T7 Release 12.0

Final Release Notes
for the Trading Venues Xetra and Börse Frankfurt

Version 2
Date 29 September 2023
## Final Release Notes

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1. **Overview of T7 Release 12.0**

Deutsche Börse AG is planning to launch T7 Release 12.0 on 20 November 2023. The following diagram gives an overview of the introduction schedule:

Deutsche Börse AG provides a dedicated release simulation environment 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 12.0 is planned to start on 11 September 2023. In addition, and prior to the T7 release simulation, Deutsche Börse AG offers a T7 Release 12.0 Cloud Simulation to allow trading participants and Independent Software Vendors (ISVs) to test the T7 Release 12.0 ETI, FIX LF interface changes, the T7 Trader GUI and T7 Admin GUI changes, as well as the RDI, MDI, EMDI and EOBI interface changes. The GUIs are accessible via the established VPN. 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 11 August 2023.

1.1 New Features and Enhancements Overview

The following new main features and enhancements will be introduced with T7 Release 12.0:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Relevant for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T7 Xetra</td>
</tr>
<tr>
<td>MiFID II / MiFIR Enhancements</td>
<td>X</td>
</tr>
<tr>
<td>Xetra Retail Execution service</td>
<td>X</td>
</tr>
<tr>
<td>Enhancements of Pre-Trade Control checks</td>
<td>X</td>
</tr>
<tr>
<td>Latency Enhancements</td>
<td>X</td>
</tr>
<tr>
<td>Further Changes and Enhancements</td>
<td>X</td>
</tr>
</tbody>
</table>

1.2 Note on Interfaces

T7 Release 12.0 will not provide backwards compatibility for the T7 ETI / FIX LF interface version 11.1, i.e., participants will have to use the new functionality and will not be able to connect to T7 with the interface layout version 11.1 anymore, after the production launch of T7 Release 12.0.

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

1.3 Future document naming and numbering

Please note that starting with T7 Release 12.0, documents will follow a different scheme for naming and numbering: While documents in the past often had the project phase in their name, for which they were written (e.g. “Simulation”, “Production”), from now on documents will have names which are independent from the project phase. The upgrade of documents by project phase will be reflected now by the version number only (version 1, version 2, …). Version numbers from now on will be integer numbers only, i.e. version numbers with dot will not occur anymore (e.g. 1.2).

Documents will be updated only once their content changes, meaning that a further publication of the same document for later project phases will not occur (e.g. Production), if the document does not change.
### 1.4 Further Reading

The existing documents have been or will be revised for T7 Release 12.0. The following table provides an overview of the schedule for the publication:

<table>
<thead>
<tr>
<th>T7 Release 12.0</th>
<th>Derivatives Markets</th>
<th>Cash Markets</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Release Notes</td>
<td>x</td>
<td>x</td>
<td>♦</td>
</tr>
<tr>
<td>Enhanced Trading Interfaces Manual, incl. XSD, XML Representation and Layouts</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>FIX LF Manual, incl. XSD, XML Representation and Layouts</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Trader, Admin and Clearer GUI – User Manual</td>
<td>x</td>
<td>x</td>
<td>♦</td>
</tr>
<tr>
<td>Final Release Notes</td>
<td>x</td>
<td>x</td>
<td>♦</td>
</tr>
<tr>
<td>Extended Market Data Services Manual &amp; Underlying Ticker Data Manual incl. XML Fast Templates</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Functional Reference</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Functional and Interface Overview</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Trader, Admin and Clearer GUI – Installation Manual</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Participant and User Maintenance Manual</td>
<td>x</td>
<td>x</td>
<td>♦</td>
</tr>
<tr>
<td>Cross System Traceability</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Incident Handling Guide</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Participant Simulation Guide</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>T7 Known Limitations for Simulation</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Cash Market Instrument Reference Data Guide</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Exchange Rules &amp; Regulations</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>Market Models</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>T7 Known Limitations for Production</td>
<td>x</td>
<td>♦</td>
<td>♦</td>
</tr>
</tbody>
</table>

Please note that the outlined schedule is subject to change.

The documents will be available on the Xetra website [www.xetra.com](http://www.xetra.com) under the path:

> Technology > T7 Trading Architecture > System Documentation > Release 12.0
1.5 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.

