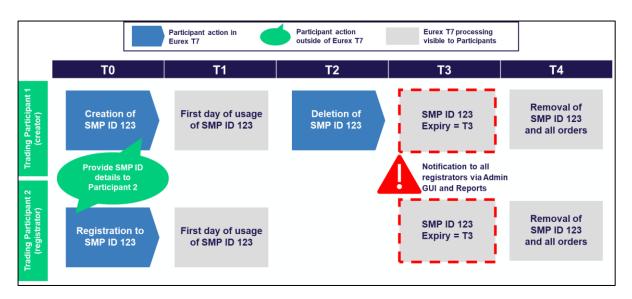


Figure 1: Exemplary lifecycle of a market-wide SMP ID: Pending active (T0) with Creation and possible Registration; Active (T1, T2, T3); and finally: Deletion (T2) Expiry (T3) and Removal (T4).

Creators of market-wide SMP IDs will be entitled to delete their own market-wide SMP IDs. When the deletion was entered on business day t, the expiry day (validity) will be set to t+1, and the removal day during the end-of-day rollover to t+2. The expiry day t+1 will be the last day of usage of a market-wide SMP ID.

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Any change concerning a market-wide SMP ID, especially the expiry date will be highlighted in the Admin GUI such that all administrators, either owning or only registered to this ID, will be able to notice whether this market-wide SMP ID will not be usable in the future. Daily T7 XML reports will be provided with information on SMP IDs about to expire, either registered or created. In case the creator of a market-wide SMP ID does not update the expiry date latest on the day of expiry, the ID will be removed from the system for the next business day. The orders and quotes in the order book with this about-to-expire market-wide SMP ID, either from the creator of the ID or from registered Trading Participants, will be deleted with the removal of the market-wide SMP ID during the end of day processing. Trading Participants will be able to change or remove market-wide SMP IDs from orders at any time to avoid that orders get deleted during the end of day processing.

The mechanism of preventing orders from matching with each other due to the market-wide SMP will follow the same logic as for SMP Type "A": Both the quantity of the incoming order and the quantity of the potentially matching resting order will be reduced, or will eventually be deleted instead. Trading Participants will receive an electronic notification whether a usual SMP Type "A" or a market-wide SMP action was performed. Via the generated transaction ID and product ID Trading Participants will be able to map the respective order sides involved in the SMP action.

The introduction of the new functionality is subject to changes in the rulebooks at Eurex.

2.2 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support the functionality. The changes are described in a general fashion to provide an indication of the upcoming amendments. For detailed changes, please refer to the interface manuals and to the *Online Help* in the GUIs.

2.2.1 ETI

The new flag indicating a market-wide SMP will be added to the following messages:

- New Order Single
- Replace Order Single
- New Order MultiLeg
- Replace Order MultiLeg
- Extended Order Information
- Mass Quote
- Enter CLIP Request

2.2.2 FIX LF

The new flag indicating a market-wide SMP will be added to the following messages:

- New Order Single
- New Order MultiLeg
- Order Cancel Replace Request
- Multileg Order Cancel Replace Request
- Execution Report
- Enter CLIP Request

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2.2.3 T7 Trader GUI

The following views will be updated:

- Order Entry / Orders / Order History views will be enhanced by the new market-wide SMP flag.
- Order entry view: Once the market-wide SMP flag will be chosen, all available market-wide SMP IDs, own or registered, will be displayed for the SMP ID field.

2.2.4 T7 Admin GUI

A new view for the maintenance of market-wide SMP IDs will be introduced. This new view will be split into two different views:

- the Market-wide SMP current view, and
- the Market-wide SMP preview view.

Via the *Market-wide SMP current* view, the Admin User will be able to see all market-wide SMP setup and active on the respective business day ready for usage. This view is just for status quo monitoring purpose only – meaning that only the already created and registered SMP IDs which are active for usage on the same business day are depicted.

Via the *Market-wide SMP preview* view, the Admin User can perform all creation, registration, and maintenance activities. In this view, a preview of the next business day's setup of the *Market-wide SMP current* view is provided incorporating all current day's maintenance activities. So, all current day creation, and registration activities will be displayed, and likewise, all deletion and de-registration activities entered will also be visible here.

