

# **Agenda**

- Multi-Currency trading for ETFs and ETPs
- 2 Trading Hour Extension for Börse Frankfurt
- 3 Self-Match Prevention (SMP) and Matching Cascades
- 4 Automated Corridor Expansion Volatility Model
- 5 Enhancements to the Continuous Auction with Market Maker Trading Model for Börse Frankfurt Zertifikate

- SFTP up/download functionality for non-MiFIR transaction reporting (Art. 26 (5) MIFIR)
- 7 SFTP upload functionality for short codes and algoIDs
- Trading Sessions for the new T7 FIX LF interface
- 9 Further Changes and Enhancements

#### **Overview of Xetra T7 Release 10.0**

Main Features	T7 Xetra (XETR)	Frankfurt (XFRA)
Introduction of Multi-Currency Trading for ETFs and ETPs	Х	
Trading Hour Extension for Börse Frankfurt		Х
Self-Match Prevention (SMP) and Matching Cascades	X	
Introduction of the Automated Corridor Expansion Volatility Model	X	
Enhancements to the Continuous Auction with Market Maker Trading Model for Börse Frankfurt Zertifikate		Х
SFTP Up/Download Functionality for non-MiFIR Transaction Reporting (according to Art. 26 (5) MIFIR)	Х	Х
SFTP Upload Functionality for Short Codes and algo IDs	Х	Х
Trading Sessions for the T7 FIX LF interface	Х	X

