

# **ISE Xetra® Release 11.1 Functional Description**

January 2011

## Foreword by the Irish Stock Exchange

This *Functional Description* document is based on the Deutsche Börse Functional Description but it has been amended to reflect relevant functionality of Xetra Release 11.1 for ISE Xetra operated by the Irish Stock Exchange (hereafter referred to as ISE Xetra). Please note that the Irish Stock Exchange has not currently implemented all functionality operated by the Frankfurt Stock Exchange.

In particular the following aspects of trading on the Frankfurt Stock Exchange are not in place on the Irish Stock Exchange:

- The market model Xetra XXL,
- The IPO functionality, (and as a result the user type “Issuer” and “public quotes”)
- Continuous auction trading (and as a result “auction quotes”)
- Xetra BEST
- Structured product trading and related functionality

### Note:

Reference is made throughout the text to ISE instruments and non ISE MiFID instruments. ISE instruments are instruments capable of being traded on the ISE Xetra order book of the Irish Stock Exchange (defined in ISE Rules as ‘order book securities’). Non ISE MiFID instruments are all other MiFID instruments. The term MiFID instruments refers to both ISE and non ISE MiFID instruments.

We have noted the non-application of functionality in this text by marking it with an asterix (\*). ISE specific functionality has been highlighted in bold text.

**The ISE refers to Designated Sponsors as Market Makers in its Rules.**

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## 1 INTRODUCTION

The electronic trading system Xetra is enhanced through individual releases. The latest release, Xetra Release 11.1 is mainly characterised by the preparation of the Xetra system for the instrument migration from Xontro to Xetra Frankfurt 2 which is planned for May 23, 2011. The production start for Release 11.1 is scheduled for May 9, 2011.

The major enhancements that will be implemented with Xetra Release 11.1 are changes for the bond trading facility\*, the subscription of Entry Standard bonds issues and the trading of new bond issues before issue date utilizing the Continuous Auction with Specialist trading model\*.

For bonds with denomination currency different from Euro but with settlement currency Euro an up-to-date exchange rate is needed. Xetra will be enhanced in the way that an actual exchange rate can be provided for instruments traded in Continuous Auction trading model\*. The Specialist\* will enter the exchange rate together with the matching quote. Furthermore the instrument scope will be extended to support bonds with variable coupon dates and bonds with defined pool factors.

To support subscription of Entry Standard bonds issues the Specialist\* will be enabled to modify and delete orders on behalf of another member.

The fee reports CB142 "Fee per Executed Order" and CB242 "Specialist Recomensation per Executed Order"\* will be adapted to reflect the changes becoming necessary because of the instrument migration from Xontro to Xetra Frankfurt 2. Additionally the new report CB162 "Monthly Specialist Refund"\* is introduced.

Currently members declare their ability to settle instruments in non-Euro currencies generally once per member. With Xetra Release 11.1 the granularity of this functionality is increased. A member will then be able to define an individual set of non-Euro currencies he is able to trade and settle based on the set of currencies that are supported.

The *Functional Description* document contains information on the functional structure of Xetra Release 11.1. It describes the functionality provided to market participants by Xetra Release 11.1. The graphical trading user interface (Xetra J-Trader) supports trading in stocks, bonds, warrants, certificates, reverse convertibles, mutual funds, exchange traded funds, exchange traded commodities, exchange traded notes and subscription rights on the Xetra back end.

The functional description is primarily targeted at those people who are in charge of the implementation of Xetra at the participants' site. This document is designed to provide this group of people with an overview of main Xetra features. This includes the description of the Xetra J-Trader menu structure, the Xetra process components and the Xetra front end functionality.

### Note

All information contained in this document represents the current planning status.

## 2 FUNDAMENTALS

### 2.1 Release History

The core of the electronic trading system Xetra has been introduced by the first two releases, Release 1.0 and 2.0. Over the years, several releases added further functionality to the trading system. The development process is ongoing. The following figure provides an overview of the individual Xetra releases and the current planning status of their implementation:

Release	Date	Content
1	10.06.1997	Introduction Xetra front end Provision of the new Xetra front end: <ul style="list-style-type: none"> <li>• Client-server architecture</li> <li>• Introduction of a modern graphical user interface for IBIS and IBIS-R</li> </ul>
2	28.11.1997	Introduction Xetra back end Equity-Wholesale trading initiated (replacement IBIS for equities): <ul style="list-style-type: none"> <li>• Opening and closing auction as well as continuous trading via order book</li> <li>• Volatility interruption</li> <li>• Round lot trading</li> </ul>
2.1	30.03.1998	Front end release Based on member requirements: <ul style="list-style-type: none"> <li>• Enhanced front end functionality</li> <li>• Enhanced front end operation architecture</li> </ul>
3	12.10.1998	Xetra "Grundstufe": Market model for on-exchange trading is implemented for stocks and bonds: <ul style="list-style-type: none"> <li>• Completion of trading functionality</li> <li>• Trading of all order sizes</li> <li>• Intraday auction</li> <li>• "Designated Sponsor"</li> <li>• Increased number of securities</li> <li>• OTC trades</li> </ul>
3.1	03.05.1999 20.09.1999	IPO-Functionality: <ul style="list-style-type: none"> <li>• Support of the first price determination of an IPO*</li> <li>• Extensions of the Designated Sponsor functionality</li> <li>• Extended volatility interruptions</li> <li>• Maximum order validity 90 days</li> </ul>

Release	Date	Content
4	02.05.2000	<p>Xetra Warrant Trading:</p> <ul style="list-style-type: none"> <li>• Implementation of the market model for warrant trading*</li> <li>• Extensions of the transparency during auctions</li> <li>• Multiple settlement accounts per member*</li> <li>• Introduction of an IPO matching range*</li> <li>• Increased number of securities</li> </ul>
5	02.10.2000	<p>European Alliance Release:</p> <ul style="list-style-type: none"> <li>• Multiple exchange support capability</li> <li>• Implementation of European Alliance requirements</li> <li>• Introduction of OTC broadcasts</li> <li>• Introduction of dynamic profiles</li> <li>• Implementation of the market model Xetra XXL*</li> </ul>
6	30.04.2001	<p>CCP-Readiness Release:</p> <ul style="list-style-type: none"> <li>• Introduction of netting functionality</li> <li>• Introduction of Give up/Take up functionality</li> <li>• Prices without turnover for warrants*, certificates* and reverse convertibles*</li> <li>• Intraday closing auction*</li> </ul>
6.5	19.11.2001	<p>Front End Release:</p> <ul style="list-style-type: none"> <li>• Introduction of complete trading functionality with Java-based front end (Xetra J-Trader)</li> <li>• Introduction of order completion flag</li> <li>• Enhancements for Xetra XXL*</li> </ul>
7	19.08.2002	<p>Xetra BEST Introduction:</p> <ul style="list-style-type: none"> <li>• Implementation of the Xetra BEST market model*</li> <li>• Abolition of the C++ based front end Xetra Trader</li> <li>• Enhancements for the CCP</li> <li>• Performance enhancements</li> <li>• Creation of the prerequisite for the introduction of a new transaction-based excessive usage fee concept*</li> </ul>
7.1	06.12.2004	<p>Subscription Right Trading*:</p> <ul style="list-style-type: none"> <li>• Enhancements for subscription rights trading</li> <li>• Introduction of an Online Time and Sales Sheet window</li> </ul>
8.0	23.04.2007	<p>Performance &amp; Speed Release:</p> <ul style="list-style-type: none"> <li>• Performance measures such as new matcher, delta protocol for Inside Market Broadcast and broadcast split</li> <li>• Improvement of pre-trade and post-trade transparency</li> </ul>



Release	Date	Content
		<ul style="list-style-type: none"> <li>Heartbeat functionality</li> <li>XML Reports</li> <li>Xetra BEST* enhancement</li> <li>New framework for Xetra J-Trader</li> <li><b>Three decimal places for all ISE instruments traded on ISE Xetra</b></li> </ul>
8.1	22.10.2007	<p>MiFID Readiness Release:</p> <ul style="list-style-type: none"> <li>OTC trading enhancements for MiFID compliance regarding post trade transparency</li> <li>Default BEST Execution for Xetra BEST* trading</li> <li><b>One sided entry for OTC trading (for ISE Xetra members only)</b></li> <li><b>OTC trade flags (for ISE instruments only)</b></li> </ul>
9.0	28.04.2008	<p>Trading in Structured Products*:</p> <p>Implementation of the market model for structured products*</p> <ul style="list-style-type: none"> <li>Introduction of trading model "Continuous Auction with Specialist"*</li> <li>Introduction of trading model "Continuous Auction with Issuer"*</li> </ul>
9.1	24.11.2008	<p>New Order Type</p> <ul style="list-style-type: none"> <li>Introduction of the Midpoint Order</li> </ul> <p>Fund Trading*</p> <ul style="list-style-type: none"> <li>Introduction of Mutual Funds on Frankfurt FFM2 in trading model Continuous Auction with Specialist*</li> </ul> <p>Enhancements to facilitate the introduction of additional products:</p> <ul style="list-style-type: none"> <li>Capability of Multi-Currency Trading</li> <li>CCP Connectivity for Frankfurt FFM2*</li> <li>Enhanced Data Distribution via CEF*</li> <li>XQS Enhancement for new instrument types*</li> </ul>
10.0	08.06.2009	<p>Introduction of high-speed Enhanced Connectivity Interfaces</p> <ul style="list-style-type: none"> <li>Enhanced Transaction Solution</li> <li>Enhanced Broadcast Solution</li> </ul> <p>New Order Types</p> <ul style="list-style-type: none"> <li>Introduction of the Hidden Order</li> </ul> <p>Introduction of Persistency Attribute for Orders</p> <p>Introduction of Minimum Acceptable Quantity for Midpoint Orders</p>

Release	Date	Content
		Enhanced Data Distribution in the Continuous Auction Trading Models* Synchronization of the Fee Reporting between Xetra Frankfurt-1 and Frankfurt-2*
10.1	19.10.2009	Introduction of "Xetra International Market (XIM)"* <ul style="list-style-type: none"> <li>Enables trading with home market settlement</li> </ul> Introduction of Auction Price without Turnover
11.0	28.06.2010	Performance improvements for non-persistent orders and quotes Introduction of "Trade Notification" on Enhanced Transaction Solution interface. Support of OTC trades with settlement t+1 always as non-CCP eligible Changes to tick-size regime <ul style="list-style-type: none"> <li>4 decimals for equities</li> <li>up to 11 price limits for every instrument</li> </ul> Introduction of the execution restriction "Book-or-Cancel (BOC)"

**Figure 1: Xetra Release Overview**

The Irish Stock Exchange introduced ISE Xetra in June 2000 on a separate control segment within the overall Xetra platform. ISE Xetra is updated with each new Release on Xetra Frankfurt; however, the functionality introduced on ISE Xetra may differ to that introduced on Xetra Frankfurt.

In addition to the updated Releases, on 5<sup>th</sup> December 2005, the Irish Stock Exchange enhanced the operation of ISE Xetra® by the introduction of a central counterparty (CCP) for trades conducted in CCP eligible securities on the Exchange's order book. In the CCP environment, Eurex Clearing AG (ECAG), a subsidiary of Deutsche Börse AG and SWX AG (Suisse Exchange), acts as the central counterparty for CCP eligible trades.

On 14th September 2009, the ISE Xetra trading platform was migrated to its own back end, separate to that of Xetra® Frankfurt, delivering greater functional independence and flexibility to ISE Xetra.

## 2.2 Functional Features of Xetra Release 11.1

The existing functionality of Xetra is further extended by Release 11.1. Listed below is an overview of the main Xetra Release 11.1 features. All central functional modifications of Release 11.1 are written in bold type.

