T7 Release 11.0

Cash Market

September 2022



DEUTSCHE BÖRSE GROUP

Agenda

Introduction and Overview

Pre-Trade Risk Limits based on Notional Value

Enhancements for Xetra EnLight Quotes

Message Encryption for ETI Low Frequency Gateways

Changes to Short Code processing logic (Modifications in XML report field and XML report TR 166)

Further Changes and Enhancements

1 Introduction & Overview

Overview of Xetra T7 Release 11.0

Main Features	T7 Xetra XETR	T7 Börse Frankfurt XFRA
Pre-trade Risk Limits for Xetra based on Notional Value	Х	
Enhancement for Xetra EnLight Quotes	Х	
Message Encryption for ETI Low Frequency Gateways	Х	Х



Introduction Schedule

	2022			2023	
Q2	Q3		Q4	Q1	
May Jun	Jul Aug S	Sep Oct	Nov Dec	Jan Feb	Mar
	12.08.	R	el 11.0 Cloud Simul	lation	
Rel 10.1 perma	anent Simulation	12.09.	Rel 11.0 Simulation	n	
			21.11.	Rel 11.0 Production	
	Release Notes f	for R 11.0 (Prelimina	ary) <u>July 2022</u>		
	A Docum	nents for R 11.0 Clo	oud Simulation Aug	2022	
Release Notes for R 11.0 (Final) Sep 2022					
Documents for R 11.0 Simulation/Production Sep 2022					
			▲ Documents for	R 11.0 Production Nov	/ 2022



Publication Schedule

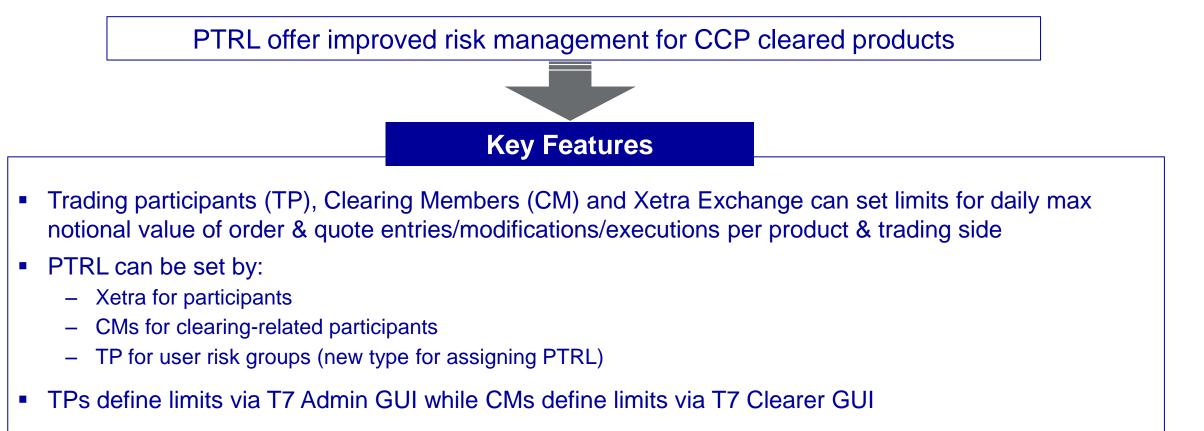
7 Release 11.0		ı Markets	Combined	Q	3/2022	Q4/202	2
	Derivatives Markets	Cash	Com	Ę	Sep 4ug	Nov	
T7 Release 11.0 - Release Notes	x	х		۲			1
T7 Functional Reference			х		•		
T7 Functional and Interface Overview			х		•		
T7 Participant Simulation Guide			х		•		
T7 Cross System Traceability			х		•		
T7 Incident Handling Guide			х		•		
T7 Participant and User Maintenance Manual	х	х			•		
Contract Notes Description		x				•	1
T7 Known Limitations			х			•	•
T7 Trader, Admin and Clearer GUI – User Manual	x	x			•		
T7 Trader, Admin and Clearer GUI – Installation Manual			х		•		
T7 Enhanced Trading Interface – Manual incl. XSD, XML Representation and Layouts			х				•
T7 FIX LF – Manual incl. XML Representation and FIX Repository			х		• =	•	•
T7 Market, – Enhanced Order Book- and Reference Data Interfaces Manual incl. Fast Message Template, Repository & FIXML Schema Files			х		• =	•	•
T7 Extended Market Data Services – Manual incl. Fast Message Template and Underlying Ticker Data			х			•	•
Cash Market Instrument Reference Data Guide		x				•	•
T7 XML Report Reference Manual			х			•	•
Common Report Engine User Guide			х		•		
Common Upload Engine User Guide			х		•		
Exchange Rules & Regulations		х					
Market Models		x				•	

