T7 Release 11.1

Derivatives Market

March 2023
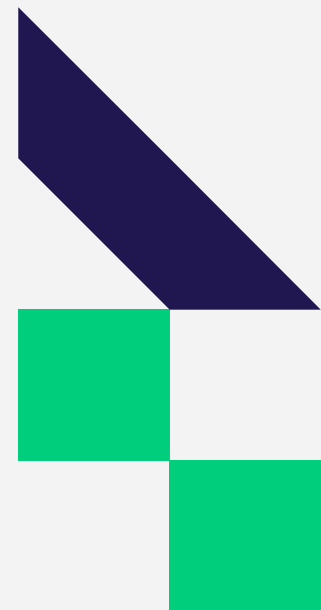
Agenda

EUREX

3/20/2023

1 Overview & Introduction

Overview of Eurex T7 Release 11.1

Main Features	
	Fee Code
	PTRL Scope Change
	Password Encryption for ETI HF

Reg. Feature	
	GUI validation of Client ID field for G-account

Backwards compatibility for trading interfaces	**YES**
Backwards compatibility for market and reference data interfaces	**NO**

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Introduction Schedule

	2023									
			Q1			Q2			Q3	
Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug

Rel 11.1 Cloud Simulation — 27.02.2023

Rel 11.0 permanent Simulation | Rel 11.1 Simulation — 04.04.2023

Rel 11.1 Production — 22.05.2023

▲ R 11.1 Release Notes (Preliminary) Jan 2023

▲ Documents for R 11.1 Cloud Simulation Feb 2023

▲ R 11.1 Release Notes (Final) Mar 2023

▲ Documents for R 11.1 Simulation Mar 2023

▲ Documents for R 11.1 Production May 2023

Release Milestones	**T7 Cloud Simu** 27 Feb 2023	→	**Simulation** 4 Apr 2023	→	**Production** 22 May 2023

Publication Schedule

T7 Release 11.1	Derivatives Markets	Cash Markets	Combined	Jan	Feb	Mar	Apr	May
				2023				
T7 Release 11.1 - 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. XSD, XML Representation and Layouts			x		◆	■		●
T7 FIX LF – Manual incl. XML Representation and FIX 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 and Upload Engine User Guide			x			●		
Exchange Rules & Regulations		x						●
Market Models		x						●

- **Cloud Simulation**
  (identified by ◆) to be published in Feb 20223

- **Simulation versions**
  (identified by ■) to be published in Mar 2023

- **Production versions**
  (identified by ●) to be published in May 2023

- All documents available on www.eurex.com
  under: *Support > Initiatives & Releases > T7 Releases > T7 Release 11.1*

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2 Anonymous Baskets
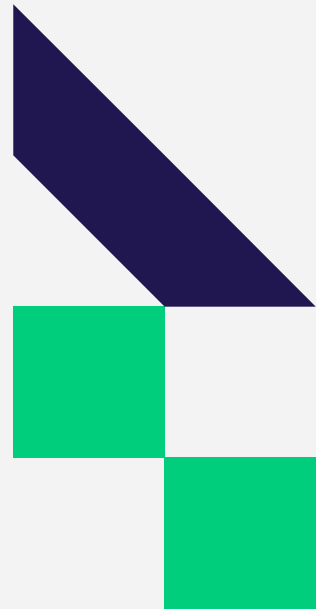
Enhancement of Basket Trading

Main Features

- **Initiating broker** (only) can flag basket trades, i.e., ETRF/EBB at trade entry as *transparent* **or** *anonymous* and see involved counterparties

- Approving counterparties see classification of a basket (*transparent/ anonymous)* before accepting it

- If basket is marked as *anonymous,* counterparties are not disclosed to each other, and classification **cannot be changed** anymore

- **Eurex** will **decide** & **publish** which buckets support anonymous baskets

- At introduction, **all existing baskets** will be classified as **transparent**

- Anonymous baskets will be supported via ETI & GUI (as transparent baskets today)

