

# T7 Release 6.1

## Derivatives and Cash Markets

### Participant Simulation Guide

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## **Abstract**

This document describes the timeline, new and changed features as well as simulation focus days for the T7 Release 6.1 Simulation. Trading participants should use this document to plan and prepare their T7 Release 6.1 simulation participation. This document should be read alongside the **T7 RELEASE 6.1 PRELIMINARY RELEASE NOTES**, all required technical interface descriptions, the regular **SIMULATION CALENDAR** and the regularly updated **IMPLEMENTATION NEWS** either on [www.eurexchange.com](http://www.eurexchange.com) > Technology for the derivatives market or on [www.xetra.com](http://www.xetra.com) > Technology for the cash market.

## **Keywords**

T7 Enhanced Trading Interface, T7 Enhanced Market Data Interface, T7 Enhanced Order Book Interface, T7 Extended Market Data Service, T7 Reference Data Interface, T7 FIX Gateway, Common Report Engine, T7 Trader GUI, T7 Admin GUI, T7 Trade Entry Services

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## Definitions and abbreviations

Term	Explanation
CCP	Central Counter Party
CEF®	Deutsche Börse Group Real Time Data Feed
CRE	Common Report Engine
ECC	European Commodity Clearing
EEX	European Energy Exchange
EMDI	T7 Enhanced Market Data Interface (non-netted)
EMDS	T7 Extended Market Data Service
EOBI	T7 Enhanced Order Book Interface
ESMA	European Securities and Markets Authority
ETI	T7 Enhanced Trading Interface
Eurex EnLight	The selective RFQ platform
FIX	Financial Information eXchange protocol
FIXML	Financial Information Exchange Mark-up Language
FWB	Frankfurter Wertpapierbörse
ISV	Independent Software Vendor
GCM, DCM, NCM	General-, Direct-, Non-Clearing member
GMC	GUI Middleware Cluster for T7 Trader GUI & T7 Admin GUI, T7 Clearer GUI
MDI	T7 Market Data Interface (netted)
MiFID II	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
TES	T7 Entry Services
T7	T7 trading system developed by Deutsche Börse Group
RDF	Reference Data File
RDI	Reference Data Interface
XML	eXtensible Mark-up Language



# 1. Simulation Overview

## 1.1 Introduction

The purpose of T7 Release 6.1 simulation is to provide an opportunity for participants and ISVs to become familiar with the new and enhanced functional and technical setup and features of T7 Release 6.1 and to prepare for production.

The key objectives of the T7 Release 6.1 simulation:

- Provide high quality information and simulation to support participant and ISV readiness.
- Familiarize participants with the new trading services functionality.
- Early identification of issues both from the Exchange and from the participants' side to minimize risk of T7 Release 6.1 launch and production operation.

T7 Release 6.0 permanent simulation will end on Thursday, 19 April 2018. From Friday, 20 April until Sunday, 29 April 2018 the simulation environment will not be available due to maintenance and conversion to Release 6.1. The T7 Release 6.1 simulation execution is scheduled for the period from Monday, 30 April until Friday, 15 June 2018. The production launch of T7 Release 6.1 is planned for Monday, 18 June 2018. The T7 Release 6.1 Cloud Simulation will start from 6 April 2018.

The chronological order for the T7/FX Release 6.1 introduction will be aligned with the other trading markets. Therefore the conversion of the T7/FX simulation environment to Release 6.1 will also be performed from 20 April to 29 April 2018 inclusive. The T7/FX Simulation Release 6.1 will be available from 30 April and production launch for T7/FX Release 6.1 will be effective from 18 June 2018.

The exchange offers several dedicated focus days during the simulation phase to help participants become accustomed to new or changed features of T7. On those days, which are marked in the simulation calendar, special testing scenarios will be provided. This document describes the different test scenarios for the T7 Simulation.

A description of the new/changed functionality and technical enhancements has been communicated in the form of the document "**T7 6.1 RELEASE NOTES**" (one single document for functional and technical aspects in both, preliminary and final version) and with the provision of Interface Specifications and User Manuals:

Derivatives market:

[www.eurexchange.com](http://www.eurexchange.com)

-> *Technology -> T7 trading architecture -> System documentation -> Release 6.1*

Cash market:

[www.xetra.com](http://www.xetra.com)

-> *Technology -> T7 trading architecture -> System documentation -> Release 6.1*

Please Note:

The T7 Release Simulation is a shared simulation environment with the purpose of providing participants the opportunity to test functional enhancements for the forthcoming T7 release. Following a release the environment will be available with the current software for further testing of all T7 related functionality. The

T7 simulation is not designed for very extensive or even performance testing. Participants who would like to test scenarios involving an unusually large amount of order and quote transactions and/or trades shall contact their TKAM. The TKAM will ask for the purpose of the test and a detailed description of the participants test scenario (including number of expected orders, quotes and trades). The TKAM together with the participant will evaluate the request and attempt to find a solution which can realistically be provided together with a potential date and time for the execution.

## 1.2 Intended audience

This document serves as the guide for all simulation participants, i.e. current and future users of the T7 system. In particular, the following participants will be involved in the simulation:

- Exchange trading participants
- ISVs (Front, Middle and Back office)

In order to achieve a common understanding of the responsibilities and tasks, the distribution of this Simulation Guide to the appropriate project teams and line organizations is recommended as soon as possible. All parties involved, e.g. central coordinators, system administrators, traders and ISV representatives, should be aware of their tasks before the start of the simulation.

### 1.3 Timeline

Below the key dates concerning the introduction of T7 Release 6.1 are outlined.

<ul style="list-style-type: none"> <li>• T7 6.1 Cloud Simulation Start</li> <li>• T7 Release 6.0 to Release 6.1 simulation conversion</li> <li>• Start of T7 Release 6.1 simulation</li> <li>• Availability of EMDS</li> <li>• Conversion of production environment 6.0 to 6.1</li> <li>• Connection Test</li> <li>• T7 Release 6.1 production launch</li> </ul>	<p>6 April 2018</p> <p>20 – 29 April 2018</p> <p>30 April 2018</p> <p>14 May 2018</p> <p>15 (eob)/16 June 2018</p> <p>16 June 2018</p> <p>18 June 2018</p>
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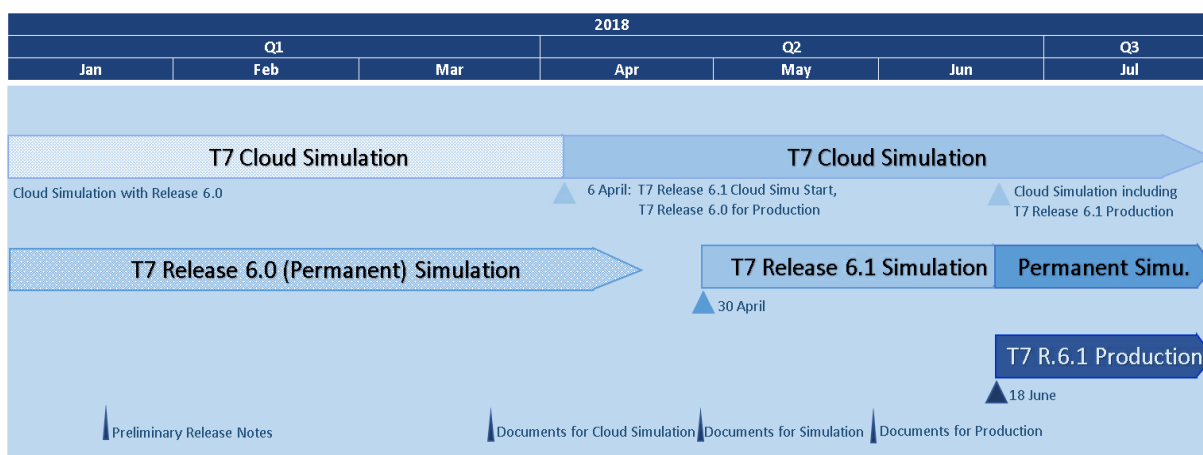


Figure 1: T7 Release 6.1 document publication and introduction timeline

Please Note: The chronological order for the T7/FX Release 6.1 introduction will be aligned with the other trading markets.

### 1.4 T7 Cloud Simulation

In addition to T7’s release simulation participants can also use the T7 Cloud Simulation which allows trading participants and ISVs to test against the current T7 production and simulation software version. In this environment participants can initiate predefined market scenarios and test specific strategies more easily than in a shared environment. The T7 Cloud simulation is available 24/7 for a fixed price per hour and is accessible using an SSL-encrypted internet connection. The T7 Cloud Simulation will make a pre-simulation available for early adopters from Friday, 6 April 2018. For more information on the T7 Cloud Simulation please refer to:

[www.eurexchange.com](http://www.eurexchange.com) -> Technology -> Eurex T7 Cloud Simulation

[www.xetra.com](http://www.xetra.com) -> *Technology* -> *T7 Trading Architecture* -> *Cloud Simulation*

## 1.5 Simulation Calendar

The Simulation Calendar for the derivatives market is available under the following path:

[www.eurexchange.com](http://www.eurexchange.com) -> *Technology* -> *Simulation Calendar*

Whereas the Simulation Calendar for the cash market can be found on the following link:

[www.xetra.com](http://www.xetra.com) -> *Trading* -> *Trading calendar and trading hours*

During Simulation, the number of end-of-day batches vary between 2 to 3 times per week.