- Cloud Simulation (identified by
) will be published in July / August 2022
- Simulation versions (identified by
) will be published in September 2022
- Production versions (identified by
) will be published in September / November 2022
- All documents will be available on <u>www.xetra.com</u> under:

Technology > T7 trading architecture > System documentation > Release 11.0

2 Pre-Trade Risk Limits (PTRL) based on Notional Value

PTRL functionality introduced for Xetra on-book trading



- PTRL can be maintained via ETI/GUI
- Long & short limits can be defined per product (intraday changes become effective immediately)
- Exchange defines which products are eligible for new PTRL functionality

PTRL based on Notional Value

Terminology & Mechanism

- PTRL Definition = Setting of PTRL by EX, TP or CM
- PTRL Consumption = Accumulated notional value of open orders & quotes per trading side and net position of trades executed per trading side throughout the day
- Prior to acceptance of an incoming order/quote transaction, order will be checked whether *PTRL Consumption*, which at that point in time will include the notional value of new incoming transaction, will exceed *PTRL Definition:*
 - If incoming transaction would cause violation of any of PTRL Definitions, incoming transaction will be rejected
 - Deletions of open transactions always lead to a reduction of PTRL Consumption, they are always accepted

Calculation

- Xetra PTRL are limits to notional value* (quantity multiplied by PTRL reference price; ref price is determined at time of entry/modification of order/quote)
- Once execution take place, price is used to determine *PTRL Consumption* of executed orders/quotes & *PTRL reference price is* used to reduce open order/quote PTRL Consumption

Calculation of PTRL Consumption is:

- PTRL Consumption **Buy** = Quantity of open orders (quotes) on Buy side * PTRL reference price + Net Position Buy
- PTRL Consumption **Sell** = Quantity of open orders (quotes) on Sell side * PTRL reference price + Net Position Sell
- Net Position (Buy/Sell) reflects the executed notional value and is reset to 0 at start of day

PTRL based on Notional Value

Miscellaneous

- For IOC, BOC and FOK orders, complete quantity will be considered for evaluation of PTRL Consumption at time of order entry/modification
- For VDO & Iceberg orders, full quantity will be considered for evaluation of PTRL Consumption at time of the order entry/modification
- For orders with the restrictions (Auction Only, Intraday Auction Only, Opening Auction, Closing Auction, Trade at Close) PTRL Consumption will only be evaluated at time of order entry/ modification (not at start of auction call phase)
- In case of Market Reset, restated orders are re-accumulated as open limits of respective trading sides
- Trade Reversals will not cause an update of the net position

3 Enhancements for Xetra EnLight Quotes

Non-recoverable Xetra EnLight Quotes

New distinction of Xetra EnLight HF and LF Quotes

Frequency Restriction for Xetra EnLight Quotes

Non-recoverable quotes for Xetra EnLight

Key Features

- Only non-recoverable Xetra EnLight quotes will be offered to minimize its (persistency layer) footprint
- Only the state of Xetra EnLight quotes can be recovered (no history)

New distinction of HF and LF quotes for Xetra EnLight

Key Features

- New attribute will differentiate between Xetra EnLight HF & LF quotes
- HF/LF attribute can be set at time of Xetra EnLight quote entry
- Features Xetra EnLight LF quotes
 - Will be distributed to all sessions of all Xetra EnLight respondents & requesters
 - Will be persistent in case of T7 session loss of submitting session & can be recovered
 - Automatic pulling of quotes will be possible
- Features Xetra EnLight HF quotes
 - Will only be distributed to submitting session of related Xetra EnLight respondent & all subscribed sessions of BU of requester of related Xetra EnLight negotiation
 - Will be deleted in case of T7 session loss of submitting session (no recovery possible)
 - Automatic pulling of quotes will not be possible

Frequency Restrictions for Xetra EnLight

Key Features

Distribution of LF quote information

- LF quote information will always be distributed immediately
- Frequency of LF quotes will be limited on respondent level (for each negotiation) by LDS server & will be configurable
- Deletion of LF quotes is always possible

Distribution of HF quote information

- Only first HF quote within a negotiation will be published immediately (follow-up HF quotes will be stored only in Negotiation context)
- Later HF quote information will be distributed per time interval/frequency in form of a snapshot of all HF quotes (on negotiation level) if there are additional quotes
- Frequency for HF quote information/snapshots might vary up to several milliseconds

4 Message Encryption for ETI Low Frequency Gateways

Payload Encryption for FIX LF Interface

An additional FIX LF connectivity option via an additional port will be provided.