1.6 Definitions and Abbreviations

<table>
<thead>
<tr>
<th>Term/Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBO</td>
<td>Best Bid Offer</td>
</tr>
<tr>
<td>BOC</td>
<td>Book-or-Cancel</td>
</tr>
<tr>
<td>Börse Frankfurt</td>
<td>Trading venue of FWB, where equities, bonds, ETFs, ETCs, ETNs, mutual funds and structured products are traded</td>
</tr>
<tr>
<td>C7</td>
<td>Deutsche Börse Clearing System</td>
</tr>
<tr>
<td>C7 BRS</td>
<td>C7 Bilateral Routing Service</td>
</tr>
<tr>
<td>C7 SCS</td>
<td>C7 Securities Clearing Service</td>
</tr>
<tr>
<td>CEF</td>
<td>Consolidated Exchange Feed</td>
</tr>
<tr>
<td>DBAG</td>
<td>Deutsche Börse AG</td>
</tr>
<tr>
<td>DSCP</td>
<td>Differentiated Services Code Point, in the IP header of a packet</td>
</tr>
<tr>
<td>EMDI</td>
<td>T7 Enhanced price level netted Market Data Interface</td>
</tr>
<tr>
<td>EOBI</td>
<td>T7 Enhanced Order Book Market Data Interface</td>
</tr>
<tr>
<td>ETI</td>
<td>T7 Enhanced Trading Interface</td>
</tr>
<tr>
<td>FIX LF</td>
<td>Financial Information eXchange (protocol) Low Frequency interface</td>
</tr>
<tr>
<td>FOK</td>
<td>Fill-or-Kill</td>
</tr>
<tr>
<td>FWB</td>
<td>Frankfurter Wertpapierbörse</td>
</tr>
<tr>
<td>GTX</td>
<td>Good-till-Crossing</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>HF</td>
<td>High Frequency</td>
</tr>
<tr>
<td>IOC</td>
<td>Immediate-or-Cancel</td>
</tr>
<tr>
<td>MDI</td>
<td>T7 netted price level aggregated Market Data Interface</td>
</tr>
<tr>
<td>MIC</td>
<td>Market Identification Code (e.g. XETR)</td>
</tr>
<tr>
<td>MiFID</td>
<td>EU Markets in Financial Instruments Directive</td>
</tr>
<tr>
<td>MiFIR</td>
<td>EU Markets in Financial Instruments Regulation</td>
</tr>
<tr>
<td>PWT</td>
<td>Price without turnover</td>
</tr>
<tr>
<td>RDF</td>
<td>T7 Reference Data File</td>
</tr>
<tr>
<td>RDI</td>
<td>T7 Reference Data Interface</td>
</tr>
<tr>
<td>RLP</td>
<td>Retail Liquidity Provider</td>
</tr>
<tr>
<td>RMO</td>
<td>Retail Member Organization</td>
</tr>
<tr>
<td>SWIFT</td>
<td>Society for Worldwide Interbank Financial Telecommunication</td>
</tr>
<tr>
<td>T7</td>
<td>The trading architecture developed by Deutsche Börse Group</td>
</tr>
<tr>
<td>TES</td>
<td>T7 Entry Service</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>UTC</td>
<td>Coordinated Universal Time</td>
</tr>
<tr>
<td>VDO</td>
<td>Volume Discovery Order</td>
</tr>
<tr>
<td>XETR</td>
<td>Market Identifier Code (MIC) of trading venue T7 Xetra</td>
</tr>
<tr>
<td>XFRA</td>
<td>Market Identifier Code (MIC) of trading venue T7 Börse Frankfurt</td>
</tr>
</tbody>
</table>
2. **MiFID II / MiFIR Enhancements**

With T7 Release 12.0, Deutsche Börse will introduce a dedicated validation scheme for the fields Execution Decision ID, Investment Decision ID, and Client ID in all trading interfaces. The validation scheme relates to the submission requirements of the short code and algo ID information in transactions. For easier readability, the term short code shall include the algo ID as well in the following.

### 2.1 Functional Description

#### 2.1.1 Stricter Validations

These validations will come into place:

- **Execution Decision ID:**
  - The submission of a short code will always be mandatory regardless of the trading capacity used.

- **Investment Decision ID:**
  - For the trading capacities
    - Proprietary,
    - Issuer/Liquidity Provider,
    - Market Making, and
    - Retail Liquidity Provision¹,
    - the submission of a short code will always be mandatory.
  - For the trading capacities
    - Agency,
    - Riskless Principal, and
    - Retail Agency¹,
    - the submission of a short code will be optional.

