

T7 Release 9.0

Final Release Notes for the Trading Venues Xetra and Börse Frankfurt

Date 04 September 2020

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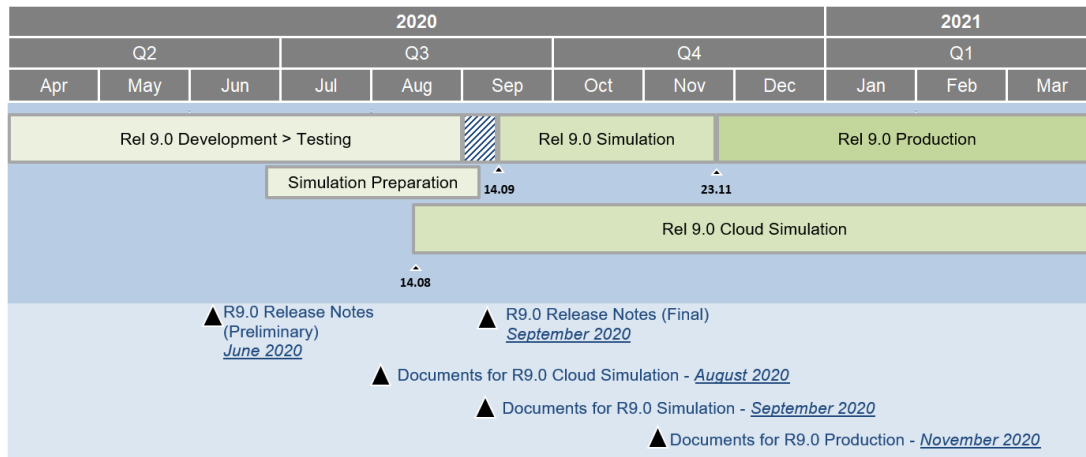
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1. Overview of T7 Release 9.0

Deutsche Börse AG is planning to launch T7 Release 9.0 on 23 November 2020.

The following diagram gives an overview of the introduction schedule:



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 9.0 is planned to start on 14 September 2020.

In addition, and prior to the T7 release simulation, Deutsche Börse AG offers a T7 Release 9.0 Cloud Simulation to allow trading participants and Independent Software Vendors (ISVs) to test against the current T7 production and simulation software versions. In the Cloud Simulation, participants can initiate predefined market scenarios and test specific strategies more easily than in a shared environment. The Cloud Simulation is available around the clock for a fixed price per hour and started on 14 August 2020.

For more information on the T7 Cloud Simulation, please refer to <http://www.xetra.com/xetra-en/technology/t7/cloud-simulation>.

1.1 New Features and Enhancements Overview

The following new features and enhancements will be introduced with T7 Release 9.0:

- Trade-at-Close
- New T7 FIX LF Gateway
- Further Changes and Enhancements

Note on Interfaces

T7 Release 9.0 will provide backwards compatibility for the T7 ETI/FIX interface version 8.1, i.e. participants who do not want to use the new functionality will still be able to connect to T7 with the interface layout version 8.1, even after the production launch of T7 Release 9.0.

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

1.2 Further Reading

The existing documents have been or will be revised for T7 Release 9.0. The following table provides an overview of the schedule for the publication:

T7 Release 9.0	Derivatives	Cash Markets	Combined	Q2 / 2020			Q3 / 2020			Q4 / 2020		
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
T7 Release 9.0 - Release Notes	x	x				◆			●			
T7 Functional Reference			x						●			
T7 Functional and Interface Overview			x						●			
T7 Participant Simulation Guide			x						●			
T7 Cross System Traceability			x						●			
T7 Incident Handling Guide			x						●			
T7 Participant and User Maintenance Manual	x	x							●			
Contract Notes Description		x									●	
T7 Known Limitations			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. Header files			x					◆	■		●	
T7 Enhanced Trading Interface- XSD, XML Representation and Layouts			x					◆	■		●	
T7 FIX Gateway – FIX 4.2 and 4.4 Manual incl. Fixmate and Repository			x					◆	■		●	
T7 Market, - Enhanced Order Book- and Reference Data Interfaces Manual incl. Fast Message Template, Repository & FIXML Schema Files			x					◆	■		●	
T7 Extended Market Data Services – Manual incl. Fast Message Template and Underlying Ticker Data			x						■		●	
Cash Market Instrument Reference Data Guide		x							●			
T7 XML Report Reference Manual			x						■		●	
Common Report Engine User Guide			x					●				
N7 Network Access Guide			x						●			
Exchange Rules & Regulations		x									●	
Market Models		x									●	

Release 9.0: ◆ Cloud Simulation / Preliminary Version ■ Simulation Version ● Production / Final Version

Please note that the outlined schedule is subject to change.

The documents will be available on the Xetra website www.xetra.com/technology under the link:

> Technology > T7 Trading Architecture > System documentation > Release 9.0

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
BU	Business Unit
CRE	Common Report Engine
DBAG	Deutsche Börse AG
EMDI	T7 Enhanced price level netted Market Data Interface
EOBI	T7 Enhanced Order Book Market Data Interface
ETI	T7 Enhanced Trading Interface
FIX	Financial Information eXchange (portal)
GUI	Graphical User Interface
HF	High Frequency
ISV	Independent Software Vendor
LF	Low Frequency
LIS	Large in Scale (TES Type for on-exchange off-book trading)
MDI	T7 netted price level aggregated Market Data Interface
PAG	Product Assignment Group
PWT	Price-Without-Turnover
RfQ	Request for Quote
RDF	T7 Reference Data File
RDI	T7 Reference Data Interface
T7	T7 is the trading architecture developed by Deutsche Börse Group
TaC	Trade-at-Close
TES	T7 Entry Service
XETR	Market Identifier Code (MIC) of trading venue T7 Xetra
XFRA	Market Identifier Code (MIC) of T7 Börse Frankfurt including Börse Frankfurt Zertifikate

2. Trade-at-Close

After the start of T7 Release 9.0, a new trading phase Trade-at-Close directly after the *Closing Auction* phase will be introduced for instruments in the trading model *Continuous Trading with Auctions*.

2.1 Functional Description

In the Trade-at-Close phase, trading participants will have the possibility to enter orders that will result in trades at the fixed closing auction price. Orders entered prior to the Trade-at-Close phase which have not been executed and are flagged accordingly and qualify, will participate in the Trade-at-Close phase. The Trade-at-Close phase will only be triggered if the closing auction ended with an auction price with positive turnover.

During Trade-at-Close, executions will take place continuously at single price - no price discovery takes place. Orders will participate in Trade-at-Close only if flagged accordingly upon entry and if the price limit is better or equal to the closing auction price for limit orders. The Trade-at-Close flag cannot be modified after order entry. Quotes cannot participate in the Trade-at-Close phase however, quotes can be still entered while the Trade-at-Close phase is active for the relevant instrument.

Trade-at-Close will be a transparent trading phase with both pre-trade transparency and post-trade transparency compliant with MiFID II/MiFIR requirements.

Xetra will support the definition of a default setting of the Trade-at-Close flag at user level, so that all regular orders will be flagged by default according to this setting. It will however be possible to modify the flag at order level superseding the default user setting of the Trade-at-Close flag. The initial setting will be that orders will not participate in the Trade-at-Close phase.

Eligible for Trade-at-Close will be regular *Market* and *Limit* orders of any validity. Except the execution constraints IOC, FOK and BOC, no other order attribute will be allowed when the Trade-at-Close flag is set. Stop orders will not be triggered in Trade-at-Close and no volatility interruption will occur in Trade-at-Close.

Trades resulting from the Trade-at-Close phase will be flagged accordingly.