Criterion	Xetra Release 11.1
Member/type of trading	Wholesale and retail trade.
Trading hours for ISE Xetra order book (main trading phase)	7:50 a.m. – 4:30 p.m. Irish time  Note: There is also a pre-trading phase and a post trading phase during which the ISE Xetra order book is closed for trading, but OTC trades may be reported.
Trading models	<ul style="list-style-type: none"> <li>• Continuous trading with opening auction, intraday auction and closing auction. Xetra BEST* functionality is only available during continuous trading.</li> <li>• Several auctions per day.*</li> <li>• One auction per day.*</li> <li>• Continuous auction with Issuer* or with Specialist*</li> </ul>
Auction phases	Pre-call phase, call phase, price determination phase, order book balancing phases, IPO call phase* and freeze phase i.e. a price determination phase.
Instruments	<b>All securities traded on or reported to ISE Xetra</b>
Order size	<p>Round lots or multiples thereof, odd lots*. Xetra BEST* orders can only be entered up to a maximum order size which is defined by the exchange. For subscription rights* a minimum order size exists.</p> <p>The entry of Midpoint Orders must satisfy the Minimum Midpoint Order Value defined by the ISE.</p> <p>The entry of Hidden Orders must satisfy the Minimum Hidden Order Value defined by the exchange in order to comply with MiFID large in scale requirements.</p>
Order and Quote types	(BEST*) limit orders, (BEST*) market orders, market-to-limit orders, iceberg orders, stop limit orders, stop market orders, midpoint orders, discretionary orders, hidden orders and (BEST*) quotes, indicative quotes, standard quotes, matching quotes* and price without turnover quotes*.
Order attributes	<p>Detailed identification (bid/ask, limit, volume) and in addition, variable and flexible execution conditions and validity constraints as well as allocation to the trading form.</p> <p>Validity for a maximum of 90 days from date of entry; all open orders are transferred to the following trading day.</p> <p>If no default BEST Executor* is defined, Xetra BEST orders* have to be entered with an executor ID.</p>

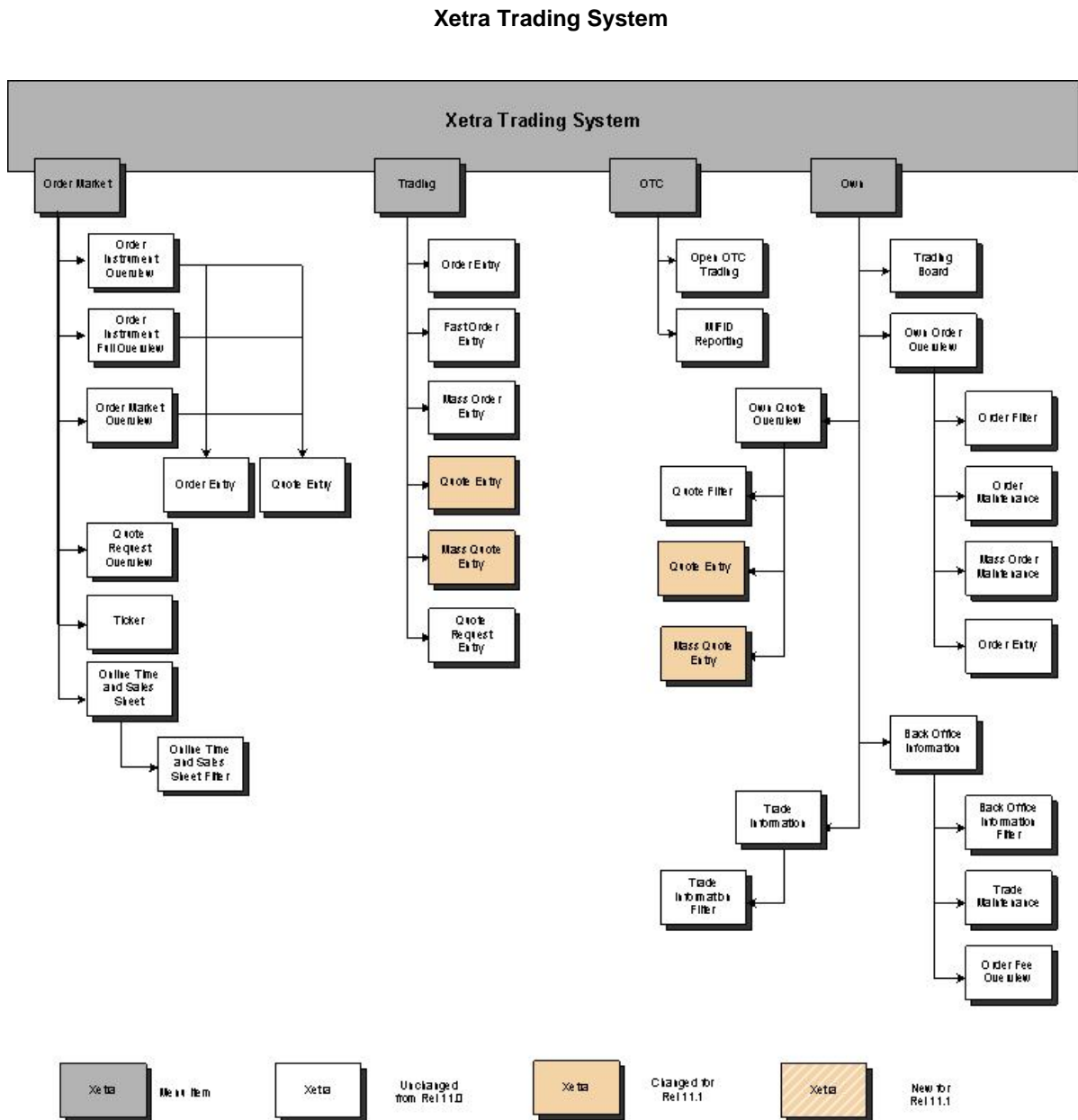
Criterion	Xetra Release 11.1
	The optional parameter Minimum Acceptable Quantity for Midpoint Orders defines the minimum quantity for execution with another midpoint order.
Order prioritisation	<ul style="list-style-type: none"> <li>• Price/time priority.</li> <li>• For midpoint orders: Volume/time priority taking the Minimum Acceptable Quantity into account.</li> </ul>
Market transparency	<p>Open order book with full market depth (accumulated per limit with number of orders for each limit) in continuous trading.</p> <p>Via the Enhanced Broadcast Solution interface un-netted order book information with additional order book depth is available.</p> <p>Partially closed order book in stock trading auctions and during the call/freeze phase in continuous auction trading models*. When the market imbalance indicator is activated, additional information is available during partially closed order book auctions regarding surplus and executable volume.</p> <ul style="list-style-type: none"> <li>- Different transparency rules apply for both continuous auction trading models*. Details are described in the Market Model Continuous Auction*. For structured products* an order book depth of 1 is defined.</li> <li>- All on-exchange trade prices are disseminated in Xetra via VALUES and Enhanced Broadcast Solution and via CEF. OTC trades are disseminated via CEF, only, in case reporting is chosen by the originator.</li> <li>- For midpoint orders and hidden orders no pre-trade information is disclosed to the market.</li> </ul>
Trading form, matching process	Auctions and continuous trading with automatic matching; (extended) volatility interruptions and market order interruptions.
Order Book	Order book (accumulated display for each limit) for each instrument (for open order book only); unlimited number of own orders.
Matching rules	Logical matching rules mapped by the system for order matching; special matching rules for the first quotation of new issues, for midpoint orders, discretionary orders, hidden orders, continuous auction trading* and Xetra BEST*.
OTC trade entry	OTC trades can be entered for ISE instruments in accordance with existing procedures or for non ISE MiFID instruments for MiFID reporting only. <b>The "Open OTC Trading" Window in the Xetra J-Trader supports one-sided entry of OTC trades (only for ISE Xetra) and can be used for the entry and confirmation of OTC trades in ISE instruments.</b> Entry of OTC trades in non-ISE MiFID instruments and deletion of all OTC trade reports is offered via the "MiFID Reporting Window".

Criterion	Xetra Release 11.1
Order/quote confirmation	<p>Via trader screen, workstation or member server (MISS1).</p> <p>Only in case a quote causes a matching situation or is flagged for price determination without turnover*, a quote confirmation is processed in continuous auction trading models*.</p> <p>For orders and quotes entered via the new trading interface Enhanced Transaction Solution only a synchronous response is sent to the sender. No order and quote confirmations via VALUES are created for orders and quotes entered via an Enhanced Transaction Solution session.</p>
Execution confirmation	<p>Via trader screen, workstation, member server (MISS) and Enhanced Transaction Solution.</p> <p>If orders or quotes entered via the trading interface Enhanced Transaction Solution are executed two types of execution confirmations are returned to the session. One is unreliable and faster and the other one is recoverable. Both contain the Match ID which allows mapping of executions and trades.</p>
Trade confirmation	<p>Trade confirmations for exchange transactions, Xetra BEST transactions* and over-the-counter business (OTC) transferred to trader screen, workstation and MISS (in bond trading including accrued interest); may be forwarded to in-house systems.</p> <p>Corresponding trade notifications are provided via Enhanced Transaction Solution containing settlement information and the Match ID which allows mapping of executions and trades.</p> <p>For netted trades update trade confirmations and/or trade notifications are provided.</p> <p>Additional trade confirmations in XONTRO Trade* contract note format on completion of online trading day.</p>
Accounting cut-off	Upon completion of online trading day.

**Figure 2: Xetra Features Overview**

### 3 MENU STRUCTURE OF XETRA J-TRADER

Via the Xetra J-Trader graphical user interface, Release 11.1 offers exchange members' access to the Xetra trading system of Deutsche Börse AG. The menu structure of the windows (Figure 3) represents the functionality provided by the Xetra trading user interface in Release 11.1. There will be no change in the J-trader menu structure with Xetra 11.1.



**Figure 3a: Xetra J-Trader R11.1 menu structure 1**

The windows Hourly Bid Entry, Block Bid Entry and Results are only relevant for EEX instruments\*.

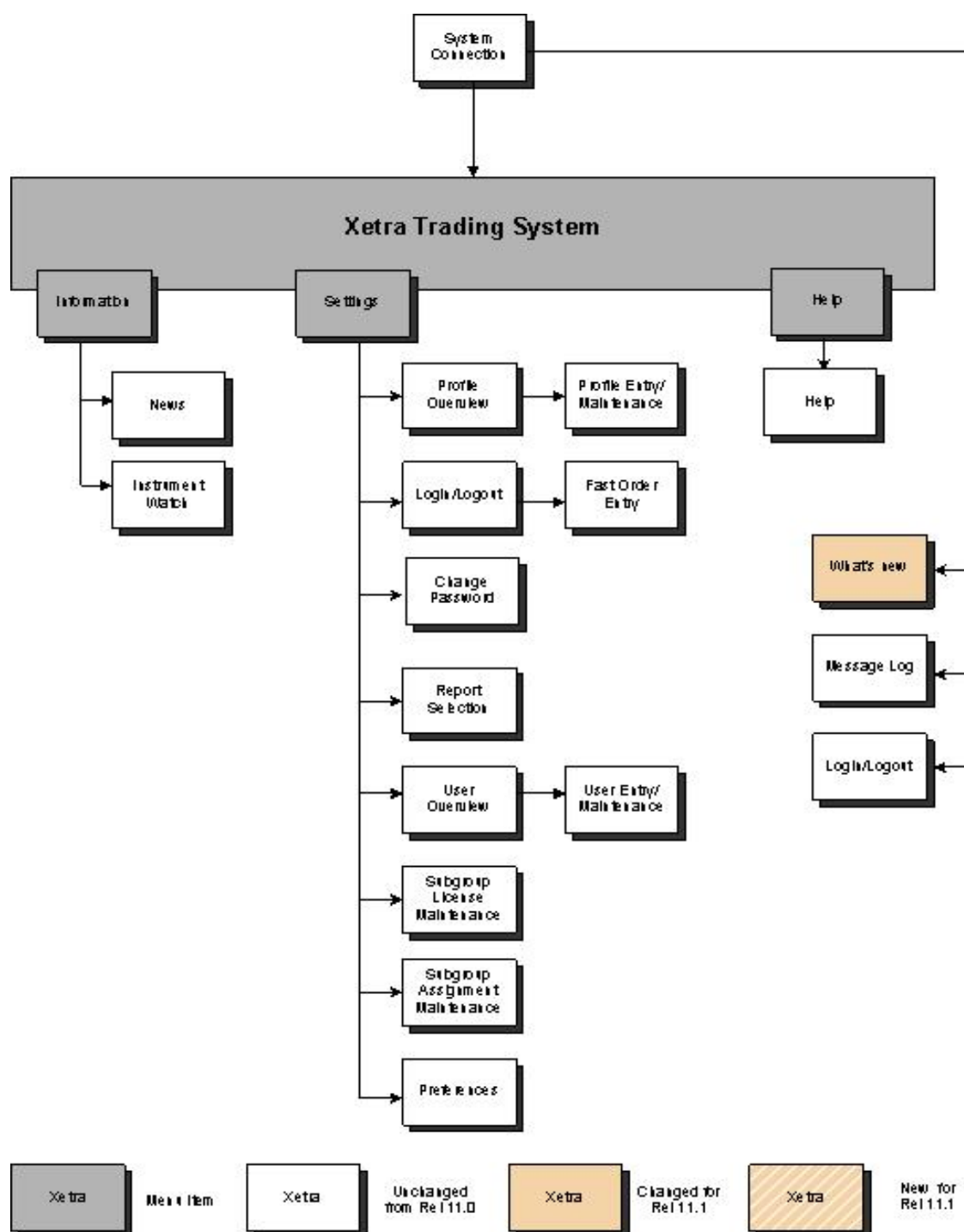


Figure 3b: Xetra J-Trader R11.1 menu structure 2

### 3.1 Login

Allows the user to log into the Xetra front end. By entering both user ID and password, access to the Xetra front end main menu ("Xetra Trading System") is provided. The *Login/Logout* window provides access to different exchanges. Since Xetra Release 8.1, logins to more than one exchange are disabled. To log in one or more users to more than one exchange, the start of multiple J-Trader application sessions is necessary.