**Backwards compatibility for trading interfaces** 



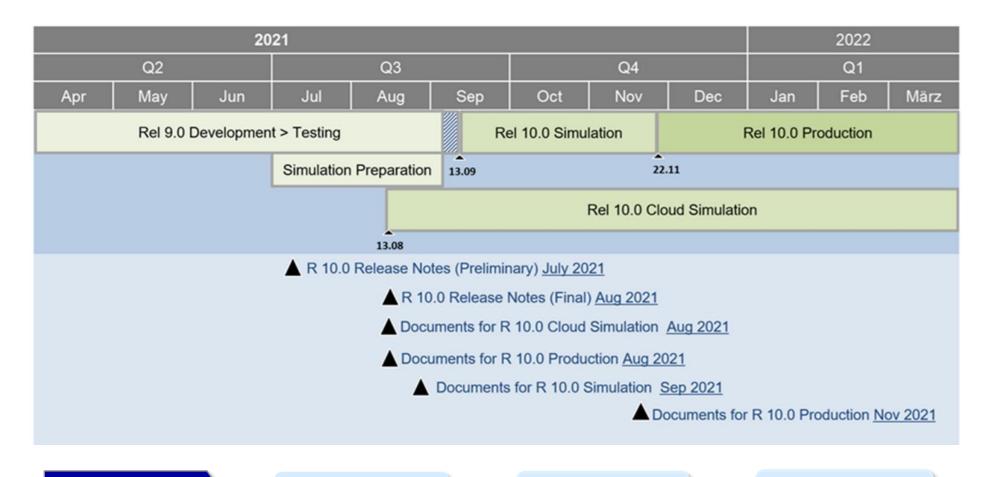
NO

Backwards compatibility for market & reference data interfaces



NO

#### **Introduction Schedule**



Release Milestones **T7 Cloud Simu** 13 Aug 2021

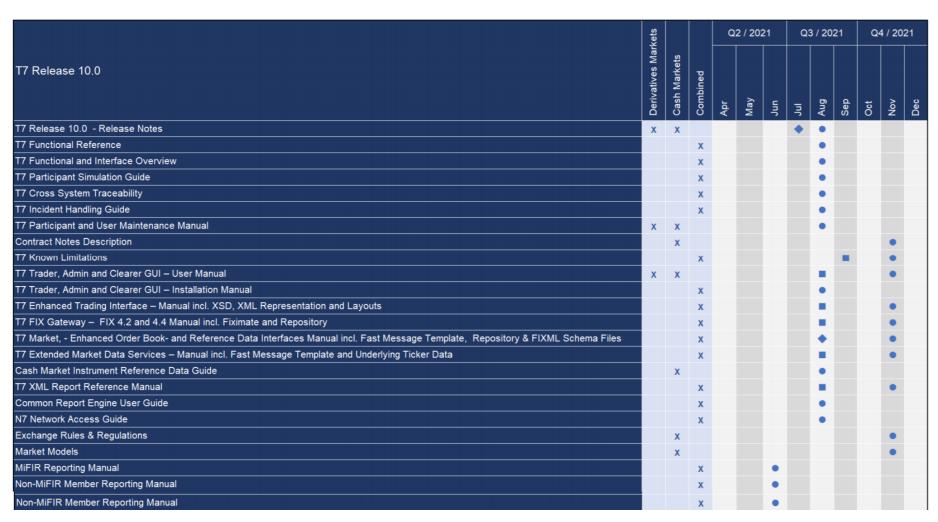


Simulation 13 Sept 2021



**Production** 22 Nov 2021

#### **Publication Schedule**



- Cloud Simulation (identified by ◆) will be published in July/August 2021
- Simulation versions (identified by ■) will be published in August/September 2021
- Production versions

   (identified by ) will be
   published in June/Aug/Nov
- All documents will be available on <u>www.xetra.com</u> under:

Technology > T7 trading architecture > System documentation > Release 10.0

# 1 Multi-Currency trading for ETFs and ETPs

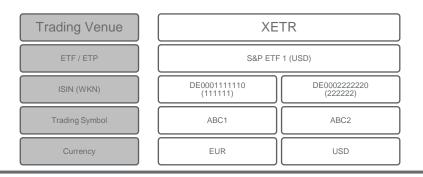


# Multi-Currency Trading for ETFs / ETPs on Xetra (MIC XETR)



#### **Current Offering**

- One trading currency per ISIN
- Limitation:
  - Issuers of ETFs / ETPs were required to list separate ISINs per product-currency combination
  - Market Makers need to manage liquidity provision/ inventory for separate ISINs





- more efficientCreate new trading opportunities for members
- Reduce FX risk for EU and foreign investors

Trading Venue	XE	TR
ETF / ETP	S&P ETF 1 (USD)	
ISIN (WKN)	0E0001111110 (111111)	
Trading Symbol	ABC1	ABC2
Currency	EUR	USD

# **Concept of Multi-Currency Trading**

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#### **Basic Concept**

- Multi-Currency Trading concept: Same ISIN, different trading symbols, different currencies on the same trading venue
- Resulting trades are cleared via Eurex Clearing (alternatively via EuroCCP) and settled in the respective trading currency via Clearstream Banking / Clearstream Banking International

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#### Scope

- Multi-currency trading will be available for ETFs and ETPs on Xetra only (MIC XETR)
- At start, available currency is planned to be USD (other non-EUR currencies AUD, CAD, CHF, CNY, GBP, JPY and SEK will follow in due course)

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#### **Liquidity providers**

- Prerequisite for trading an ISIN-currency combination is at least one Designated Sponsor
- Designated Sponsors and Regulatory Market Makers have to register for every ISIN-currency combination separately

# **Member Impact of Multi-Currency Trading**

Interface type	Changes
ETI*	An instrument can be identified using the field securityID (tag 48) assigned to each individual instrument
FIX**	To uniquely identify an instrument, members can choose between:
	<ul> <li>SecurityIDSource (tag 22) = "M" (Marketplace-assigned identifier) and the field securityID (tag 48) filled with instrument ID assigned by T7 or</li> </ul>
	<ul> <li>SecurityIDSource (tag 22) = "4" (ISIN) and the field securityID (tag 48) filled with the ISIN. For multi-currency trading, the field Currency (tag 15) is mandatory in case no EUR orderbook is available. In case a EUR orderbook is available and the field currency is empty, the order is routed to the EUR book by default. The field symbol (tag 55) may contain "[N/A]" (instead of product identifier)</li> </ul>
GUI	Will use an ISIN-currency combination (e.g. "DE0001111110.EUR" and "DE0001111110.USD") to identify an instrument / orderbook



Reference data



- T7 reference data is available for every ISIN-currency combination
- **WM-Daten** offers support for Multi-Currency Trading on Xetra, i.e. additional ISIN-currency combinations can be identified via WM-Daten



Reports



- Reports (Trading, Billing, Regulatory) will be adapted to allow distinct allocation of information to ISIN-currency combination
- \* T7 Interface Specifications already in place (no changes planned in T7 10.0); please refer to xetra.com > Technology > T7 trading architecture > System documentation > Release 9.1.
- \*\* With the introduction of the new FIX LF Gateway, the Currency field will be mandatory for all order entries in all instruments. For further details on the FIX LF Gateway migration, please refer to the T7 10.00 Release Notes.

