Eurex Clearing C7

Release Notes 2. Update

Release: 7.0

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List of abbreviations:

C7	Eurex Clearing System
CM	Clearing Member
EDP	Electronic Data Processing
GUI	Graphical User Interface
T7	Eurex Trading System
SID	SenderCompID
TES	Trade Entry Service
TID	TargetCompID

1 Introduction

This document provides an overview of the functionality made available with C7 Release 7.0.

Important

This release is a mandatory release for all Clearing Members, Basic Clearing Members, Disclosed Direct Clients of Eurex Clearing AG and vendors.

1.1   Readiness Statement

According to §10 (3) (ii) of the General Terms and Conditions to the Agreement on Technical Connection to the Clearing Electronic Data Processing (EDP) of Eurex Clearing AG, Clearing Members are obliged to provide Eurex Clearing prior to the first use of the updated service of Eurex Clearing's C7 with a written statement confirming that (a) the updated service of Eurex Clearing's C7 successfully passed internal test procedures, and (b) the participant system and the participant software interact with the updated service of Eurex Clearing's C7 without any errors or interruptions

Participation in the C7 Release 7.0 simulation and testing phase is optional, but highly recommended especially for report and interface changes.

1.2   Related Documents

All documents which will be updated in connection with the introduction of C7 Release 7.0 will be made available for download on the Eurex website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation

Details on the publication dates can be found in the "Eurex Clearing Member Communication Calendar" also available under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Overview & Functionality

2 Overview C7 Release 7.0

Eurex Clearing is planning to launch C7 Release 7.0 on 23 November 2020 and C7 Release 7.0 update in the beginning of 2021.

The following diagram gives an overview of the introduction schedule:
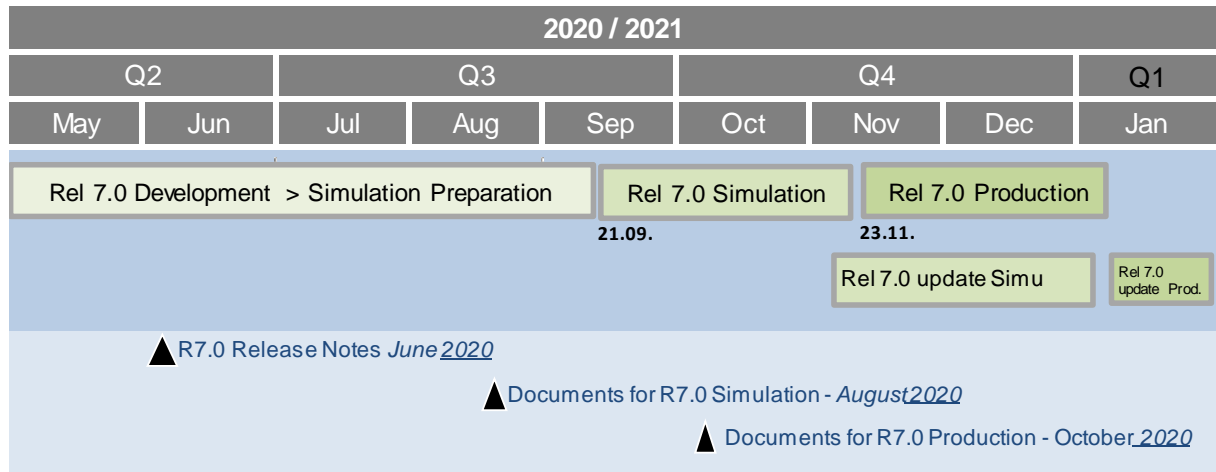
Eurex Clearing provides a dedicated release simulation environment to give participants the opportunity to perform comprehensive testing of their applications, independent from the C7 production environment. The simulation period for C7 Release 7.0 is planned to start on 21 September 2020. The date for start of C7 Release 7.0 update simulation period will be communicated in due time.

Overview Functional Changes

C7 Release 7.0 covers the following functional changes for introduction date 23 November 2020:

- ~~FIXML Broker Migration~~ out of scope for C7 Release 7.0
- Product tag in FIXML messages
- Clearing House validation in TID
- Default Account Rule Change for initial Trade Booking
- Change of Maintainability of Rate Identifier in C7
- TED Spreads
- FIXML Request queue size increase - preponed to 26.10.2020
- Report updates
- Transaction Duration Extension – preponed to 26.10.2020
- New TES Trade Type for Compression Service

C7 Release 7.0 update covers the following functional changes:

- FIXML Settlement Prices messages from C7

3 C7 Release 7.0 Functional Changes

C7 Release 7.0 will be introduced to production on Monday, 23 November 2020. The simulation environment is planned to be available from 21 September 2020.