### 3.2 Message Log

The *Message Log* window opens automatically after the Xetra login and cannot be closed. All major exception codes as well as instrument suspensions, volatility and market order interruptions, fast market situations and high priority news are displayed in chronological order. The latest message is always visible in the top row, even if the message list is scrolled down.

If the *Open OTC Trading* window is not open, the button "OTC Alerts/No OTC Alert" is active.

### 3.3 Window

Allows the user to log out from the Xetra front end application.

Below the menu item *Window* all opened windows will be displayed. Clicking on the menu item lists all windows that are currently open. The items of this menu item are dynamically updated. The title of a window will reflect the currently selected filter criteria as displayed in the window title bar at the point of time the *Window* menu item is opened. After selecting an item of the list, the respective window will pop up automatically. Iconised windows will pop up with the same size as before having been minimised.

### 3.4 Order Market

Contains windows which provide an overview of the order situation for one or more instruments. In the order market windows, instruments of the exchange the user is logged into are displayed. The specific submenu contents of the Order Market Menu are outlined briefly in the table below.

Window	Content
Order Instrument Overview	For a single instrument, this window provides detailed order book information on both continuous trading and auction trading. This includes, for example, information on the accumulated order size per limit for the best 10 bid or ask side limits as well as the number of orders for each limit and a variety of instrument data regarding the current trading day (last price, size and time of last trade, highest and lowest exchange price, valuation price, daily transaction volume, etc). When the market imbalance indicator is activated for the Continuous Trading trading model* or the One Auction trading model, additional information is available during auctions with a closed order book regarding surplus and executable volume. The last price, quantity and time of last trade as well as the accumulated quantity and the total number of Xetra BEST* and midpoint trades are published in separate columns. For the <i>Order Instrument Overview</i> window



Window	Content
	quick filter functionality exists.
Order Instrument Full Overview	This window provides detailed order book information on both continuous trading and open auction of a single instrument, i.e. information on the accumulated order volume per limit for the entire order book depth. For the <i>Order Instrument Full Overview</i> window quick filter functionality exists.
Order Market Overview	The <i>Order Market Overview</i> provides an overview of the market activity for a variety of instruments. This includes e.g. information on the accumulated order size per limit for the best ten bid or ask side limits as well as the number of orders for each limit and data on the most recent trade executions. When the market imbalance indicator is activated for the Continuous Trading trading model or the One Auction trading model, additional information is available during auctions with a closed order book regarding surplus and executable volume. The last price, quantity and time of last trade as well as the accumulated quantity and the total number of Xetra BEST* and midpoint trades are published in separate columns. For the <i>Order Market Overview</i> window a quick filter functionality exists.
Quote Request Overview	This window provides a detailed overview of any quote requests received for one or more selected instruments. For the <i>Quote Request Overview</i> window a quick filter functionality exists.
Ticker	The <i>Ticker</i> window contains the current values for individual indices (e.g. DAX, MDAX, Dow Jones, STOXX 50) and displays both prices and executed volumes which are based on profiles defined by the user. Prices without turnover* that have been determined in Xetra are displayed with a quantity of zero. Xetra BEST* prices are displayed with the indicator "XB". For midpoint prices the identifier "XM" is displayed. For the <i>Ticker</i> window quick filter functionality exists.
Online Time and Sales Sheet	The <i>Online Time and Sales Sheet</i> window allows members to inquire all trade prices and quantities of an instrument for the current and any of the previous four business days. The <i>Online Time and Sales Sheet</i> window offers quick filter functionality.

**Figure 4: Order market submenus**

### 3.5 Trading

Contains windows for detailed entry of orders, quotes and BEST quotes\*. Orders, quotes and BEST quotes\* can only be entered for instruments of the exchange the user is logged into. The following table describes the trading functionality submenus (keep in mind that Xetra BEST\* trading is restricted to market orders and limit orders which are marketable in Xetra BEST\*, i.e. immediate execution is necessary).

Window	Content
Order Entry	Detailed order entry. For instruments a Designated Sponsor or Liquidity Manager* is available, manual quote requests can be sent to all Designated Sponsors or Liquidity Managers* via the QR button. An agent order can be specified as a BEST order* if the executor ID is filled with the member ID of a BEST Executor*. An agent order is specified as BEST order* if a default BEST Executor* is defined for the instrument to be ordered, the executor ID field is left empty and the user's subgroup is set for Default BEST Execution*.
Fast Order Entry	Quick entry of single orders after selection via market windows. In case an agent order is submitted for an instrument to which a default BEST Executor* is assigned (and Default BEST Execution* is active for the user's subgroup), the order is routed to Xetra BEST* and the specified Default BEST Executor*. For instruments Designated Sponsors, Liquidity Managers* is available, manual quote requests can be sent to the Designated Sponsors, Liquidity Managers* via the QR button. The Fast Order Entry Window cannot be closed.
Mass Order Entry	Simultaneous entry of multiple orders. For instruments a Designated Sponsor or Liquidity Manager is available, manual quote requests can be sent to all Designated Sponsors, Liquidity Managers* via the QR button. An agent order can be specified as a BEST order* if the executor ID is filled with the member ID of a BEST Executor*. An agent order is specified as BEST order* if a default BEST Executor* is defined for the instrument to be ordered, the executor ID field is left empty and the user's subgroup is set for Default BEST Execution*.  Order upload via "csv" or "txt" formatted file is supported.
Quote Entry	Detailed entry of quotes, and BEST quotes*. BEST quotes* are entered with relative limits (minimum €0.001) and additional parameters.
Mass Quote Entry	Simultaneous entry of multiple quotes, or BEST quotes*. BEST quotes* are entered with relative limits (minimum €0.001) and additional parameters.
Quote Request Entry	Entry of quote requests for Designated Sponsor and Liquidity Manager* instruments.

**Figure 5: Trading submenus**

### 3.6 OTC

Enables users to enter over-the-counter business (OTC) into Xetra, including the possibility to report OTC trades according to MiFID post trade transparency demands. Three basic entry options are supported: namely “settlement only”, “settlement and reporting” or “reporting only”. **For ISE instruments, “settlement and reporting” option will automatically be selected by the system (J Trader).** It should be noted that this is a technical requirement and does not imply the settlement of such trades through straight through processing. **For non ISE MiFID instruments reporting only is available.** After entry, trade reports are forwarded to the dissemination system CEF.

Window	Content
Open OTC Trading	<p>This window is used to enter over-the-counter business trades (OTC) in ISE instruments.</p> <p><b>OTC trades are entered by one member firm on behalf of both sides of the OTC trade. The counterparty ID field needs only to be completed with the respective counterparty’s member firm code e.g. ABCDB. Entry of the counterparty trader ID is not required (in this case the system automatically assigns the default XXXXXX ID) but is possible (e.g. ABCDBTRD001).</b></p>
MiFID Reporting	<p>This window is primarily used to report OTC trades in non ISE MiFID Instruments. Additionally, trade reports in all MiFID instruments (i.e. ISE and non ISE instruments) can be amended, or existing trade reports can be cancelled. A list box in the upper half displays line-by-line information about trade reports entered on the current business day.</p>

**Figure 6: OTC trading activities submenu**

### 3.7 Own

Contains windows that provide an overview of own orders, quotes, BEST quotes\* and trades as well as the associated inquiry functions for the particular exchange. In these windows, instruments of the exchange the user is logged into can be displayed.

Window	Content
Trading Board	<p>The <i>Trading Board</i> window is an individual configurable frame set which includes the information and functionality of several windows. A special <i>Trading Board Ticker</i> window is offered for the <i>Trading Board</i>.</p>
Own Order Overview	<p>Based on a user-defined profile, this window provides an overview of own orders. In order to individually define and display any selection, the selection can be filtered in accordance with a variety of criteria using the <i>Order Filter</i> window. Via the <i>Own Order Overview</i> window single or multiple orders can be deleted. Additional windows can be used to enter or modify single orders (via <i>Order Maintenance</i> window) and to modify multiple orders (via <i>Mass Order</i></p>

Window	Content
	<i>Maintenance</i> window) in accordance with the filter. For the <i>Own Order Overview</i> window a quick filter functionality exists.
Own Quote Overview	Based on a user-defined profile, this window provides an overview of own quotes, or BEST quotes*, which can also be deleted, held and released via this window. The quote entry is accessible using the respective buttons. In order to individually define and display any selection, quotes, and BEST quotes* can be filtered in accordance with a variety of criteria using the <i>Quote Filter</i> window. For the <i>Own Quote Overview</i> window a quick filter functionality exists. This window is not available for instruments of the continuous auction trading models*.
Back Office Information	<p>This window lists all securities transactions (exchange and off-exchange) performed by the relevant user. Xetra BEST* trades can be identified by the trade type "XB"* and midpoint trades by the trade type "XM". For netted trades additional information is provided (e.g. average price, accumulated quantity, netting type). Using the <i>Instrument Selection</i> or the <i>Back Office Information Filter</i> (entry of selected filter criteria) window, users can opt to view trade information (e.g. average bid price/ask price, accumulated trade quantities) regarding a specific instrument or a range of different instruments. The <i>Trade Maintenance</i> window allows for the modification of individual attributes (e.g. settlement account) of own trades.</p> <p>For each trade confirmation in the <i>Back Office Information</i> window it is shown whether the underlying order has been partially or fully executed. For the <i>Back Office Information</i> window a quick filter functionality exists.</p>
Trade Information	This window gives an overview of all execution confirmations, providing users directly with relevant information on a specific order execution. Xetra BEST executions* can be identified by a flag. The <i>Trade Information Filter</i> window can be used to filter the display of execution confirmations, for example on the basis of the selected profile. For the <i>Trade Information</i> window a quick filter functionality exists.

**Figure 7: Own trading activities submenus**

### 3.8 Information

Contains windows for the representation of both general market information (messages) and individually set alerts. In the information windows, only the information of the exchange the user is logged into is displayed. The following table provides an overview of the content of the Information submenus.

Window	Content
News	The ISE can use this window to transmit information to market participants in the form of freely formattable texts (e.g. introduction of new trade instruments).
Instrument Watch	The <i>Instrument Watch</i> window provides an overview of any alerts entered. These alerts are designed to inform members of changes in the market when individually set limits are either fallen short or exceeded. Also, the <i>Instrument Watch</i> window allows entering / maintaining alerts.

**Figure 8: Information submenus**

### 3.9 Settings and Help

Contains windows for trader-specific configuration (e.g., profiles, colors, fonts) and a context-sensitive system help function. The following table outlines the setting function submenus.

Window	Content
Profile Overview	This window allows for creation, modification and deletion of profiles. Profiles may be created and modified using the <i>Profile Entry/Maintenance</i> window. The <i>Profile Maintenance</i> window will open after double clicking on a profile.
Login/Logout	This window can be used for logging into and out of Xetra. Only one user can log in to only one exchange simultaneously (in contrast to releases prior to Xetra 8.1).
Change Password	The <i>Change Password</i> window provides users with the functionality for modifying their user-specific Xetra password.
Report Selection	This window allows for the selection of specific reports (e.g. trade confirmations). Reports selected by members are made available as XML reports. In addition, text reports generated on the basis of XML Reports are available.
User Overview	Using the <i>User Overview</i> window, members can carry out the administration of their own users. The addition of new users is done via the <i>User Entry</i> window. There the user authorizations, the accounts (e.g. Agent, Proprietary, Liquidity Manager*, BEST Executor*), the maximum order value (value has to be entered in the exchange currency) and the Default BEST Execution* assignment (valid for the user's subgroup) can be determined. The <i>User Maintenance</i> window allows modifying the above-listed attributes of an existing user. The attributes of a user (i.e. user code, user name, resource access levels, senior indicator and agent/proprietary accounts) can easily be copied from one user to another.
Subgroup License Maintenance	This window can be used to assign or revoke the Designated Sponsor, Liquidity Manager* and BEST Executor* licence with regard to specific trader subgroups.
Subgroup Assignment Maintenance	This window allows for the assignment of individual instrument groups to specific trader subgroups.
Default BEST Executor Assignment Window*	The Default BEST Executor* Assignment Window allows flow providers to assign Default BEST Executors* to each instrument. Upon selection of an instrument group (assigned to the member), instruments in this group (which are assigned to the flow provider) are listed below one per row. The Default BEST Executor Assignment* can be modified based on selected instruments; i.e. by clicking a field in the column DefBESTExec a Default BEST Executor* can be assigned to or removed from the respective instrument. Clicking the Submit or Apply button completes the modification.  It is possible to choose more than one instrument at once for maintenance. This window is not available for instruments of the continuous auction trading*

Window	Content
	models*.
General Settings	The <i>General Settings</i> window is a tabbed pane window, which allows the user to select fonts and colours, configure the increments of limits and quantities, set up user-defined text field context menus, set up the default timing for highlighting and quote request indicators, define the display of time and date formats, enable yield calculation, raise quote alerts, and turn tool tips on and off.