Please note: If either a short code or a qualifier is set, the submission of both short code and qualifier will become mandatory even when transactions are submitted using the trading capacities Agency, Riskless Principal, or Retail Agency.

- **Client ID:**
  - For the trading capacities
    - Agency,
    - Riskless Principal, and
    - Retail Agency¹,
    - the submission of a short code will be required.
  - For the trading capacities
    - Proprietary,
    - Issuer/Liquidity Provider,
    - Market Making, and

---

¹ For the new Xetra Retail Execution service, please see chapter 3.
• Retail Liquidity Provision¹,
  the short code must be empty.

2.1.2 Short Code handling

A submission of a zero as a short code will no longer be permitted.

For the identification of a natural person, the usage of a short code will be mandatory in the Execution Decision ID and in the Investment Decision ID. The mapping solution, which was supported before T7 Release 12.0, will no longer be offered. The mapping solution enabled trading participants to submit an empty Execution Decision ID or Investment Decision ID and to set the respective qualifier to “Human”. This led to the implicit mapping of the submitting trader’s national ID into the trading venue’s audit trail by Deutsche Börse. The underlying regulatory requirements are unchanged. Please find more information about the MiFID II / MiFIR flagging scenarios under xetra.com > Newsroom > Current regulatory topics > MiFID II & MiFIR > Reference data reporting > Factsheet: MiFID II / MiFIR Flagging Requirements – Execution decision, investment decision, client ID and DMA

2.2 Adjust the individual Auto Approval Rules and orders

Please note that the individual Auto Approval Rules will have to be adjusted to the new validations concept, otherwise the Auto Approvals will fail.

Customers are asked to update all orders not GFD to be compliant with the correct MiFID II information to enable full maintenance (already possible with T7 Release 11.1).

2.2.1 Special behaviour for the TES type OTC

For the TES type OTC in TES Approval and TES Auto-Approval messages, the submission of the MiFID II fields will not be required. They can be left empty. However, if a short code or qualifier is set, then the combinations will become mandatory.

2.3 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support 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 interface manuals and to the Online Help in the GUIs.

2.3.1 FIX LF

The default settings for the FIX LF fields for the following information will be removed:

<table>
<thead>
<tr>
<th>Information</th>
<th>Default setting removed with T7 12.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvestmentQualifier</td>
<td>Human</td>
</tr>
<tr>
<td>ExecutionQualifier</td>
<td>Human</td>
</tr>
<tr>
<td>LiquidityProvisionIndicator</td>
<td>Non_liquidity_providing</td>
</tr>
<tr>
<td>CommodityHedging</td>
<td>False</td>
</tr>
</tbody>
</table>
This information is reflected in the fields of the Parties group, i.e., PartyID (448), PartyRole (452), PartyRoleQualifier (2376).

### 2.3.2 T7 Trader GUI

The T7 Trader GUI will be able to automatically fill Execution Decision ID and Execution Qualifier but will only do so if the user has set a default value for them in the application preferences. On login into the T7 Trader GUI, a pop-up window will open to prompt the user to set the default value for the Execution Decision ID.

The Execution Qualifier will be “Human” by default on login and can be changed to “Algo” after login, if required.
3. **Xetra Retail Execution service**

After the introduction of T7 Release 12.0, Xetra (MIC: XETR) will enable a new competitive Xetra Retail Execution service open for all trading participants of the FWB. The Xetra Retail Execution service is a best execution offering for retail orders. It focusses on the needs of private investors and retail brokers and aims at the improvement of retail trading on Xetra.

The new service will enable dedicated retail liquidity providers (RLP) to enter retail quotes better than the price within the current order book for retail orders provided by dedicated retail member organizations (RMO) and will be offered in the *Continuous Trading with Auctions* trading model.

### 3.1 Functional Description

For the new Xetra Retail Execution service, participants who will be registered at the exchange as Retail Liquidity Providers (RLP), will provide quotes and orders, which are marked as retail quotes and orders (in short: RLP quotes). These RLP orders and quotes are marked by the new Trading Capacity for Retail Liquidity Provision (L) and their validity is only Good-for-Day. For RLP orders, any auction-only or BOC trading restriction will be rejected. Double-sided as well as one-sided RLP quotes are allowed, but zero quantities are not. Since RLP quotes will not interact with other RLP quotes or other non-retail orders in the orderbook in instrument state *Continuous*, the RLP quotes will not be disclosed via the T7 order book data streams, but via the Consolidated Exchange Feed (CEF) as product ID 6071 (XETRA_RETAIL).