The following functional enhancements will be introduced.

3.1   FIXML Broker Migration – out of scope for C7 Release 7.0

The FIXML broker migration to Java has been postponed until 2021. In the meantime, Eurex C7 will continue to use the current C++ qpid broker

~~Eurex Clearing FIXML broker implementation will move from qpid C++ to qpid Broker-J.~~
~~Clearing Members and ISVs using the interface should test their applications during the simulation period and upgrade the AMQP libraries used in their software to the latest available versions.~~

~~As the Java Broker behaves slightly different, participants are asked to check their applications behavior in terms of the following points:~~

~~The new FIXML Java broker allows to define flow control only on queues, whereas the exchange only supports a discard or reject policy for un-routable messages.This means, that if the request queue is full the message will be rejected and the sender will receive an error message. This behavior of request mechanism on FIXML broker differs from how the member (requestor) is notified nowadays when a request queue is full.~~

~~The new FIXML Java broker strictly requires a unique client ID. It is not possible to establish two connections with the same client Id. Members are asked to use JMS and to specify their client ID.~~

~~More information about flow control behavior and the client ID usage can be found in the Eurex Clearing Messaging Interfaces - Connectivity B: AMQP Programming Guide V.2.1 and Eurex Clearing Messaging Interfaces – Connectivity E: AMQP Setup & Internals V.2.2 planned for publication in June 2020 and then available for download on the Eurex Clearing website under the following path:~~

~~www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Clearing Interfaces~~

Please note: The C7 Release 7.0 simulation focus days planned to test the re-send mechanism and gap detection on participant side remain valid. These focus days will be on 22 October and 28 October 2020.

The focus day for FIXML broker failover testing also remains and will be set up in simulation on 16 October 2020.

This broker failover to backup host will be performed on FIXML Interface in the simulation environment. During this test clients will experience broker outage which can last for several minutes. Clients should ensure that their applications can recognize the interrupted connection and can automatically reconnect once the broker is again available.

To detect a connection failure, client applications are advised to specify 'idle-timeout' which will enable a 'heart-beat' mechanism on the established connection. This way, if a connection is lost, both client and the broker can detect it and act accordingly.

More information on failover and recovery or loss of connection can be found in the C7 - Eurex Clearing FIXML Interface Specification - Volume 1, chapter 7 and in Eurex Clearing Messaging Interfaces - Connectivity B: AMQP Programming Guide V.2.1, chapter 7.2 both planned for publication in June 2020 and then available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Clearing Interfaces

3.2   Product Tag in FIXML messages

From Release 7.0 onwards, this optional feature is provided for participants, who would like to distribute their large volume to multiple FIXML accounts and use a split via product.

For this purpose, the product will be attached as a property to the FIXML messages in the same way as the MLID (message level identifier), which was introduced in 2018.

In all product specific messages the property will be filled with the respective Product ID. For messages that are not product specific (e.g. as risk control messages), the property will be filled with a space.

For details please refer to the Eurex Clearing Messaging Interfaces - Connectivity E: AMQP Setup & Internals V.2.2 available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Clearing Interfaces

3.3   Clearing House validation in TID

With introduction of C7 Release 7.0 a validation on correct values for the mandatory field TID (TargetCompID) in incoming messages will be installed.

The valid values are 'ECAG' or 'ECC' for inbound messages, Member ID (e.g. ABCFR or ABCEX) for outbound messages.

Messages containing 'CCP' will be rejected.

3.4   Default Account Rule Change for initial Trade Booking

Currently, if a valid clearing account is provided, it will be used as booking account in C7.

If the clearing account is missing or determined not valid, then it will be set by C7 based on the provided trading capacity, resp. will be set to M1 if the trade results from a quote.

In T7, the trading capacity is a mandatory field, whereas clearing account information is optional. Based on C7 information T7 ensures that the member can only use a valid trading capacity.

With introduction of C7 Release 7.0 the T7-trading capacity may overrule a clearing account delivered in a trade.

For booking trades in C7, the trading capacity in combination with the clearing account as provided by T7 will be used considering the following rules:

- If the combination of trading capacity and clearing account type is valid, the trade will be booked into the provided clearing account.

