

Deutsche Börse Group's T7 - Cash Markets

T7 Trader, Admin and Clearer GUI

Manual

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1 Introduction

1.1 Introduction

The present document provides a detailed description of the XetraExchange's T7 GUI applications which are provided to participants for access to trading functions, risk and security functions.

The applications provided and specified herein are: *XetraTrader*, the application provided to traders, *XetraAdmin* which is tailored to the service administrator and *XetraClearer* providing risk control functions for the backoffice and risk staff.

Note: Data contained in the screenshots and samples in this publication are for illustrative purposes only and should not be relied upon as a true representation of the current market.

Any information which is presented in this document, including screenshots, are subject to change.

This document is also available via the online help of these applications. The online help is based on this document and will always carry the most up to date information.

1.2 Overview

This document describes the GUI applications provided with the XetraExchange's T7 to participants: *Xetra Trader*, *Xetra Admin* and *Xetra Clearer* detailing the business functions provided by them, and explaining how these applications are being operated.

This section gives a short introduction to these applications.

The functions of the applications have been organized based on the different roles of the users:

Roles and Applications

The GUI applications *Xetra Trader*, *Xetra Admin* and *Xetra Clearer* are provided to users of the following roles (a selection of the most important roles):

- Trader
Access to the market: Display of market data, order entry, order maintenance, order display, trade display, time & sales, statistics, risk functions.
- Market Maker
Access to the market: Display of market data, trade display, time & sales, statistics, risk functions.
- Trading View
View only access to the market: Display of market data, order display, trade display, time & sales, statistics.
- TES Broker
Access to the TES Trade Entry facility (broker mode), display of TES trades in the *Trades* and *TES View*.
- TES Trader

Access to the TES Trade Entry facility (simple mode), display of TES trades in the *Trades* and *TES View*.

- **TES View**
View only access to the TES View, time & sales, statistics.
- **User Data View**
View only access to see all users and their entitlements.
- **Service Administrator**
User Maintenance: setup and maintenance of users, configuration of trading limits and user entitlements, risk controls, trade enrichment rules.
- **Emergency Trading Stop, Clearing Member Stop**
Emergency risk control functions to stop trading for a user or an entire business unit.
- **CM Backoffice View**
View only access to the Backoffice Trades view for display of the trades of the NCM.
- **Clearing Member Stop**
Ability of a clearing member to stop an NCM via the Stop Trading view.

Depending on the role the user has been assigned, the user only needs to operate a single application for the daily business with Xetra:

| GUI Application | Role | Functionality |
|-------------------------|---|---|
| XetraTrader GUI | Used by participant users: traders, market makers and trading view users. | Market and market depth view, Orders, Trades, Time & Sales, Order Entry, T7 Entry Services, Statistics, Risk Controls |
| XetraAdmin GUI | Used by the service administrators and user data view users. | User Maintenance and Entitlements, Trade Enrichment Rules, Risk Controls |
| XetraClearer GUI | Used by the backoffice and risk staff of a clearing member. | User Maintenance (setup and maintain users assigned to a clearing BU), Risk Controls (Emergency Stop NCM) and Backoffice Trades |

An introduction and general description on how to operate these applications can be found in chapter 2.

Please refer to the following chapters for an overview of the functions provided by the applications *XetraTrader* (chapter 3), *XetraAdmin* (chapter 4) and *XetraClearer* (chapter 5).

1.3 List of terms and Abbreviation

Please find a list of the terms and abbreviations used in the document.

| | |
|-------------------------|--|
| Business Unit | A participant structure that offers a Business Unit (BU) concept for separating lines of business. |
| Context menu | The context menu appears right next to the mouse pointer when clicking the defined mouse button. Allowing a fast selection out of a distinct set of choices (e.g. quantity, limit). |
| Entitlement Role | Sets of resources (e.g. authorizations for mass quote, delete all quotes) are combined into logical user roles (e.g. market maker). A set of pre-defined user roles is available to participants for user administration purposes. |
| CCP | Centra Counterparty. |
| ETP | Exchange Traded Products (e.g. ETFs). |
| Filter | The filter allows the user to display information in an overview view according to pre-defined criteria. |
| GMC | GUI Middleware Cluster. |
| GUI | Graphical user interface. Also called <i>application</i> . |
| Head trader | A head trader is part of a user group and may see and maintain standard orders of all traders in the same user group in <i>XetraTrader</i> - granted, that the required entitlements are assigned. |
| ID | Identification |
| Inside Market | Identical to Top of Book |
| instrument | Refers to the object which is traded at Xetra. |
| ISIN | 12 digits international security identification number. |
| Lean order | Lean orders are supported on high and low frequency session, not supported on <i>XetraTrader</i> GUI. Lean orders are only visible to the current session. Lean orders are always non-persistent. |
| Limit Order | Bid/ask orders which are to be executed at their specified limit or better. |
| LIS | <i>Large In Scale</i> , a CASH TES trade type |
| Market Depth | Market information which is provided in the Market view, display of the best bid/ask limits with accumulated volumes per instrument. |
| Market Order | Unlimited bid/ask orders. |
| Market Reset | An event where all non-persistent orders and all quotes of a partition are deleted by the Xetrasystem during the online day. |
| MDI | Market Data Interface |
| Order Book | Identical to Market Depth |