- Additional connectivity option for ETI Low Frequency Gateways will be offered, supporting payload encryption via OpenSSL (TLS 1.2 – restricted cipher-suites)
- Further details will be contained in the Network Access Guide under xetra.com > Technology > T7 Trading architecture > System documentation > Release 11.0

5 Changes to Short Code processing logic

(Modifications in XML report field and XML report TR 166)



MiFIR Reporting: Adaptation of the Shortcode-Longcode processing

Key Changes

- Differentiation between StatusIndicators N and M
 - New records must be registered with StatusIndicator N and will be rejected if the shortcode in the affected
 - Mapping is already registered for that MemberID and MIC
 - Modification of existing records must be conducted with StatusIndicator M and will be rejected if the shortcode in the affected mapping is not already registered for that MemberID and MIC
- Changes to acceptable ValidFromDates depending on the StatusIndicator
 - Modifications and Deletions (StatusInd M or D) no longer accepted with ValidFrom T-1 or T
 - ValidFromDates in the future restricted to T+1 for all Status Indicators
- Rejection of modifications (StatusIndicator M) that would result in the ClassificationRule changing
- Enhancement of the TR166 Identifier Mapping Final Error report to include lists of all affected short codes in addition to the counts in the current format

Related Documentation FWB	
XETRA Circular 044/22	www.xetra.com > Newsroom > Circulars & Mailings
Reporting Handbook MiFID II/MiFIR v.3.7	www.xetra.com > Newsroom > Current regulatory topics > MiFID II and MiFIR
T7 XML Report Reference Manual v.110.2.4 (for TR166 changes)	www.xetra.com > Technology > T7 trading architecture > System documentation > Release 11.0

6 Further Changes and Enhancements

Further Changes and Enhancements (1/2)

Xetra EnLight AutoEx Expiry Time now defined as Duration	 Expiry time for Xetra EnLight AutoEx quote collection will be defined by requester as a duration (not anymore as a point in time) Once negotiation event started, actual AutoEx expiry time will be calculated based on duration & disseminated in notifications and reports as today Change will avoid problems with synchronization of clocks between participant & T7 in case of short AutoEx durations below 500 ms
Change in Handling of Historical ETI <i>News</i> and risk notification messages	 Sequence number of ETI News & ETI risk notification messages will be reset to 1 overnight each day (no historical messages via ETI) Historical News messages will be offered via T7 Trader GUI & historical risk notification messages will not be offered anymore
DSCP in EOBI to indicate unchanged BBO	 Differentiated Services Field Codepoints (DSCP) in packet header for EOBI messages will reflect special situation when matching order does not improve Best Bid Offer (BBO) while moving the midpoint of best bid and ask.

Further Changes and Enhancements (2/2)

Modification of Minimum Quote Size	 Minimum quote size will be aligned with the minimum order size (valid also for fast markets)
Modification of XML report TL001	 Two modifications of XML report TL001 System Transaction Overview: Format of field limit to be modified from numeric 9 to numeric 11 Field aT to be removed from text report & displayed only in XML report
Removal of Issuer Mnemonic from RDI / RDF	 Issuer mnemonic field will be removed from RDI & RDF interfaces: RDI: Instrument Snapshot message. <i>Issuer</i> (106). RDF: AllTradableInstruments file. <i>Issuer Mnemonic</i> (column 108 respectively DD).



Deutsche Börse AG Mergenthalerallee 61 65760 Eschborn

If you have any further questions please contact your Key Account Manager or send an e-mail to <u>client.services@deutsche-boerse.com</u>



Disclaimer

© Deutsche Börse Group 2022

Deutsche Börse AG (DBAG), Clearstream Banking AG (Clearstream), Eurex Frankfurt AG, Eurex Clearing AG (Eurex Clearing) and Eurex Repo GmbH (Eurex Repo) are corporate entities and are registered under German law. Eurex Global Derivatives AG is a corporate entity and is registered under Swiss law. Clearstream Banking S.A. is a corporate entity and is registered under Luxembourg law. Deutsche Boerse Asia Holding Pte. Ltd., Eurex Clearing Asia Pte. Ltd. and Eurex Exchange Asia Pte. Ltd are corporate entities and are registered under Singapore law. Eurex Frankfurt AG (Eurex) is the administrating and operating institution of Eurex Deutschland. Eurex Deutschland is in the following referred to as the "Eurex Exchange".