#### **Checklist**

#### **Members who WANT TO participate**



- Members should analyze potential impact on their systems and interfaces where the ISIN is used as a primary key
- Members should consider that in a front-end GUI the ISIN is no longer sufficient in identifying an instrument / orderbook
- Members should check if they are already registered for trading in a specific foreign currency (if yes, no new registration needed\*)
- Members relying on WM-Daten for their order-routing should check how WM-Daten handles Multi-Currency Trading
- Designated Sponsors, Market Makers, and Xetra EnLight Responders may register for every ISIN-Currency combination

#### **Members who DO NOT WANT TO participate**



- Members need to ensure that their orders are routed to the ISIN-Currency combination they expect
- Members relying on WM-Daten may decide to rout to a "default" currency order book
- Members connecting via the FIX interface to T7 may consider making use of the default currency implementation described previously

<sup>\*</sup> For more information, please contact your KAM

# 2 Trading Hour Extension for Börse Frankfurt



# Trading Hour Extension on Börse Frankfurt (MIC XFRA)

- Börse Frankfurt will extend the cleared trading hours for equities, ETFs / ETPs, and mutual funds to 8:00h 22:00h\* (from 8:00h 20:00h) after Release introduction on November 29, 2021
- All trades completed after 20:00h are concluded on T, cleared and settled on T+2 as for any other orderbook trade
- Allows for centrally cleared trading after 20:00h for the first time
- Enables traders to trade US shares during the full regular trading hours of US market



<sup>\*</sup>Bonds will remain to be traded from 8:00h - 17:30h

# **Member Impact of Trading Hour Extension**



#### **Impact**

- Impact on T7 members should be limited as Structured Products are already traded today on Börse Frankfurt until 22:00h
- Impact on Eurex Clearing side is coordinated by the C7 SCS project



#### **Availability**

- T7 Interfaces ETI and FIX as well as GUI available as today
- Timing of member reports (Trading, Billing, Regulatory)
   planned not to be changed

# Trading phases

- "Trading" phase for equities, ETFs / ETPs, and mutual funds is now aligned with Structured Products
- "Post-trading" phase for equities, ETFs / ETPs, and mutual funds is reduced to 5 minutes (as today for Structured Products)
- End of "post-trading" phase for bonds moved from 20:29h to 22:04h

# **Need to know - Trading Hour Extension**

- Extension of trading hours WILL NOT impact existing processes like T7 End-of-Stream messages, orders deleted by the system (e.g. in case of Corporate Actions), T7 reference data files, T7 order & trade reports, T7 contract notes
- Extension of trading hours WILL impact Clearing-related reports, messages etc.
  - Based on the C7 SCS introduction, Net Clearing Report (XETR & XFRA) and EOD Reports will be created & distributed later
  - Approx. report provision time (before & after Trading Hours Extension) can be found in the table below (all times are CE(S)T)

Report	Report IDs	Time without THE, i.e. from 27 Sep until 26 Nov 2021	Time with THE, i.e. from 29 Nov 2021 on
Net Clearing Report XEUR	CE890/1/2	22:00 – 23:00	22:00 – 23:00
Net Clearing Report XETR and XFRA	CE895/6/7	23:00 – 24:00	01:00 - 02:00 (next day)
"EOD reports" Pending Delivery Report Settled Delivery Report Trades Action Report Cash Transaction Report	CE860/1/2 CE870/1/2 CB830/1/2 CD850/1/2	00:30 – 01:30 (next day)	02:30 - 03:30 (next day)

For details please refer to following ECAG Newsflash from 14 Sept 2021: <u>C7 SCS Release 1.0</u>: <u>Early deployment of functionalities required for T7 Release 10.0</u>

# 3 Self-Match Prevention (SMP) and Matching **Cascades**



#### **New SMP Solution**

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#### **Current SMP Functionality**

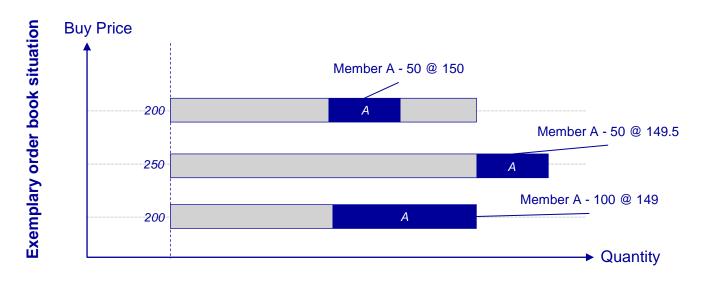
 Optional SMP functionality cancels all remaining quantity of an incoming SMP order/quote that could not match on the corresponding first SMP-triggered price level