### 1.5.1 Guiding principles for simulation calendar

- The simulation will be set up and run from both a functional and technical perspective as production-like as possible to help simulate business processes under realistic conditions. In order to provide a production-like system environment, the different T7 components will be set up as an integrated simulation environment. Nevertheless, system availability and technical performance will be scaled to simulation requirements and will differ from production.
- T7 Release 6.0 permanent simulation will terminate with the end of day processing on 19 April 2018. The T7 simulation will not be available for participants and ISVs from 20 April until 29 April 2018 in order to prepare the T7 Release 6.1 simulation. Participants are encouraged to use the T7 Cloud Simulation for testing purposes during this period.
- The T7 Release 6.1 simulation is planned to start on 30 April 2018 and will last for approximately seven weeks until 15 June 2018. All functional and technical preparations should be completed before the start of the simulation.
- After the T7 Release 6.1 simulation has finished on 15 June 2018, the T7 Release 6.1 permanent simulation will continue in both environments.
- On batch days, calendar days correspond to actual business days. The following days until the next batch day have the business date of this forthcoming batch day. Here several calendar days (with 24 hours trading availability) constitute one business day.
- Weekends are generally open for simulation, but no technical and functional support will be available.
- In order to provide those participants and ISVs not located in a European time zone with the maximum possible access to the simulation environment, it is envisaged that the T7 Release 6.1 simulation back-end systems and network will be re-opened as soon as the batch has been successfully completed.
- Quarterly and monthly last trading/maturity & expiration dates for standard products are planned throughout the T7 Release 6.1 simulation. Details are listed in the Simulation Calendar.
- During the T7 Release 6.1 simulation, a month-end batch for May 2018 will be executed and month-end reports will be provided. Further month-end batches with the respective reports will be provided in T7 Release 6.1 permanent simulation from June 2018, onwards.

## 1.6 Liquidity for selected products in the simulation environment

### 1.6.1 Derivatives Market: Liquidity (bid/ask prices)

Liquidity (bid/ask prices) will be provided on each trading day throughout T7 Release 6.1 simulation in the following products:

#### Options

- **OESX** and **ALV**: only best bid, best ask
- **ODAX**, **OGBL**, **OGBM** and **DB1**: Bid and ask prices with an order book depth up to 3
- **OKS2**: only best bid, best ask

#### Futures

- **FGBL**: Bid and ask prices with an order book depth up to 20
- **FESX**: Bid and ask prices with an order book depth up to 20
- **EVAR**: only best bid, best ask

#### Futures Calendar Spread orders

- **FESX**: Bid and ask prices with an order book depth up to 20
- **FGBL**: Bid and ask prices with an order book depth up to 20

### 1.6.2 Cash Market: Liquidity (bid/ask prices)

Liquidity (bid/ask prices) for Xetra will be provided on each trading day throughout T7 Release 6.1 simulation in the following products:

#### Instruments in XETR with liquidity providing scripts

- LU0937835576 (Bid and ask prices with an order book depth level upto 3)
- LU1306625283 (Bid and ask prices with an order book depth level upto 3)
- DE000A1E0HR8 (Bid and ask prices with an order book depth level upto 3)
- DE0005140008 (Bid and ask prices with an order book depth level upto 3)
- DE0005557508 (Bid and ask prices with an order book depth level upto 3)

#### ICEBERG:

- AT0000730007 (Bid and ask prices with an order book depth level upto 3)
- DE0005200000 (Bid and ask prices with an order book depth level upto 3)

#### VDO :

- AT0000730007 (Single bid VDO order)
- DE0005200000 (Single ask VDO order)

BEST Quote:

- LU0937835576
- LU1306625283
- DE000A1E0HR8
- DE0005140008
- DE0005557508

Instruments in XDUB with liquidity providing scripts:

- IE00BDC5DG00: Bid and Ask prices with an order book depth up to 5
- IE0004906560: Bid and Ask prices with an order book depth up to 5
- IE00B1HDWM43: Bid and Ask prices with an order book depth up to 5
- IE00BJYS1G50: Bid and Ask prices with an order book depth up to 5
- GB00BY7QYJ50: Bid and Ask prices with an order book depth up to 5
- IE00BVGC3741: Bid and Ask prices with an order book depth up to 5
- IE00BYTBXV33: Bid and Ask prices with an order book depth up to 3

## 1.7 Instruments for settlement End-To-End Test

Clearing and settlement functionalities can be tested with following instruments from 30 April, 2018 until May 15, 2018 and from May 22, 2018 onwards in the T7 6.1 Release Simulation:

Name	ISIN
ANDRITZ AG	AT0000730007
UBS NAM. SF -,10	CH0244767585
ADVA AG OPT.NETW.O.N.	DE0005103006
TELEGATE AG O.N.	DE0005118806
BEIERSDORF AG O.N.	DE0005200000
CONTINENTAL AG O.N.	DE0005439004
DRILLISCH AB	DE0005545503
DT.TELEKOM AG NA	DE0005557508
FRESEN.MED.CARE AG O.N.	DE0005785802
BILFINGER BERGER AG	DE0005909006
LYXOR G.BUL.SEC.04/UND DZ	DE000A0LP781
ETFS MET.SEC.DZ07/UN.XAU	DE000A0N62G0
DT.BOERSE COM. XETRA-GOLD	DE000A0S9GB0
DB ETC PLC P GOLD EUR 60	DE000A1E0HR8

## 2. Functional Enhancements – Derivatives Markets

### 2.1.1 Book Or Cancel (BOC) - Option for Quote Entries

With the introduction of T7 Release 6.1, it will be possible to make quote entries with the BOC attribute. Quotes with this attribute will never be executed on entry.

The BOC attribute will be provided within the Mass Quote Request and the Quote Activation Request as a mandatory two-valued BOC restriction attribute. On usage, all individual quote sides will be checked whether they can be partially or fully executed upon entry. Only quotes that cannot be executed immediately will be written to the order book. In case of any possible execution, both quote sides including the quote sides that are already in the order book will be deleted immediately without execution. Along with the deletion, the participant will receive a response message per deleted quote with a dedicated reason. Please note that the BOC restriction will apply during mass quote request processing or quote activation processing. Quotes that have been entered to the order book will no longer carry a BOC attribute and hence cannot be identified after mass quote entry/ quote activation processing.

### 2.1.2 Enhancements to Eurex EnLight (Selective RFQ Service)

#### 2.1.2.1 Overview

The Eurex EnLight enhancements for Release 6.1 will focus on the following areas:

- New validations will be introduced for Eurex EnLight, which will help users to seamlessly enter EnLight Deals as T7 Entry Service (TES) trades. These validations will minimize the possibility of rejection of EnLight deals as TES trades.
- The enhancements will improve the best execution reporting done by Eurex EnLight.
- New features will be introduced in order to enrich and extend the current workflow as well as improve the usability of the service.

#### 2.1.2.2 T7 Complex Instrument

Currently on Eurex EnLight, when a negotiation event is started for a multi-legged instrument, the complete definition of that complex instrument including leg instruments, leg side and leg ratio needs to be provided. In release 6.1, it will be possible to use the T7 generated complex instrument identifiers to initiate a negotiation event for on-exchange (i.e. on-book and TES) traded complex instruments.

To align EnLight with the T7 concept of complex instruments, the Open Negotiation Event request will be enhanced with the instrument type and instrument subtype information. If provided, the instrument type and instrument subtype information will be used for validation purpose to minimize the possibility of rejections of EnLight deals as TES trades (for more details, see subsequent paragraphs).

The validation on the Open Negotiation Event request will be enhanced with release 6.1. The Instrument type on each request will be validated against a valid TES profile for a particular product and instrument type with TES Type as BLOCK.



A new minimum lot size for Eurex EnLight will be included to the TES profile supplementing the already existing minimum lot size for block trades. It will be validated that the quantity (Bid, Ask) if provided on the request (EnLight Quote Entry Request, EnLight Order Entry request) is greater than or equal to the new minLotSize. With the launch of release 6.1, the new Eurex EnLight minLotSize will be set identically to the already existing minimum lot size for block trades.

The TES trade entry will be enhanced with optional attributes to provide the EnLight Negotiation Event ID and EnLight Deal ID. The validation of TES trades based on the EnLight deals will also be enhanced in terms of validating quantity against the lot size. The Eurex EnLight minimum lot size will be used for validating the TES trade side quantity instead of regular minimum lot size.

### **2.1.2.3 Best Execution Reporting**

In order to enrich the Best Execution Reporting, the top of book in the EnLight Deal message will be enhanced to incorporate four additional prices for the complex instrument apart from the top of book leg prices:

- Implied Prices - Implied prices based on the top of on-book prices of the legs.
- Aggregated Implied Prices - Implied prices based on the on-book prices of the legs with depth up to level five and deal quantity (EnLight deal) or open quantity.
- On-Book Prices - Top of on-book prices for the negotiation instrument.
- Aggregated On-Book Prices - Aggregated on- book prices with depth up to level five and using the deal quantity (EnLight deal) or open quantity.

### **2.1.2.4 Negotiation of Delta and Underlying Price**

The Requester will now be able to disclose his intention to negotiate the underlying delta and underlying price as a part of the negotiation event. EnLight Quote Entry request, EnLight Order request and EnLight Deal messages will be enhanced to support the functionality of negotiating the underlying price and underlying delta within the same negotiation event.

### **2.1.2.5 Selective Disclosure**

Eurex EnLight will also offer the selective disclosure functionality in order to disclose the last negotiated price and quantity to the respondent. The requester will be able to decide whether to show the last negotiated price and quantity to the respondent as a part of EnLight Negotiation Event Update Notification for the respondent.

### **2.1.2.6 Disclose the Number of Respondents**

As part of enhancement for release 6.1, the number of respondents will be maintained for the negotiation event and will be available to the requester. The requester will be able to decide whether or not to show the number of respondents to all the respondents.