**Figure 9: Settings submenus**

All windows within this menu structure are non-modal, i.e. the user can interact with all windows at the same time. The Xetra front end enables users to save their individual window configuration. This means that location, size, column scaling, setting of filters and profiles of all currently opened dynamically updated windows can be saved. This also applies to each individual window. Therefore, the individually saved settings are still available after the next login procedure.

## 4 XETRA RELEASE 11.1 FUNCTIONALITY

### 4.1 Exchange Members and User IDs

In order to participate on ISE Xetra, member firms must meet the admission requirements of the Irish Stock Exchange. They are required to ensure that they have suitable arrangements in place for the proper settlement of trades.

Once a new member has been admitted, Deutsche Börse enters the member with the associated access rights into the Xetra system and assigns a Member ID (e.g., ABCFR). User IDs are allocated, then entered and maintained in the Xetra system by the members themselves (e.g., TRD001).

User IDs for trading functions are authorised by the ISE following admission/verification. Admission is a prerequisite for entry, modification and deletion of orders and quotes. All other user IDs are authorised for inquiries only.

The ISE creates instrument groups which can be allocated to the individual members by the ISE. The members have to use these predefined instrument groups for authorization of trader subgroups.

Changes in access rights covered by a specific user ID are carried out by the members themselves and recorded by the ISE. They are made available to members at the end of the day in form of text reports and XML reports. Therefore users of the system can be divided into several categories:

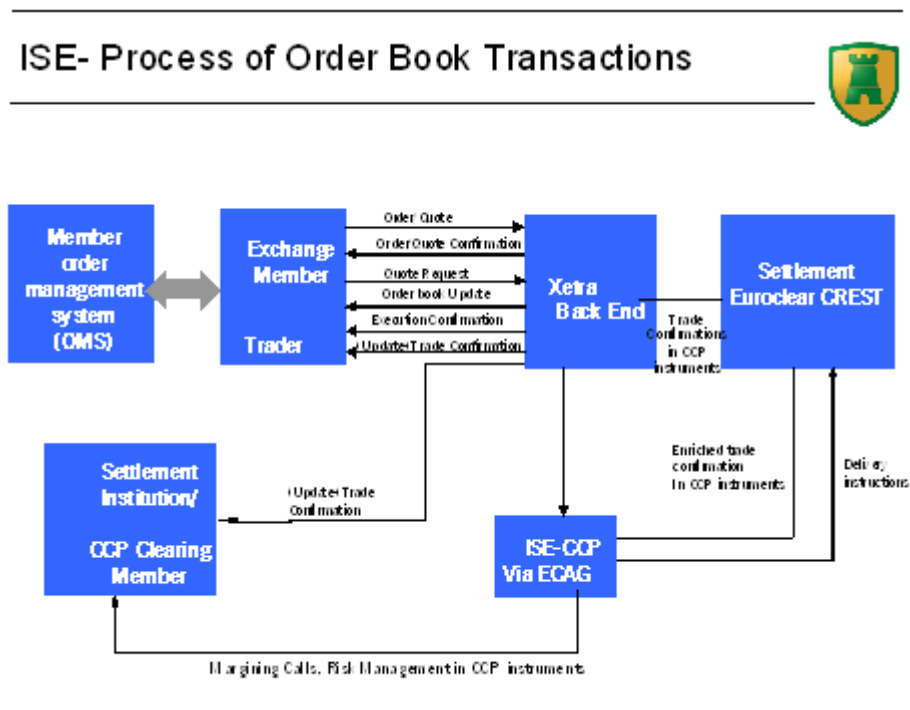
- **Traders**  
Traders are individuals admitted for exchange trading. A trader can act as agent trader (account A) or as proprietary trader (account P). As Designated Sponsor (account D), as Liquidity Manager\* (account Q), as Issuer\* (account I) or Specialist\* (account I, or L) the trader can enter quotes into the system to provide additional liquidity.
- **Issuers\***  
Issuers participate by entering quotes into the system ("Issuer", account I). A quote consists of a simultaneous entry of a limit buy and a sell order and is flagged accordingly. In addition, Issuers\* (in the 'Continuous Auction Trading Model\*') permanently provide quotes for the purposes of limit surveillance.
- **Specialists\***  
Specialists\* participate as information and liquidity provider. Matching quotes initiating the price determination process are entered on behalf of Issuers\* (account I). These quotes are based on the separately received Issuer\* quotes and the current order book situation. In addition orders can be entered on proprietary basis (account P), and proprietary basis with additional liquidity (account L).
- **BEST Executors\***  
BEST Executors\* participate as traders by offering BEST execution\* services to their own customers or customers of Flow Providers by entering BEST quotes\* into the system ("BEST Executor"\*, account E).



- Other users  
Administrators are users who are not admitted or authorised for trading (they assign and maintain authorization rights for the member's personnel). This category also includes personnel in settlement, operation, supervision and information users.

## 4.2 Market Transaction Process

The entire process of entry, processing and settlement of all transactions in Xetra Release 11.1 is outlined below.



**Figure 10: Process of market transactions**

Traders enter orders, BEST orders\*, quotes, BEST quotes\*, and quote requests using their Xetra front end application. These are forwarded to the Xetra back end where they are processed in accordance with set attributes.

Designated Sponsors and BEST Executors\* as well as Issuers\* and Specialists\* may select Heartbeat Monitoring. In case of a member application or connection breakdown, all quotes of this Member/Subgroup will be deleted automatically in accordance with the market model. In case of any concerned instrument being in the IPO\* related FREEZE status at the time of an automated quote deletion attempt, according to the market model the quote deletion for such instrument cannot be processed immediately. Such quote may then still be executed during the instrument state change from FREEZE to continuous trading, or immediately thereafter, since the deletion request will not be stored in the processing queue but will be resent in short intervals until successful.

In every phase of the transaction process, members obtain information on the state of their entered orders, BEST orders\*, quotes, BEST quotes\* as well as on executed trades. Once the entry of an order, BEST order\*, quote or BEST quote\* has been accepted by the Xetra back end and entered into the order book, an order or quote confirmation is forwarded to the trading member. Within the trading models 'Continuous Auction with Issuer\*' and 'Continuous Auction with Specialist\*' only for quotes that lead to a matching situation or that are flagged for price determination without turnover\*,

a quote confirmation is processed. When a trade is executed, an execution confirmation is forwarded to the member in a timely manner. This confirmation details essential order information (order dates, execution price and volume, execution time). Almost simultaneously, a more comprehensive (update-) trade confirmation is also forwarded. All trade confirmations are displayed on the trading screen and are available for the trading member, CCP clearing member and the settlement institution via the server (MISS).

### **4.3 Order Types**

Round lots as well as odd lots\* are tradable on Xetra. Round lot quantities for the individual instruments will be defined in connection with determining both trading segments and trading parameters. For subscription rights\* a minimum order size exists.

#### **4.3.1 Order Types and Order Specification**

All orders entered in Xetra are anonymous. However Specialists\* receive detailed information about all orders entered in instruments the Specialist\* offers his services for. The trading members do not receive any information as to which member has entered an order into the order book. As a general rule, limit, market, market-to-limit, midpoint, discretionary, hidden and iceberg orders can be entered into the system during exchange trading. The trading restrictions detailed in Figure 11 are supported for market and limit orders, whereas execution restrictions are supported for market, limit, market-to-limit and midpoint orders. The validity constraints are supported for all order types. However, iceberg orders can only be entered with the validity constraint "Good-for-Day (GFD)". In addition, stop limit and stop market orders can be entered in Xetra.

Midpoint, Discretionary and Hidden Orders are only available for instruments in trading model Continuous Trading.

Only market orders and marketable limit orders (limit orders which can be executed immediately against a BEST quote\*) are subject to Xetra BEST\*. To enter a BEST order\*, either a valid Executor ID must be provided or Default BEST Execution\* has to be activated by respective instrument and user subgroup settings. BEST orders\* that can not be executed immediately within Xetra BEST\* are routed into the Xetra order book and are shown as regular limit or market orders in the order book.

Orders are valid for a maximum of 90 days from the date of entry. This applies also to those validity constraints that do not define automatic order expiry at a fixed point in time (i.e., GTC).

During the order book balancing phase of an auction, members can execute any remaining surplus, i.e., orders which are executable at the auction price, but could not be executed at this point. For this purpose, Xetra provides a special order type, the accept surplus order.

Only members who are registered in the system as Designated Sponsors, Liquidity Manager\*, Issuers\* or Specialists\* can enter quotes into Xetra. A quote is the simultaneous entry of a limited buy and sell order in Xetra. Quotes entered into the system are always "good-for-day". A newly entered quote in an instrument will overwrite any existing quote of the same trader subgroup in the order book. A quote cannot be modified. At any time, for each trader subgroup, there is only one quote per instrument in the order book.

#### 4.3.2 Non-Persistent Orders

For members requiring a faster response from Xetra concerning their order status, non-persistent orders are provided.

Thereby, members can choose whether they send their orders as persistent or as non-persistent orders. The main functional difference is that non-persistent orders will be removed from the order book in exceptional circumstances, i.e. typically, if there are technical problems on the exchange's back-end side or when an instrument leaves the "HALT" state. In both cases a "Market Reset" will be triggered, whereby only persistent orders are restored in the order book. Non-persistent orders and quotes entered via the new interface Enhanced Transaction Solution are deleted if the trading session loses the connection or because of missing heartbeats.

The member may select between the non-persistent and the persistent order attribute independent of the type or restriction code of the order. Once the order has been sent to ISE Xetra, the persistency attribute of the order cannot be changed anymore.

Non-persistent orders are not supported for trading model "Continuous Auction".

Members are able to select between the non-persistent and persistent attribute for their orders at the time of the order entry. The new field "Persistency Indicator" is provided in the order entry windows for this purpose:

- 'P' - Persistent order
- 'N' - Non-persistent order
- ' ' - Blank (Default)

Orders entered via VALUES with the attribute ' ' will be treated by the following rules regarding order persistency:

- Agent orders are persistent by default.
- All other orders (account type not 'A') are non-persistent if the validity of the order is GFD ("good for day") or explicitly stated the current business day.
- All orders with validity greater than GFD ("good for day") are persistent orders by default.

All orders entered via the Enhanced Transaction Solution interface are non-persistent by default once the persistency attribute is omitted.

For non-persistent orders and quotes the unreliable order response information will be sent out immediately after the order/quote has been processed by the core matching process, but before the transaction is finally completed. As an effect of this performance measure the unreliable order response information for non-persistent orders/quotes may be sent out indicating that the order/quote was executed but, in reality, the transaction was not finalised because of a technical problem on the Xetra backend. In the very rare case of such technical interruption, a Market Reallocation Event message will be sent out to all affected members, indicating that all non-persistent orders or quotes in the respective set have been deleted. Members receiving a Market Reallocation Event message are highly recommended to verify the execution status of their most recently received order status information by cross-checking the respective reliable information received from the Xetra backend.

Public unreliable inside market information is broadcast based on the unreliable execution status of non-persistent orders/quotes as well i.e. the price and/or the new order book situation resulting from the not completed transaction is published to the market. However, it will be rolled back by the Market Reallocation Event and the inside market is corrected. The All Trade Price streams (VALUES and Enhanced Broadcast Solution) will always contain correct data because they are generated when the transaction is completed.

For more details please refer to the document “Technical Description” for Xetra Release 11.0 which remains unchanged for Release 11.1.

#### **4.3.3 Iceberg Orders**

The order type “iceberg order” can be used by a trader to avoid adverse price movements due to a large order size.

Iceberg orders are orders with quantities only partially visible in the order book. An iceberg order is characterised by its overall quantity, the peak quantity which characterises the visible part of the order and the mandatory limit. The peak quantity and the overall quantity must always be a round lot and the peak quantity has to be at least 1/20 of the overall quantity. If the overall quantity divided by the peak quantity leaves a rest, the last peak creates a smaller order than the original peak, but also of a round lot size.

Iceberg orders have different behaviours in continuous trading and in auction trading. In continuous trading, as soon as the peak quantity (i.e., the visible order quantity) is fully executed, another peak with the same limit and quantity is entered into the order book, as long as there is a remaining quantity. This newly entered peak receives a new timestamp. It is sorted with all other orders already available at the respective limit according to time priority (i.e., the new quantity of the iceberg order does not have time priority within the respective limit). Price priority is guaranteed. The iceberg order will be completely matched before the next limit in the order book is executed. The order number remains the same for the entire iceberg order.

In auction trading, the complete quantity of the iceberg order is considered for the (indicative) auction price calculation. During the call phase (if the market imbalance indicator is switched on) the complete order quantity and during the order book balancing phase the remaining order quantity is used to calculate the surplus.