  For trades following combinations are valid:

  - Trading capacity "Client" = only A1-A9 or flexible agent accounts
  - Trading capacity "Proprietary" = P1&P2 and M1&M2
  - Trading capacity "Market Making" = M1&M2 and P1&P2

- If no clearing account type is provided at all, or if the provided clearing account type does not fit to the provided trading capacity, the trade will be booked to the respective default account as determined by the trading capacity:
  - Trading capacity "Client" defaults into clearing account A1
  - Trading capacity "Proprietary" defaults into clearing account P1
  - Trading capacity "Market Making" or trade resulting from a quote default into   clearing account M1 (if M1 is not available P1)

If T7 provides the accounts "G1" or "G2":

- then the clearing account will be determined by the trading capacity
- if the Take Up Member field is filled correctly and all validations for the Give Up are fulfilled, Give Up will be triggered automatically
- in case validations for the Give Up are not fulfilled, no Give Up will be triggered automatically.

Please note that the trade confirmation from T7 will reference the clearing account that has been provided by the Participant. The transaction confirmation from C7 will specify the final, potentially updated, clearing account in accordance with the Clearing Account Rules.

Detailed information about the booking logic will be provided in the Eurex Clearing C7 – Derivatives Clearing Functional Reference Guide planned for publication in August 2020 and then available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Overview & Functionality

3.5   Change of Maintainability of Rate Identifier in C7

The field rate identifier, as contained in *CustOrderHandlingInstr* (tag 1031), will not be maintainable anymore starting with C7 Release 7.0. As a consequence the field will be removed from Transaction Adjustment and Average Pricing Requests in GUI and also in FIXML requests. Valid Values entered in T7 are available in C7 and can be inquired.

3.6   TED Spreads

With T7 Release 9.0, Eurex is planning to introduce standardized TED spreads based on the fixed-income Schatz future (FGBS) and the two-year bundle of the Euribor future (FEU3) consisting of eight consecutive maturities covering a time frame of two years.

Additional TED spreads based on a different short-term interest rate future, also covering two years, may follow. Since both futures are denominated in euro, the corresponding IPS type may also be denoted as European TED spreads.

3.7   FIXML Request queue size increase

With C7 Release 7.0, the FIXML request queue size will be increased from currently 2000 to 6000. Customers are asked to check and adapt their local configurations, if any are used. The activation of this functionality was preponed to 26.10.2020 following customer demand.

For details please refer to the Eurex Clearing Messaging Interfaces - Connectivity B: AMQP Programming Guide V.2.1 planned for publication in June 2020 and then available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Clearing Interfaces

3.8   Report Updates

With C7 Release 7.0 the following report will be updated:

Report RPTCD037 – Claim Amount Based Collaterals

The report will be enhanced with additional information about market and collateral value on single ISIN level.

Further details can be found in the in the documents "Eurex Clearing XML Reports - Reference Manual v.7.0.0" and "Eurex Clearing XML Reports - Modification Notes v.7.0.0" planned for publication in August 2020 and available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Reports

Report RPTCA770 – Account Maintenance

The report will be enhanced to include the Acting Market details for each position account and remove the C7 Clearing License field. The status of the acting markets are maintained independent of position account status. Additionally this report will also contain 4EP user details.

Further details can be found in the in the documents "Eurex Clearing XML Reports - Reference Manual v.7.0.0" and "Eurex Clearing XML Reports - Modification Notes v.7.0.0" planned for publication in August 2020 and available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Reports

Please also be reminded that the following report updates will become effective with C7 Release 7.0. The relevant member documentation has already been updated to reflect the below changes.

Strategy details

Strategy details on post trade adjustment events (account transfer, O/C indicator, give-up, take-up, etc) are being added to clearing and intraday reports: CB012, CB013, CB715, CB750, CB751 and CI012. The values introduced are: Strategy type, strategy sub type, strategy link ID and Multi-leg report type. These attributes can be used for reconciliation purposes as members will be able to keep track of the strategy details throughout the entire lifecycle of a transaction.

Please note: these strategy details have been added to FIXML and GUI with C7 Release 6.1 in June 2020.

Further details can be found in the in the documents "Eurex Clearing XML Reports - Reference Manual v.6.1.2 and "Eurex Clearing XML Reports - Modification Notes v. 6.1.2" published on 08 April 2020 and additionally Eurex Clearing XML Reports - Reference Manual v.7.0.0" and "Eurex Clearing XML Reports - Modification Notes v.7.0.0" planned for publication in August 2020 and available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Reports

Non-disclosure Flag

FIXML field TradePublishedIndicator (Tag 1390) already exists in C7 to identify disclosed and non-disclosed trades. With C7 Release 7.0 Eurex Clearing is also introducing this field to the C7 reports. This flag will be available in the following clearing reports: CB012, CB013, CB715, CB750, CB751 and CI012. This flag can be used as fee differentiation for certain non-disclosed TES trades (single stock futures, and options OESX, ODAX, OESB and OSMI).