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#### **Future Solution with T7 10.0**

- Enhanced SMP will facilitate matching without price level restriction & clarify legal definition on Business Unit scope
  - It will allow an incoming SMP order/quote to match further into next price levels, as far as quantity & limit permit
  - After matching on all possible price levels is completed, any remaining open quantity left for incoming order will be processed according to the respective order validity / restriction
  - o SMP will also be introduced for Fill-or-Kill (FOK) orders
  - If FOK order is potentially fully executable, considering all price levels, then FOK order will not be deleted, and SMP will be applied according to new SMP model with matching cascades
  - If FOK order is not potentially fully executable, it will be deleted without any impact on any other order
- SMP is only offered for new FIX LF gateway
- New SMP leads to changes in ETI and FIX order related messages (not backwards compatible!)

# **Self Match Prevention (SMP) Example**



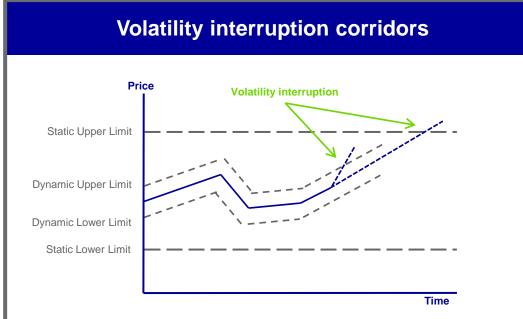
Incoming: Member A to Sell 700 @ 149.0

Price	SMP Status Quo	SMP Enhancement
@ 150.0	Cancel 50 @ 150.0; 150 @ 150.0	Cancel 50 @ 150.0; 150 @ 150.0
@ 149.5	- @ 149.5	Cancel 50 @ 149.5; 200 @ 149.5
@ 149.0	- @ 149.0	Cancel 100 @ 149.0; 100 @ 149.0
Summary	Traded 150.0; Cancelled 550.0	Traded 450.0 Cancelled 200.0 Write into book 50 @ 149.0

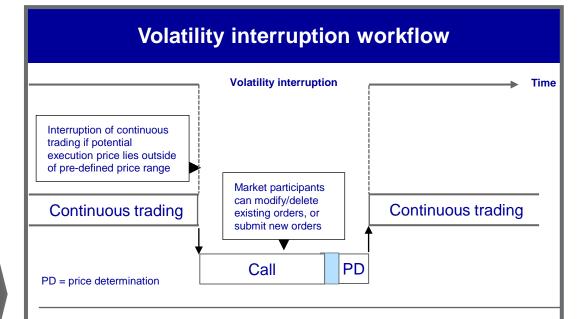
# 4 Automated Corridor Expansion Volatility Model



# Current ETF / ETP trading safeguards on Xetra - Standard and extended volatility interruptions



- Trading is interrupted by a volatility interruption whenever the potential execution price lies outside a predefined price corridor (dynamic and/or static price corridor)
- The dynamic corridor (narrower corridor) is set around the last traded price, while the static corridor (broader corridor) is set around the last auction price
- Both price corridors are determined based on the historical volatility of each ETF/ETP and are not disclosed to the market



- Once a volatility interruption is triggered, trading switches from continuous trading to an auction model where indicative auction prices are disseminated and market participants can enter, modify, or delete orders
- After a minimum auction duration of two minutes plus a random end, price determination takes place (standard volatility interruption), or
- If the potential execution price lies outside of a broader predefined corridor, the auction phase will be extended until it is terminated manually (extended volatility interruption)

# ACE Volatility Model aims to increase speed and transparency of volatility auction processing



#### Rationale

- Covid-19 crisis resulted in unprecedented period of market stress over multiple trading days in Mar/Apr 2020
- Significant price movements and extreme market volatility at opening triggered large number of simultaneous extended volatility interruptions
- Manual processing of extended vola interruptions leads to instruments being held longer in auction states, limiting number of ETFs/ETPs available for continuous trading
- In order to speed up processing of vola auctions during periods of severe market stress, ACE aims to improve existing vola interruption concept by introducing an element of greater automation