Trading participants, who will be registered as Retail Member Organization (RMO), will provide orders, which are marked as retail orders (in short: RMO orders). These RMO orders are marked by the new Trading Capacity for Retail Agency (B). As Execution Restrictions, IOC, FOK, and BOC will be allowed. Retail orders can match against both, an RLP quote, resulting in a retail Price Determination, or against other non-retail orders within the regular Xetra order book, resulting in a regular Price Determination.

While an instrument allowed for the Xetra Retail Execution service is in the instrument state *Continuous*, the RLP quotes can match against the RMO orders, but not against other non-retail orders or quotes.

A retail price determination will only be possible during the instrument state *Continuous*.

RLP quotes will be fully integrated in the normal matching process and will not have an advantage in price over other quotes and orders. On the other hand, they will have an advantage in time over other quotes and orders, i.e., they are executed following a price-retail-time priority instead of a price-time priority. So, e.g., if there is an RLP quote and an order on the same price level, and the order has been entered earlier than the RLP quote, the RLP quote nevertheless has priority for incoming RMO orders.

In case of a crossed order book situation (i.e., crossed RLP quotes / orders with other non-RMO orders in the order book) or a crossed RLP quote / order situation (i.e., RLP quotes / orders cross each other) there will be a mechanism to ensure the order book consistency in terms of pre-trade transparency and matching.

The below table specifies the two basic scenarios which need to be resolved using the new mechanism, and the corresponding rules:
Independent from the displayed limit generated by mechanism, T7 will retain the actual (physical) limit of the RLP quote / order provided by the respective RLP on quote/order entry. T7 will revert the limit of the RLP quote / order to its original limit when the crossed situation is resolved. The quotes will be displayed via CEF for all CEF clients. The price information will also be displayed via CEF when an RLP quote / order is reverted to its actual (physical) limit.

Trades resulting from the new Xetra Retail Execution service will be of a new match type Retail. Special statistics for retail trading such as Retail Last Price, Retail Last Trade Quantity and Retail Last Trade Time will be provided. In Clearing and Settlement, the account L (Retail Liquidity Provision) will be mapped to P (Proprietary), and the account B (Retail Agency) will be mapped to A (Agency).

The exchange will decide for which instruments in the trading model Continuous Trading with Auctions the new Xetra Retail Execution service will be enabled (as a first step, only equities might be supported). Please note that orders flagged as RMO orders, which are entered for an instrument not eligible for the new Xetra Retail Execution service, will not be rejected but will be handled like a non-RMO order.

Please note that an RLP quote will be able to exist together with a non-RLP quote within the same session. While non-RLP quotes replace each other within one session, RLP quotes will not replace non-RLP quotes, and will not be replaced by them. Automatic and mass deletions for RLP quotes are performed the same way as for Designated Sponsor quotes.

For RLP quotes and orders, neither a modification of the Trading Capacity will be allowed, nor an SMP definition. For RMO orders, a modification of the Trading Capacity will be allowed, but only in pre- and post-trading, and the SMP functionality will be supported, as for other non-retail orders. Mass quote deletions will delete RLP quotes only, not RLP orders.

Please note that the Best Bid Offer (BBO) Setting flag for RLP quotes will always be False or Null, while the BBO Setting flag for RMO orders will be handled like for orders entered with the Trading Capacity Agency. RLP quotes will not be considered when the BBO flag is calculated for an incoming order or quote.

The user administrators will have to assign the Trading Capacities (L, B) to their users. The Retail Liquidity Providers will use the existing Cash Market Maker role and the Retail Member Organizations will use the existing Cash Trader role.