If the iceberg order has only been partially executed during the auction, a new order with the (remaining) peak quantity is entered into the order book for continuous trading. It does not matter whether the order has been executed against an odd or a round lot order. If it is not possible to completely refill the peak quantity and if the new peak consists of a round lot and an odd lot part, the iceberg order will be treated as follows: The round lot part will be traded in continuous trading whereas the odd lot part can only be executed in the next auctions.

If a volatility interruption in continuous trading occurs the complete quantity of the iceberg order is considered.

Execution and trade confirmations are created after each partial execution. An increase of the peak or overall quantity leads to a new timestamp – losing time priority - and a new order number, whereas a reduction maintains the original timestamp and order number.

The order type 'I' always has to be entered if an iceberg order is entered. All order entry and maintenance windows support iceberg orders. It is not possible to modify an iceberg order to a different order type and vice versa. The *Own Order Overview* window displays the iceberg order with remaining quantity, peak quantity, and executed quantity.

The minimum overall quantity and minimum peak quantity is defined on instrument level. Iceberg orders entered in pre-trading can be executed for the first time in the opening auction. Iceberg orders entered in post-trading are deleted after post-trading because iceberg orders can only be entered with the validity constraint "Good-for-Day". Trading restrictions and execution restrictions are not supported.

#### **4.3.4 Market-to-Limit Orders**

With the order type "market-to-limit order", Xetra provides an order type giving a trader a high execution probability (like a market order) combined with a protection against unintended price impact (like a limit order).

In continuous trading a market-to-limit order is executed against the best limit available on the opposite side of the order book. If the order is not executed completely, the order is entered into the order book with a limit equal to the partial execution for the remaining quantity. The incoming market-to-limit order is only accepted if there are only limit orders on the opposite side of the order book. If there are no orders, or only market orders, or market and limit orders on the opposite side of the order book, the incoming market-to-limit order is rejected.

Market-to-limit orders entered during an auction (including volatility interruptions and market order interruptions) are treated like market orders.

At the end of an auction, the market-to-limit order is executed at the auction price. Market-to-limit orders can trigger market order interruptions and volatility interruptions. If the order can not be fully executed (irrespective whether the order is partially executed or not executed at all) the rest of the order is offered during the order book balancing phase. If at the end of this phase the order has only been partially executed or not executed at all, the order is entered into the order book with a limit equal to the auction price. If there is no auction price, market-to-limit orders which were entered during the call phase of the auction are deleted.

Market-to-limit orders can also be entered during pre-trading and post-trading. Those orders are considered for the next auction and treated as described above.

Market-to-limit orders can not be changed to a different order type during order maintenance. For market-to-limit orders all validity constraints are supported. If the execution restriction "Fill-or-Kill" or "Immediate or Cancel" is selected the validity constraint must be "Good-for-Day". No trading restrictions (e.g., auction only) are supported.

The order type 'T' always has to be entered if a market-to-limit order is entered. All order entry windows allow the entry of a market-to-limit order.

Market-to-limit orders are not supported with the continuous auction trading models\*.

#### **4.3.5 Midpoint Orders**

The "Midpoint Order" is an order type which is completely hidden concerning pre-trade information, i.e. neither limit nor volume of midpoint orders is disclosed to the market. Since a midpoint order interacts only with other midpoint orders but not with orders of the Xetra open order book this order type offers the possibility of executions at the midpoint of the Xetra best bid/ best ask spread and thus without any market impact.

Midpoint orders can be entered with or without a limit. Executions take always place at the midpoint of the Xetra best bid/ best ask spread which is either equal to or better than the specified limit price respectively without a limit at midpoint. Validity constraints as well as execution restrictions are supported for midpoint orders. Trading restrictions are not available for this order type.

Midpoint orders are available for continuous trading model instruments only. They are only valid in continuous trading, i.e. no execution of midpoint orders will take place during auctions.

For executions of midpoint orders the volume/time priority rule applies, i.e. prioritization of the largest order respectively if two or more midpoint orders have the same order volume, the midpoint order with the oldest time stamp is prioritised. Additionally the Minimum Acceptable Quantity of the Midpoint Orders is taken into account during the matching process.

The Minimum Acceptable Quantity entered for an order is applied to "every fill". If an order is partially executed and its volume is reduced below the Minimum Acceptable Quantity, the Minimum Acceptable Quantity is set to the remaining volume.

Matching is only carried out if an execution at the midpoint of the Xetra best bid/best ask spread would not result in a volatility interruption. Midpoint Orders themselves do not trigger volatility interruptions.

The order type 'P' always has to be entered if a midpoint order is entered. All order entry and maintenance windows support midpoint orders. It is not possible to modify a midpoint order to a different order type and vice versa.

#### 4.3.6 Hidden Orders

The Hidden Order works similar as the already existing Limit Order, whereas the limit is hidden and therefore not visible for other market participants.

Visible orders (limit orders, discretionary orders with their visible limit and iceberg orders (with peak volume and iceberg volume)) have priority over same-priced Hidden Orders.

The order type 'H' always has to be entered if a hidden order is entered. All order entry and maintenance windows support hidden orders. It is not possible to modify a hidden order to a different order type and vice versa.

The validity of a Hidden Order can be determined by means of further constraints:

- Good-for-day: Order only valid for the current exchange trading day.
- Good-till-date: Order only valid until a specified date (up to a max. of 90 days from the date of entry).
- Good-till-cancelled: Order only valid until it is either executed or deleted by the originator or the system on reaching its maximum validity of 90 days.

Trading restrictions (e.g. opening auction only or closing auction only) are not available.

Execution restrictions (e.g. Fill-or-Kill or Immediate-or-Cancel) are not available.

##### 4.3.6.1 Matching Rules in Continuous Trading

In general, Hidden Orders are executed according to price-visibility-time priority and executions are disseminated immediately to the market over the normal channels (no post-trade delay):

- Incoming Hidden Orders are treated as conventional Limit Orders when entering the Xetra order book.
- Should an incoming Hidden Order (or parts of it) not be executable, it is stored in the order book. The Hidden Order is not displayed.
- Passive Hidden Orders are executed according to price-visibility-time priority:
  - If a Hidden Order provides the best price, then an incoming order is executed against the Hidden Order (price priority)
  - If a Hidden Order competes with a same-priced (visible) Limit Order for execution, the (visible) Limit Order is executed first, regardless of the respective timestamps (visibility priority)
  - If a Hidden Order competes with a same-priced Iceberg Order for execution, the total Iceberg Order (i.e. peak and iceberg volume) is executed first (visibility priority).

If a Hidden Order competes with another same-priced Hidden Order for execution, the order with the older timestamp is executed (time priority).



#### **4.3.6.2 Matching Rules in Auction**

The insertion, modification or deletion of Hidden Orders in auctions is possible – as it is the case for any other limit order. Hidden orders are considered with their full volume in auctions.

Hidden Orders are considered in Auctions to determine the auction price:

- The published indicative auction price is also based on eventually available Hidden Orders and the volume of Hidden Orders is part of the Market Imbalance information.

However, if no indicative auction price can be determined (i.e. in case of an uncrossed order book) Hidden Orders are not disclosed to the market, i.e. the published best bid/best ask consists of visible orders only.

#### 4.3.7 Order Attributes

Xetra Release 11.1 enables members to clearly identify their orders. The order attributes are shown in the table below.

Order Attribute	Description/Content	Mandatory
Bid/ask	Bid/ask.	yes
Instrument	Securities identification number, ISIN or short name.	yes
Volume	Order size depends on tradable unit (number of securities/nominal value) and the minimum order size of an instrument. The minimum order size is a multiple of the minimum tradable unit.	yes
Limit	Limit (without specification: market order/stop market order).	Only for limit, iceberg, stop limit and hidden orders
Order type	<ul style="list-style-type: none"> <li>- market order (M)</li> <li>- limit order (L)</li> <li>- market-to-limit order (T)</li> <li>- iceberg order (I)</li> <li>- midpoint order (P)</li> <li>- hidden order (H)</li> <li>- stop order</li> </ul>	Only for market-to-limit, iceberg, midpoint, hidden and stop orders.
Stop Limit	Stop Limit	Only for stop orders
Peak quantity	Peak quantity for iceberg orders.	Only for iceberg orders.
Validity constraints	<ul style="list-style-type: none"> <li>- Good-for-Day (GFD),</li> <li>- Good-till-Date (GTD),</li> <li>- Good-till-Cancelled (GTC)</li> </ul> (without specification: GFD)  Valid for a maximum of 90 days from date of entry. Iceberg orders are only valid Good-for-Day.	no
Execution restrictions	<ul style="list-style-type: none"> <li>- Immediate-or-Cancel (IOC)</li> <li>- Fill-or-Kill (FOK)</li> <li>- Book-or-Cancel (BOC)</li> </ul> Executions restrictions are not available within the continuous auction trading models*. Execution restrictions are not available for iceberg orders and hidden orders.	no

Order Attribute	Description/Content	Mandatory
	The execution restriction "BOC" is only allowed for Limit orders. Combinations with trading restrictions are not supported. Orders entered with this execution restriction will be rejected if they are executable immediately except if they are executable against a Hidden order. If a BOC order gets entered during an Auction Call Phase or a Volatility Interruption it is rejected as well.	
Trading restrictions	<ul style="list-style-type: none"> <li>- Opening Auction only</li> <li>- Auction only</li> <li>- Closing Auction only</li> <li>- End-of-day Auction only</li> <li>- Main Trading Phase only</li> <li>- Auctions in Main Trading Phase only</li> <li>- Accept Surplus (Entry possible only during order book balancing and only as IOC or FOK order.)</li> </ul> <p>Trading restrictions are not available for iceberg orders, midpoint orders, hidden orders and market-to-limit orders.</p>	no
Text field	Freely usable.	no
Member internal order number	Freely usable.	no
Executor ID	Member ID of the BEST Executor* the BEST order* will be sent to. If a Default BEST Executor* is defined and the field is left empty, the orders will be directed to Xetra BEST*.	no
Account identification	<ul style="list-style-type: none"> <li>- A ("Agent")</li> <li>- P ("Proprietary")</li> <li>- D ("Designated Sponsor")*</li> <li>- Q ("Liquidity Manager")*</li> <li>- I ("Issuer")*</li> <li>- L ("Specialist")*</li> <li>- E ("BEST Executor")<sup>2*</sup></li> </ul>	yes
Netting type	<ul style="list-style-type: none"> <li>- No netting</li> <li>- Order Level Netting</li> </ul>	no

<sup>2</sup> Orders cannot be entered on the BEST Executor\* account. However the BEST Executor\* account is used for automatically generated orders on the Xetra back end to ensure order book consistency for orders with a limit better than or equal to the execution price of Xetra BEST\*.

Order Attribute	Description/Content	Mandatory
	The chosen netting type has to fit to the member's netting setting.	
Member ID	Xetra-specific identification assigned by the ISE.	yes
User ID	Xetra-specific identification assigned by the member.	yes
Xetra order number	Xetra-specific identification assigned by the system.	yes
Time stamp	Xetra-specific identification assigned by the system.	yes
Minimum Acceptable Quantity	<p>The Minimum Acceptable Quantity (MAQ) is only available for Midpoint Orders. It must be less than or equal to the overall size of a Midpoint Order.</p> <p>The entry of a MAQ has to be a multiple of the "Minimum Tradable Unit" and the "Round Lot Quantity".</p> <p>An order with a MAQ executes only against other orders if the MAQ-restriction is fulfilled.</p> <p>The Minimum Acceptable Quantity entered for an order is applied to "every fill".</p> <p>If an order is partially executed and its volume is reduced below the Minimum Acceptable Quantity, the Minimum Acceptable Quantity is set to the remaining volume.</p>	no (only available for Midpoint Orders)
Persistency Indicator	<p>Members will be able to select between the non-persistent and persistent attribute for their orders at the time of the order entry:</p> <ul style="list-style-type: none"> <li>▪ 'P' - Persistent order</li> <li>▪ 'N' - Non-persistent order</li> <li>▪ ' ' - Blank (Default)</li> </ul> <p>Orders with the attribute ' ' will be treated the following way:</p> <ul style="list-style-type: none"> <li>▪ Agent orders are persistent by default.</li> <li>▪ All other orders (account type not 'A') are non-persistent if the validity of the order is GFD ("good for day") or explicitly stated the current business day.</li> <li>▪ All orders with validity greater than GFD ("good for day") are persistent orders by default.</li> </ul>	yes

Order Attribute	Description/Content	Mandatory
	<ul style="list-style-type: none"> <li>All orders entered via the Enhanced Transaction Solution interface are non-persistent by default.</li> </ul>	
ETS Session ID	Xetra-specific identification assigned by the system.	yes (Enhanced Transaction Solution only)
Client Order ID	When entering an order via Enhanced Transaction Solution the member has to assign a client order ID which will be used as a unique identifier for later reference.	yes (Enhanced Transaction Solution only)
Order Creation Date	The Order Creation Date field indicates the order/quote creation date and is assigned by the Xetra system.	yes
Order Creation Time	The Order Creation Time field indicates the order/quote creation time and is assigned by the Xetra system.	yes
Total Executed Order Quantity	Total executed order quantity since the creation of the order (assigned by the Xetra system).	yes
Total Order Quantity	<p>The total order quantity which is the sum of the executed order quantity since the creation and the remaining order quantity (assigned by the Xetra system).</p> <p>Via the Enhanced Transaction Solution the field Total Order Quantity can be modified.</p>	yes
Market Reset Indicator	<p>This field is assigned by the Xetra system when a market reset event occurred and indicates the reason for deletion of non-persistent orders.</p> <p>A Market Reallocation event is also indicated within this field.</p>	no
Set ID	This field indicates the instrument set where an instrument is allocated. Xetra-specific identification assigned by the system.	yes
Linked Order Number	<p>In the Continuous Auction trading model* order maintenance is not considered during the freeze phase. While the order book is locked for price determination order entries, modifications and deletions are queued and stored in the so called locked stock.</p> <p>The Linked Order Number field is used in the context of the locked stock to indicate the linkage to the original order in the normal order book. (Xetra-specific identification assigned by</p>	no

Order Attribute	Description/Content	Mandatory
	the system.)	