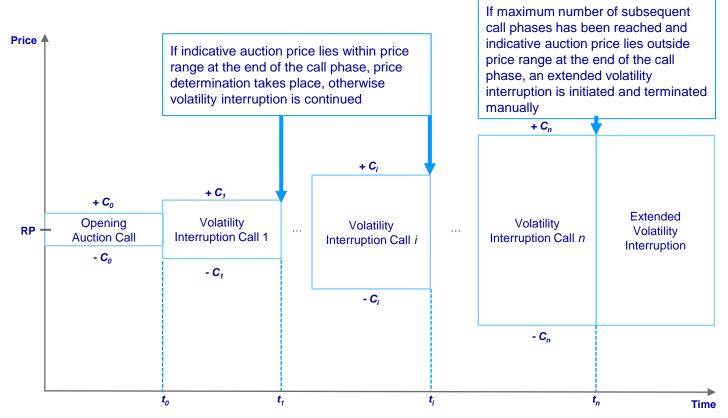


# **Objective**

- Speed up vola auction processing during periods of severe market stress through higher degree of automation
- Maintain high price quality of order executions by introducing optional price quality controls
- Improve transparency and predictability of volatility auctions by disclosing corridor thresholds and duration of call phases
- Minimise manual impact on auction processing workflow to ensure simultaneous instrument availability in continuous trading whenever possible
- Introduce future-proof design that keeps pace with growing number of instruments

# ACE volatility model introduces automatically expanding auction corridors at given time intervals

#### **ACE model workflow during Opening Auction**



- New ACE volatility model replaces single standard volatility interruption with multiple, automatically expanding auction corridors at given time intervals
- ACE auction corridors allow for consecutively larger price deviations from the previous reference price
- Optional price quality controls can be enabled to ensure that price quality is not compromised
- Concept of manual auction termination will be maintained for events where price determination within a given number of ACE auction corridors is not possible
- Number of auction corridors, individual corridor thresholds, and duration of each corridor call phase will be disclosed to the public

**RP:** Reference price (last traded price or last auction price)

C<sub>i</sub>: ACE auction corridor *i* with pre-defined percentage thresholds around RP

# 5 Enhancements to the Continuous Auction with Market Maker Trading Model for Börse Frankfurt Zertifikate

#### **Enhancements to the Continuous Auction with Market Maker**



#### **Enhancement**

Trading model Continuous Auction with Market Maker (Issuer Trading Model ITM) will be enhanced as follows:

- Instrument covers will become available for Börse Frankfurt Zertifikate
- Assignment of quoting periods by Issuers to instruments will be made possible



#### **Cover activation process**

Cover activation process resembles the one introduced with Release 9.1 for CA with Specialist.

- Covers are identifiable via dedicated reference data field Cover Indicator
- As long as Cover Indicator points to intraday / long-term cover, instrument will not be tradeable in T7, but be
  available in reference data
- Covers become tradeable only and immediately upon activation by issuer, who is able to update certain instrument attributes denoted as Adjustable Cover Attributes with the activation
- Trading participants are informed via RDI incremental message & RDF incremental file (listing potentially changed instrument attributes) and via MDI & EOBI (about instrument state change to Pre-Call)

# 6 SFTP up/download functionality for non-MiFIR transaction reporting (Art. 26 (5) MIFIR)

# Non-MIFIR Transaction Reporting New Solution

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#### Scope

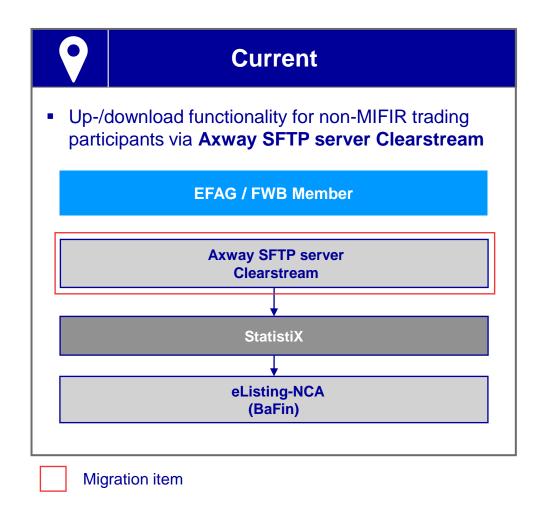
- Deutsche Börse AG will migrate to a new technical solution within Deutsche Börse AG's infrastructure. As part of this migration process, the SFTP server currently being used for up-/downloads of non-MiFIR Trading Participant data will be replaced by:
  - The Common Upload Engine (CUE) for non-MiFIR trading participants to upload transaction data
  - The Common Report Engine (CRE) for non-MiFIR trading participants to download transaction data
- Please note: only non-MIFIR members are impacted, i.e. approx. 95 Eurex and 33 FWB members

