T7 Release 6.1

Derivatives Markets - Final Release Notes

Date   24 May 2018

Content

1.   Introduction

Deutsche Börse AG is planning to launch Release 6.1 of T7 on 18 June 2018.

The following diagram gives an overview of the introduction schedule:

2017	2018							
Q4	Q1			Q2			Q3	
Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug

Development > Simulation Preparation | Simulation | Production

Cloud Simulation

▲ Release Announcement *December 2017*   ▲ Release Notes (Preliminary) *January 2018*   ▲ Documents for Cloud Simulation *March 2018*   ▲ Release Notes (Final) *May 2018*

▲ Documents for Simulation *April 2018*   ▲ Documents for Production *May 2018*
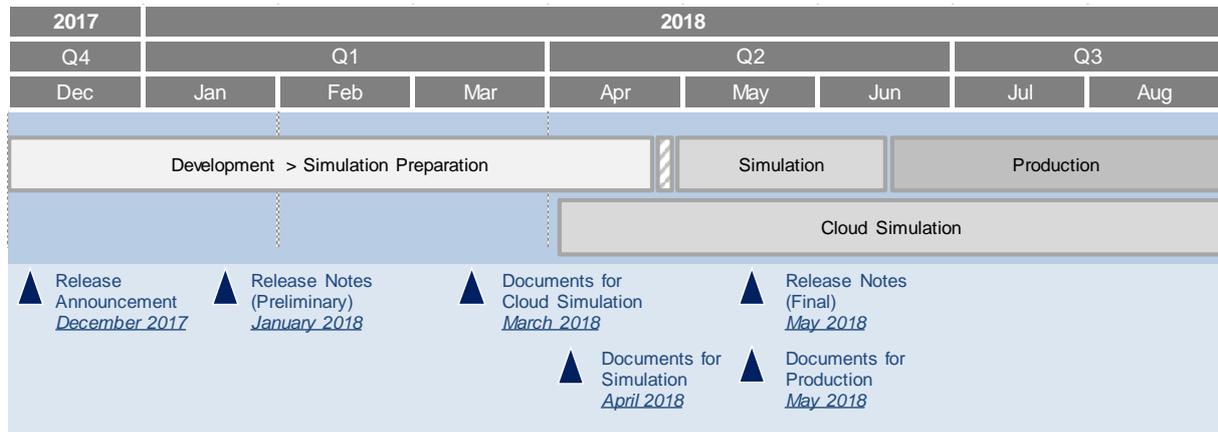
Deutsche Börse AG provides a dedicated release simulation environment in order to give trading participants the opportunity to perform comprehensive testing of their trading applications, independent from the T7 production environment. The simulation period for T7 Release 6.1 started on 30 April 2018.

In addition to the T7 release simulation, Deutsche Börse AG offers T7 Cloud Simulation in Release 6.1 to allow trading participants and Independent Software Vendors to test against the current T7 production and simulation environment. In this environment, participants can initiate predefined market scenarios and test specific strategies more easily than in a shared environment. The environment is available around the clock for a fixed price per hour. The T7 Cloud Simulation for T7 Release 6.1 started on 06 April 2018. For more information on the T7 Cloud Simulation, please refer to http://www.eurexchange.com/exchange-en/technology/t7-cloud-simulation.

1.1   New Features and Enhancements Overview

The following new features and enhancements will be introduced with T7 Release 6.1:

- Book-or-Cancel (BOC) possibility for quotes.
- Enhancement of Eurex EnLight, the Selective RFQ Service introduced with T7 Release 6.0.
- Introduction of partition specific gateway for the T7 FX environment.
- Enhancements to the Trading and Reference Data Interfaces:
  - Enhanced Trading Interface (ETI):
    - Extension of the short message layout to complex instruments and standard orders.
    - Standards orders will be supported via high frequency (HF) sessions.
  - FIX Interface:
    - Provision of TES trades via Backoffice sessions.
    - Introduction of a new FIX message to identify the input interface of the order related messages.
  - Enhancements of the Reference Data Interface (RDI) to be more FIX compliant.

1.2   Further Reading

The existing documents have been or will be revised for T7 Release 6.1. The following table provides an overview of the preliminary schedule for the publication:

T7 Release 6.1	Eurex	Xetra	Combined	Q4 2017			Q1 2018			Q2 2018			Q3 2018		
				Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Release Notes															
T7 Release 6.1, Release Notes	X	X					◆				●				
Simulation															
Participant Simulation Guide	X	X								●					
Overview and Functionality															
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								●					
GUI Solutions															
T7 Trader, Admin and Clearer GUI – User Manual	X	X								■	●				
T7 Trader, Admin and Clearer GUI - Installation Manual			X							■	●				
Trading Interfaces															
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						◆	■	●				
Market and Reference Data Interfaces															
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							■	●				
Reports															
XML Reports - Reference Manual	X	X								■	●				
Common Report Engine User Guide			X							●					
Network Access															
N7 Network Access Guide			X							●					

◆ - cloud-simulation / preliminary version

■ - simulation / preliminary version

● - production / final version

The documents will be available on the Eurex website www.eurexchange.com under the link:
> Technology > Eurex Exchange's T7 > System Documentation > Release 6.1.