**Figure 11: Order attributes of Xetra Release 11.1**

#### 4.3.8 Quote Attributes

The quote functionality enables Designated Sponsors, Liquidity Manager\*, Issuers\* and Specialists\* to enter limited buy and sell orders simultaneously. The quote functionality enables BEST Executors\* to enter BEST quotes\*.

Since the introduction of Xetra 10.0 all quotes are non-persistent by definition.

Quote Attribute	Description/Content	Mandatory <sup>3</sup>
Exchange	Exchange at which the instrument is being traded.	yes
Instrument	Securities identification number, ISIN or short name.	yes
Bid limit	Limit of bid side. BEST quotes* have to be entered with relative limits in steps of €0.001 .	yes
Ask limit	Limit of ask side. BEST quotes* have to be entered with relative limits in steps of €0.001.	yes
Bid quantity	Bid quote quantity depends on tradable unit (number of securities/nominal value).  For BEST quotes* the bid quantity defines the maximum executable quantity for one BEST order*, which is subject to execution against the bid leg of the BEST quote*.	yes
Ask quantity	Ask quote quantity depends on tradable unit (number of securities/nominal value).  For BEST quotes* the ask quantity defines the maximum executable quantity for one BEST order*, which is subject to execution against the ask leg of the BEST quote*.	yes
Account identification	-D ("Designated Sponsor") -Q ("Liquidity Manager")* -I ("Issuer")* -I ("Specialist")* - E ("BEST Executor")*	yes
Netting type	- No netting - Order Level Netting The chosen netting type has to fit to the member's netting	no

<sup>3</sup> The term "mandatory" refers to all market models except the continuous auction trading models. Quote attributes available in the continuous trading models depend on the type of quote (e.g. matching quote).

Quote Attribute	Description/Content	Mandatory <sup>3</sup>
	settings.	
Bid boundary*	Upper bound for the execution against the bid leg of the BEST quote* (only for BEST quotes).	no
Ask boundary*	Lower bound for the execution against the ask leg of the BEST quote* (only for BEST quotes).	no
Bid reserve quantity	Reserve quantity for executions against the bid leg of a BEST quote*.	only for BEST quotes*
Ask reserve quantity	Reserve quantity for executions against the ask leg of a BEST quote*.	only for BEST quotes*
Exchange Rate*	In trading model Continuous Auction the Specialist* can enter an exchange rate together with his matching quote if the instrument's denomination currency is different than Euro.	no
Member ID	Xetra-specific identification assigned by the Exchange.	yes
User ID	Xetra-specific identification assigned by the member.	yes
Xetra order number	Xetra-specific identification assigned by the system.	yes
Time stamp	Xetra-specific identification assigned by the system.	yes
Market Reset Indicator	This field is assigned by the Xetra system when a market reset event occurred and indicates the reason for the deletion of the quotes.  A Market Reallocation event is also indicated within this field.	no
Set ID	This field indicates the instrument set where an instrument is allocated. Instruments with the same set ID (and the same trading model) can be combined into a single mass quote request.  Xetra-specific identification assigned by the system.	yes
Quote confirmation suppression flag	This field specifies if the sending of quote confirmation broadcast shall be suppressed after entry or deletion of quotes.	yes

**Figure 12: Quote attributes of Xetra Release 11.1**



#### 4.4 Enhanced Transaction Solution – Functional Overview

The Enhanced Transaction Solution is a new optional trading interface for low-latency market access and transaction processing introduced with Xetra Release 10.0. It offers high-speed access for the core trading activities; focus is on order and quote maintenance functions. The connection to the Xetra system is established through a standard TCP/IP socket interface connection whereby any operating system and programming language supporting TCP/IP can be used.

Please find more details regarding the “Enhanced Transaction Solution” in the “Xetra 11.0 Technical Description” which remains unchanged for Release 11.1 and the “Enhanced Transaction Solution – Interface Specifications”.

The main new functional concepts provided by the Enhanced Transaction Solution are described in the following.

##### 4.4.1 Session Concept

The Enhanced Transaction Solution is a session-oriented interface whereby the session is the basic context of the interaction with the Xetra system. Enhanced Transaction Solution based applications will receive information for orders and quotes entered within their own session.

Several traders may share a single session, but every session may only be instantiated once.

Upon closing the session the user can decide if all non-persistent orders and quotes of the session are to be deleted (mass delete). Also in case of a connection loss, all non-persistent orders and quotes belonging to that session are deleted (heartbeat).

##### 4.4.2 Total Order Quantity Modification

The Enhanced Transaction Solution provides members with the facility to perform an absolute order modification. This means that members are able via Enhanced Transaction Solution to specify the new total order quantity when modifying an order. This approach assumes that the member maintains the value of the previous total order quantity.

The total order quantity will be the sum of the cumulated executed and the remaining unexecuted quantities.

<b>total order quantity = cumulated executed order quantity + remaining order quantity</b>
--

This feature helps members to have a clear and accurate view of their order quantities. The modification of the total order quantity to a value lower than the cumulated executed quantity will mean the deletion of the order.

Please note that the order modification logic currently provided will continue to be available via VALUES. Total Order Quantity Modification is not supported via VALUES.

#### 4.4.3 Client Order Identification

The Enhanced Transaction Solution provides members with the facility to assign user order reference numbers to orders. The provision of the client order ID is mandatory for orders entered via the Enhanced Transaction Solution. Additionally the system order ID generated by the Xetra system will be reported.

The reference assigned to an order must be unique within the corresponding Xetra system's order book, i.e. per session ID (member), instrument, buy-or-sell code and trader's subgroup. Entry of orders with references duplicate to orders existing in the order book will be rejected by the Xetra system. Members can use this reference number during the lifetime of an order to inquire and to perform maintenance activities on it.

The lifetime of an order will be over when it is fully executed or when it is deleted. The modification of an existing order cannot change the client order ID. The cumulated executed order quantity will not be reset in the event of an order modification. The order creation time also remains unchanged, while the order price-time priority may change depending on modification details.

The client order ID will have an alphanumeric format with a maximum length of 12 characters, only upper case letters and numbers can be used. This will supplement the system generated order numbers but will not replace them.

Please note that the Client Order cannot be entered via VALUES requests.

#### 4.4.4 Trade Management

For trade management purposes the newly introduced trade notification can be used. In this message type all settlement relevant information like counterparty and trade ID is provided. Trade notifications are only sent to the session which entered the executed order, i.e. trade notifications for trades based on orders entered via another session or using VALUES API cannot be received.

The trade notification comes as a recoverable event notification and contains the Match ID which is also assigned to the execution confirmation. Hence, using the Match ID it is possible to map an execution and the resulting trade(s). For trades with order level netting the netted positions will be delivered in the trade notification as well.

Trade inquiry and trade modification is not supported via the Enhanced Transaction Solution interface.

For more details please refer to the document "Technical Description" for Xetra Release 11.0 which remains unchanged for Release 11.1.

#### 4.4.5 Functional Restrictions

The existing VALUES functionality will be required in addition to the Enhanced Transaction Solution for some back-office and administrative (e.g. trader ID setup) functions.

The Enhanced Transaction Solution does not provide access to the following Xetra system services:

- OTC trading including Post-trade transparency services according to MiFID
- Market data such as instrument prices, order book depth, or indices
- System state or instrument trading phase data
- Member support services including Security Administration
- Trade inquiry and trade modification
- News messages

#### **4.5 Enhanced Broadcast Solution – Functional Overview**

The Enhanced Broadcast Solution offers a high-performance, functionally enhanced transmission mechanism for un-netted market information.

The Enhanced Broadcast Solution is provided as an optional service for transmission of un-netted market data. Dissemination of netted price information via the existing MISS architecture (Public Inside Market Broadcast) using the VALUES API connection remains unchanged. Transaction data and specific customer data (Private Broadcast) will continue to be transmitted via the current connection or via the Enhanced Transaction Solution.

The Market data transmission concept via Enhanced Broadcast Solution is based on the principle of a subscription model.

Synchronization of broadcast transmission in the various streams for display of the complete order book has to be made by the recipient's application.

##### **4.5.1 Reference Data**

A reference data stream transmits information about all instruments including assignment of instrument, order book depth and the corresponding multicast address. Client applications can process this information automatically on a daily basis. In case of changes, manual re-configuration is not required.

##### **4.5.2 Order Book Information**

The current state of the order book is distributed using the order book information messages. Members have to build and maintain their own picture of the order book from these messages.

- **Snapshot:** Snapshots contain complete order book information at a specific point in time up to the depth indicated in the reference information. The snapshot message should be used only for the creation of the market picture at the beginning of a trading day and for its recovery in case of a data loss. Snapshots provide information about the actual instrument status, the details of the last trade and the days' statistical information for the instrument. The Snapshots contain also information as to which delta broadcasts are included in the snapshot.
- **Delta or Incremental:** Deltas contain absolute values which are disseminated whenever an event with influence on the market (e.g. orders or transactions) takes place. Only the changes that took place in the market (delta) are transmitted. Deltas should be interpreted as commands issued by the exchange. Members have to alter/change their copy of the order book for each instrument based on the delta messages received. Deltas contain consecutive numbers so that a possible loss of previous broadcast transmissions during system outage or under peak load can be detected.

Under normal conditions members will be able to maintain their copy of the order book by joining the delta broadcast stream and applying the received messages.

Listed below are some rules or exceptions pertaining to the data content published by the Enhanced Broadcast Solution interface.

- **Order book rules for auctions:** Order book information displayed during auctions depends on the instrument set-up. Order book depths will not be delivered during auctions; only top of book information will be disseminated. Please find more details in the corresponding market models (see chapter 0).

#### 4.5.3 Statistical Information

**Trade Price Information:** The Xetra All Trade Price (ATP) broadcast stream contains the Xetra trade price information. All ATP messages will be disseminated over the ATP stream.

#### Status Information

**State change** messages will inform the members of a system or exchange state change. State Change messages will not be sent per instrument. The instrument state through out the day is received via the delta stream.

Please find more detailed information about the specification of the interface to Enhanced Broadcast Solution in the document Enhanced Broadcast Solution – Interface Specifications.

#### 4.6 Xetra OTC Trading – Post-trade transparency services according to MiFID

In Xetra Release 11.1 and as part of the services offered by the ISE, reporting of trades concluded OTC trades is supported in accordance with the requirements set out in the EU financial markets directive MiFID, in that members are required to comply with the reporting requirements and timelines given.

Entry of OTC trade information for publication purposes is supported for all instruments admitted to trading on a regulated market inside the European Economic Area (EEA) (both ISE instruments and non ISE MiFID instruments).

In particular the following types of OTC trades are supported by the Xetra system:

- OTC trades in ISE instruments
- OTC trades in non ISE MiFID instruments

##### 4.6.1 OTC trade entry

The entry of the two types of OTC trades is supported by two different OTC entry screens. OTC trades in ISE instruments are entered in the Open OTC Trading window, for which two indicators (for settlement and reporting) will automatically be combined as these are considered on-exchange trades on the Irish Stock Exchange. Please note that the selection of the settlement indicator is a technical requirement only and does not imply the settlement of such trades through straight through processing. OTC trades in non ISE MiFID instruments are entered via the MiFID Reporting window for reporting purposes. This reporting facility is available for member firms to ensure that these trades are published and handled in line with MiFID requirements. These trades are considered by the Irish Stock Exchange to be off-exchange trades.