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3 Fee Identification Code
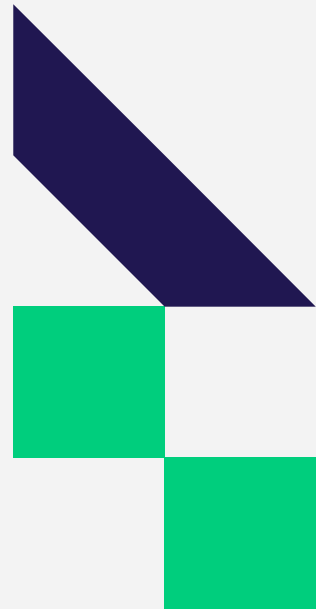
New fee code field will better manage fee complexity

Motivation

- Number of fee differentiations/parameters relevant for fee calculation increased over time
- Fee relevant parameters are realized as valid value extensions of already existing fields (trade type valid value extension in Eurex EnLight) or implementation of new field (disclosure flag for non-disclosure fee)
- Incorporation of new fee differentiations leads to operational efforts requiring lead implementation time for Eurex and members

Main Features

- Introduction of **new field "Fee Identification Code"** in **T7** & **C7** contains all fee-relevant information
- Information reduction as **fee level** can be identified by **product id & fee code** combined with new **product & price report CB002 (**Product and Price Report - Fee Identification Code)
- Information captured in **fixed structure** & **predefined set of valid values** will be established to decode each information block (fee qualifier)
- New field added to Trade Notification/TES Trade Broadcast (ETI) & Trade Capture Reports (FIX LF)
- T7 Trader GUI will display Fee Identification Code in Own Trades view
- TE810 T7 Daily Trade Confirmation & TE812 Daily Prevented Self-Matches will show the Fee Identification Code respectively

10

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Fee Code Structure & Fee Calculation

Fee Code Structure

No	Information block / fee qualifier	Functionality/Service: Valid values of fee qualifiers	Used / envisaged flag
1.	Fee Sub Product Qualifier	S = standard, I = IPS, 2 = 2-year Bundle,…	used
2.	Fee Maturity Qualifier	S = short dated (<13 month to expiration), R = remaining	used
3.	Fee Buy-Side Trading Disclosure Qualifier	D = disclosed, N = non-disclosed	envisaged
4.	Fee Trade Originator Qualifier	A = A-accounts, P = P-accounts, M = M-accounts	used
5.	Fee Trade Type Qualifier	C = CLOB, T = TES, E = Eurex EnLight,…	used
6.	Fee Trade Publication Qualifier	R = real-time disclosed, D = deferred disclosed	used
7.	Fee Member-Specific Qualifier	A = alternative fee currency usage, R= remaining	
8.-10.	Empty Fee Qualifier (trading-related)	X = n.a.	
11.	Fee Post-Trade Qualifier	S = standard, A = average price merge,…	used
12.	Fee Position Event Qualifier	E = exercise, A = assignment, C = cash settlement,…	used
13.-15.	Empty Fee Qualifier (clearing-related)	X = n.a.	

Fee Calculation

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Implementation Approach for Sim & Prod

Implementation Approach

Simulation

- **Transition period** required until Fee Identification Code fully supported by T7 & C7
- Fee Identification Code will be technically **published** starting **4 April 2023 (**code will be first functionally invalid)
- Starting on **6 April** it will be **functionally valid** for all newly executed trades
- C7 **Transaction Adjustments** performed on transactions **executed before** 6 April will return invalid Fee Identification Code **(**no conversion of historical transactions)
- Fee report **CB002** will be published starting **6 April 2023**

Production

- **Transition period** required until Fee Identification Code fully supported by T7 & C7
- Fee Identification Code will be technically **published** starting **22 May 2023 (**at that point in time code will be functionally invalid)
- Starting on the **29 May** it will be **functionally valid** for all newly executed trades
- C7 **Transaction Adjustments** performed on transactions **executed before** the 29 May 2013 will return an invalid Fee Identification Code, i.e., no conversion of historical transactions
- Fee report **CB002** will be published starting **5 June 2023**