### **2.1.2.7 Compliance Parameters**

Eurex EnLight will help the business units' compliance departments in addressing the up-coming regulatory requirements. To efficiently adhere to the compliance policy of the business unit, Eurex EnLight will now provide the functionality to regulate the selective disclosure at the business unit level. The following will be the optional parameters that can be adjusted by the admin user:

- Side Disclosure Parameter: The admin user will be able to control the disclosure of the EnLight Negotiation Side to all or none or some of the respondents.
- Quantity Disclosure Parameter: The admin user will be able to control the disclosure of the Open Quantity to all or none or some of the respondents.
- Disclose Number of Respondents: The admin user will be able to control the disclosure of the number of respondents to all or none or some of the respondents.
- Order Delay Parameters: Fields 'MinWaitTime' and 'MinNoOfQuotes' will be introduced for the validation of each Eurex EnLight Order Request. If the time difference between the Negotiation Event Start Time and current system time is greater than or equal to the 'MinWaitTime' then the order will be processed. If the number of quote sides present in the corresponding negotiation event on the opposite side of the order are greater than or equal to 'MinNoOfQuotes' then the order will be processed.
- Negotiation Event Type: The admin user will now be able to decide whether to allow requesters of his business unit to create negotiation events of type 'Only Indicative', 'Only Firm' or 'Either Indicative or Firm'.

### **2.1.2.8 Intraday Update on User Maintenance**

Eurex EnLight will be enhanced to consider intraday updates on user maintenance like assigning TES roles, updating user status, addition or removal of a user to or from a group.

## **2.1.3 Other Functional Enhancements**

### **2.1.3.1 Enhancement regarding Maximum Order Value**

With the production launch, the Maximum Order Value will be denoted as an integer instead of the current eight decimal places after the value.

### **2.1.3.2 Trades resulting from Quotes**

Currently, for trades resulting from quotes (ETI/FIX: OrderCategory (1115) = 2 (Quote)), no exchange order ID (ETI/ FIX: OrderID (37)) nor system order version number (ETI/FIX: OrderIdSfx (25108)) are delivered within the trade messages. With the release introduction, this behavior will change and the afore mentioned tags will be populated in the ETI Trade Notifications, FIX Trade Capture reports, and in the participants' reports (exchangeOrderId, versionNo).

### **2.1.3.3 Enhancement regarding Liquidity Indicator in Auctions**

A new valid value 4 ("Auction") will be introduced for the tag FillLiquidityInd in the Book Order Execution report in case of executions in Auctions/ Uncrossing trades. This tag will be synchronized with the tag SideLiquidityInd in the Trade Notifications.

### **2.1.3.4 Enhancement regarding Stop Button Legal Text Messages**

With the release introduction, the individual STOP button legal text messages will provide the member ID for which the stop button was activated. The enhancement will provide traders trading for more than one member ID (i.e. multiple clearing relationships) with additional information. Additionally, the messages will be sent to the clearing member as well.

## 3. Functional Enhancements – Cash Markets

### 3.1.1 Enhancements to the Post Trade Model

With T7 Release 6.1, Deutsche Börse will enhance its T7 trading architecture to prepare for the future connectivity of additional Central Counterparties (CCPs) to receive trades from the cash market via a new dedicated T7 interface. Trading participants will be able to choose one of these CCPs to process their trades in addition to Eurex Clearing.

For the enhanced post-trade model, a common set of instruments will be available for this functionality. Instruments included in the common set will be marked with the new attribute “Eligible for Multiple CCP”. There will be no restriction to any match type, i.e. it will be possible to forward all Xetra trades including Xetra BEST and Volume Discovery Orders (VDOs) to the connected CCPs.

For traceability, the trade notifications as well as the participants’ reports will be enhanced providing all necessary information. The enhancements refer to the fields belonging to the context of the connected CCP, clearing member and settlement institute such as the counterparty ID, KV-Number or Settlement Account.

### 3.1.2 Enhancement regarding Maximum Order Value

With the production launch, the Maximum Order Value will be denoted as an integer. Currently, it is implemented with eight decimal places after the value.

### 3.1.3 Peak Quantity of Iceberg Orders during Auctions

Normally, only the peak quantity of an Iceberg order is visible to the market. However, during auction phases, Iceberg orders participate and are visible with their total order quantity. Currently, the field `displayQty` in private ETI order messages contains the visible order quantity, i.e. the total order quantity during auction phases, but the peak quantity in other phases. With release 6.1, the field `displayQty` in private ETI order messages will always contain the peak quantity, even during auction phases, when the total order quantity of the Iceberg order is visible to the market. Therefore, there will no more be the need any more to send order confirmation messages for iceberg orders that reflect only the difference in the visibility of iceberg orders during auction phases in the ETI interface.

### 3.1.4 Trades resulting from Quotes

Currently, for trades resulting from quotes (ETI/FIX: `OrderCategory (1115) = 2 (Quote)`), no exchange order ID (ETI/ FIX: `OrderID (37)`) nor system order version number (ETI/FIX: `OrderIdSfx (25108)`) are delivered within the trade messages. With the release introduction, this behavior will change and the afore mentioned

tags will be populated in the ETI Trade Notifications, FIX Trade Capture reports, and in the participants' reports (exchangeOrderId, versionNo).

### **3.1.5 New Instrument State DEL**

A new instrument state "DEL" will be introduced with the production launch indicating that the instrument has exceeded its last trading date and is therefore scheduled for deletion.

### **3.1.6 Enhancement regarding Liquidity Indicator in Auctions**

A new valid value 4 ("Auction") will be introduced for the tag FillLiquidityInd in the Book Order Execution reports in case of executions in Auctions/ Uncrossing trades. This tag will be synchronized with the tag SideLiquidityInd in the Trade Notifications. Please note that the new valid value will also cover VDOs but only in cases where the VDOs match at midpoint against other VDOs in the order book.

### **3.1.7 Enhancement regarding Stop Button Legal Text Messages**

With the release introduction, the individual STOP button legal text messages will provide the member ID for which the stop button was activated. The enhancement will provide traders trading for more than one member ID (i.e. multiple clearing relationships) with additional information. Additionally, the messages will be sent to the clearing member as well.

## 4. Technical Enhancements

### 4.1 T7 Trader and Admin GUI Enhancements

The T7 Trader and Admin GUI will be enhanced to support the following with T7 Release 6.1:

- Trades:
  - Trade notifications can reflect all connected CCPs, along with clearing member and settlement member settings (i.e. CCPCM, CCP clearing member, KVNo, StlLoc, StlAct, Cpty, CptyKVNo, CptyStlLoc, CptyStlAct, CptyCM).
- User Maintenance:
  - There will be the possibility to define individual settlement accounts and locations for the CCPs. This setup will be reflected in the respective reports as well.

### 4.2 T7 Enhanced Trading Interface and FIX Interface

With T7 Release 6.1, the T7 Enhanced Trading Interface (ETI) will change to version “6.1”. T7 Release 6.1 will provide backwards compatibility for the T7 ETI and FIX interface version 6.0, i.e. participants using the interface layout version 6.0 will still be able to connect to T7 even after production launch of T7 Release 6.1.

Detailed information about the ETI changes and enhancements for T7 Release 6.1 will be provided in the Trading Interfaces documentation on either [www.eurexchange.com](http://www.eurexchange.com) or [www.xetra.com](http://www.xetra.com).

#### 4.2.1 Enhancements of the T7 ETI Interface

The following enhancements will be introduced for the T7 ETI interface:

- ETI high frequency (HF) sessions currently allow lean orders and quotes whereby only the executions and foreign events may be recovered. With T7 release 6.1, the scope of the HF sessions will be extended to support standard orders that are currently only available via low frequency (LF) sessions for regular trading.
- ETI short order message layouts (New Order Single (Short Layout), Replace Order Single (Short Layout)) are currently supported for simple instruments and lean orders only. Thereby, lean orders are always non-persistent. With the release introduction, the afore mentioned short order message layouts will be extended to support standard orders, therefore a new field ApplSeqIndicator (28703) will be added to identify whether an order is lean or a standard order. Given that standard orders

can be either persistent or non-persistent, new valid values for the attribute ExecInst (18) will also be introduced.

## 4.2.2 Enhancements of the T7 FIX Interface

The following enhancements refer to the T7 FIX interface:

- To help identify which input interface submitted the orders, a new FIX message will be introduced via the T7 FIX Backoffice sessions. This new FIX message will contain the list of all sessions IDs of the business unit with their attributes. Based on this data and on the session IDs provided in each order and trade message sent via the corresponding T7 FIX Backoffice session, participants will be able to map each message to the corresponding input interface.

## 4.3 Market Data and Reference Data Interface Changes

Detailed information on the enhancements and changes in the T7 Market and Reference Data Interfaces with T7 Release 6.1 will be provided in the respective interface documentation on either [www.eurexchange.com](http://www.eurexchange.com) or [www.xetra.com](http://www.xetra.com).

Please note that the T7 6.1 market and reference data interfaces will not provide backward compatibility to previous the releases.

### 4.3.1 Enhancements regarding RDI/ RDF

The following enhancements will be provided for RDI/ RDF:

- The security description will be extended to include the instrument mnemonic for simple instruments.
- To be more FIX compliant, the values for the SecurityType (167) will be aligned across all RDI messages, i.e. in the Product Snapshot, Instrument Snapshot and in the Security Status.
- To indicate which instruments are currently activated for the Open Access functionality, the RDI/ RDF and the public instrument data file will be enhanced to include the instruments' new attribute of "Multiple CCP-eligibility" (117).
- For instruments that have exceeded their last trading date, a new SecurityStatus ("Pending Deletion") will be introduced. This new SecurityStatus indicates that the instrument will be deleted soon which is more accurate than the current "Active". Please note that RDI/ RDF do not reflect any intraday update on the instruments' last trading and therefore, there can be discrepancies to MDI/ EOB.

### **4.3.2 Enhancements regarding MDI/ EMDI/ EOBI**

Similar to RDI/ RDF, there will be a new SecurityStatus (“Pending Deletion”) introduced for instruments that have exceeded their last trading date. Please note, intraday updates on the last trading date are supported by MDI/ EMDI/ EOBI and therefore, differences between RDI/ RDF can occur.

## 5. Reports

The following reports will be enhanced with T7 Release 6.1

- **TC810 – Daily Trade Confirmation (cash markets only)**  
For trades resulting from quotes, the tags `exchangeOrderId` and the `versionNo` will be delivered. The enhancement affects the tags `membCglDCod`, `membCcpCglDCod`, `settlAcct`, `settlLocat`, `ctpyStlIdLoc`, `ctrPtyId`, `ctpyStlIdAct`.  
  