There will be no TES or Xetra EnLight trading for the new Xetra Retail Execution service.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Order book consistency mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crossed book – When a non-retail order (incoming or resting) on one side crosses the limit of an RLP quote on the opposite side.</td>
<td>The respective side of the RLP quote / orders will be disclosed with the best available limit of the opposite side of the order book.</td>
</tr>
<tr>
<td>Crossed quote – When two RLP quotes cross each other, i.e., when they would be executable against each other.</td>
<td>The last trade price (regardless of it being a retail or a non-retail last price) will be considered for the displayed limit of the quotes / orders within the crossed limits of these quotes / orders.</td>
</tr>
</tbody>
</table>
3.2 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support 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 interface manuals and to the Online Help in the GUIs.

3.2.1 Market Data – EOBI

The following messages will change to support the new Xetra Retail Execution service:

- Trade Report
- Trade Reversal
- Instrument Summary

3.2.2 Market Data – EMDI / MDI

The following messages will change to support the new Xetra Retail Execution service:

- Depth Incremental
- Depth Snapshot

3.2.3 T7 Admin GUI

The following views will change to support the new Xetra Retail Execution service:

- User Maintenance view

3.2.4 T7 Trader GUI

The following views will change to support the new Xetra Retail Execution service:

- Market view
- Order Entry view, respectively Add Order view
- Order History view
- Trades view
- Trade Summary view
- Time & Sales view

3.2.5 ETI

The following requests will change to support the new Xetra Retail Execution service:

- New Order Single
- New Order Single (Short Layout)
- Replace Order Single
- Replace Order Single (Short Layout)
- Extended Order Information
- Mass Quote
- Single Quote Request
- Trade Notification
3.2.6  FIX LF
The following requests will change to support the new Xetra Retail Execution service:

- New Order Single
- Order Cancel / Replace Request
- Execution Report
- Trade Capture report

3.2.7  XML Reports

3.2.7.1  New reports
- PM700 Xetra Retail Liquidity Provider
- PM710 Xetra Retail Member Organization

3.2.7.2  Modified reports
- CB080 Monthly Fee and Rebate Statement:
  New field: rlpFeeReb, numeric signed 15, 2.

3.2.7.3  Modified fields
The following fields will get additional valid values to support the new Xetra Retail Execution service:

- acctTypGrp
- feeTypCod
- tradingCapacity
- tradeType

3.2.7.4  New fields
The following fields will be added to support the new Xetra Retail Execution service:

`enableRetailAgencyAcct`

Description: This field indicates whether a trader is allowed to act in retail Agent account and is only relevant for Cash Market.

Format: alphanumeric 1.

<table>
<thead>
<tr>
<th>Valid Values</th>
<th>Decodes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>N</td>
<td>No</td>
</tr>
</tbody>
</table>

Where used:
RD115 - User Profile Status
enableRetailMarketMakingAcct

Description: This field indicates whether a trader is allowed to act in retail Market Maker account and is only relevant for Cash Market.

Format: alphanumeric 1.

<table>
<thead>
<tr>
<th>Valid Values</th>
<th>Decodes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>N</td>
<td>No</td>
</tr>
</tbody>
</table>

Where used:
RD115 - User Profile Status
4. Enhancements of Pre-Trade Control checks

With T7 Release 12.0, Deutsche Börse will enhance the validation applied for Maximum Order Value (MOV) and Maximum Order Quantity (MOQ) for orders and quotes in order book trading as well as for Xetra EnLight, and TES LIS. The validation will be enhanced by dedicated exchange specified limits, that will apply per instrument and accompany the existing user specified limits, which can be set by the Trading Participant. The minimum of the user limit and the instrument limit will determine the maximum allowed order value and order quantity for a given order per user and instrument. The possibility to skip the Maximum Order Value check and the Maximum Order Quantity check will continue to be available but may only be applied to skip the Trading Participant user specified limit, not the exchange limit.

Furthermore, an additional Price Collar check will be introduced, which cannot be skipped by the Trading Participant.

The new functionalities will be available for the trading venues Xetra and Börse Frankfurt.

Deutsche Börse will communicate the exchange limits for Maximum Order Value and Maximum Order Quantity prior to application via circular

4.1 Maximum Order Value

Deutsche Börse offers a Maximum Order Value check on order / quote entry and on modification for order book trading, TES LIS and Xetra EnLight. This check is applied as soon as the respective request is sent. The Maximum Order Value limits can be set per user ID in the user maintenance in the T7 Admin GUI. In case of a limit violation, the order/quote, TES, or Xetra EnLight request is rejected with a respective error message.