2.2 Impact on Interfaces

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

2.2.1 ETI

The following new field will be introduced in the messages *New Order Single* and *Extended Order Information*:

- *TradeAtCloseOptIn* (30625), with valid values 0=No and 1=Yes.

For the following field the following new valid value will be introduced:

- *MatchSubType* (28610): 5 Trade-at-Close

2.2.2 FIX

The following new field will be introduced in the messages *New Order Single* and *Execution Report*:

- *TradeAtCloseOptIn* (30625), with valid values 0=No and 1=Yes.

For the following field the following new valid value will be introduced:

- *MatchSubType* (28610): 5 TRADE_AT_CLOSE

2.2.3 Reference Data and Market Data

The modified schedule will be published in the trading schedule CSV file in the *Static Instrument Reference Data* files (RDF).

The market data in the Trade-at-Close phase show the closing auction price and the aggregated size of all orders flagged for Trade-at-Close which potentially match at this price. Trades resulting from the Trade-at-Close phase will be reported in the usual way with a new valid value for Trade-at-Close for the trading status.

In EMDI, MDI and EOBI the following fields will show a new valid value:

- *SecurityTradingStatus* (326): 217 Trade-at-Close
- *SecurityMassTradingStatus* (1679): 217 Trade-at-Close

2.2.4 Xetra Trader GUI

Order entry view:

- New checkbox to set the flag for trading in Trade-at-Close

Orders view, *Order History* view:

- New column for the Trade-at-Close flag

Trades view, *Trades Summary* view:

- Display of new valid value for Trade-at-Close in column *MatchSubType*

Times & Sales view:

- Display of prices in Trade-at-Close phase.

2.2.5 Xetra Admin GUI

User Maintenance wizard, on the *General Attributes* tab:

- New checkbox to define the default setting for the Trade-at-Close flag

It will be possible to modify this field intra-day.

2.2.6 XML Reports

The following T7 XML reports will be affected, in order to reflect the setting of the Trade-at-Close flags in orders, trades, and User profile default settings:

- TC540 Daily Order Maintenance
- TC550 Open Order
- TC810 T7 Daily Trade Confirmation

- TC910 T7 Daily Match Step Activity
- RD110 User Profile Maintenance
- RD115 User Profile Status

For more details see the T7 XML Report Modification Announcement.

3. New T7 FIX LF Gateway

As part of Release 9.0, Deutsche Börse AG will start an initiative to integrate the FIX gateway closer into the T7 architecture. This new customer interface, using the FIX 4.4 Protocol, will be offered in parallel to the existing FIX interface and will, after a transition period, replace the existing interface.

As initial step, Deutsche Börse AG will introduce new T7 FIX LF Gateways for back-office sessions in Q1 2021. A detailed timeline and further information will be provided with sufficient lead time.

4. Further Changes and Enhancements

4.1 Enhanced Maintenance of Text Field Configuration

The maintenance and deletion of shared *Text Field Configuration* entries respective shared profiles will be adapted as follows:

- All Head Traders will be able to maintain *Group Shared* entries of their group.
- All Supervisors will be able to maintain *BU Shared* entries.

Thus, it will be possible to maintain and delete *Text Field Configuration* entries respective profiles of users who have already been removed from the system.

4.2 New field *liquidityClass* available in Reference Data

With T7 Release 9.0, a new field *liquidityClass* on instrument level with valid values 1, 2, ... will be available in:

- the Reference Data Interface RDI.
- the *All Tradable Instruments* CSV file, available on the Web site.

4.3 New field for Segment MIC in contract notes

Currently the Segment MICs (*RootPartyIDExecutionVenue* on the ETI interface) is already provided in the trade notifications on T7. With the introduction of T7 Release 9.0 the Segment MICs will also be included in the contract notes.