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4 **Buy-Side Trading Disclosure Framework**
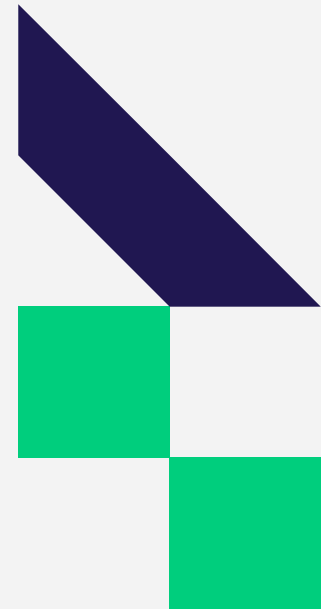
Eurex introduces voluntary Buy-Side Disclosure program for automated trading business

Main Features & Structure

- Disclosure creates **monetary incentive** for non-member firms to disclose orders/trades
- Voluntary program is aimed at indirect clients trading electronically via **DMA/ORS**
- Participating indirect clients will agree to disclose complete Eurex trading activity
- Participating Eurex members (brokers) will agree to ID-tag the clients' order flow
- Disclosed trades of participating firms will be subject to **lower A-Account fee** compared to undisclosed ones (change of current fee structure, fees to be published in ECAG´s price list)
- Differentiated fee will be applied to Liquidity Class 1 & 2 products (and other actively traded products)
- Platforms covered: **Eurex order book**, **EnLight & TES**
- New T7 **"Buy-Side Client ID"** field available with R11.1 (only 5 digits for clientID) & in R12.0 (enhanced to 20 digits for LEI)
- New **light registration** process in Member Section for indirect client & broker
- Processing of differentiated fee via **new** stringent Fee Code information in transaction message flow
- Disclosure program will start by **end of 2023**

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Broker with two options to enter Buy-Side Client ID

T7 Release 11.1 (May 2023)

End Client ID: ☐☐☐ **X** **C**
                    └─ NEW

(5 character alphanumeric)

CHANGE →

T7 Release 12.0 Enhancement (November 2023):

End Client ID: ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐
                └─ EXISTING ─┘ └──────── NEW ────────┘

(20 character alphanumeric)

Option for populating Eurex Buy-Side Client ID:	5-char string	Legal Entity Identifier
Description	Client ID resembles Eurex member ID	Client ID is the LEI
Number of characters	5	20
Special provisions	Last two chars: "XC" (EUREX CLIENT)	Last two chars: checksum digits
Example	ABCXC	529900UT4DG0LG5R9O07
Characteristics	- Chosen by Client, subject to availability - Client identity encoded ("ABCXC" = ?)	- Already available, independent from Eurex' identifier - Client identity not encoded (529900UT4DG0LG5R9O07 = Eurex Frankfurt AG)
Set-up	Broker defines a default, which of the two alternatives they will use. The default can be overwritten per client and per trading day.	
GOOD TO KNOW	Implementing the field with T7 Release 11.1 means that the field will have to be changed with Release 12.0, possibly involving additional efforts. **Implementing the field in a one-off exercise with Release 12.0** could possibly result in avoiding double implementation work.	

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Relevant Components

New T7 Field: Client ID

- New T7 "Buy-Side Client ID" field (available with Release 11.1 & to be enhanced with 12.0)
- For each registered indirect client, partici-pating broker (Eurex member) will have to fill new "Buy-Side Client ID" field with client's ID tag during order routing to Eurex (R 11.1, **to be enhanced to include LEI with Release 12.0!**)

Fee Code

- To facilitate Buy-Side trading disclosure, Eurex will implement a stringent fee code logic, which will be available from mid-2023 (differentiated fee will start end of 2023)
- The differentiated fee will be processed via fee code information block "Fee Beneficial Owner Disclosure Qualifier" in transaction message flow