All OTC trades will be subject to validations for reasonable prices and volumes.

To ensure that the correct time is always displayed (due to the fact that members are located in different time zones), the OTC trade time (in local time) and offset to UTC4 are mandatory entry fields.

All types of OTC trades that are entered receive a unique OTC trade number. Based on the assigned OTC trade number, deletion functionality for the OTC trade report (OTC trade with reporting) is supported.

All attributes that are required for post-trade transparency services according to MiFID can be entered in Xetra.

#### 4.6.2 One-Sided OTC Trade Entry Functionality

Member firms of the Irish Stock Exchange can enter an OTC trade for both the member firm and its counterparty without the requirement that the counterparty to the trade also approves it, i.e. ABCDB can enter a trade between ABCDB and DEFDB. **This functionality applies to OTC trades in ISE instruments and also to OTC trades in non ISE MiFID instruments.**

The member who enters an OTC trade has to provide the identity of the counterparty at a member level only, i.e. the counterparty member ID, e.g. ABCDB or DEFDB. Entry of the counterparty trader ID is not required, although it can still be used if desired, e.g. ABCDBTRD001.

If the counterparty member ID is specified but no counterparty trader ID specified, the OTC trade will be assigned to the counterparty default "XXXXXX" which each member firm must set up on an agency and/or principal basis. If upon entering the OTC trade, the counterparty trader ID is specified, e.g. ABCDBTRD001, that trader's A1 or P1 account will be filled in with details of the OTC trade.

The counterparty trader ID and either the default ID XXXXXX or the specific trader ID, e.g. TRD001, will be displayed on the trade confirmation and on the corresponding reports for both members firms.

Please note that an OTC trade is rejected by Xetra if the counterparty trader ID or the default ID has not assigned either A1 or P1 to the account.

#### Trade Flags

**The following trade flags can be used in relation to OTC trades in ISE instruments only. The requirements for these trade flags are defined in the Market Parameters of the Irish Stock Exchange.**

	Name of Trade Flag	Code
1	After Hours trade- reported the next trading day.	AH
2	Agency Cross	AX
3	Broker to Broker trade	BB
4	Connected Party trade	CP
5	Late trade	LT
6	Protected Principal trade	PP
7	Riskless Principal	RP
8	Special Settlement	SS

9	VWAP trade	VW
10	Worked trade	WT

Up to three OTC trade flags, from those listed 1-10 above, can be entered simultaneously in relation to any one OTC trade reported in an ISE instrument. The two digit trade flag will be validated by Xetra. The trade flags assigned to OTC trades by member firms will be disseminated to the market at the time of trade reporting. These flags will also appear in the Xetra trade confirmations and the corresponding member report (RPTTC810).

#### 4.6.3 Trade Indicators

In addition to the 10 trade flags shown above, the following indicators should be used where relevant to comply with MiFID in relation to OTC trades in all ISE instruments and non ISE MiFID instruments.

Name of Trade Indicator	Description
Other than current market price	An indicator for situations where the price is determined by facts other than the current market valuation as outlined in MiFID
Negotiated price	An indicator for situations where the price was negotiated privately, but is considered to be on exchange as outlined in MiFID.
Portfolio trade	Indicates that an off order book trade was part of a portfolio trade as defined by MiFID. Portfolio trades are considered to be trades subject to conditions other than market price. As a result, when using this indicator the “other than current price” indicator should also be used.

#### 4.6.4 OTC Trade Price Validation

All OTC trades, both in ISE instruments and non ISE MiFID instruments will be subject to price validation checks for reasonability. The price validation will be performed against the OTC reference price of the instrument.

For ISE instruments, the OTC reference price is determined in accordance with the existing market model.

For all other non ISE MiFID instruments, an imported price, or the Xetra last traded price from the previous trading day, depending on the most relevant market in terms of liquidity, serves as the OTC reference price. If no external price is available from the previous business day, the most current price available from the most relevant market in terms of liquidity is used for validation. The competent authority of each EEA country defines the most relevant market price in terms of liquidity of an instrument.

There are two ranges for checking the price of an OTC trade. The first range is applied to all OTC trades, with the exception of trades that are marked as “other than current market price” or as “portfolio trade”, which will be validated against a wider range. This wider range will be calculated by multiplying the “normal” range with a factor defined by the ISE.

If the price of the OTC trade lies within the respective range, the OTC trade is published immediately. If the price lies outside the respective range, the OTC trade is published via CEF with a price alert. At the same time, the trader ID of the originator of the trade is asked to confirm the price input. Please see below for further information.

The ranges for ISE instruments are defined by the ISE at an instrument level on a percentage basis. The ranges for non ISE MiFID instruments are decided on a Xetra-wide level.

OTC trades entered will not be price validated if any of the following conditions are fulfilled:

- OTC trade currency cannot be converted into EURO, e.g. due to missing conversion factor.
- Unit of trading of the instrument differs to the unit provided within the OTC trade.
- OTC trade was conducted on an “ex day” of that instrument.
- OTC trade that was previously entered and qualified as invalid is being confirmed.

Trades that are not price-validated will be published and disseminated via CEF including an indicator that no price validation was performed, except for a confirmation of a trade entry with a previously invalid price check. The member firm will also be notified if no validation was carried out.

#### **4.6.5 OTC trade volume validation**

OTC trades entered into Xetra will also be volume validated, by checking whether the OTC trade volume entered exceeds the volume cap defined by the Exchange for each instrument. Volume caps are set at instrument level and are derived from the average daily turnover classes.

OTC trades entered will not be volume validated where one of the following conditions is fulfilled:

- The volume cap parameter of the instrument is not available in Xetra.
- An OTC trade that was previously entered and qualified as invalid is being confirmed.

If the volume of the OTC trade exceeds this predefined volume, the OTC trade is published to CEF with a volume alert code. An alert is also sent to the originator of the trade in the same way that the price validation operates and the member is asked to confirm if the OTC trade is actually correct. The confirmed trade will be published with the confirmation indicator via the CEF system.



Trades that are not volume-validated will be published and disseminated via CEF including an indicator that no volume validation was performed, except for a confirmation of a trade entry with a previously invalid volume check. The member firm will also be notified if no validation was carried out.

#### **4.6.6 OTC Confirmation and Amendment Indicators**

Confirmation flag: If an OTC trade fails the price or volume validation when entered, the trader who input the trade is requested to provide a confirmation if the OTC trade is actually correct by using the confirmation button. A confirmation indicator will be published by CEF showing that the trade was successfully confirmed.

Amendment indicator: A previously entered OTC trade report can be amended. An amendment to an OTC trade is performed by the deletion of the OTC trade and entry of a new OTC trade with the amendment indicator set (and the original trade time and date entered). The amended OTC trade will be published with the amended indicator.

#### **4.6.7 OTC Delay Indicator**

Xetra also allows member firms to delay the publication of OTC trades in accordance with the criteria outlined in MiFID.

For each OTC trade which is marked for block trade delay a validation is performed in CEF. If the requirements for delayed publication are fulfilled, the OTC trade is stored in CEF and published when the publication time is reached. If the requirements for block trade delay are not met, the OTC trade is published immediately after OTC trade entry, even if the trade is flagged for block trade delay.

The publication of block trade delays prior to the calculated release time is possible on the same day as trade entry by the member firm deleting the delayed trade and re-reporting the trade with the same information including trade time, but without BTM indicator selected. In this case, the original trade report is deleted from the BTM book and the new trade is published immediately.

The CEF system will publish all other entered OTC trades (ISE instruments and non ISE MiFID instruments) immediately.

#### **4.6.8 OTC trade deletion**

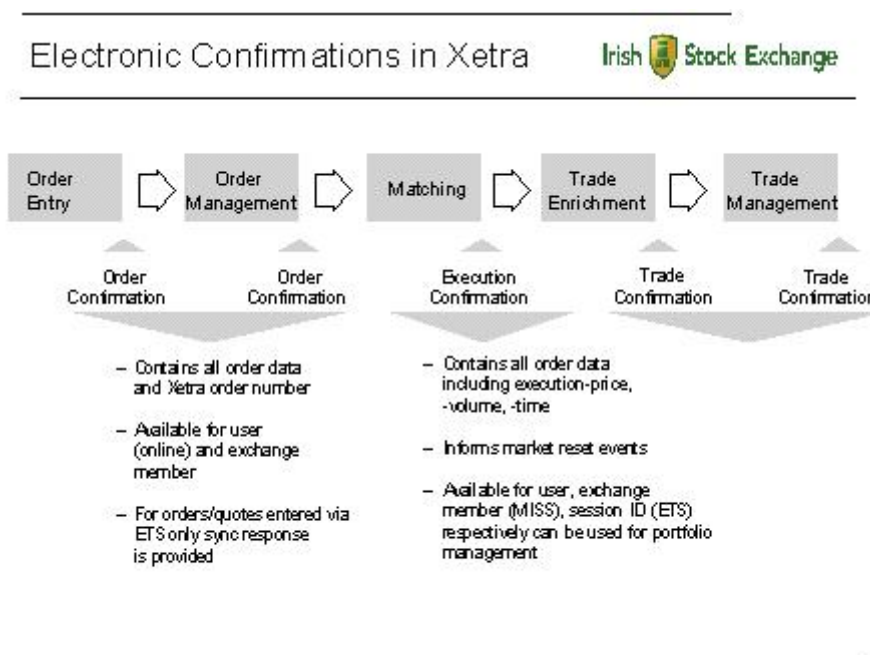
OTC trade deletion is supported for all OTC trades in both ISE instruments and non ISE MiFID instruments, Trade report cancellations are only possible for trade reports entered on the same trading day. No cancellation of historic trade reports (trade reports entered on previous trading days) is supported. .

Where a member firm wishes to cancel an OTC trade that needs to be amended, or wishes to delete a previously reported trade which was reported in error, it is possible to do so by selecting the original trade in the MiFID Reporting Window and choosing the trade deletion button, which will result in the automatic cancellation of the trade with the respective cancellation indicator being published by CEF. Where the original trade is pending publication as it was entered with the deferred publication indicator and met the criteria for delayed publication, the trade will be deleted by the system automatically but no message will be sent by CEF.

## 4.7 Administrative Trading Support

### 4.7.1 Electronic Confirmations in Xetra

Throughout the entire transaction process, the trading members are supplied with electronic confirmations. This enables them to trace the status of their orders at any given moment. Using an order entry as an example, Figure 13 below summarises in which phase of the transaction process electronic confirmations are forwarded to the members.



**Figure 13: Electronic Confirmations in Xetra**

When it is possible to fully execute an order immediately in continuous trading, the relevant member does not receive an order confirmation but only an electronic execution confirmation for each trade.

### 4.7.2 Trade Enrichment

The Xetra system will automatically add to all trades (both exchange transaction and over-the-counter business entries) all transaction data required for settlement. This transaction data includes determination of settlement amount, member ID, etc.

The main trade attributes are listed in the table below.

Trade Attributes	Description/Content
Trade number	Identification number for the specific trade; assigned by ISE Xetra.
Exchange	Exchange at which the instrument is being traded.

Trade Attributes	Description/Content
Trade Type	<ul style="list-style-type: none"> <li>- XP ("Xetra trade"),</li> <li>- XB ("Xetra BEST trade")*,</li> <li>- OTC ("OTC trade"),</li> <li>- XM ("Xetra Midpoint trade")</li> <li>- EXT ("External trade")*.</li> </ul>
Instrument	Securities identification number, ISIN, short name.
Price	Price of the (last partial) execution.
Average price	Average price based on market value and netted quantity.
Quantity	Quantity of the (last partial) execution.
Accumulated quantities	Accumulated quantities of underlying executions (only for netted trades).
Settlement amount	Sum of money to be settled.
Accrued interest*	Accrued interest contained in settlement amount.
Accrual days*	Number of days for which interest accrues.
Settlement date	Day on which the trade is due for settlement.
Exchange Rate*	For instruments with denomination currency not Euro the exchange rate is used to calculate the settlement amount of a trade. The exchange rate can either be entered by the specialist* in continuous auction trading model* together with a matching quote or the exchange rate updated once a day during the batch is used and published.
Account identification	<ul style="list-style-type: none"> <li>- A ("Agent")</li> <li>- P ("Proprietary")</li> <li>- D ("Designated Sponsor")</li> <li>- Q ("Liquidity Manager")*</li> <li>- I ("Issuer")*</li> <li>- L ("Specialist")*</li> <li>- E ("BEST Executor")*</li> </ul>
Counterparty Member ID	Counterparty in a trade (for instruments with a central counterparty/post trade anonymity always filled with a generic value).
Counterparty Clearing Member ID	Clearing member via whom the counterparty settles the trade (for instruments with a central counterparty/post trade

Trade Attributes	Description/Content
	anonymity always filled with a generic value).
Kassenvereinsnummer of the counterparty	Kassenvereinsnummer of the counterparty in a trade (for instruments with a central counterparty/post trade anonymity always filled with a generic value).
Kassenvereinsnummer of the Clearing Member	Kassenvereinsnummer of the settlement member via whom the counterparty settles the trade (for instruments with a central counterparty/post trade anonymity always filled with a generic value).
Xetra order number	Xetra-specific identification assigned by system (not for over-the-counter business entries).
Order completion flag	<p>Information of completion status of underlying order.</p> <p>The order completion flag may have the value</p> <ul style="list-style-type: none"> <li>• “F” if the trade results from a full order execution which means that there will be no additional (update) trade confirmation resulting from further executions of the underlying order,</li> <li>• “P” if the trade results from an order execution with a remaining positive order quantity,</li> <li>• blank (initialised) for imported floor trades, and OTC trades.</li> </ul>
Member internal order number	Freely usable.
Text field	Freely usable.
Executor ID	For Xetra BEST trades*: Member ID of the BEST Executor* the order has been sent to. For CCP OTC trades*: Original Counterparty.
Netting Type	Netting type of the trade.
Execution time	Time at which the order was executed (determined by the system).
Kind of depository	Specification how the instrument is deposited by Euroclear CREST.