Via the *Market-wide SMP preview* view, the Admin User can create a new market-wide SMP ID via the *Add* button. By entering the respective information required to register to an already created SMP ID in the search bar, it is possible to search for SMP ID from other Trading Participants in case information about this SMP ID have been shared.

2.2.5 T7 XML Reports

Two new XML reports will be introduced:

- RD230 Market-wide SMP ID Maintenance
- RD235 Market-wide SMP ID Status

The following existing XML reports will be modified:

- TE540 Daily Order Maintenance
- TE550 Open Order Detail
- TE812 Daily Prevented Self-Matches

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3. Introduction of Non-Standard Options Volatility Strategies

After the start of T7 Release 12.1, Eurex will introduce Non-Standard Options Volatility Strategies (NOVS) enabling Trading Participants to create and trade non-standard options strategies with a futures underlying leg to achieve delta-neutrality of such complex instruments.

3.1 Functional Description

3.1.1 Current Situation

Delta-neutral options strategies are supported by Eurex as options strategies with a corresponding futures leg representing the underlying. Currently, such delta-neutral options strategies are offered exclusively in the form of the instrument type Options Volatility Strategy (OVS). The options legs and the underlying futures leg of any OVS instrument must be composed in accordance with one of the preconfigured strategy templates for OVS. Examples of such preconfigured OVS templates are Call-U, Put+U, BUL-U (call spread versus short underlying), BER+U (put spread versus long underlying), STD+U (straddle versus long underlying).

Apart from the OVS template, the signature of an OVS instrument includes the price and the quantity of the underlying futures leg. Consequently, pricing and matching of OVS instruments are exclusively referring to its options part which is a standard options strategy (SOS) or a plain vanilla call or put option. The quantity of the underlying futures leg represents the delta of the options part to achieve delta-neutrality. Additionally, an options multiplier with valid values between 100 and 1000 needs to be specified affecting all options leg ratios in the same way and refers to the underlying futures quantity. The relationship between the options multiplier OptMult, the delta δ_{SOS} of the options part of an OVS instrument and the underlying futures quantity R_{OVS}^{undr} to achieve delta neutrality of the whole OVS instrument is given by

$$R_{OVS}^{undr} = |\delta_{SOS}| \cdot OptMult \cdot \frac{cV_{Opt}}{CV_{Fut}}$$
 (1)

where CV_{Opt} respectively CV_{Fut} denote the contract value of the options respectively futures product.

The delta δ_{SOS} of the Standard Options Strategy defining the options part of an Options Volatility Strategy instrument is given by

$$\delta_{SOS} = \sum_{i=1}^{n} BS_i \cdot \delta_i \cdot r_i^{SOS} \tag{2}$$

where the leg ratio r_i^{SOS} , i=1,...,n is taken from the strategy template of an OVS instrument with n options legs. BS_i , i=1,...,n denotes the buy/sell indicator of each options leg: It is $BS_i=1$ in case of a buy leg and $BS_i=-1$ in case of a sell leg.

Equation (1) might be denoted as delta-neutrality formula of OVS instruments.

Please note that the ratio $R_{OVS}^{undr}/OptMult$ is proportional to the delta $|\delta_{SOS}|$ of the options part of an OVS instrument. Consequently, the options multiplier determines the delta granularity. The higher the options multiplier OptMult and the higher the underlying leg R_{OVS}^{undr} , the more precise it will be possible to express the delta value of $|\delta_{SOS}|$.

As an example, the ratio 57/100 is identical to a delta of 57% representing a delta granularity of 1% and a ratio of 573/1000 is identical to a delta of 57.3% representing a delta granularity of 0.1%, provided that $CV_{Opt}/CV_{Fut}=1$.

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To summarize the handling of an OVS instrument, a trader who wants to create an OVS instrument needs to determine:

- the corresponding OVS strategy template,
- the underlying futures price and quantity R_{OVS}^{undr}
- and the options multiplier *OptMult*

to completely specify the signature of an OVS instrument.