The clearing members and settlement institutes at all connected CCPs will receive their own *TC810 Daily Trade Confirmation for their non-clearing members*.
- **TR160 - Identifier Mapping Error**  
The report TR160 will be enhanced with detailed error information (available in simulation from 15 May 2018)
- **TR162 – Algo HFT Error**  
The report TR162 will be enhanced with detailed error information (available in simulation from 15 May 2018)
- **TE600 – Eurex EnLight Maintenance (derivatives markets only)**  
The report TE600 will be enhanced to enrich the Best Execution reporting in Eurex EnLight and the additional functionality mentioned in chapter 2.2
- **TE610 – Eurex EnLight Best Execution Summary (derivatives markets only)**  
The report TE610 will be enhanced to enrich the Best Execution reporting in Eurex EnLight.
- **TE545 - Daily TES Maintenance (derivatives markets only)**  
The report TE545 will be enhanced with the `SRQSNegotiationEventID` and `SRQSDealID` to incorporate the change in EnLight fields in TES trades.
- **RD115 – User Profile Status**  
Two fields will be added into the `rd115Rec1` group (`prefSettlAcct` and `prefSettlLocat`) reflecting the user settlement accounts and locations for all connected CCPs.
- **RD110 – User Profile Maintenance**  
There will be no structural change, but changes to the new fields described for RD115 will be reflected here as well.
- **TD930 – Daily Trade Statistics**  
Currently, both fields `IstTrdPrct` and `IstValPrc` contain the last traded price. With release introduction, the `IstTrdPrct` will be removed and the field `IstValPrc` will be renamed to `IstExchPrc`.



For a detailed description, please refer to the “T7 Trading Reports Reference Manual”.

[Eurex Exchange](#) -> Technology -> T7 Trading architecture-> System documentation -> Release 6.1

[Xetra](#) -> Technology -> T7 Trading architecture-> System documentation -> Release 6.1

Please note that the manual describes also all other reports generated on the basis of existing trading data from T7. For details of the Fee reports, please refer to the clearing documentation published on the Eurex Clearing webpage: [www.eurexclearing.com](http://www.eurexclearing.com).

## 6. Simulation preparation

Preparation activities should be completed prior to the start of T7 Release 6.1 simulation.

### 6.1 Organisational preparation

Prior to the start of T7 Release 6.1 simulation, the following organisational preparatory activities need to be completed by all participants to ensure readiness for the simulation phase:

- All participants and ISVs will be asked to name a person acting as a single point of contact (SPoC) during the simulation. This person shall coordinate all internal activities, functional as well as technical, and shall communicate with affiliated participants during simulation, when collaboration is required. The SPoC maintenance is available to the participant via the web application under the following path:

[www.eurexchange.com](http://www.eurexchange.com) -> Member Section -> Contacts -> Release Contacts ( -> New Entry -> Category "Simulation SPOC" -> Release "Eurex T7")

[www.xetra.com](http://www.xetra.com) -> Member Section -> Technical Service -> Release Contacts

- Documents will be made available in order to facilitate and support general simulation needs. However, in order to simulate the individual requirements participants are encouraged to define specific simulation objectives and scenarios on their own.
- Personnel for participation in simulation on the focus days (specified in the simulation calendar) should be identified and confirmed.
- Participants are encouraged to set up an internal issue management processes.

### 6.2 Functional preparation

Participants and ISVs planning to participate in the simulation should verify their individual setup/clearing-relationship and inform the exchange of any changes that may be required prior to the start of their simulation testing activity.

The completion of functional preparations prior to production start is mandatory.

## 6.3 Technical preparation

In order to ensure technical readiness for simulation, members/ISVs should consider the following topics:

- The changes for the following interfaces have to be implemented
  - T7 Enhanced Trading Interface
  - T7 FIX Gateway
  - T7 Market and reference data interfaces
  - Common Report Engine (new and changed reports)

T7 Release 6.1 will provide backwards compatibility for the T7 ETI and FIX interface version 6.0, i.e. participants using the interface layout version 6.0 will still be able to connect to T7 even after production launch of T7 Release 6.1.

T7 6.1 market and reference data interfaces will not provide backward compatibility to previous releases.

- A technical connection to T7 systems needs to be established (if not existing).
- Internal resources for timely installation of simulation software should be identified and confirmed.
- Related in-house systems should be set up to simulate subsequent processing.

## 7. Focus Day Overview

This chapter outlines which focus days will be offered. Focus days are planned and triggered by the Exchange. Specific actions have to be done by the Exchange to enable the scenario of the focus days. Focus days can be of technical nature (i.e. Market Data Service Failure), or of functional nature (i.e. Corporate Action). In either case participants cannot test without the Exchange taking action first.

Recommended test scenarios on the other hand can be done by the participants without any particular initiating action by the Exchange. Participants can run through these scenarios at their own discretion. These scenarios usually highlight new or changed features of the current release and participants are highly advised to perform these scenarios and verify their procedures and software used to be fit for these scenarios.

In the overview below, all focus days offered and recommended test scenarios for this release simulation are listed and described:

### Technical Focus Days – Triggered by the Exchange (Derivatives and Cash):

- Partition specific Gateway Failover
- Fix Gateway Failover
- Matching Engine Failover and Failure, EOBI Failure
  - Matching Engine Failover
  - Matching Engine Failure
  - T7 Enhanced Order Book Interface (EOBI) Failure
- Market Data Services Failure
- RDI Failure (*derivatives markets only*)
- ETI Session to Gateway Reassignment
- Matching Engine Processing Delay
- GUI (forced user log out)
- Move products from one partition to another (emergency procedure)

### Functional Focus Days – Triggered by the Exchange (Derivatives and Cash):

- Stressed market conditions / exceptional circumstances
- Corporate Actions
- Market Halt
- Product Halt
- Instrument Suspend (*cash markets only*)
- IPO (*cash markets only*)

### **Recommended Test Scenarios to be executed by participants – Derivatives:**

- Market Maker Liquidity Provision flag
- Pre-Trade Controls
- Audit Trail Reporting
- Full Spread Matrix
- New Strategy Setup – complex instruments
- Market Maker Protection
- Trade Traceability
- Quote Handling
- Risk Events
- T7 Entry Service
- Stop/ReleaseUser / Risk Controls view

### **Recommended Test Scenarios to be executed by participants – Cash**

- Pre-Trade Controls
- Audit Trail Reporting / Transaction Reporting for non MiFIR firms
- Designated Sponsor Quote Request
- Xetra Best
- Volume Discovery Order, VDO

## **7.1 Technical Focus Days – Triggered by the Exchange**

Technical focus days will be offered on several occasions during the simulation and will be triggered by the Exchange. Participants should use this opportunity to test the behaviour of the T7 trading and market data interfaces in conjunction with their own front office applications as well as their order book- and session management systems.

### **7.1.1 Partition specific Gateway Failover**

In Q1/2018 partition specific gateways have been introduced.

The new concept with two partition specific gateways per partition requires participant applications to be able to fail-over from one to the other gateway in case of gateway failure. This focus day will shut down both partition specific gateways belonging to one partition consecutively allowing participants to verify the failover mechanisms in their applications. Prior to the gateway failure participants are advised to insert several non-persistent and standard orders and quotes in the simulation environment. The exchange will cut gateway connections twice. Participants affected will therefore be able to check their internal failover processes. As a result of the gateway failover the active gateway will be disconnected and participants will have to request the gateway connection again via a Gateway Request message with the existing session ID. This could happen via automatic implemented request on the participant side. If there is no automatic reconnection available on the participant side, the reconnection has to be done manually. In both cases the participant receives a new gateway assignment from the exchange. All previously inserted nonpersistent

orders and quotes will be deleted and users are logged out. There will be no (active) subscription to broadcast streams any longer. Participants will receive messages for all products where the matching engine deleted non-persistent orders (either lean or standard orders) and/or quotes of the lost session.

Please note: In case of a session loss / session logout the following (re-transmittable) messages will be generated for all products where the matching engine deleted non-persistent standard orders of the lost session:

- 10122 - (via listener and session data) for deleted orders:

follow-up information will be provided with 10112 for each element (order) of

<NotAffectedOrdersGrp> of 1012

➔ The Gateway Failover / Failure\_scenario will be offered between 15:00-16:00 CET.

### 7.1.2 FIX Gateway Failover

In case of a FIX Gateway Application Failover, all FIX sessions connected to this FIX Gateway will be disconnected and the corresponding port will be closed.

Customers should then activate the connection to the secondary FIX Gateway. The first FIX session logon to the secondary FIX Gateway may take some seconds. So if a connection or a session logon fails or is not responded to immediately, a second attempt should only be made after a few seconds (30 seconds recommended).

#### Schedule:

- 15:00 CEST: Application Failover FIX Gateway  
(IP address: 90.150.253.32 for derivatives markets and 90.152.253.42 for cash markets becomes unavailable)
- 15:15 CEST: Restart of FIX Gateway  
(IP address: 90.150.253.32 for derivatives markets and 90.152.253.42 for cash markets available again)
- 15:30 CEST: Application Failover FIX Gateway  
(IP address: 90.151.253.32 for derivatives markets and 90.153.253.42 for cash markets becomes unavailable)
- 15:45 CEST: Restart of FIX Gateway  
(IP address: 90.151.253.32 for derivatives markets and 90.153.253.42 for cash markets available again)

These tests are recommended for all T7 participants (Members/Vendors) using the FIX Interface.

In the event of a FIX Gateway failure, active FIX sessions will be disconnected. FIX sessions may be resumed for the same SenderCompID (49) on the secondary FIX Gateway, using the secondary IP address and port number.