**Figure 14: Overview of trade attributes**

#### **4.7.3 Home Market Settlement**

In Xetra the member settlement information needs to be set up on country level. All trading members need to name their settlement accounts and custody relationship at the local Central Securities Depository (CSD) for all settlement countries they would like to trade on. Only one home market settlement location per settlement country will be supported.

#### **4.7.4 Multiple Settlement Accounts per Member\***

Each member has a maximum number of 16 available settlement accounts per settlement country. Xetra members who settle Xetra trades for a number of non-clearing members have at their disposal 16 settlement accounts per settlement country which they can use for their non-clearing member and also for themselves. This enables market participants to keep any trades which are separated during trading also separate during settlement.

For each settlement country the member wants to trade on, a settlement institution and at least one settlement account (up to a maximum of 16) has to be set up. For each trading member one of these accounts needs to be defined as the default settlement account per settlement country.

The member has the option to explicitly allocate one of these 16 settlement accounts to each individual trader as a default for any trades executed by the particular traders. If the trader's individual default settlement account does not belong to the settlement country of the instrument, the member's default settlement account for the settlement country is applied. During Trade Modification a trader can use all settlement accounts of the member for the respective settlement country.

Xetra International Market will provide new instrument groups that are assigned to the corresponding settlement country. An instrument group will only be assigned to the member if the member has registered for the respective country.

In order to ensure appropriate settlement of the trades via the home market settlement resulting out of the international order book, the trading system will evaluate, whether the trading member has been registered for the settlement country of the respective equity and prevent the order entry for equities of non-registered countries.

Any changes to member and trader default settlement accounts become effective on the following trading day.

#### **4.7.5 Trade Management**

The following descriptions regarding the trade confirmation via VALUES fit to the trade notification via Enhanced Transaction Solution analogously.

One execution of an order may link to multiple trade confirmations with different trade IDs (in case of no order level netting) depending on the number of partial executions.

Each trade confirmation for a CCP instrument contains the CCP as counterpart, i.e., each execution leads to a minimum of two trade confirmations with a minimum of two trade numbers.

#### **4.7.5.1 Order Level Netting**

It is possible that one order<sup>5</sup> is matched against several other orders of different members. Order Level Netting describes the accumulation of single trades per order.

Order Level Netting is only supported for CCP instruments.

Order Level Netting is provided on member level per account type. The settings for the proprietary account are also valid for the Designated Sponsor, Liquidity Manager\*, Issuer\* and BEST Executor\* accounts.

The member's netting settings per account type are applied during order entry. The netting parameter cannot be changed on order level.

In case of "order level netting" only one trade ID is generated per business day and order id. Additional partial executions will be aggregated for the same trade ID incrementing the suffix (update of trade confirmation). The trade confirmation contains information about e.g. the weighted average price, accumulated volume and netting type. The weighted average price is rounded up to five decimals ("Symmetric Arithmetic Rounding", as usually used in accounting).

Further executions of the order lead to an update of the trade confirmation providing the weighted average price and the accumulated volume based on all executions of the order for the current trading day as well as the price and volume of the last execution.

#### **4.7.5.2 Trade Modification**

Trade attributes which are not subject to the counterparty's approval (e.g., settlement account, member internal order number, text, etc.) may be modified. This applies to exchange trades, BEST trades\* and over-the-counter business entries. Every modification results in a new trade confirmation or in case of order level netting of an update of the trade confirmation.

Account modifications of trades are only possible if the netting type of the trade fits to the netting type of the target account.

Users may replace the settlement account of a specific trade using one of the remaining 15 settlement accounts of the corresponding settlement country of the relevant member during the same business day. If a settlement account is modified, a new trade confirmation will be forwarded to both counterparties in case of order level netting. Trade modification of the settlement account is only allowed within the corresponding home market settlement country of the instrument.

After a trade modification any further execution of the order will lead to a new trade confirmation and an update of this new trade confirmation according to the chosen netting type of the order. The only exception is that a trade has been selected for modification and is sent to the back end with the same values (not modified). In this case netting continues for this trade.

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<sup>5</sup> The term order is used as a synonym for orders and quotes.

#### 4.7.5.3 Trade Reversal

With the introduction of the CCP the same trade number is not assigned to both counterparties of the trade anymore. As described in the paragraph "order level netting" one trade can consist of several executions against several members. For each trade the CCP is assigned as counterparty. Therefore a trade reversal is always a reversal of two trades, i.e., the trade of member A against the CCP and the trade CCP against member B have to be reversed.

If only one partial execution of a netted trade is reversed an update trade confirmation is sent to the member. The update trade confirmation will lead to a decrease of the volume and a recalculation of the average price.

#### 4.7.6 Reports

Members can obtain evaluations of their trading activities in the form of XML reports. These reports may also be obtained as standard text reports on the basis of XML reports. Selected reports (daily trade confirmation, fees per executed order) may be forwarded to a settlement service provider.

The Xetra back end currently provides members with the following reports which can be requested via the trading user interface.

Report ID	Report	Content	Availability
RPTCB042	Fees per Executed Order*	Overview of charges per executed (BEST) order*, including cap and floor (and inclusive of over-the-counter business entries).	Daily
RPTCB050	Fee Overall Summary	Overview of charges incurred on any given trading day.	Daily
RPTCB060	Fee Statement	Detailed statement of charges for completed month.	Monthly
RPTCB062	Designated Sponsor Refund	This report lists the monthly Designated Sponsor refund per order.	Monthly
RPTCB162	Monthly Specialist* Refund	This report will show the monthly Specialist refunds* and additional credits per order.	Monthly
RPTCB065	System Transaction Overview	Overview of all transactions for each trading day, sorted by transaction type.	Daily
RPTCB068	Transaction Overview	Overview of all transactions that are relevant for the calculation of excessive usage fees.	Daily

Report ID	Report	Content	Availability
RPTCB142	Fees per Executed Order	Overview of charges per executed (BEST*) order, including cap and floor (and inclusive of over-the-counter business entries).	Daily
RPTCB143	Specialist Refund*	This report lists the daily Specialist* refund per order.	Daily
RPTCB150	Fee Overall Summary	Overview of charges incurred on any given trading day.	Daily
RPTCB160	Fee Statement	Detailed statement of charges for completed month.	Monthly
RPTCB242	Recompensation Per Executed Order	This report lists the recompensation for specialists* for each executed order per ID and summed by instrument and account.	Daily
RPTCB250	Recompensation Overall Summary	This report provides specialists* with the current and previous day's recompensations. In addition, it provides information on the current month-to-date recompensation sum, the previous month' recompensation and the current year-to-date recompensation sum. It is available for each member acting as Specialist.*	Daily
RPTCB260	Specialist* Recompensation Statement	This report is produced for specialists* at the end of the month and gives detailed data on the current month's recompensations	Monthly
RPTTC530	Daily Quote Maintenance	Provides an overview of quotes entered persistently or deleted during the trading day.	Daily
RPTTC535	Daily BEST Quote Maintenance	Provides an overview of all BEST* quotes entered or deleted during the trading day.	Daily
RPTTC540	Daily Order Maintenance	Provides an overview of all (BEST) orders* entered, modified or deleted during the trading day.	Daily
RPTTC550	Open Order Detail	Provides an overview of all orders in the order book at market close, sorted according to trader and instrument.	Daily
RPTTC810	Daily Trade Confirmation	Provides an overview of all trades (including given up and taken up trades) during the trading day.	Daily



Report ID	Report	Content	Availability
RPTTC815	Daily MiFID Trade Reporting	To satisfy MiFID reporting requirements, this report contains an inventory of all OTC trades (entered with trade report for publication) that occurred on the current day, showing all added, modified and cancelled MiFID reporting trades.	Daily
RPTTC820	Daily Open OTC Maintenance*	Provides an overview of all open off-exchange trades not confirmed by the counterparty. These entries are automatically deleted by Xetra at the end of the relevant trading day.	Daily
RPTTD930	Daily Trade Statistics	Provides an overview of all trading activities in all instruments on any given day.	Daily
RPTTD965	Specialist State Change*	Provides information about all instrument state changes performed by the Specialist*. This report is available for Specialists*, only.	Daily
RPTTL001	System Transaction Overview	This report provides each member with the details about his numbers of orders, quotes and inquiries at the respective day.	Daily
RPTTT110	User System Security Maintenance	Documents all modifications to user authorizations during the trading day.	Daily
RPTTT115	User System Security Status	Identifies and documents status of user authorizations.	Daily
RPTTT120	User Instrument Maintenance	Documents all modifications in the allocation of instruments to members.	Daily
RPTTT125	User Instrument Status	Provides an overview of both the current instrument groups and the instrument allocation for each member and trader subgroup (including Designated Sponsor admissions).	Daily
RPTTT130	Daily Default BEST* Executor Maintenance	Lists changes to Default BEST* Executor assignments on instrument level made on the current day.	Daily

**Figure 15.: XML Standard reports**

Additionally, performance reports and rating reports are created as standard reports for Designated Sponsors, Liquidity Managers\*, Issuers\*, Specialists\* and BEST Executors\* and can be called up via the MISS.

#### 4.8.1 Initial Price Determination for an IPO\*

**(This section is not applicable to ISE Xetra)**

Xetra supports special functions supporting the initial price determination for new issues (IPOs). One functionality is a matching range preset by the lead bank. The “IPO matching range” defines the lower and upper limits for the first price determination, offering both lead bank and members certainty that there will be no erratic price fluctuations during the first price determination.

This first price determination will only be available once, either as an opening auction (in the case of instruments traded in continuous trading or using several auctions throughout the trading day) or as a single intraday auction (for instruments traded with a single auction only). Initial price determinations will take place by way of auctions which differ from existing Xetra auctions with respect to auction flow and transparency.

Market Supervision will always run auctions for the purpose of initial price determination manually. Auctions commence with the IPO call phase. During the IPO call phase, information on the indicative price or the best bid and/or ask limit are not published. During this phase, the lead bank of the IPO will be enabled to enter an IPO matching range via Market Supervision. This price indication is published using the *Newsboard* function available to Market Supervision.

During the IPO call phase, market participants will be able to enter orders or quotes, and to modify or delete existing orders or quotes. The procedures regarding the assignment of new quote and order execution priorities following modifications will apply without changes. In the Continuous Trading trading model orders with the trading restriction “OA – Opening Auction Only” are only valid in the IPO auction.

Following completion of the IPO call phase, Market Supervision will switch to the freeze phase. During this phase, market participants will still be able to view their own orders and the quotes of their user group, however, the entry, modification or deletion of orders/quotes will be disabled. The order book is frozen in order to allow the lead bank to assess the market situation. Having done so, the lead bank will be able to enter orders via Market Supervision, by way of trading on behalf. Market Supervision will then manually initiate the price determination phase, executing existing orders at the auction price within the IPO matching range.

If the IPO matching range is modified during the freeze phase, the lead bank can broadcast a new price indication via the *Newsboard* function. In this case, Market Supervision will switch back to the IPO call phase, allowing the market to react upon the new price indication by entering, modifying or deleting orders. This second IPO call phase will again be followed by a freeze.

For instruments traded in the Continuous Trading trading model, the IPO auction is followed by an intraday auction. Continuous trading is re-initiated at the end of the intraday auction. For instruments traded in a different trading model, trading is resumed in accordance with the applicable trading model.

#### 4.9 Market Models

Xetra 11.1 allows trading of stocks, bonds, warrants\*, certificates\*, reverse convertibles\*, exchange traded funds and subscription rights\*. **Detailed information about the market model for ISE Xetra which covers equity, bonds and ETF securities admitted to trading on the Irish Stock Exchange is available on the Irish Stock Exchange's website, [www.ise.ie](http://www.ise.ie).**