Please note that the outlined schedule is preliminary and subject to change.

1.3 Contacts

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

1.4 Definitions and Abbreviations

Term / Abbreviation	Description
BOC	Book-or-Cancel
DBAG	Deutsche Börse AG
EMDI	T7 Enhanced Market Data Interface
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	Eurex EnLight, introduced as the Selective Request for Quote Service (SRQS) with release 6.0, is a price discovery service offered by Eurex on the T7 platform to negotiate off-book transactions electronically.
FIX	Financial Information eXchange (protocol)
GUI	Graphical User Interface
HF	High Frequency
MDI	T7 Market Data Interface
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
PS	Partition Specific (gateway)
RDF	T7 Reference Data File
RDI	T7 Reference Data Interface
RfQ	Request for Quote
SMC	Stressed Market Conditions
T7	DBAG Trading System
TES	T7 Entry Service

2.   Functional Aspects

2.1   BOC Possibility for Quotes

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. Please note further that the high frequency sessions of the T7/ FX environment accept – similar to orders – only quotes with the BOC restriction attribute ("passive order flow path).

Whether BOC possibility for quotes is available will be configured after production launch.

2.2   Enhancements to Eurex EnLight (Selective RFQ Service)

2.2.1   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.

2.2.2   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).

2.2.3   TES Profile Validation

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.

2.2.4 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.

2.2.5 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.

2.2.6 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.

2.2.7 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.

2.2.8 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 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'.

2.2.9 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.

2.2.10 Reports

All the above changes will also be reflected in respective reports mentioned in chapter 4.

2.3 Other Functional Enhancements

2.3.1 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.

2.3.2 Trades resulting from Quotes

Currently, for trades resulting from quotes *(ETI/FIX: OrderCategory (1115) = 2 (Quote)),* no exchange order ID (*ETI/ FIX: OrderID (37)*) is delivered within the trade messages. With the release introduction, this behavior will change and the aforementioned tag will be populated in the ETI Trade Notifications, FIX Trade Capture reports, and in the participants' reports (*exchangeOrderId, versionNo*).

2.3.3 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.

2.3.4 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.   Technical Enhancements

3.1   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 in T7 Release 6.1 will be provided in the Trading Interfaces documentation on the Eurex webpage.

3.1.1   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 aforementioned 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.
- In addition to the short order message layouts for simple instruments, T7 ETI will support new short order message layouts for complex instruments referred to as "New Order Multi Leg (Short Layout)"/ "Replace Order Multi Leg (Short Layout)". As with the short order message layouts for simple instruments, the new short order message layouts will consider lean and standard orders and the possibility to choose whether persistent or non-persistent.
- EnLight/ SRQS messages will be extended to support the new features mentioned in chapter 2.2.
- EnLight Negotiation Event Identifier and Enlight Deal Identifier will be provided on TES trades.

3.1.2   Enhancements of the T7 FIX Interface

The following enhancements refer to the T7 FIX interface:

- The T7 FIX Backoffice sessions will be enhanced to deliver the information for TES trades via the FIX Trade Capture Report to consolidate all trades in one channel.
- 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.

3.2   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 the Eurex webpage.

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

3.2.1   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 too, similarly as currently applied for complex and flexible 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.

3.3 Partition Specific Gateways

Deutsche Börse AG introduced partition specific (PS) gateways with T7 Release 6.0 thereby replacing the existing HF gateways in a stepwise approach. After the introduction of PS gateway for the cash markets in April 2018, the final step of PS gateway introduction will be made with the production launch of T7 Release 6.1, when the HF gateways in the T7/ FX environment will be switched to PS gateways. Please note that the connection to the gateway works only if the *PartitionID (5948)* is set in the Connection Gateway Request. For more information regarding PS gateways, please refer to the T7 Release Notes 6.0.

4.   Reports

The following reports will be enhanced with T7 Release 6.1:

- TE810 – T7 Daily Trade Confirmation
  For trades resulting from quotes, the fields *exchangeOrderId* and the *versionNo* will be delivered.
- TE600 – Eurex EnLight Maintenance (prior Selective RFQ Service Maintenance)
  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 (prior Selective RFQ Service Best Execution Summary)
  The report TE610 will be enhanced to enrich the Best Execution reporting in Eurex EnLight.
- TE545 - Daily TES Maintenance
  The report TE545 will be enhanced with the *SRQSNegotiationEventID* and *SRQSDealID* to incorporate the change in EnLight fields in TES trades.

With regard to the enhancements in the cash markets, there will be changes in RD115 and RD110 (i.e. new fields as described below). However, these fields have no relevance for the derivatives markets.

- RD115 – User Profile Status. Two field will be added into the rd115Rec1 group (*prefSettlAcct* and *prefSettlLocat*) reflecting the preferred user settlement account and location (cash markets only).
- 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 (cash markets only).

For a detailed description, please refer to the "T7 XML Reports Reference Manual" on the Eurex webpage. 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.