With T7 Release 12.0, Deutsche Börse will enhance the Maximum Order Value check by introducing exchange specified limits for each instrument that will additionally be considered in the Maximum Order Value check. Effective limits for the maximum order value will therefore be the minimum of the user limit provided by the Trading Participants and the limit per instrument provided by the exchange. In case an order/quote, TES, or Xetra EnLight request exceeds one or both limits, the order/quote, TES, or Xetra EnLight request will be rejected with a distinct error message that specifies the limit, which was exceeded.

The possibility to skip the Maximum Order Value check will continue to be available via a flag. However, this flag will only skip the user limit component provided by the Trading Participant as it is applied today, not the exchange limit. Disregarding of the flag, the exchange limit will be validated.

Skipping the Maximum Order Value set by the exchange will be possible in exceptional situations after contacting Market Operations.

4.2 Maximum Order Quantity

Deutsche Börse offers a Maximum Order Quantity check on order / quote entry and on modification for order book trading, TES LIS, and Xetra EnLight. This check is applied as soon as the respective request is sent. The maximum order quantity limits can be set per user ID in the user maintenance in the T7 Admin GUI. In case of a limit violation, the order/quote, TES, or Xetra EnLight request is rejected with a respective error message.

With T7 Release 12.0, Deutsche Börse will enhance the maximum order quantity check by introducing exchange specified limits for each instrument that will additionally be considered in the Maximum
Order Quantity check. Effective limits for the maximum order quantity will therefore be the minimum of the Trading Participant's provided user limit and the exchange provided limit per instrument. In case an order/quote, TES, or Xetra EnLight request exceeds one or both limits, the order/quote, TES, or Xetra EnLight request will be rejected with a distinct error message that specifies the limit, which was exceeded.

The possibility to skip the Maximum Order Quantity check will continue to be available via a flag. However, this flag will only skip the Trading Participant's provided user limit component as it is applied today, not the exchange limit. Disregarding of the flag, the exchange limit will be validated. Skipping the Maximum Order Quantity set by the exchange will be possible in exceptional situations after contacting Market Operations.

### 4.3 Price Collar check

For the already existing Price Collar check a new extended price range validation will be introduced. The new extended price range validation will be applied only, if the price reasonability check is not applied or skipped by the user. The validation will be applied for all instrument states in which the price reasonability validations are currently done. The new extended price range validation will apply for order book trading.

The extended price range validation cannot be skipped by the user. Skipping the extended price range validation will be possible in exceptional situations after contacting Market Operations.
5. **Latency Enhancements**

With T7 Release 12.0, Deutsche Börse will introduce the following additional changes and enhancements to streamline and improve message processing and maintenance.

5.1 **Immediate Deletion of Quotes on Quote Inactivation**

With T7 Release 12.0, it will become possible to delete quotes immediately together with a quote inactivation request. For this, a new valid value *Inactivate and Delete* will be introduced to the tag *MassActionType* (1373) in the Quote Activation Request and the Quote Activation Notification.

5.2 **No delay for Quote Activation if the Session does not have any Quotes**

With T7 Release 12.0, Quote Activation requests will not be delayed anymore, if the session does not have any quotes.

5.3 **DSCP bit now indicating whether Executed Quantity > 1**

With T7 Release 12.0, one DSCP bit from the EOBI IP protocol header, formerly used to indicate whether it is a simple or a complex instrument, will now be used to indicate whether the executed quantity was greater than 1 lot.

5.4 **New EOBI Information about remaining aggressive Quantity**

With T7 Release 12.0, the EOBI Execution Summary will be enhanced by a group of three fields with information about a possibly remaining quantity in the book. The fields will be filled only in Continuous Trading.

New group *RemainingOrderDetails*:

- *TrdRegTSPrevTimePriority* (21026). Shows the priority of the modified order that became aggressive. Filled only in case the execution resulted from a modification.
- *DisplayQty* (1138). New remaining size.
- *Price* (44). New remaining price.

Furthermore, the existing field *AggressorTime* (2445) will be moved to the end of the message.