Currently, Eurex supports Non-Standard Options Strategy (NOS) as a complex instrument which does not relate to preconfigured strategy templates, and which does not allow for an underlying leg. Therefore, a user will be able to freely define the signature of an NOS by specifying the buy/sell indicator and the leg ratio of each leg. In contrast to SOS, there are no strategy type templates for NOS that are defined by the exchange.

The exchange however defines per options product supporting NOS the following maximum upper limits:

- maximum for the number of legs (currently 6),
- maximum for the leg ratios (currently 99),
- maximum for how much the ratio of one leg may exceed the ratio of another leg of the same instrument (currently 4 times).

Apart from belonging to the same product, the leg instruments of a non-standard options strategy instrument must also have the same contract size and version number.

3.1.2 Future Situation

After the start of T7 Release 12.1, Eurex will introduce Non-Standard Options Volatility Strategies (NOVS) enabling Trading Participants to create and trade non-standard options strategies with a futures underlying leg to achieve delta-neutrality of such complex instruments. Compared to existing OVS which are based on pre-defined strategy templates, NOVS will provide more flexibility by allowing a non-standard options strategy not covered by a strategy template of OVS to be hedged by the corresponding futures underlying leg instrument. Therefore, NOVS can be seen as an extension of OVS supporting a broader range of delta-neutral trading strategies in different options markets at Eurex.

A NOVS instrument will consist of several options leg instruments from the same options product to which the strategy instrument itself belongs, and, additionally, of the underlying futures leg instrument.

As for OVS, pricing and matching of NOVS instruments will exclusively refer to its options part which will be a non-standard options strategy, and the price and quantity R_{OVS}^{undr} of the underlying futures leg will need to be included to the instrument signature analogously to OVS.

However, in contrast to OVS, there will be no options multiplier affecting all legs of the options part of a NOVS. Instead, each leg ratio R_i^{NOS} , i=1,...,n of the n options legs of a NOVS will be considered to provide a relationship between these options leg ratios R_i^{NOS} , i=1,...,n, the delta values δ_i , i=1,...,n of each options leg, and the underlying futures leg ratio R_{NOVS}^{undr} , in the following way.

$$R_{NOVS}^{undr} = \left| \sum_{i=1}^{n} BS_i \cdot \delta_i \cdot R_i^{NOS} \right| \cdot \frac{cV_{Opt}}{cV_{Fut}}$$
 (3)

where BS_i , i = 1, ..., n denotes the buy/sell indicator of each options leg and CV_{opt} and CV_{Fut} the contract value of the options respectively futures product.

Equation (3) might be denoted as *delta-neutrality formula* of NOVS instruments.

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To align with OVS, Equation (3) can be rewritten in the following way.

$$R_{NOVS}^{undr} = |\delta_{NOS}| \cdot \langle R_{NOS} \rangle \cdot \frac{cV_{Opt}}{cV_{Eut}}$$
 (4)

with the definition of the delta value δ_{NOS} of the options part of the NOVS given by

$$\delta_{NOS} = \frac{\langle \delta_{NOS} \cdot R_{NOS} \rangle}{\langle R_{NOS} \rangle} \tag{5}$$

where the mean leg ratio $\langle R_{NOS} \rangle$ and the mean delta-weighted leg ratio $\langle \delta_{NOS} \cdot R_{NOS} \rangle$ will be given by

$$\langle R_{NOS} \rangle = \frac{1}{n} \cdot \{ \sum_{i=1}^{n} R_i^{NOS} \}$$
 and $\langle \delta_{NOS} \cdot R_{NOS} \rangle = \sum_{i=1}^{n} BS_i \cdot \delta_i \cdot R_i^{NOS}$ (6)

For OVS, the options multiplier ensures a meaningful underlying futures quantity and controls the delta granularity of the options part. Similar arguments will hold for NOVS taking into account that each leg ratio R_i^{NOS} , $i=1,\ldots,n$ of the options part of a NOVS instrument will need to be inside a minimum leg quantity R_{min} and a maximum leg quantity R_{max} , which will be valid for all options legs of a NOVS instrument, i.e.

$$R_{min} \leq R_i^{NOS} \leq R_{max}$$
 for $i = 1, ..., n$

It is assumed that, initially, $R_{min} = 100$ and $R_{max} = 1000$ holds. The submission of a NOVS instrument not compliant with the minimum and maximum leg quantity will be rejected.