Registration procedure

- Participation voluntary for clients & brokers (Eurex members)
- Registration in Member Section
- Broker will register by accepting Terms & Conditions
- Eurex members will see indirect clients that have selected them as brokers
- Broker will have to accept & confirm/reject vis-à-vis Eurex that registered client is their client & passed KYC/ AML process (Eurex does not perform these checks)
- Reg. US clients: Broker will possibly have to confirm that their clients are allowed to trade resp. Eurex products

Web-based registration of non-member firm followed by ID-tagging of orders & trades in new T7 field

Overview registration process
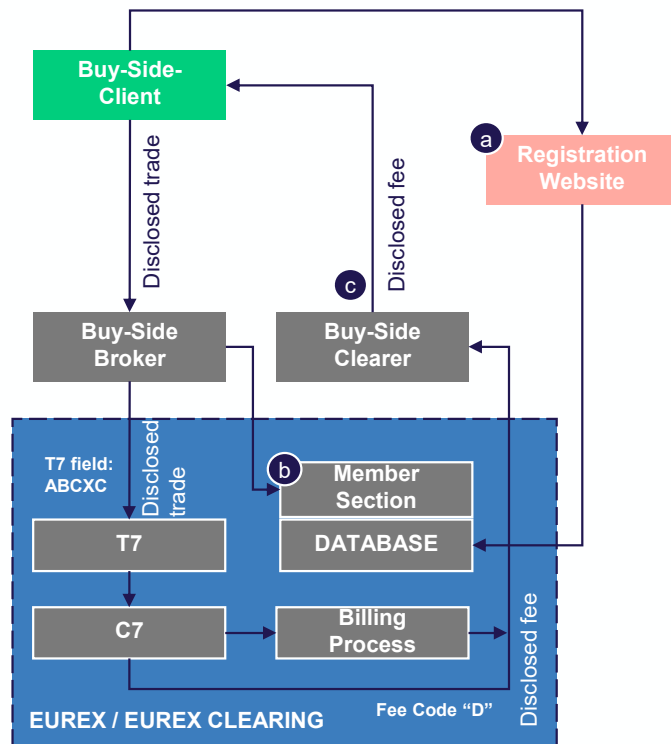
a **Interested non-member client registers via Website by accepting T&C, after KYC checks data is entered into CRM7**
- Initial scope: non-member firm accessing Eurex via DMA/ORS
- Firm registers & selects available Broker(s) (see below)
- Eurex generates unique Eurex Buy-Side client ID (e.g. ABCXC)

b **Interested Brokers (Eurex Members) need to register for participation via Member Section by accepting T&C**
- Must be DMA /ORS Provider
- Must support non-member firm disclosure via new T7 trade field entry (ABCXC or LEI in each trade)
- Broker to recognize legitimacy of their non-member firms' application towards Eurex by a new process

c **Clearers (Clearing Members) implement fee differentiation via Fee Code & pass on disclosed fee to Eurex non-member firm.**
- Disclosure program is first application of the Fee Code

5 Pre-Trade Risk Limits – Initial setup changes
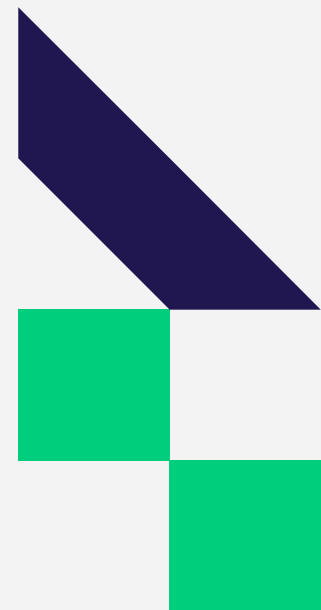
Initial setup of PTRL effective only on next business day

Motivation

- PTRL functionality calculates in real-time how much of a given PTRL limit has already been consumed by incoming transactions and executions throughout the trading day

- Currently, all intraday changes to any PTRL definition become effective immediately. Hence, setting the PTRL initially from no limit to a defined limit value, becomes directly effective on the same day where it is changed. The same for intraday amendments and deactivations

Main Features

- With Release 11.1, **functionality will be restricted such that setting PTRL limit from no limit to defined limit value will only become effective for the next trading day**