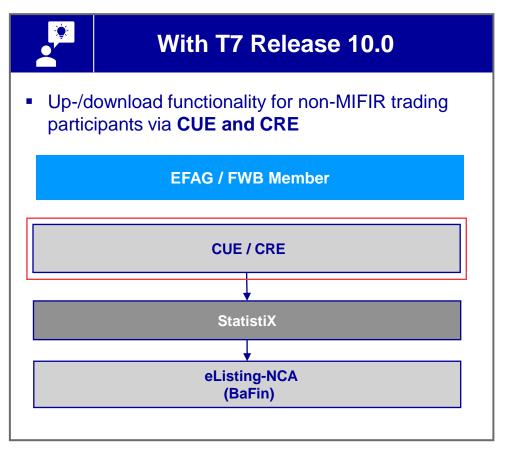
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#### **Member action**

- Non-MiFIR trading participants have to migrate their upload processes to CUE and CRE
- The CUE access management in SAP / member section and a new folder named "MIFID" on CUE is currently in implementation
- Hence, trading participants will use the member section access management tool to set up the new CUE and CRE
  "MIFID" folder in order to up-/download their transaction data and receive their extract files and feedback files

# **Up-/downloads of non-MIFIR Trading Participants will be moved from an Axway SFTP server to CUE and CRE**





CUE = Common Upload Engine CRE = Common Reporting Engine

# Non-MIFIR Transaction Reporting Folder Structure on CRE and CUE

#### **CRE Structure**

Directory structure CRE will be as follows:

Business Partner e.g. 0001028005

- member ID, e.g. ABCLO
  - environment production/simulation P/S
  - Market: XETR

Business day e.g. 20210322 All reports like TR160, TC540, ...

- Market: XFRA

Business day e.g. 20210322 All reports like TR160, TC540, ...

- Market: XEUR

Business day e.g. 20210322 All reports like TR160, TR540, ...

- Market: MIFID

Business day e.g. 20210322 Non-MiFIR reporting extract file Non-MiFIR reporting feedback file e.g. /0001028005/ABCLO/P/MIFID/20210216/

#### **CUE Structure**

Directory structure CUE will be as follows:

Business Partner e.g. 0001028005

- member ID, e.g. ABCLO
  - environment production/simulation P/S
  - Market: MIFID
    - -> UPLOAD

Non-MiFIR upload file

-> Business day e.g. 20210322

Non-MiFIR upload file after upload for the respective business day

e.g. /0001028005/ABCLO/P/MIFID/UPLOAD/

**Please note:** Files are generated per operating MIC and on LEI level. Hence, a non-MiFIR trading participant, who is Eurex and FWB member, uploads both files (XEUR and XETR) in the "MIFID" folder. In addition, a file can cover all transactions of multiple member IDs

# **Non-MIFIR Transaction Reporting Naming Convention**

Field	Meaning	Comment
[0-9]{2}	Environment ID	88 for Prod 89 for Simu
[0-9A-Z]{8}	Report Name	TVEXT001 (extract file provided to CRE)  TVUPL001 (upload file of member uploaded to CUE)  TVFBK001 (feedback file provided to CRE)
[0-9A-Z]{5}	Member ID	ABCLO
[0-9]{8}	Trading Date	YYYYMMDD
[0-9A-Z]{4}	MIC	XEUR, XETR, XFRA
[0-9A-Z]{3}	File type	.CSV (due to the small file size compression is not required)

- The file name for three different files will be constructed as follows:
  - e.g. 88TVEXT001ABCLO20210216XETR.CSV
  - e.g. 88TVUPL001ABCLO20210217XETR.CSV
  - e.g. 88TVFBK001ABCLO20210217XETR.CSV
- There will be separate files per operating MIC, covering all transactions of all memberIDs (if the member has multiple)
- Please note that CUE will automatically add a version number in case of multiple uploads with the same name and different content e.g. 88TVUPL001ABCLO20210216XEUR-V01.CSV
- For more information please refer to the R10 Release Notes