#### Recovery notes:

In the event that the disconnection was due to an outage on the FIX Gateway side, members should consider the following recovery mechanisms:

- After reconnection of the FIX session, the FIX Gateway may receive a sequence number higher than the one expected and sends a Resend Request (2) message to the member.
- The member should resend all potentially missed messages with PossDupFlag (43) = "Y", to indicate that a message may have been previously transmitted with the same MsgSeqNum (34).
- Please note: No Gap Fill messages should be sent by the member during the resend series for application messages. Application messages should always be re-transmitted since the T7 FIX Gateway requires all missing application messages for the purpose of reconciliation with the T7 trading system fall-back.
- If a participant sends Gap Fill messages during the resend series for application messages the related orders might not be accessible any more via the FIX Gateway and related order specific information will not be forwarded to the FIX session.

➔ The FIX Failover / Failure scenario will be offered between 15:00-16:00 CET

### 7.1.3 Matching Engine Failover and Failure, EOBI Failure

The T7 simulation system runs on separate partitions. Every process in the partition has a standby partner process that can take over in case the primary process fails. During simulation, a failover and a failure of a matching engine will be simulated.

#### 7.1.3.1 Matching Engine Failover

As a precondition, participants are advised to enter non-persistent orders and quotes in the simulation environment before the matching engine failover takes place.

In this test scenario, the existing matcher processes in the partition will be terminated and the standby partner process will take over. Shortly after the takeover, participants will receive a 'Market Reset Event' message, stating the technical problem and including the message key which is the last reproducible order message.

Because of the failover, the products from the failed partition will still be tradable. A Market Reset Event message will be triggered. Non-persistent orders and quotes which were inserted earlier will be deleted after the restore of the order book.

There is a "failover time parameter" defined per product. If the failover happens in between that timeframe or the product did NOT have a continuous trading status prior to the corruption, the product will change to product state "halt", after the failover is finished.

Afterwards an order book replay will be sent including the persistent orders, which were recoverable. Participants with low frequency sessions will receive an extra end of replay message on a product level. Participants with high frequency sessions will only receive the previously mentioned Market Reset Event Message. Hence, there are no extra deletion messages.

The Matching Engine failover triggers automatically an EOBI failover

### 7.1.3.2 Matching Engine Failure

For the execution of a matching engine failure both matcher processes will be crashed for a partition in simulation. The test case will have an impact on all products available on this partition in permanent simulation. As long as the partition is not available, i.e. not restarted by the exchange, participants will neither be able to receive public market data for products linked to that partition, nor will they be able to enter orders.

A Market Reset Event message will be sent out to participants, when the matching engine has been restarted. Additionally the market data service will still be available but will send only unchanged data to participants.

The Matching Engine failure triggers automatically an EOBI failure as well.

### 7.1.3.3 T7 Enhanced Order Book Interface (EOBI) Failure

Prior to the focus day, participants should check whether they are able to receive market data from the T7 Enhanced Order Book Interface (EOBI), i.e. they should try to send some orders on benchmark products and equities which are available in the T7 permanent simulation. Public market data information from T7 EOBI will be provided in packages/UDP datagrams marked with a MarketSegmentID, i.e., product identifier; PartitionID; ApplSeqNum (continuous numbering format); Packages are sent over redundant multicast address and port combinations. Each package is uniquely identified by its MarketSegmentID and ApplSeqNum combination. In addition to the packet sequence numbering, individual messages are sequenced by MsgSeqNum, which is contiguous per MarketSegmentID.

In case of an EOBI Failure, both the ApplSeqNum and the MsgSeqNum for a specific MarketSegmentID will restart from 1.

An EOBI Failure is triggered together with a matching engine failover or failure. Participant applications should notice this, whenever an ApplSeqNum is received which is smaller than one which has already been received for a specific MarketSegmentID and multicast address:port combination. Whenever a participant application detects a restart of the MsgSeqNum as well, it must rebuild all order books for this MarketSegmentID again from the T7 EOBI snapshot channel.

All non-persistent orders entered prior to the failover will be deleted. The receiving application needs to invalidate its view of the order book and refresh once an explicit message has been received containing new information.

➔ The Matching Engine and EOBI Failover / Failure scenario will be offered between 15:00-16:00 CET.

### 7.1.4 Market Data Services Failure

Prior to the focus day participants should check whether they receive market data from T7, i.e. they should try to send some orders on products which are available in permanent simulation. Market data information will be provided in packages marked with a SenderCompID; PartitionID; PacketSeqNum (continuous numbering format); the MessageSeqNum (continuous per SenderCompID multicast address and port combination) and a MarketSegmentID. The SenderCompID always remains constant for a product during the whole business day, if there is no failover.

When the market data failure is initiated by DBAG, a crash will be simulated within the partition for market data services. During this time participants can try to insert new orders and quotes for that product. As a result, they will receive a message that the associated partition is not available. As long as the partition is



not available, i.e. not restarted by the exchange, participants will neither be able to receive market data for products linked to that partition, nor be able to enter orders. In this test scenario, all partitions in simulation will be affected and therefore the test will refer to all products, which are available at that time in the permanent simulation.

Participants can identify this failover scenario by comparing the SenderCompID value with the previous value. A new SenderCompID, which is available in the packet header and in each data message for incremental and snapshots, indicates the partition failure. Additionally the PacketSeqNum will be reset to 1.

Once this condition is observed, it can be assumed that a fail-over scenario took place and the rebuild of the order book can be started. All non-persistent orders entered prior to the failover will be deleted. The receiving application needs to invalidate its view of the order book until an explicit message has been received containing new information.

➔ The Market Data Services Failure scenario will be offered between 15:00-16:00 CET.

### 7.1.5 RDI Failure (Only for derivatives market)

In this test scenario both the failover and the restart of the RDI will be simulated<sup>1</sup>. As a precondition for the tests, participants are advised to create some complex instruments in the simulation environment before the failover and restart of the RDI are performed.

In the first part of the test scenario when the RDI fails over, a new initial reference file will be generated with a new file set identifier.. This file will contain any complex instruments, already created and deleted during the day, i.e. the entire history.

In the second part of the test scenario, when the RDI is restarted, a new initial reference file will be generated with a new file set identifier. This file contains the existing complex instruments but not the entire history of creations and deletions.

➔ The RDI Failure scenario will be offered between 15:00-16:00 CET.

### 7.1.6 ETI Session to Gateway Reassignment

Participants interact with the trading gateways by means of high frequency or low frequency sessions. The primary and secondary gateway, to which a session is assigned, is contained in the response to the gateway request message which is issued as the first step in the connection process. Under normal circumstances the assignment of the session to a trading gateway will not change on a day-to-day basis but either as a result of hardware failure or due to the re-assignment of sessions for load balancing purposes the session to gateway assignment can and will change.

Participants must not only ensure that their applications support the automatic gateway reassignment but also that their application can handle a logon to the primary or secondary gateway should one of the logins fail. Hardcoding of gateway assignments may lead to the inability to connect to the trading gateways.

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<sup>1</sup> EEX RDI ist independent of RDI and will not be affected by the RDI Failure. .

To assist participants in preparing for the ETI session to gateway reassignment and to ensure that trading applications are able to handle the scenario once it occurs, focus days will be offered whereby the session to gateway assignment will be changed for all sessions.

There will be two focus days for this scenario whereby both focus days will take place in the same week. In the simulation environment the end-of-day processing usually takes place on a Tuesday, Wednesday and a Thursday.

In the end-of-day processing on the first day where the focus day is specified, all session to gateway mappings will be deleted. Once the simulation environment becomes available again after the end-of-day processing, the assignment of the sessions to the trading gateways will be performed on a “round robin” principle and there will be no way to ascertain which gateway will be assigned in advance. Applications will be required to process the response from the gateway request message to find out which trading gateways can be used for a particular session.

A list of all the possible trading gateways together with their IP addresses is listed in the document “T7 Exchange and Settlement Network Access” document.

In the end-of-day processing on the following batch day, the original session to gateway mappings will be restored.

- The ETI to Gateway Session Reassignment scenario will be offered over a time spanning two batch days with part one deleting all existing mapping and part two restoring the original session to gateway mappings.

**Please note:** Partition specific gateway connectivity is not impacted because there is no preassignment to these gateways.

### 7.1.7 Matching Engine Processing Delay

This focus day scenario is provided to assist participants in testing the very rare event where massive processing delays occur on a partition. In this scenario the following events will be triggered:

- All non-persistent Orders and Quotes will be deleted for the affected product(s)
- Product-specific DeleteAllOrderQuoteEventBroadcast messages will be sent to all ETI and FIX sessions with MassActionReason set to (111) Product\_temporarily\_not\_tradable.
- For a minimum time period of 10 seconds or until the slow processing is resolved, all transactions except order deletions will be rejected with SessionRejectReason set to (102) Service\_Temporarily\_Not\_Available and VarText 'TRANSACTION REJECTED DUE TO SLOW PARTITION'
- In the event that a product is temporarily not tradable, participants will be informed when the matching engine will accept transactions again by a TradingSessionStatus message (MsgType (tag 35) = “h”) specifying TradSesEvent (tag 1368) = 105 (“Service Resumed”).

**Please Note:** Participants will still be able to send deletion requests for any persistent orders which they would like to remove.

This focus day scenario is performed for the following markets and products:

- XEUR: AFR
- XETR: DE0006599905
- XDUB: IE00BJMZDW83
- XVIE: AT0000764626

Participants are requested to check that their applications can correctly handle order / quote deletions and transaction rejections due to the slow partition state.

➔ The Matching Engine Processing Delay scenario will be offered between 15:00-16:00 CET.