- Setting up an initial limit to a product cannot be done on same business day where this limit should be effective but must be done on previous day

- If limits are already active for current business day, they can still be changed intra-day and changes will be effective immediate

- It will also include change to "0" or total deletion of PTRL

19

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6 Change of Standard Option and Option Volatility Strategies
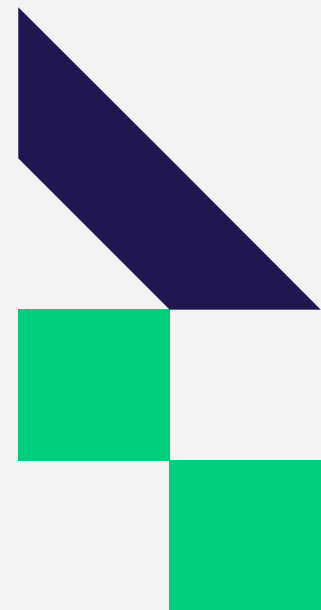
Change for Standard Option and Option Volatility Strategies

Moti-vation

- Currently, strike price restrictions and expiry restrictions are limiting traders to trade strategies according to their needs

Main Features

- Eurex will **adjust standard templates** of standard option strategies and standard options volatility strategies to facilitate market participants' requirements by

  - Removing restriction that the difference between strikes must be the same among legs of Butterflies, Ladders and Condors

  - Removing the restriction that strikes must be equal to the previous leg on Calendar Flies and Ratio Calendar Flies

  - Call Spread Swaps, Put Spread Swaps and Risky Swaps: Both of the above changes

  - Introducing new strategy templates to inverse existing Ratio Risky and Risky Time Spread strategies

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Option Strategy Template Change – Example

Enhancing flexibility in strike differences – Call Condor
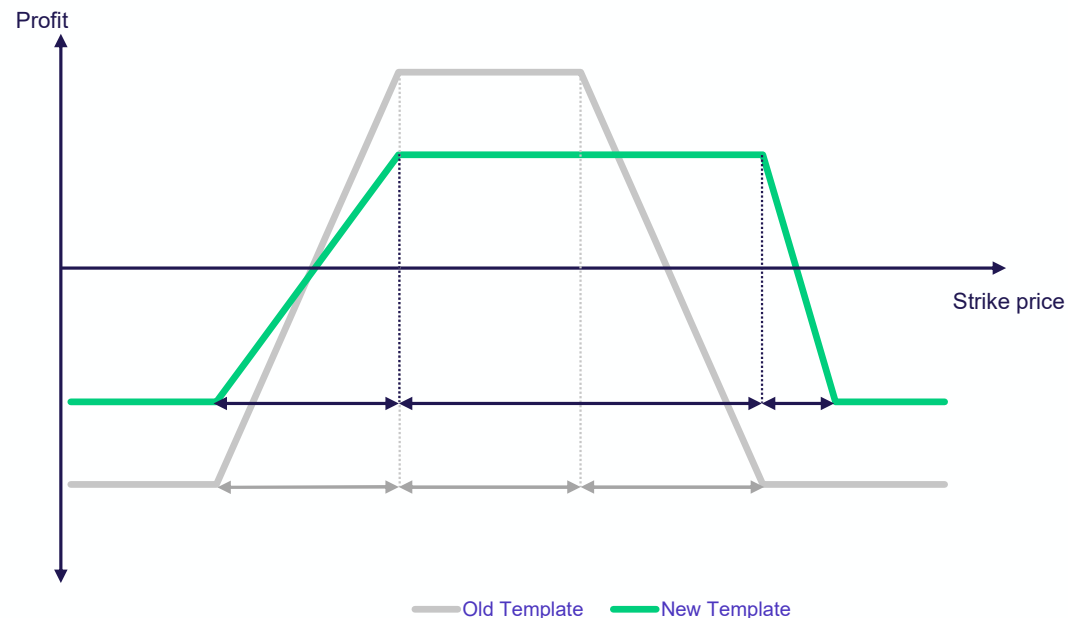
- Existing template restricted traders to configure their Call Condor strategy to have an equal difference between the strike prices of all legs