4.4 New quote type for Special Auction

In the ETI messages *Mass Quote* (10405) and *Single Quote Request* (10418) there will be a new valid value for the field *QuoteType* (537):

- 104 PWT with Special Auction

4.5 Report RPTTC540 Daily Order Maintenance: Available as XML only

Starting with T7 release 9.0, the report RPTTC540 *Daily Order Maintenance* will only be distributed in the XML format. The TXT format will not be supported any more.

4.6 Change in XML Report TC540 Daily Order Maintenance

For the field *activity* a new valid value will be introduced:

- Valid Value: 7
- Decode: O
- Description: Order Book Restatement

The new valid value 7 respective O for *activity* will indicate records which reflect the order book restatement of persistent orders on system startup and on intra-day market resets.

4.7 Change in XML Report TR901MiFID II Message Rate Report

The descriptions of the following fields used in this report will be replaced by new descriptions. Please note that the contents of the fields will *not* change!

- *maxRatioMarketDate*: This field contains the max value across all ISINs of the daily report defined as *NoTransactionsDate* / *NoSecDate*.
- *maxRatioMarketMtd*: This field contains the max value across all ISINs of the daily report defined as *NoTransactionsMTD* / *NoSecMTD*.
- *maxRatioSingle12M*: This field contains the max value across all ISINs of the daily report defined as *Transactions12M* / *TradingSec12M*.

4.8 Change in XML Report TR160 and TR166

The report structure of TR160 will be modified adding a possibility to distinguish on-exchange orders and TES trades. The field *exchangeOrderId* will be replaced by the field *transactionIdentifier*. The field will contain either the order ID of an on-exchange order, or the TES ID of a TES trade. The field *typOrig* serves to distinguish both usages of the field.

In report TR160 there will be an additional field *shortCodeSrc*. For the short codes, which resulted in error description "1 - Client long value is missing", the information will be provided from which field the short code stems from: Either *ClientID*, or *ExecutionID*, or *InvestmentID*.

For report TR166 the description will be modified, so that not only the field *ClientID* will be covered but also the fields *ExecutionID* and *InvestmentID*.

4.9 Removal of Xetra BEST

As Xetra BEST is no longer used, the functionality will be removed from T7.

4.9.1 ETI

The following messages will be removed:

- *BEST Quote Request*
- *BEST Quote Response*
- *BEST Quote Execution Notification*

The field *ExDestinationType* (2704) will be removed from the following messages:

- *New Order Single*
- *Replace Order Single*
- *Extended Order Information*
- *Extended Deletion Report*

The following valid values will be removed from the following fields:

- *MatchType* (574): 9 Systematic Internaliser
- *TradingCapacity* (1815): 8 Systematic Internaliser
- *Account* (1): E = \x45

4.9.2 FIX

The field *ExDestinationType* (2704) will be removed from the following messages:

- *New Order Single*
- *Order Cancel/Replace Request*
- *Execution Report*

The following valid values will be removed from the following fields:

- *MatchType* (574): 9 Systematic Internaliser
- *TradingCapacity* (1815): 8 Systematic Internaliser

4.9.3 Reference Data and Market Data

Concerning EMDI, MDI, RDI and Trade Statistics, the following valid value will be removed from the following field *in the FAST template*:

- *TradeCondition* (277): AZ Systematic Internalizer

In EOBI, the following valid value will be removed from the following field:

- *TradeCondition* (277): 153 Systematic Internalizer (AZ)

4.9.4 GUIs

The following views will be adjusted by removing certain columns or checkboxes:

Xetra Trader GUI:

- *Market view*
- *Order Entry view*
- *(Own) Orders view*
- *(Own) Order History view*
- *Product Statistics view*

Xetra Admin GUI:

- *User Maintenance wizard / General Attributes tab*

4.9.5 XML Reports

From the following T7 XML reports, fields will be removed:

- TC540 Daily Order Maintenance
- TC550 Open Order Detail
- RD115 User Profile Status

Furthermore, all valid values in connection with Xetra BEST will be removed.

See the *T7 XML Report Modification Announcement* for details.