5.5 **Five new ETI requests**

With T7 Release 12.0, five new additional ETI requests will be introduced which will allow to add, modify, and delete orders. Eurex and Xetra will jointly implement the following request layouts:

- New Order Single Or MultiLeg
- New Order Single Or MultiLeg Short
- Replace Order Single Or MultiLeg
- Replace Order Single Or MultiLeg Short
- Cancel Order Single Or MultiLeg

Deutsche Börse will evaluate the usage of the new order layouts to make a decision to decommission the existing requests in the long run and therefore only offer the new requests. No explicit timelines

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2 Please note that the name “… Or MultiLeg” derives from the Eurex context. No MultiLeg orders can be entered in Xetra.
have been defined. Deutsche Börse will communicate this step well in advance of the targeted T7 release.
6. Further Changes and Enhancements

With T7 Release 12.0, Deutsche Börse will introduce the following additional changes and enhancements.

6.1 Decommissioning of Volume Discovery Orders

With T7 Release 12.0, the possibility to enter Volume Discovery Orders (VDO) will be decommissioned. Volume Discovery Orders were a special variant of an iceberg order with a second limit for Volume Discovery matching. A special validity Good-Till-Crossing (GTX) was supported for them.

Existing VDO orders will not be cancelled with the introduction of T7 Release 12.0, but their VDO attributes will be removed so that they remain in the book as Iceberg orders.

In all interfaces and GUIs, the order type VDO, its special second limit field, and the special valid value Good-till-Crossing (GTX) for the order validity (respectively TimeInForce code) will be removed.

6.1.1 Impacts on Interfaces

The following chapter outlines the changes to interfaces and GUIs to support 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 interface manuals and to the Online Help in the GUIs.

6.1.1.1 ETI

Affected are these requests:

- New Order Single
- Orderbook Information for Specialist
- Replace Order Single
- Extended Order Information
- Extended Deletion Report
- Immediate Execution Response
- Book Order Execution
- Trade Notification

6.1.1.2 LF FIX GW

Affected are these requests:

- New Order Single
- Order Cancel/Replace Request
- Execution Report
- Trade Capture Report

6.1.1.3 RDI / RDF

Remove VDO column from order profiles file in RDF files.
6.1.1.4 Market Data

Affected are these requests:

- EMDI / MDI Depth Snapshot Message
- EMDI / MDI Depth Incremental Message
- EOBI Trade Report
- EOBI Trade Reversal
- EOBI Instrument Summary

6.1.1.5 XML Reports

Directly affected are these reports:

- TC540 Daily Order Maintenance
- TC550 Open Order Detail
- TD810 T7 Daily Trade Confirmation
- TD930 Daily Trade Statistics

Affected are also the valid values of certain fields used also in other reports.

6.1.1.6 T7 Trader GUI

Directly affected are these views:

- Order Entry
- Order History

Affected are also the valid values of certain fields used in other views.

6.2 Null Spread Quotes in the trading model Continuous Auction with Market Maker

With T7 Release 12.0, Null Spread quotes will be introduced to the trading model Continuous Auction with Market Maker, to make it more like the trading model Continuous Auction with Specialist. Null Spread quotes will be allowed for the following quote types:

- Quote type Indicative.
- Quote type Price without turnover (PWT), resulting in the publication of a PWT if the conditions for a PWT are met.
- Quote type Matching, if the Market Model parameter allowIndicativeQuote is set to TRUE and the instrument state is CALL.

Please note, that any remainder of a Matching quote is deleted at the end of the transaction, i.e. no executable quote quantity remains in the book. The auction execution triggered by a Matching quote will be implemented along the same rules as the auction execution in the trading model Continuous Auction with Specialist, i.e. the Matching quote will be executed with lowest priority, and with an effective self-match prevention for the Matching quote, so that the Matching quote will be executed only either on the bid side or on the ask side, if there is any quote execution at all. This may imply a limited violation of the price-time priority in cases where a Stop Limit order with an order limit equal to the quote limit is triggered and executed at the price of the Matching quote on the same side.

No Null Spread quotes will be allowed for the quote type Standard. Entering a Null Spread Matching quote in Pre-call will be declined.
6.3 TES Trading: New field *TradePublishIndicator* (1390) in ETI messages

With T7 Release 12.0, the existing mandatory field *TradePublishIndicator* (tag 1390) will be added to the following ETI messages:

- Enter TES Trade Request
- Modify TES Trade Request
- Approve TES Trade Broadcast

Please note that the field already exists for this message:

- TES Trade Broadcast

For requests, the field will have the following valid values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Do Not Publish Trade</td>
</tr>
<tr>
<td>1</td>
<td>Publish Trade</td>
</tr>
</tbody>
</table>

For broadcasts, the field will have the following valid values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Deferred publication to market</td>
</tr>
<tr>
<td>3</td>
<td>Published to market</td>
</tr>
</tbody>
</table>

The publication will continue to be performed by CEF.