- With the implementation of the strategy changes the strike prices of each leg must still be greater than the previous leg, but the difference between strike prices can now be adjusted flexibly

New templates Standard Option & Option Volatility Strategies

Strategy	Leg	buy_sell_indicator	call_put_indicator	expiry_rule	ratio	strike_rule
Inverse Ratio Risky	1	Sell	P		2	
	2	Buy	C	EQ	1	GT
Inverse Ratio Risky versus Short Underlying	1	Sell	P		2	
	2	Buy	C	EQ	1	GT
Inverse Risky Time Spread	1	Sell	P		1	
	2	Buy	C	LT	1	GT
Inverse Risky Time Spread versus Short Underlying	1	Sell	P		1	
	2	Buy	C	LT	1	GT

* Rule abbreviations:
- EQ = value must equal previous leg
- GT = value must be greater than previous leg
- LT = value must be lower than previous leg

Eurex introduces four new strategy templates:

- **Inverse version of Ratio Risky and Ratio Risky versus Short Underlying** where the ratio (n) between the first Put leg is (2) and second Call leg is (1)

- **Inverse version of Risky Time Spread and Risky Time Spread versus Short Underlying** where the first leg is a far month Put and the second leg a near month Call

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23

7 **Eurex Improve via FIX LF and synthetic price validation**
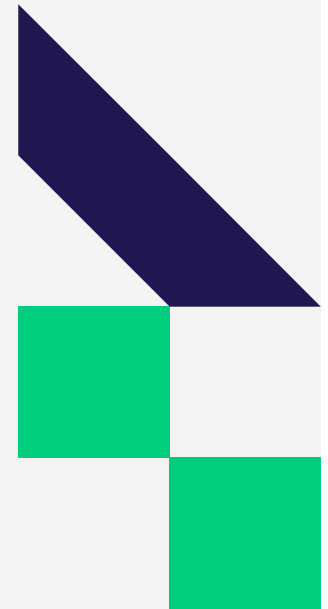
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Eurex Improve now also available via FIX LF

Main Features

Trading Interface

- Additionally, to already existing ETI, **Eurex Improve** will be **available** also **via FIX LF**
- Execution of Eurex Improve orders entered via FIX LF will be visible in ETI listener stream (marked as recoverable)

Price Validation

- Response to CLIP request will be enhanced with s **flag** stating, if calculated synthetic price was used for price improvement validation
- Agreed price has to be strictly better than current bid/ask on client side in central order book
- In case of **Eurex Improve** request in complex instrument (Standard & Non-Standard Options Strategy, Options Volatility Strategy) with empty strategy order book (i.e., no direct bid/ask price), check, if price of request improves price on client side will be validated against calculated synthetic bid/ask price for legs of options strategy

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8 Password Encryption for ETI HF
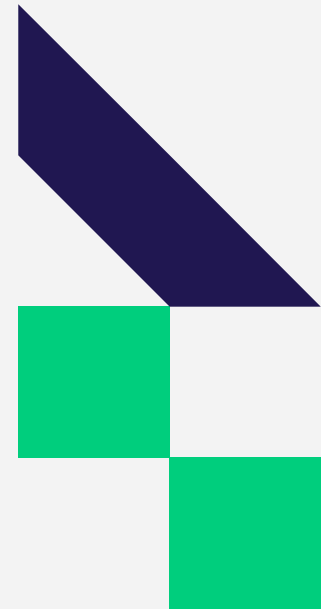
Password Encryption for ETI HF (1/2)

An additional login option for ETI for both *sessions* and *users* will be provided

Background

Feature is necessary due to KRIRIS Regulation that specifies that Deutsche Börse needs to adhere to requirements, which include encryption of data during transfer via public networks resp. encryption of credentials in all networks

Password Encryption for ETI HF (2/2)

Key Features

- Additional login option will be password padded by current UTC timestamp, encrypted with Deutsche Börse's public RSA key & base64 encoded