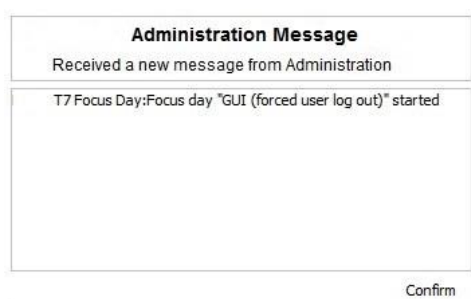
### 7.1.8 GUI (forced user log out)

The GUI Focus Day scenario is provided primarily to make participants aware of a function within T7 whereby in an emergency/exceptional situation T7 Operations can not only send messages directly to the users screen but also force the termination of the GUI itself. In addition, the focus day is also provided to make participants aware of the effects of a full GUI environment restart. The GUI (forced user log out) focus day will be sub-divided into three parts:

- Send Admin Message only
- Admin Message + Forced Trader GUI Shutdown
- Full GUI environment restart

#### 7.1.8.1 Send Admin Message only

All GUI instances (both Admin and Trading) logged in at the point when the focus day is initiated will receive a message "T7 Focus Day: Focus day "GUI (forced user log out)" started". This message will appear in a new popup window.



This window can be closed by pressing the Confirm button.

#### 7.1.8.2 Admin Message + Forced Trader GUI Shutdown

After this first message the following message will be send 10 minutes prior to the GUI environment shutdown: "T7 GUI Focus Day: Automatic GUI shutdown has been triggered and the GUI environment will be restarted". On the Trader and Admin GUI the following pop-up windows will be displayed:



The colour of this popup window will turn to yellow 15 seconds prior to the forced shutdown and turns red for the last 5 seconds.

### 7.1.8.3 Full GUI environment restart

Following a full restart of the GUI environment in simulation will be performed. On the day where the focus day is scheduled, participants will be encouraged to suspend orders so that the effect on suspended orders caused by a GUI restart can be observed. Suspended orders will all be deleted, the rest of the order book will be unchanged after a restart.

➔ The GUI (forced user log out) focus day scenario will be offered between 15:00-15:30 CET.

### 7.1.9 Move products from one partition to another (emergency procedure)

This focus day scenario is intended to simulate the unlikely event that products need to be moved from one partition to another before the start of trading.

Under normal circumstances, the assignment of products to a partition will not change on a day-to-day basis but either as a result of hardware failure or due to a re-configuration, the assignment of products can and will change.

In this focus day scenario all products / Product assignment groups outlined below will be moved from one partition to another prior to the start of the trading phase (closed & pre-trading) in the T7 simulation environment.

As a consequence of the product move from one to another partition the entire T7 system will be restarted. All non-persistent orders, quotes entered and recoverable broadcast streams disseminated before restart will be deleted. Please be aware that persistent orders will be moved to the other partition too and are part of the orderbook restatement. The PartitionID in the reference data, product snapshot and packet header for EMDI and EOBI for the affected product(s) will change. When the T7 RDI is restarted, a new initial reference file will be generated with a new file set identifier. Reference Data via RDI and RDF must be reprocessed by client applications following the restart. The SenderCompID in the Market Data for the product will change following the restart. The service on which the market data is published first for EMDI / EOBI may change (even to odd or vice versa). The multicast addresses on which the market data is disseminated will not change.

Participants must ensure that their applications support the automatic reassignment of products. Hardcoding of product to partition assignments may lead to the inability to identify or trade these products.

- This focus day scenario is performed for the following markets and products:  
XEUR products: CONF, FBON, FBTM, FBTP, FBTS, FGBL, FGBM, FGBS, FGBX, FOAM, FOAT, FSWL, GE02, GE05 & GE30
- XETR product assignment groups: GER1, MDX1, SDX1, STX6 & TDX1.

- The Move products from one partition to another one (emergency procedure) focus day scenario will be performed in the morning after a batch run and should be completed before 11am (CET/CEST). Please note: The products which have been moved from one partition to another, will remain on the “new” partition until this focus day scenario is repeated.

## 7.2 Functional Focus Days – Triggered by the Exchange

The exact dates for the functional focus days triggered by the exchange are displayed in the simulation calendar available on the websites

[www.eurexchange.com](http://www.eurexchange.com) -> Technology -> Simulation Calendar

[www.xetra.com](http://www.xetra.com) -> Trading -> Trading calendar and trading hours

### 7.2.1 Stressed market conditions / exceptional circumstances

The regulatory relevant states of market conditions for market making will be normal market conditions, stressed market conditions and exceptional circumstances. Stressed market conditions will be established on product level level for the derivatives market and instrument level for the cash market, whereas exceptional circumstances will typically affect the whole market. The product will be in normal market conditions, when neither stressed nor exceptional market conditions apply. There are no market making obligations during exceptional circumstances.

Automatically triggered stressed market conditions will have a fixed duration (e.g. 10 minutes). Ongoing automatically set stressed market conditions will be prolonged by this time period, when the trigger conditions are detected again. The following trigger events for automatically set stressed market conditions will be supported, depending on the type of the affected product:

- **Derivatives Market:**
  - Simultaneous significant change of price and volume – applies to equity index futures, single stock futures and ETF futures.
  - End of a volatility interruption – applies to equity index futures, single stock futures and ETF futures.
  - Stressed Market Signals in a related futures product – in case a futures product is in stressed market conditions and there is a corresponding options product with the same underlying, the options product will be automatically set in stressed market conditions.

Note that a volatility interruption in such a futures product is considered as a stressed market signal. Such products are ETF options, equity options and equity index options.

During stressed market conditions, the maximum quote spread for quotes and Request for Quote requests is widened and the minimum quote quantity for quotes can be changed.

- **Cash Market:**

- significant short-term change in price, i.e. the cash market instrument is in an extended volatility interruption on T7,
- significant short-term change in volume, i.e. significantly above-average traded volume in the price determination after an extended volatility interruption.

According to the regulatory technical requirements, T7 has to support the state of exceptional circumstances under the following triggering conditions:

- Extreme volatility – a state of extreme volatility is established when the majority of products, which are subject to market making regulation is in stressed market conditions or in a volatility interruption. The state of extreme volatility is set for the whole market.
- War, industrial action, civil unrest or cyber sabotage – this state is declared by the Exchange Management Board with simultaneous effect for the whole market.
- Disorderly trading conditions at the exchange – this state is declared when there is either a significant increase of processing times, or multiple erroneous executions of transactions, or loss of connectivity for many Participants. The state of disorderly trading conditions is declared by the Exchange Management Board with simultaneous effect for the whole market.
- Suspension of pre-trade transparency obligation – the declaration of this state rests upon the decision of the responsible regulator. This condition applies per product.

Exceptional circumstances will be declared for a period of one hour and will end as soon as the triggering conditions are no longer met. The state of exceptional circumstances may be extended until the end of the business day, if the criteria are repeatedly breached. Exceptional circumstances will end automatically at the end of the business day. In case the triggering conditions remain in effect, they will be declared again on the next business day.

T7 will publish exceptional circumstances only via news messages (Eurex webpage, Xetra webpage, T7 GUI and ETI). Exceptional circumstances will not be communicated via the T7 market data interfaces. Thus, there might be situations where stressed market conditions in a product are set during a state of exceptional circumstances. In this case, exceptional circumstances always trump stressed market conditions, regardless of the sequence of setting the regulatory trading conditions.

On the Focus Day “Stressed market conditions / exceptional circumstances” first “Stressed market conditions” will be triggered by the exchange for 3 products for a defined time period of 10 minutes.

Afterwards Exceptional circumstances will be declared for the period of one hour for the whole market.

## 7.2.2 Corporate Actions

Participants will have the opportunity to test Corporate Action processing. On the first focus day, i.e. before end-of-day processing starts, participants are requested to generate positions (/open orders) in T7 in the defined products to check the system behaviour on the effective focus day (second business day).

Corporate Actions for cash markets follow the procedure below:

- Simulation Business Day 1: DBAG maintains the Cum-Indicator, Ex date and the dividend amount of the instruments.
- Simulation Business Day 2: The Cum-Indicator is set and visible for participants. The participants should now have open orders in POSTR. These orders will be deleted during the following batch run. Furthermore, the deletion messages including the order deletion reasons will be sent.
- Simulation Business Day 3 (Ex-day): The participants see the Ex indicator and the reference price is reduced accordingly by the dividend amount.

The exact dates and products of the Corporate Actions scenario are displayed in the current simulation calendar available on either [www.eurexchange.com](http://www.eurexchange.com) or [www.xetra.com](http://www.xetra.com).

## 7.2.3 Market Halt

As a possibility to reflect a market halt in T7, DBAG offers to schedule the simulation of the market halt scenario on request.

### Test scenario and expected result:

Prior to the planned Market Halt participants are recommended to enter non persistent orders and quotes and persistent orders in any products in the affected market. As a result of the market halt, products will not be tradable between the given times. In this scenario all non-persistent orders and quotes will be deleted after the market reset and participants must re-enter those orders and quotes. Persistent orders will stay in the system.

Additionally the following message will be sent:

- 10308 - (ETI: Mass Cancellation Event)

The exact dates of the Market Halt scenario are displayed in the current simulation calendar available on the websites

[www.eurexchange.com](http://www.eurexchange.com) -> Technology -> Simulation Calendar

[www.xetra.com](http://www.xetra.com) -> Trading -> Trading calendar and trading hours

## 7.2.4 Product Halt

As a possibility to reflect a product halt in T7, DBAG offers to schedule the simulation of the product halt scenario on request.

### Test scenario and expected result:

Prior to the planned Product Halt participants are recommended to enter non persistent- and persistent orders and quotes in the affected products. With the transition of the trading phase to HALT, this product will not be tradable between the given times in T7. In this scenario, all non-persistent orders and quotes will be deleted after the market reset and participants must re-enter them. Persistent orders for the affected product will stay in the system.

Additionally the following message occurs:

- *10308 - (ETI: Mass Cancellation Event aka DeleteAllOrderQuoteEventBroadcast aka BC CleanupOQ)  
OrderMassActionReport (UBZ) messages will be sent to all FIX sessions.*

## 7.2.5 Instrument Suspend (Cash Market; On request only)

As a possibility to reflect an instrument suspend in T7, DBAG has offers the simulation of the following focus day on request.