All intellectual property, proprietary and other rights and interests in this publication and the subject matter hereof (other than certain trademarks and service marks listed below) are owned by DBAG and its affiliates and subsidiaries including, without limitation, all patent, registered design, copyright, trademark and service mark rights. While reasonable care has been taken in the preparation of this publication to provide details that are accurate and not misleading at the time of publication DBAG, Clearstream, Eurex, Eurex Clearing, Eurex Repo as well as the Eurex Exchange and their respective servants and agents (a) do not make any representations or warranties regarding the information contained herein, whether express or implied, including without limitation any implied warranty of merchantability or fitness for a particular purpose or any warranty with respect to the accuracy, correctness, quality, completeness or timeliness of such information, and (b) shall not be responsible or liable for any third party's use of any information contained herein under any circumstances, including, without limitation, in connection with actual trading or otherwise or for any errors or omissions contained in this publication.

This publication is published for information purposes only and shall not constitute investment advice respectively does not constitute an offer, solicitation or recommendation to acquire or dispose of any investment or to engage in any other transaction. This publication is not intended for solicitation purposes but only for use as general information.

All descriptions, examples and calculations contained in this publication are for illustrative purposes only.

Eurex and Eurex Clearing offer services directly to members of the Eurex Exchange respectively to clearing members of Eurex Clearing. Those who desire to trade any products available on the Eurex market or who desire to offer and sell any such products to others or who desire to possess a clearing license of Eurex Clearing in order to participate in the clearing process provided by Eurex Clearing, should consider legal and regulatory requirements of those jurisdictions relevant to them, as well as the risks associated with such products, before doing so.

Only Eurex derivatives that are CFTC-approved may be traded via direct access in the United States or by United States persons. A complete, up-to-date list of Eurex derivatives that are CFTC-approved is available at: http://www.eurexchange.com/exchange-en/products/eurex-derivatives-us. In addition, Eurex representatives and participants may familiarise U.S. Qualified Institutional Buyers (QIBs) and broker-dealers with certain eligible Eurex

equity options and equity index options pursuant to the terms of the SEC's July 1, 2013 Class No-Action Relief. A complete, up-to-date list of Eurex options that are eligible under the SEC Class No-Action Relief is available at: http://www.eurexchange.com/exchange-en/products/eurex-derivatives-us/eurex-options-in-the-us-for-eligiblecustomers... Lastly, U.S. QIBs and broker-dealers trading on behalf of QIBs may trade certain single-security futures and narrow-based security index futures subject to terms and conditions of the SEC's Exchange Act Release No. 60,194 (June 30, 2009), 74 Fed. Reg. 32,200 (July 7, 2009) and the CFTC's Division of Clearing and Intermediary Oversight Advisory Concerning the Offer and Sale of Foreign Security Futures Products to Customers Located in the United States

(June 8, 2010).

Trademarks and Service Marks

Buxl®, DAX®, DivDAX®, eb.rexx®, Eurex®, Eurex Repo®, Eurex Strategy WizardSM, Euro GC Pooling®, FDAX®, FWB®, GC Pooling®, GCPI®, MDAX®, ODAX®, SDAX®, TecDAX®, USD GC Pooling®, VDAX®, VDAX-NEW® and Xetra® are registered trademarks of DBAG. All MSCI indexes are service marks and the exclusive property of MSCI Barra. ATX®, ATX® five, CECE® and RDX® are registered trademarks of Vienna Stock Exchange AG. IPD® UK Quarterly Indexes are registered trademarks of Investment Property Databank Ltd. IPD and have been licensed for the use by Eurex for derivatives. SLI®, SMI® and SMIM® are registered trademarks of SIX Swiss Exchange AG. The STOXX® indexes, the data included therein and the trademarks used in the index names are the intellectual property of STOXX Limited and/or its licensors Eurex derivatives based on the STOXX® indexes are in no way sponsored, endorsed, sold or promoted by STOXX and its licensors and neither STOXX nor its licensors shall have any liability with respect thereto. Bloomberg Commodity IndexSM and any related sub-indexes are service marks of Bloomberg L.P. PCS® and Property Claim Services® are registered trademarks of ISO Services, Inc. Korea Exchange, KRX, KOSPI

and KOSPI 200 are registered trademarks of Korea Exchange Inc. BSE and SENSEX are trademarks/service marks of Bombay Stock Exchange (BSE) and all rights accruing from the same, statutory or otherwise, wholly vest with BSE. Any violation of the above would constitute an offence under the laws of India and international treaties governing the same.

The names of other companies and third party products may be trademarks or service marks of their respective owners.

Eurex Deutschland qualifies as manufacturer of packaged retail and insurance-based investment products (PRIIPs) under Regulation (EU) No 1286/2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs Regulation), and provides key information documents (KIDs) covering PRIIPs traded on Eurex Deutschland on its website under the following link: http://www.eurexchange.com/exchange-en/resources/regulations/eu-regulations/priips-kids.

In addition, according to Art. 14(1) PRIIPs Regulation the person advising on, or selling, a PRIIP shall provide the KID to retail investors free of charge.