# 7 SFTP upload functionality for short codes and algoIDs

# Short Code and algoID Upload Functionality Migration to CUE

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#### Scope

- Eurex and FWB management boards decided to migrate the upload functionality provided via the Axway SFTP server to CUE with T7 release 10.0
- The CUE and SFTP will run the upload functionalities in parallel until the SFTP service is shut down on December 17, 2021
- Please note: <u>all trading participants</u> are impacted, in this case 102 FWB and Eurex members in total

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#### **Member action**

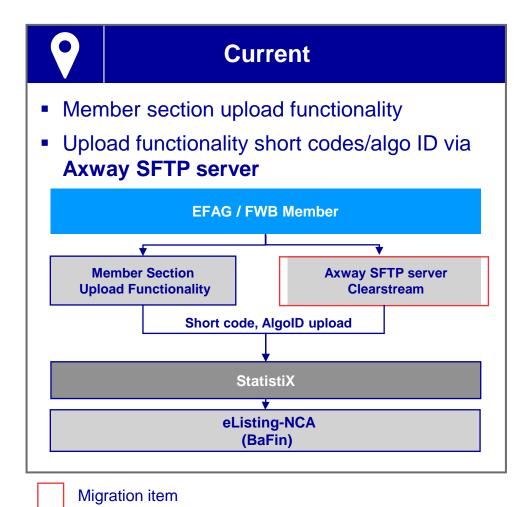
- Trading participants need to migrate their upload processes to CUE and use the Member Section access management tool to set up the new CUE "MIFID" folder in order to upload their short code / algo ID files
- Please note: for short code and algoID uploads, the output is processed in the already existing TR160, TR161, TR162, TR163, and TR166 and delivered to the respective MIC folders on CRE. Hence, no other reports are delivered into the new "MIFID" folder on CRE for the short codes and algoIDs



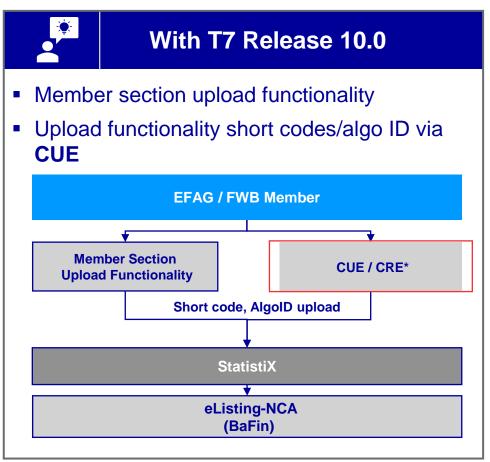
#### **Use cases**

- Non-MIFIR trading participants will use the "MIFID" folder on CUE for their
  - Non-MIFIR reporting
  - Short code and algo ID upload files
- Regular trading participants will use the "MIFID" folder on CUE for the short code / algo ID upload files

# **Establishing CUE as Central Upload Functionality**



CUE = Common Upload Engine
CRE = Common Reporting Engine



\*For short code and algoID uploads, there is no new "MIFID" folder on CRE necessary as the output of those uploads is processed in already existing TR160, TR161, TR162, TR163, and TR166 in the respective MIC folders on CRE

# Short Code and algoID Folder Structure on CRE and CUE

#### **CRE Structure**

Directory structure CRE will be as follows:

Business Partner e.g. 0001028005

- member ID, e.g. ABCLO
  - environment production/simulation P/S
  - Market: XETR

Business day e.g. 20210322

TR160, TR161, TR162, TR163, TR166, ...

- Market: XFRA

Business day e.g. 20210322

TR160, TR161, TR162, TR163, TR166, ...

- Market: XEUR

Business day e.g. 20210322

TR160, TR161, TR162, TR163, TR166, ...