### Test scenario and expected result:

Prior to the planned Instrument Suspend participants are recommended to enter non persistent- and persistent orders and quotes in the affected instrument. As a result this instrument will not be tradable between the given times in T7. In this scenario all orders (persistent and all non-persistent) and all quotes will be deleted after the market reset and participants must re-enter them.

Additionally the following message occurs:

- *10308 - (ETI: Mass Cancellation Event aka DeleteAllOrderQuoteEventBroadcast aka BC CleanupOQ)*

## 7.2.6 IPO (Cash Market; On request only)

As a possibility to reflect an IPO auction in T7, DBAG has offers the simulation of the following focus day scenario on request.

An IPO auction is used for the inclusion of an instrument in the secondary market and is a special version of an auction. Like in an auction, orders and quotes can be entered, modified and deleted.

In contrast to the standard auction Market Supervision is able to enter a matching range on behalf of the lead bank during the IPO auction call phase. The price determination is restricted to this price range.



Market participants will only be informed about the price range. Market data will not be published at any time of the IPO auction phase.

Before the IPO auction is manually terminated, Market Supervision is setting the instrument state from Auction to Freeze in order to control the order book situation.

During this state, any activity that changes the order book is not possible.

After the IPO auction is terminated by Market Supervision the auction price determination takes place. The IPO auction is directly followed by an intraday auction call phase.

This focus day will allow the members to practice the interaction of their activities regarding the first price determination after an initial public offering (IPO). The focus will encompass the common trading and processing features in initial public offering. The actions will be focused on equities.

### **7.2.7 Eurex EnLight**

As a possibility to test the selective RFQ platform Eurex EnLight for Swiss equity derivatives and Swiss equity index derivatives, DBAG offers Eurex EnLight Simulation Days (please refer to the simulation calendar for the exact dates).

The following products will be available in Simulation for negotiation via Eurex EnLight:

OSMI – SMI® Options

FSMI – SMI® Futures

ABBN – Options on ABB

CSGN – Options on Credit Suisse

HOLN – Options on LafargeHolcim

LISN – Options on Lindt & Sprüngli

NOVN – Options on Novartis

ROG – Options on Roche Holding

UBSN – Options on UBS

On EnLight Simulation Days, market participants can simulate the work-flow of sending out or responding to an RFQ via the Eurex GUI or ETI. Eurex offers market participants the possibility to include the Trader IDs “MNOHBTOM001, MNOHBSIM001 and ABCFRSIM001” (Eurex internal Trader IDs) in their RFQs to receive responses.

In addition, members can contact Eurex via e-mail to [EnLight\\_Improve@deutsche-boerse.com](mailto:EnLight_Improve@deutsche-boerse.com) to indicate that they are interested to receive RFQs from the above Eurex trader IDs on these focus days, or that they are interested for Eurex to share their Trader IDs with other market participants for the purpose of testing EnLight.

## **7.3 Recommended test scenarios executed by participants – Derivatives**

The following test scenarios should be executed anytime by participants in simulation. There are no special tasks to be performed by the exchange.

### **7.3.1 Market Maker Liquidity Provision flag**

The Liquidity Provision Indicator allows the flagging of orders and quotes used in a liquidity provision activity. Additionally, in order to ensure maximum compatibility to the on-exchange model, the Liquidity Provision Indicator is available in TES trading per TES trade side.

The value of the flag can either be set to 1 (“liquidity provision”) or the flag can be skipped (“no liquidity provision”).

With the test scenario “Liquidity Provision”, members are requested to test the functionality by entering orders/quotes with setting the liquidity provision flag.

In report TC540 participants can see all orders with the entered liquidity provision flag.

### **7.3.2 Pre-Trade Controls**

The following three pre-trade controls apply for all orders and quotes before they are entering the order book:

- Price collar check, which prevents orders with a too large price difference to a reference price from entering the order book.
- Maximum order quantity validation, which prevents orders with a too large order size from entering the order book.
- Maximum order value validation, which prevents orders with too large order values from entering the order book.

The price collar check requirement is covered by the T7 price reasonability check functionality.

The maximum order value validation and covers the MiFID II requirements for maximum order value validation. On the Focus Day “Pre-Trade Controls”, members are requested to test the functionality by entering orders/quotes, which are expected to trigger the validations, mentioned above.

### **7.3.3 Audit Trail Reporting / Transaction Reporting for non-MiFIR firms"**

According to the MiFID II requirements for Audit Trail reporting, Deutsche Börse AG is obliged to store relevant data for all orders and quotes in all instruments, which are received by the T7 system for the Eurex, EEX and Xetra markets and provide it to the National Competent Authority (NCA) on request and on short notice. The requested reports are prepared internally by Deutsche Börse AG, containing the requested fields and according to the format specified by the regulator.

- Client Identification Code consisting of Legal Entity Identifier (LEI), National Identifier (NationalID), aggregation flag (AGGR), pending allocation (PNAL)
- Investment Decision Maker
- Investment Decision Qualifier
- Executing Trader
- Executing Trader Qualifier

Within the scope of a European harmonization, so-called “Short Codes” are used when entering an order or a quote. Members use instead of a LEI (Legal Entity Identifier) or a CONCAT (Concatenated Code) or an Algo ID, the short code. Such short codes are stored and audited according to the respective standards on data storage and handling.

For the test scenario “Audit Trail, members are requested to test the functionality by inserting orders and quotes, with filled Client ID, Executing Trader, Executing Trader Indicator, Investment Decision Maker and Investment Decision Indicator.

These fields shall be filled with short codes, which have to be uploaded with their respective long code via CSV file to the portal/member section.

### 7.3.4 Full Spread Matrix

In T7 it is possible to set up and trade products with up to 20 different calendars spreads.

The exchange can configure which calendar spreads of a futures product are considered for synthetic matching; a synthetically linked full spread matrix is achieved by considering all calendar spreads of a futures product.

The following products are configured with a synthetically linked full spread matrix in the permanent simulation:

Group	Product	Currency	Product Name
FINT	FEU3	EUR	THREE-MONTH-EURIBOR FUT. (ACI)
FINX	FEXD	EUR	FUT ON EURO STOXX 50 INDEX DIV
FVOL	FVS	EUR	FUT ON MINI VSTOXX

### 7.3.5 New Strategy Setup – complex instruments

Typically, complex instruments are requested by traders, however, some futures spreads are created by the exchange by default. Complex instruments requested by traders with open orders valid beyond the current trading day will be available the next day.

It is possible to have different trading parameters per instrument type, for example allocation schemes and price validations. Therefore, different instruments of the same product can vary in their trading behaviour.

Please note: Strategies are always created on a temporary basis and are cancelled during the end of day processing if their order book is empty.

Traders may request complex instruments from T7 at any time during the simulation. If the requested complex instrument matches a predefined standard option strategy, then the matching engine will create a standard option strategy.

### 7.3.6 Market Maker Protection

A Market Maker protection mechanism on a session level is provided to prevent too many simultaneous executions on quotes provided by a Market Maker. Market Maker protection parameters can be specified on either the product level or the product/instrument type level.

The participant may use the `MMPParameterDefinitionRequest` in Eurex ETI or the Eurex Trader GUI Market Maker Protection screen to define market maker protection parameters. There are additional features in T7 provided for MMP:

- MMP is available for both futures and options.
- MMP can be applied to all simple and complex instrument types independently, supplementing the existing protection on a product level.
- MMP uses quote inactivation rather than quote deletion.
- MMP can be maintained separately via the Eurex Trader GUI, Eurex Admin GUI and Eurex ETI.

An additional percentage limit supplementing the already existing volume, delta and vega limits can be used for MMP.

### 7.3.7 Trade Traceability

T7 provides improved trade traceability, allowing orders to be linked to executions, trade confirmations, and trades in clearing for simple and complex instruments.

While sending a new order participants can provide a client order ID and up to three free text fields, which are optional for Eurex ETI. For each new order received by Eurex Exchange a separate order ID by the exchange is assigned which is unique and returned to the participant on all private messages.

For every match event T7 assigns identifiers unique within product and business day, to each aggregated price level, every order execution and every trade.

For the matching of a complex order in addition to the order leg, the execution ID and order leg execution ID is provided for each leg of the complex instrument match.

### 7.3.8 Quote Handling

This scenario describes the most important features related to quote handling, e.g. 'mass quote' functionality allowing participants to enter, modify and delete multiple quotes of a session simultaneously for both, options and futures.

***Quotes per business unit:***

Quotes belong to the session on which they are entered. It is possible to have multiple sessions for one business unit and each session can have different quotes in the same instrument.

***Mass quote entry:***

In this scenario it is possible for the trader to enter, modify and delete multiple quotes of a session simultaneously. This scenario can be tested with futures as well as options as well as in combination with simple and complex instruments. This function is different from the "delete all quotes" feature, which deletes all quotes in one session.

***Quote check:***

A newly inserted or amended quote which fails the price reasonability or extended price range validation results in a complete deletion of the quote. This scenario can be tested with a positive and negative test scenario.

***Automatic deletion:***

In this scenario it can be tested that quotes are automatically deleted when the instrument status changes to "closed" or "restricted" or when the instrument has expired.

***Quote activation / inactivation:***

Quotes of a given session or product (and instrument type) can be set to active/inactive. Inactive quotes will be hidden from trading and will not participate in matching. Furthermore they will not be visible in the order book depth. Traders can continue to add, modify and cancel individual quotes. The inserted status for quotes is always persisted for the current business day. At the start of the new business day all newly entered quotes will be reset via default to status active.

During the time of a session inactivation any new quotes which are inserted for the session become automatically inactive. When reactivating the quotes they get a new matching time priority.

### 7.3.9 Risk Events

Risk parameters are adjusted in a way that risk events will be triggered due to defined trading volume or quantity limits. Limits can be set by Clearing Members for their Non-Clearing Members (Exchange Participants) or by Non Clearing Members themselves on an intraday basis. There are three levels of limitation which can be defined by participants and is the same for all business units.

1. Alert message

The user receives a popup message which informs him that he has exceeded a predefined limit, no further actions happen.