By introducing a delta tolerance denoted by $\delta_{NOS}^{tol} > 0$, the delta-neutrality formula of NOVS as expressed by Equation (4) will be used for a delta validation applied to NOVS instruments to ensure their inner consistency:

$$\left(\delta_{NOS}^{min} - \delta_{NOS}^{tol}\right) \cdot \frac{cV_{Opt}}{cV_{Fut}} \le \frac{R_{NOVS}^{undr}}{\langle R_{NOS} \rangle} \le \left(\delta_{NOS}^{max} + \delta_{NOS}^{tol}\right) \cdot \frac{cV_{Opt}}{cV_{Fut}} \tag{7}$$

The minimum and maximum delta values δ_{NOS}^{min} and δ_{NOS}^{max} will be given by

$$\delta_{NOS}^{min} = \sum_{i=1,BS_i=+1}^{n} \delta_i^{min} \cdot R_i^{NOS} - \sum_{i=1,BS_i=-1}^{n} \delta_i^{max} \cdot R_i^{NOS}$$

$$\delta_{NOS}^{max} = \sum_{i=1, BS_i = +1}^{n} \delta_i^{max} \cdot R_i^{NOS} - \sum_{i=1, BS_i = -1}^{n} \delta_i^{min} \cdot R_i^{NOS}$$

with leg-specific minimum and maximum delta values δ_i^{min} and δ_i^{max} , i=1,...,n, respectively, provided by Eurex.

In case a trader enters a NOVS instrument with an underlying futures leg quantity R_{NOVS}^{undr} , with a mean leg ratio $\langle R_{NOS} \rangle$, and with the minimum and maximum delta values δ_{NOS}^{min} and δ_{NOS}^{max} , which do not satisfy Equation (7), the creation of such a NOVS instrument will be rejected.

Please note that Equation (7) assumes positive minimum and maximum delta values with $0 < \delta_{NOS}^{min} - \delta_{NOS}^{tol} < \delta_{NOS}^{max} + \delta_{NOS}^{tol}$. Due to an always positive value of $R_{NOVS}^{undr}/\langle R_{NOS} \rangle$, Equation (7) will need to be adapted accordingly in case of $\delta_{NOS}^{min} - \delta_{NOS}^{tol} < \delta_{NOS}^{max} + \delta_{NOS}^{tol} < 0$ or in case of $\delta_{NOS}^{min} - \delta_{NOS}^{tol} \le 0 \le \delta_{NOS}^{max} + \delta_{NOS}^{tol}$.

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The delta tolerance δ_{NOS}^{tol} is also used to verify that the underlying futures leg of a NOVS will have the correct buy/sell indicator BS_{NOVS}^{undr} . Therefore, it will be validated that

$${\it BS_{NOVS}^{undr}} = {
m Sell} \qquad {
m for} \qquad \delta_{NOS} \geq \ \delta_{NOS}^{tol}$$

or

$$BS_{NOVS}^{undr} = \text{Buy}$$
 for $\delta_{NOS} \leq (-1) \cdot \delta_{NOS}^{tol}$

In case of $(-1) \cdot \delta_{NOS}^{tol} < \delta_{NOS} < \delta_{NOS}^{tol}$, a dedicated buy/sell indicator BS_{NOVS} will not be enforced for such a NOVS instrument.

The introduction of the new functionality is subject to changes in the rulebooks at Eurex. The exact launch date and details will be determined and announced at a later stage. It is envisioned to activate NOVS in all options products currently supporting OVS.

3.2 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support the functionality. The changes are described in a general fashion to provide an indication of the upcoming amendments. For detailed changes, please refer to the interface manuals and to the *Online Help* in the GUIs.

3.2.1 RDI

A new valid value for the new instrument type and its mnemonic will be introduced.

3.2.2 MD

A new valid value for the new instrument type and its mnemonic will be introduced.

3.2.3 T7 Trader GUI

A new strategy type will be introduced, analogous to the existing non-standard OVS strategy.