- Public key will be published in the Member Section

- New login option with password encryption will become mandatory with a later T7 Release

- Further details are contained in the

  - Network Access Guide & ETI documentation *under xetra.com > Technology > T7 Trading architecture > System documentation > Release 11.1*

  - Mandatory Interface Encryption support site under *xetra.com > Technology > T7 trading architecture > System documentation > Mandatory Interface Encryption*

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9 GUI Validation of Client ID field for G-account
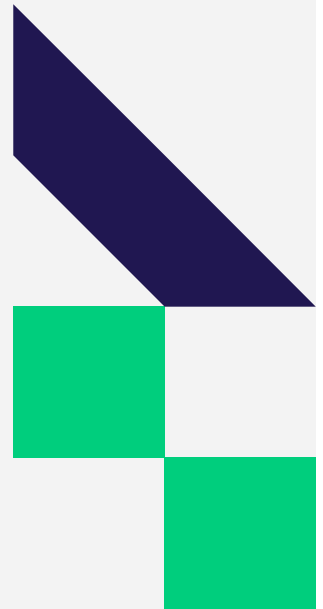
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Change of handling for ClientID field - Eurex GUI only

Status Quo

- When entering give-up/ take-up (G-account) in Eurex GUI, no validation is applied to MiFID required ClientID field

- In case GUI application preferences for give-ups/take ups are set to trading capacity "Agency" & ClientID is left empty, then GUI automatically inserts Default value "0" in ClientID field

Future solution

- Eurex GUI (change does not apply to any other interface) will introduce a dedicated validation for ClientID field for orders entered with G-account, meaning that current automation will not be available anymore

- In case the application is set to trading capacity "Agency", entry of a G-account order with empty ClientID field will be rejected by GUI

- Members have to mandatorily enter the ClientID for G-Accounts in case application preferences is set to trading capacity "Agency"

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10 Enhancements to TSL Maintenance

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Display of Product Assignment in TSL Maintenance

- **T7 Admin GUI** will be enhanced with new view in *TSL Maintenance*
- New tab shows product list assigned by Clearing Member for Business Unit
- List will include relation of the by C7 assigned product to its T7 Product Assignment Group & TSL Product Group

Workflow of the assignment of a product

C7 environment

T7 environment

C7 Product Assignment

A Clearing Member assigns a product or capacity group for the Trading Participant in C7.

T7 Trader Entitlements

A Trading Participant entitles each of their users for roles (Trader/Market-Maker, on-/off-book) per **Product Assignment Group** in the T7 Admin GUI.

Standard TSLs

A Trading Participant can define Standard TSLs per **TSL product group** and TSL user group.

Exception TSLs

A Trading Participant can define Exception TSLs per product and user.

TSLs only have an effect if the product is assigned by C7 and the user is entitled for it in T7.

32

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11 Further Changes and Enhancements

Further Changes and Enhancements

New CustomerDefinedPrice Check for Auto Approval Rules	▪ 2 new optional fields (MaxPriceDeviation & MaxPriceDeviation Unit) where it can be specifed how much a TES trade price is allowed to deviate from last traded orderook price (dev. Unit defined as percentage or abs. nr.) ▪ If validation is set and fails, TES trade must be approved manually ▪ Existing auto Approval Rules are not affected as long as new fields are not manually configured
T7 GUIs: Alert in configurable display location	• New attribute *Alert Popup Position* will be introduced to *Alert Configuration* view of T7 GUIs • User can choose display location for alerts: alert *DownRight* (as before) as well as *Center* or *TopLeft*
Enhanced structure of XML report TR162 Algo HFT Error	• XML report TR162 Algo HFT Error will be enhanced by adding following existing fields to tr162Rec: transactionIdentifier, user, sessionID, freeText1, freeText2, freeText3, freeText4, typOrig

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Architects of trusted markets

Thank you!

Eurex Frankfurt AG
Mergenthalerallee 61
65760 Eschborn

If you have any further questions, please contact your Key Account
Manager or send an e-mail to client.services@eurexchange.com

eurex.com

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