#### **CUE Structure**

Directory structure CUE will be as follows:

Business Partner e.g. 0001028005

- member ID, e.g. ABCLO
  - environment production/simulation P/S
  - Market: MIFID
    - -> UPLOAD

short code and algoID upload files

-> Business day e.g. 20210322 short code and algoID upload files e.g. /0001028005/ABCLO/P/MIFID/UPLOAD/

**Please note:** Members will upload files per operating MIC and on LEI level to CUE. Hence, trading participant, who is Eurex and FWB member, uploads both files (XEUR and XETR) in the "MIFID" folder. In addition, a file can cover all short codes or algoIDs of multiple member IDs

# **Short Code and algo ID Naming Convention**

Field	Meaning	Comment
[0-9]{2}	Environment ID	88 for Prod 89 for Simu
[0-9A-Z]{8}	Report Name	Short code: EXTREFDA  AlgoID: EXTALGO1
[0-9A-Z]{5}	Member ID	ABCLO
[0-9]{8}	Trading Date	YYYYMMDD
[0-9A-Z]{4}	MIC	XEUR, XETR, XFRA
[0-9A-Z]{3}	File type	.CSV (due to the small file size compression is not required)

- The file name for two different files will be constructed as follows:
  - e.g. 88EXTREFDAABCLO20210216XETR.CSV
  - e.g. 88EXTALGO1ABCLO20210217XEUR.CSV
- There will be separate files per operating MIC, covering all short codes or algoIDs of all memberIDs (if the member has multiple)
- Please note that CUE will automatically add a version number in case of multiple uploads with the same name and different content (e.g. 88EXTREFDAABCLO20210216XEUR-V01.CSV)
- More information will be provided in a circular and with the R10 Release Notes (Preliminary) in July 2021

# 8 Trading Sessions for the new T7 FIX LF interface



# Trading Sessions for the new T7 FIX LF interface

- As Back Office sessions for T7 FIX LF interface were introduced in T7 Release 9.0, Eurex will introduce corresponding T7 FIX LF trading sessions with 10.0
- FIX LF trading sessions will be offered in parallel to existing FIX Gateway trading sessions (transition phase)
- T7 Release 10.0 will support only FIX LF version 4.4 both for existing FIX gateway and for new FIX LF\*



#### **Timeline**

- Simulation
  - Test of FIX GW decommissioning to be executed in the 2<sup>nd</sup> half of March 2022
  - FIX GW will not be available anymore as of 01 April 2022
- Production
  - Existing FIX gateway will start for the last time on 29 April 2022
  - FIX GW will not be available anymore on Monday 02 May 2022
- Ordering of FIX LF Trading Sessions planned from 31 August 2021 (Simulation) and 19 November 2021 (Production)
- Details concerning FIX LF Interface are outlined in FIX LF Manual

<sup>\*</sup> For further information reg. decommissioning & transition phases, please refer to the Eurex Circular 012/21 and upcoming information



Trader GUI: Display of Coupon Rate for Variable Bonds	Trades view will display correct coupon rate also for Variable Bonds (or none at all)
Overwriting of Free Text Fields when Specialist acts On Behalf	Overwriting behavior for free text fields in order modifications made by Specialists on behalf in Continuous Auction with Specialist model will be changed
Removal of field OrdNoClearing from T7 Trader GUI views	Field OrdNoClearing will be removed from all T7 Trader GUI views
Removal of Self-Match Prevention (SMP) from FIX gateway	Self-Match Prevention (SMP) will be removed from FIX gateway and will only be available in FIX LF interface

Enhancement for Price Determination based on Price-without-Turnover (PWT) Quotes in BF	<ul> <li>Price determination for a PWT quote will be configurable either based on bid price or on midpoint of bid and ask of PWT quote</li> <li>With start of T7 10.0, current PWT handling stays unchanged (will be based on bid price for BF &amp; BFZ) once basis for PWT calculation will change, members will be informed in time</li> </ul>
Change of field content in ETI TES broadcast messages	<ul> <li>Field for executing trader in ETI TES broadcast messages will be filled with entering trader</li> </ul>
Regular clean-up of News messages	<ul> <li>Clean-up of available News messages in T7 Trader GUI and on Xetra website of all messages older than one year</li> </ul>
Reference data files for Simulation in CSV format	<ul> <li>Various reference data files will be provided in CSV format on xetra.com as provided for Production</li> </ul>

New:

# New XML Reports for Xetra Performance Measuring New XML Reports will be introduced for Performance Measuring of Designated Sponsors and RMM in Xetra For details, please see XML Report Modification Announcement document for T7 Release 10.0 In field errDescription (TR160, TR162 and TR165), following valid values are added/modified: Modified: 2 – Modified Description: Duplicate short / long code combination in database

25 – Description: Client long value already registered

# Thank you!

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



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