3.2.4 ETI

A new valid value for the new instrument type will be introduced.

3.2.5 FIX LF

A new valid value for the new instrument type will be introduced.

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3.2.6 XML Reports

New valid values for the new instrument type will be introduced for these fields:

- InstrumentType
- InstrumentMnenomic

These fields occur in many reports, such as:

- TE530 Daily Quote Maintenance
- TE535 Cross and Quote Requests
- TE540 Daily Order Maintenance
- TE545 Daily TES Maintenance
- TE546 Daily Basket TES Maintenance
- TE547 TES Late Approval Report
- TE550 Open Order Detail
- TE590 CLIP Trading Indication
- TE595 Cross and Pre-arranged Trades
- TE600 Eurex EnLight Maintenance
- TE610 Eurex EnLight Best Execution Summary
- TE810 T7 Daily Trade Confirmation
- TE812 Daily Prevented Self-Matches
- TE910 T7 Daily Trade Activity

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4. Volatility Interruption Enhancements

After the start of T7 Release 12.1, Eurex will enhance its Volatility Interruption processing by introducing a new static Volatility Interruption for selected products.

4.1 Functional Description

4.1.1 Current Situation

Eurex currently applies dynamic Volatility Interruptions, where the potential trade price of an incoming order is checked against all prices of previously executed trades in the same instrument within configured lookback time windows: Once the allowed price deviation is exceeded, a Volatility Interruption will be triggered. The execution of the incoming order will be prevented and the affected instrument, or all instruments of the affected product, will automatically be moved from instrument state *Continuous* to a Volatility Interruption auction.

4.1.2 Future Situation

With T7 Release 12.1, an additional trigger mechanism for Volatility Interruptions will be introduced, which will be based on static price ranges around reference prices defined by the exchange. A Volatility Interruption will be triggered once the allowed static price deviation is exceeded. The execution of the incoming order will be prevented and the affected instrument, or all instruments of the affected product, will automatically be moved from instrument state *Continuous* to a Volatility Interruption auction, as it is done today. Reference prices for determining the static Volatility Interruption will remain static over the trading day and will only be updated intraday by certain market situations, such as a Volatility Interruption auction.

It will be possible to combine the new functionality with the current Eurex Volatility Interruption. The new static Volatility Interruption will, apart from preventing sharp price movements within short time, also prevent unintended large price movements across the entire business day.

Market Data and Trader GUI will show when a Volatility Interruption has been triggered due to static price ranges.

The introduction of the new functionality is subject to changes in the rulebooks at Eurex. The exact launch date and details will be determined and announced at a later stage.

4.2 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support the functionality. The changes are described in a general fashion to provide an indication of the upcoming amendments. For detailed changes, please refer to the interface manuals and to the *Online Help* in the GUIs.

4.2.1 Market Data

The existing messages Instrument Snapshot, Depth Snapshot, and the Mass Instrument State Change messages will be enhanced with a new valid value for existing attributes such as SecurityTradingStatus and SecurityMassTradingStatus, indicating whether a Volatility Interruption was initiated due to a violation of the static or dynamic price range.

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4.2.2 T7 Trader GUI

The Market view will show the new valid value for SecurityTradingStatus.

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5. Extension of Trading Hours for MSCI Index Total Return Futures

With T7 Release 12.1, the T7 system will be able to divide the MSCI Total Return Futures (TRF) trading session into a morning and an afternoon session, to allow trading in MSCI TRF already before the daily interest rate becomes available, as described below.

The exact date of enabling this feature will be communicated separately.

In Simulation of T7 Release 12.1, there will be a Focus Day especially for this functionality, please consult the T7 Release 12.1 – Derivatives and Cash Markets – Participant Simulation Guide.

5.1 Functional Description

Trading in TRF requires an update of the interest rate to properly determine the Accrued Funding. Due to different time zones in Europe and in the US, the US interest rate relevant for the MSCI TRF, valid for the current business day, will be provided only around 14:00 h CET.

With T7 Release 12,1, it will be possible to divide the MSCI TRF trading session into a morning and an afternoon session, to allow trading in MSCI TRF already before the daily US interest rate becomes available.