2. Threshold message

The user is informed that he has exceeded the second limit and therefore a throttle mechanism is implemented for trading. For traders it is not possible to trade in a general way and volume as the trade volume is limited as per the threshold limitation given by the clearing members.

### 3. Blocking message

With this scenario, trading is disabled for the respective trading user if he exceeds his trading limits or any other given quantity limits for trading. User entitlements are independent of those extra limitations.

## 7.3.10 T7 Entry Services

To support members during their testing of “T7 Entry Services”, DBAG has planned the following test scenarios, which are differentiated by the availability of the T7 Entry Services and On-exchange trading for dedicated instruments:

Scenario	Instrument	Trade Entry Services - Product state	On-exchange Trading - Instrument state
a.	AXA	On	Halted
b.	BMW	Halted	Continuous

### 1. TES possible and On-exchange trading not possible for instrument AXA

In this scenario the instrument AXA is suitable for off-book transactions but not for On-exchange trading. If the user enters orders in On-exchange trading, he will receive an error message, which informs him that the transaction is not allowed in current instrument state, no further actions will happen.

### 2. TES not possible and On-exchange trading possible for instrument BMW

In this scenario the instrument BMW is suitable for On-exchange trading but not for off-book transactions. If the user enters TES trades, he will receive an error message, which informs him that the transaction is not allowed in current product state, no further actions will happen.

## 7.3.11 Stop/Release User / Risk Controls view

The Risk Controls View comprises of two different functions; the Panic Cancel actions which results in the deletion of orders and/or quotes and the Stop/Release actions, which will not only delete orders and quotes but will prevent a single or group of traders/machines from further entry of quotes and orders. Please read more in the “T7 Trader, Admin and Controller GUI Manual” available on the Eurex Website at

[www.eurexchange.com](http://www.eurexchange.com) -> Technology -> Eurex Exchange's T7 -> System Documentation -> Release 6.1 -> Eurex GUI Solutions

## 7.4 Recommended test scenarios executed by participants – Cash

The following test scenarios should be executed anytime by participants in simulation. There are no special tasks to be performed by the exchange.

### 7.4.1 Pre-Trade Controls

Following three pre-trade controls apply for all orders and quotes before they are entering the order book:

- Price collar check, which prevents orders with a too large price difference to a reference price from entering the order book
- Maximum order quantity validation, which prevents orders with a too large order size from entering the order book (new)
- Maximum order value validation, which prevents orders with too large order values from entering the order book

The price collar check requirement is covered by the existing T7 price reasonability check functionality.

The maximum order value validation covers the MiFID II requirements for maximum order value validation. For the recommended specific test scenario “Pre-Trade Controls”, members are requested to test the functionality by entering orders/quotes, which are expected to trigger the validations, mentioned above.

### 7.4.2 Audit Trail Reporting / Transaction Reporting for non-MiFIR firms"

According to the MiFID II requirements for Audit Trail reporting, Deutsche Börse AG is obliged to store relevant data for all orders and quotes in all instruments, which are received by the T7 system for the Eurex, EEX and Xetra markets and provide it to the National Competent Authority (NCA) on request and on short notice. The requested reports will be prepared internally by Deutsche Börse AG, containing the requested fields and according to the format specified by the regulator.

- Client Identification Code consisting of Legal Entity Identifier (LEI), National Identifier (NationalID), aggregation flag (AGGR), pending allocation (PNAL)
- Investment Decision Maker
- Investment Decision Qualifier
- Executing Trader
- Executing Trader Qualifier

Within the scope of a European harmonisation, so-called “Short Codes” are used when entering an order or a quote. Members use instead of a LEI (Legal Entity Identifier) or a CONCAT (Concatenated Code) or an Algo ID, the short code. Such short codes are stored and audited according to the respective standards on data storage and handling.

With the recommended test scenario “Audit Trail”, members are requested to test the functionality by inserting orders and quotes, with filled Client ID, Executing Trader, Executing Trader Indicator, Investment Decision Maker and Investment Decision Indicator.

These fields shall be filled with short codes, which have to be uploaded with their respective long code via CSV file to the portal/member section.

### **7.4.3 Designated Sponsor Quote Request**

Participants have the possibility to decide who will be informed about their Request for Quote (RfQ): either all Participants, or Market Makers and Designated Sponsors, or only the Designated Sponsors of the instrument for which the RfQ is sent.

For each individual RfQ, Participants are able to decide if their business unit ID is disclosed to the target Participants of the RfQ, i.e. to all market Participants, or to Market Makers and Designated Sponsors, or only to the Designated Sponsors of the instrument.

During the recommended test scenario “Designated Sponsor Quote Request”, members are requested to send RfQs particularly to Designated Sponsors.

### **7.4.4 Xetra Best**

The BEST functionality guarantees an execution price better than the price within the current order book by routing of customer orders from Flow Providers to specific other market Participants acting as BEST Executors. Beyond this, within BEST functionality all orders are executed against the BEST Executor’s quote in their full size. Hence no partial executions occur.

The Xetra BEST Execution functionality enables business units, which do not provide a best execution facility themselves, to route their order flow to a BEST Executor. Such business units are called Flow Providers. The BEST Executor provides BEST Execution for the customers of these Flow Providers. One BEST Executor serves several Flow Providers, but one Flow Provider sends his orders to only one designated BEST Executor.

During the test scenario, BEST executors are requested to provide a flow of BEST quotes in a number of pre-defined instruments.

These BEST quotes have relative price limits that dynamically adjust according to the top of the order book. Flow Providers are requested to match these generated BEST quotes during the test scenario.

### **7.4.5 Volume Discovery Order, VDO**

The Volume Discovery Service offers access to “dark” and “lit” liquidity. This service combines the execution of an Iceberg order in the open order book with the execution of the hidden part of the Iceberg order at the midpoint against other orders of this type.

The hidden part of an Iceberg order may be executed against other orders of this kind at the current midpoint of the Xetra order book up to a second limit price (Volume Discovery Price) that is more aggressive than the visible limit price of the Iceberg order. Such an order is referred to as Volume Discovery Order. Volume Discovery Orders behave just like Iceberg orders for matching in the visible order book and are entered as Iceberg orders with the additional parameter Volume Discovery Price (volDiscPrc). The hidden quantity of a Volume Discovery Order has to be greater than or equal to the Volume Discovery Order Minimum Executable Quantity (MEQ).



In simulation, the Volume discovery orders are generated by automatic scripts (run by Acceptance on the reference installation). In one instrument, a large number of buy orders are entered, while in the second instrument a large number of sell orders are entered.

## 8. Documentation

T7 Release 6.1	Eurex	Xetra	Combined	Q1 2018			Q2 2018			Q3 2018		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
T7 Release 6.1, Release Notes	X	X		◆				●				
Participant Simulation Guide			X				●					
T7 Functional and Interface Overview			X				●					
T7 Cross System Traceability			X				●					
T7 Functional Reference			X				●					
Participant and User Maintenance Manual	X	X					●					
Contract Notes Description		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	X				◆	■	●				
T7 Enhanced Trading Interface – XML Representation	X	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 and Repository			X			◆	■	●				
Xetra Instrument Reference Data Guide		X					●					
T7 Extended Market Data Services – Manual incl. Fast Message Template and Underlying Ticker Data			X				■	●				
XML Reports - Reference Manual	X	X					■	●				
Common Report Engine User Guide			X				●					
N7 Network Access Guide			X				●					

- ◆ - cloud-simulation / preliminary version
- - simulation / preliminary version
- - production / final version

The documents will be available on the websites

[www.eurexchange.com](http://www.eurexchange.com) > Technology > Eurex Exchange's T7 > System Documentation > Release 6.1  
[www.xetra.com](http://www.xetra.com) > Technology > T7 trading architecture > System Documentation > Release 6.1

## 9. Support

The standard support times of the Exchange will be in effect during the simulation phases. The helpdesk departments and further information sources are provided in the following section.

### 9.1 Contacts and support hours

The following helpdesks provide first level support for specific topics from Monday till Friday:

#### 9.1.1 Group Client Key Account Management

Phone: individual number to your Group Client Key Account Manager (09:00 - 18:00 CET)

- Participants readiness activities
- Participant preparation requirements
- Participant setup questions for simulation and production
- Participant data changes for simulation and production
- ISV related queries

#### 9.1.2 Functional Helpdesk Eurex

Phone: +49-69-211-1 12 10 (07:00 - 22:30 CET)

- Functional trading related issues for trading
- Functional focus days
- Product data management
- Market Control
- Simulation participation and execution

#### 9.1.3 Functional Helpdesk Xetra

Phone: +49-69-211-1 14 00 (09:00 – 18:00CET)

- Functional trading related issues
- Functional focus days
- Product data management
- Market Control
- Simulation participation and execution

### **9.1.4 Helpdesk Clearing Data Control**

Phone: +49-69-211-1 24 53 (08:00 - 20:00 CET)

- Clearing functionality
- Entitlement Management
- Participant- and user data management

### **9.1.5 Customer Technical Support**

Phone: individual VIP number (24 hours, Monday - Friday)

- All Technical issues related to the simulation environment (e.g. connectivity issues)
- Technical focus days

## **9.2 Further sources of information**

Changes and further information regarding the T7 simulation will be provided via the following channels:

1. Circulars
2. Info-Mail

Implementation News on Eurex Exchange's website for T7 under following path:

[www.eurexchange.com](http://www.eurexchange.com) -> Technology -> Eurex Exchange's T7 -> Implementation News

[www.xetra.com](http://www.xetra.com) -> Technology -> Implementation News

## Change log

The document contains the following changes compared to the previous versions.

No	Date	Chapter	Change
1.0	29 March 2018	All	Initial version for Eurex and Xetra T7 Release 6.1 Simulation
1.1	27 April 2018	7.2.7	Inclusion of the Eurex EnLight Simulation Days
1.2	30. April 2018	1.3	Inclusion of the timeline for EMDS