Depending on the interface, the valid values 0, 2 may be given as *False*, and 1, 3 as *True*.

Furthermore, the existing field *isDisclosed* will be added in XML report TC545 Daily TES Maintenance as an optional field.

6.4 Dedicated Rejection Reason for PTRL Consumption violation

With T7 Release 12.0, in case of a rejection of a transaction due to an exceeded PTRL consumption, a new dedicated rejection reason will be returned to customers via the ETI *SessionRejectReason* (373) and the FIXML *BusinessRejectReason* (380) fields:

- 10016 Pretrade Risk Limit exceeded

6.5 Definition of Pre-Trade Risk Limits via HF sessions

With T7 Release 12.0, it will be possible to inquire and define Pre-Trade Risk Limits (PTRL) via HF sessions.

6.6 Decommissioning of the Contract Notes Reports

Xetra Contract Notes Reports applicable for the trading venues Xetra and Börse Frankfurt are currently available in SWIFT MT512 and in a related printable version. Due to limited usage, Deutsche Börse has decided to decommission the Xetra Contract Notes Reports in Q4 2023, as part of the T7 Release 12.0 scope.

This decommissioning of Xetra Contract Notes Reports will affect only those Trading Participants who are still using the service and who are therefore required to take appropriate action.
Please be aware that all adjustments on the Trading Participants' side need to be completed by November 2023, as the decommissioning date coincides with the introduction of the T7 Release 12.0 in production.

For more information see Xetra circular 050/2022.

6.7 **Technical migration of the processing of bilateral trades (non-CCP eligible trades)**

With the introduction of T7 Release 12.0, the post trade processing of bilateral trades (non-CCP eligible trades), including the bilateral aggregation service, will be migrated to a new technical infrastructure (C7). Besides the decommissioning of the Contract Notes report (please see subchapter 6.6) there will be no functional changes to the existing services.

6.8 **ETI / FIX LF: Change in supported cipher suites**

With T7 Release 12.0, the list of the TLSv1.2 cipher suites will change for ETI and FIX LF. The list will be published in the *Network Access Guide*, available on xetra.com with all the other documents of T7 Release 12.0 (for the path see above in chapter 1.4 *Further Reading*).
7. Changes to the display of numeric and numeric signed fields in dedicated XML reports

Deutsche Börse is migrating its data platform for the provision of XML reports to a new technology stack. With this migration Deutsche Börse is enhancing its data platform in terms of performance and scalability to ensure report delivery in time. Increased transaction volumes are one of the key drivers for this migration.

In the course of this migration, an adaption to the content display of numeric and numeric signed fields with decimals will take place: In case there are only zeroes as decimal places, the decimal places will not be explicitly stated:

<table>
<thead>
<tr>
<th>General Field Format</th>
<th>Format Description for example</th>
<th>Old Format Example</th>
<th>New Format Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>numeric ( n [, m] )</td>
<td>numeric signed 5, 2</td>
<td>314.15</td>
<td>314.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.14</td>
<td>3.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.00</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00</td>
<td>0</td>
</tr>
<tr>
<td>numeric signed ( n [, m] )</td>
<td>numeric signed 5, 2</td>
<td>+314.15</td>
<td>+314.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.00</td>
<td>-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+0.00</td>
<td>+0</td>
</tr>
</tbody>
</table>

The migration will take place as a stepwise approach. Each new release, further reports will be migrated onto the new platform. The reports listed below will be published with the new format for numeric/numeric signed fields starting or continuing with T7 release 12.0:

- TR101 MiFID II OTR Report
- TC550 Open Order Detail
- PM700 Xetra Retail Liquidity Provider
- PM710 Xetra Retail Member Organization

Please note that TC540 Daily Order Maintenance was already migrated to the new platform in 2021.

The complete list of reports on the new data platform is outlined in chapter 5.1 of the XML Report Reference Manual.
8. Change Log

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Log entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 August 2023</td>
<td>Publication.</td>
</tr>
<tr>
<td>2</td>
<td>29 September 2023</td>
<td>Added new chapter 7</td>
</tr>
</tbody>
</table>