Further details can be found in the in the documents "Eurex Clearing XML Reports - Reference Manual v.6.1.3" and "Eurex Clearing XML Reports - Modification Notes v. 6.1.3" published on 07 May 2020 and additionally Eurex Clearing XML Reports - Reference Manual v.7.0.0" and "Eurex Clearing XML Reports - Modification Notes v.7.0.0" planned for publication in August 2020 and available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Reports

Basket Trades

With the extension of the Basket Trade functionality, the fields PackageID and FirmTrdID are being added to the following reports: CB167, CB731, CA752 and CE775.

Further details can be found in the in the documents "Eurex Clearing XML Reports - Reference Manual v.6.1.3" and "Eurex Clearing XML Reports - Modification Notes v. 6.1.3" published on 07 May 2020 and additionally Eurex Clearing XML Reports - Reference Manual v.7.0.0" and "Eurex Clearing XML Reports - Modification Notes v.7.0.0" planned for publication in August 2020 and available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Reports

3.9 Transaction Duration Extension

Following member suggestions Eurex Clearing will extend the Transaction Duration from the currently t+3 to t+5 days, meaning the transaction remaining adjustable for t+5 days. The activation of this functionality was preponed to 26.10.2020 following customer demand.

3.10 New TES Trade Type for Compression Service

With T7 Release 9.0 Eurex will offer a compression service for Exchange Traded Derivatives (ETD) and therefore introduce a new TES Trade Type.

Eurex Clearing will support this new trade type accordingly. It will be incorporated in FIXML by adding a new valid value (1008) to FIXML Tag 828 (TrdTyp).

Please note: in 2020 this new offering will only be available in Eurex Clearing's C7 simulation environment. The activation of the complete functionality in Production in planned for 2021 and will be communicated independent from this document.

For details on Eurex T7 Release 9.0 please refer to the T7 9.0 Preliminary Release Notes available for download on the Eurex Exchange website under the following path:

www.eurexchange.com => Technology => T7 => System Documentation => Release 9.0

4 C7 Release 7.0 update Functional Changes

In the beginning of 2021 a C7 Release 7.0 update will be introduced.

C7 will take over broadcasting of settlement price messages.

4.1   FIXML Settlement Prices from C7

4.1.1   Settlement Price Corrections

Due to porting of functionality from the legacy application to C7, the processing of settlement price corrections will change compared to Eurex Classic.

Currently there is one MarketDataIncrementalRefresh message for regular series of a product and another one for flexible contracts where all settlement prices for all series of a product are published once they are approved. Any correction of settlement prices is sent via broadcast contained in a message on single contract level and marked as such.

This identifier will no longer indicate a price correction after porting to C7. Therefore a price update will always trigger the publication of all prices of the respective product.

4.1.2   Final Settlement Price Message

The final settlement price message (sent in Market MarketDataSnapshotFullRefresh message) for futures will not be provided anymore since it corresponds to the daily settlement price of the front month future contract and is hence contained in the daily settlement price message.

The final settlement prices message for options will remain unchanged.

4.1.3   Expiration Date

In order to support the customer back offices in future, as report "TA111 All Active/Inactive Series" will no longer be available (please refer to chapter 5.1), the expiration date will be added to all contract related price messages, i.e. daily settlement price.

The expiration date for regular contracts will be added to the FIXML field MaturityDate(541) @MatDt as it is already available in the settlement price messages for flexible contract.

The format of the expiration date is identical to the one used in the existing flexible contract settlement price messages: "YYYY-MM-DD". Please note: As C7 and T7 are running in UTC also public broadcasts related to prices are published in UTC.

4.1.4   SenderCompID

The existing "CCP" in the @SID field of the FIXML header will be replaced by the correct clearing house of the product to comply with all other FIXML messages created in C7.

For details of the respective fields in FIXML please refer to the C7 - Eurex Clearing FIXML Interface Specification - Volume 5: Public Broadcast planned for publication in June 2020 and then available for download on the Eurex Clearing website under the following path:

www.eurex.com => Clear => Tech => C7 => System Documentation => Eurex Clearing Interfaces

5 Early Indication of Impact in 2021

5.1 Decommissioning of Report "TA111 All Active/Inactive Series"

Among other changes that will be communicated in due time the decommissioning of Report "TA111 All Active/Inactive Series" is planned for end of Q2 2021.

This will impact the processing of transactions, positions and settlement prices, if the expiration date for standard contracts is taken from this report.

Therefore, the Expiration date will be added to the FIXML messages for settlement prices as mentioned in chapter 4.1.3 in January 2021 and also in the messages for transaction and position maintenance by the end of Q2 2021.