The morning session will apply to the Accrued Funding taken over from the previous business day which was based on the previous day interest rate. Between 14:00 and 14:30 h CET, the Accrued Funding will be updated based on the current day interest rate, and the afternoon trading session will use the updated Accrued Funding to derive the preliminary clearing prices.

On the termination of the trading session the preliminary clearing prices will be converted into final clearing prices as they are today. The later procedure of converting preliminary clearing prices to final clearing prices will apply independently whether the MSCI TRF trade was concluded during the morning or during the afternoon session.

Please note that the procedure described above applies for Trade-at-Close ("TAC"). To support Trade-at-Market ("TAM"), MSCI TRF can be traded off-book in the morning session where the clearing prices of TAM trades are calculated with the previous day's value of the Accrued Funding and are not updated with the current day's value of the Accrued Funding which is available for TAM trading in the afternoon session.

5.2 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support the functionality. The changes are described in a general fashion to provide an indication of the upcoming amendments. For detailed changes, please refer to the interface manuals and to the *Online Help* in the GUIs.

5.2.1 RDI / RDF

The following existing message will be modified:

Total Return Futures Status message

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5.2.2 T7 Trader GUI

The following existing view will be modified:

• TRF Conversion Parameters View

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6. Further Changes and Enhancements

With T7 Release 12.1, Eurex will introduce the following additional changes and enhancements.

6.1 Removal of TES Compression

With T7 Release 12.1, Eurex will remove the TES Compression facility. For this, the TES type *Compression* as well as the TES trade attribute *Compression ID*, and the fee code *KD* for compression will be removed from TES trades. In this connection, various messages, fields, or valid values will be removed from these interfaces:

- ETI
- FIX LF
- T7 Trader GUI
- T7 XML Reports

In addition, the TES Type Eligibility for TES Compression will be deleted on participant and user level. The user changes will be reflected in the XML reports RD110 and RD115 on the last day of T7 Release 12.0 on 10 May 2024 (in Simulation 19 March 2024).

6.2 New field for the ContractDate in RDI / RDF

With T7 Release 12.1, the instrument snapshot of RDI / RDF will be enhanced by two new fields:

- SecRefDataSupplmnt tag 2962
 This field will be set identical to the field ContractDate tag 30866
- MaturityFrequencyUnit tag 2982
 This field will be set identical to the field ContractFrequency tag 30867

The newly introduced fields SecurityReferenceDataSupplement and MaturityFrequencyUnit are FIX compliant fields supported by the latest FIX Protocol. Both newly introduced fields will exist in parallel to the already existing fields Contract Date and Contract Frequency.

6.3 Flexible instruments now allowed for EFP-Index TES trades

After the start of T7 Release 12.1, it will be possible to submit TES trades of TES type EFP-Index which trade flexible instruments against admitted EFP-Index references.

The introduction of the new functionality is subject to changes in the rulebooks at Eurex. The exact launch date and details will be determined and announced at a later stage.

6.4 Maximum Order Value and Maximum Order Quantities in RDI / RDF

With T7 Release 12.1, the following fields will be added to RDI and to RDF in the Product snapshot by the exchange:

- Maximum Order Value by Exchange
- Maximum Order Quantity by Exchange
- Maximum Calendar Spread Quantity by Exchange
- Maximum TES Quantity by Exchange

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6.5 Granularity of Underlying Price in OVS and NOVS

Currently, the price granularity of the underlying leg in Standard (OVS) and Non-Standard (NOVS) Options Volatility Strategy instruments belonging to the same options product is determined by the price granularity of the on-book traded outright contracts in the corresponding futures product.

With T7 Release 12.1, it will be possible to define the price granularity of the underlying leg independently from the price granularity of the outright futures product. In future, it will be required that the price granularity of the underlying leg in OVS and NOVS instruments belonging to the same options product is an integer multiple of the clearing tick size of the corresponding futures product.

Currently, there are no concrete plans to change the price granularity of the underling leg in OVS and NOVS instruments.

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7. Change Log

Version	Date	Log entry
1	11 March 2024	Ready for publication.