| | |
|---|--|
| OTC | Over The Counter, a CASH TES trade type |
| Persistent/Non-Persistent Orders | In various situations as e.g. a trade interruption (e.g. during technical order book processing, session disconnect, volatility interrupt) all quotes and all orders marked as non-persistent will be deleted. |
| PSM | Product State Monitor, a tool that shows an overview of the number of products and instruments for each product and instrument state, and per "control segment". |
| RDS | Reference Data System |
| Standard order | Standard orders provide access to their complete history. |
| Supervisor | The supervisor user level may see and maintain orders of all users of the same business unit - granted, that the required entitlements are assigned. |
| ToB | Trading on-Behalf (by Market Operation) |
| Top of Book | Overview in which the best bid and best ask limits with accumulated volumes of the order book are displayed. |
| TES | Xetra T7 Entry Services. A trade which was arranged off-book under the rules of the regulated market. TES trades can be entered in <i>XetraTrader</i> for clearing and settlement purposes. |
| Trade | Defines the result of an order or quote match. |
| Trader | A trader is an individual admitted for trading at the exchange. Unlike a head trader and supervisor, a regular trader cannot see the orders or trades of other traders from the same user group. If displayed in views, Trader refers to the <i>User Name</i> of the <i>Exchange Account</i> for the respective system. |
| Trading capacity | The trading capacity is a property of orders and trades, and is used to inform clearing about the order capacity: <u>A</u> gent, <u>P</u> roprietary or <u>M</u> arket Maker. This field is not visible in <i>XetraTrader</i> , but the <i>Order Entry</i> uses the value of the Account field to fill the trading capacity. |
| User group | The concept of a group of traders, comparable to the trader subgroup of the Xetraclassic trading system. The user group however is not identified as a part of their user ID - the user group can individually be assigned as part of the user settings. |
| User Level | Every user is designated to have one (and only one) user level: trader, head trader or supervisor. Users enter their own orders, and their user level defines which orders they are authorized to act upon. |
| View | A view is always only a part of a window. It may be the only content of a window. But in case of the desktop tab of the main window, multiple views can be part of a single window. |
| Window | A window is a part of the operating system and because of that it is visible in the taskbar. A window may contain a single or multiple views. |

2 General GUI Concepts and Functions

The XetraExchange's T7 GUI applications, namely *Xetra Trader*, *Xetra Admin* and *Xetra Clearer* share common elements. All of them will open a *Login* window when started and will show a *Main* window once the login is successful. The *Main* window features a menu, a toolbar above the central desktop and a status bar below. The central desktop provides access to the most important views, which are opened inside of the central desktop.

Also the views share common elements: the view has a window title bar with icons in it, it has a central pane containing a form or a table and eventually an additional button bar below or next to it. This chapter provides a general description of *Xetra Trader*, *Xetra Admin* and *Xetra Clearer*, it describes the basic GUI elements that will appear in the various views of these applications.

Note: Data contained in the screenshots and samples in this publication are for illustrative purposes only and should not be relied upon as a true representation of the current market.

Note: Descriptions of GUI functions are subject to change.

2.1 General Description of the T7 GUIs

The first window which is shown to the user of the T7 GUI is the *Master Login* view (explained in more detail in chapter 2.7). If the login is successful, the user is presented with the application window showing the *Welcome View*.

Regarding windows and views: While the application window is visible as a single window in the operating system, this single application window can display multiple views in one instance. These smaller windows inside the main window, for example the *Market* view and *Orders* view are called *views*. In order to achieve this, the application features a desktop on its own - similar to the trading board of the Xetralegacy trading system Trading GUI. This desktop will be described later in this section.

The application window consists of the following elements:

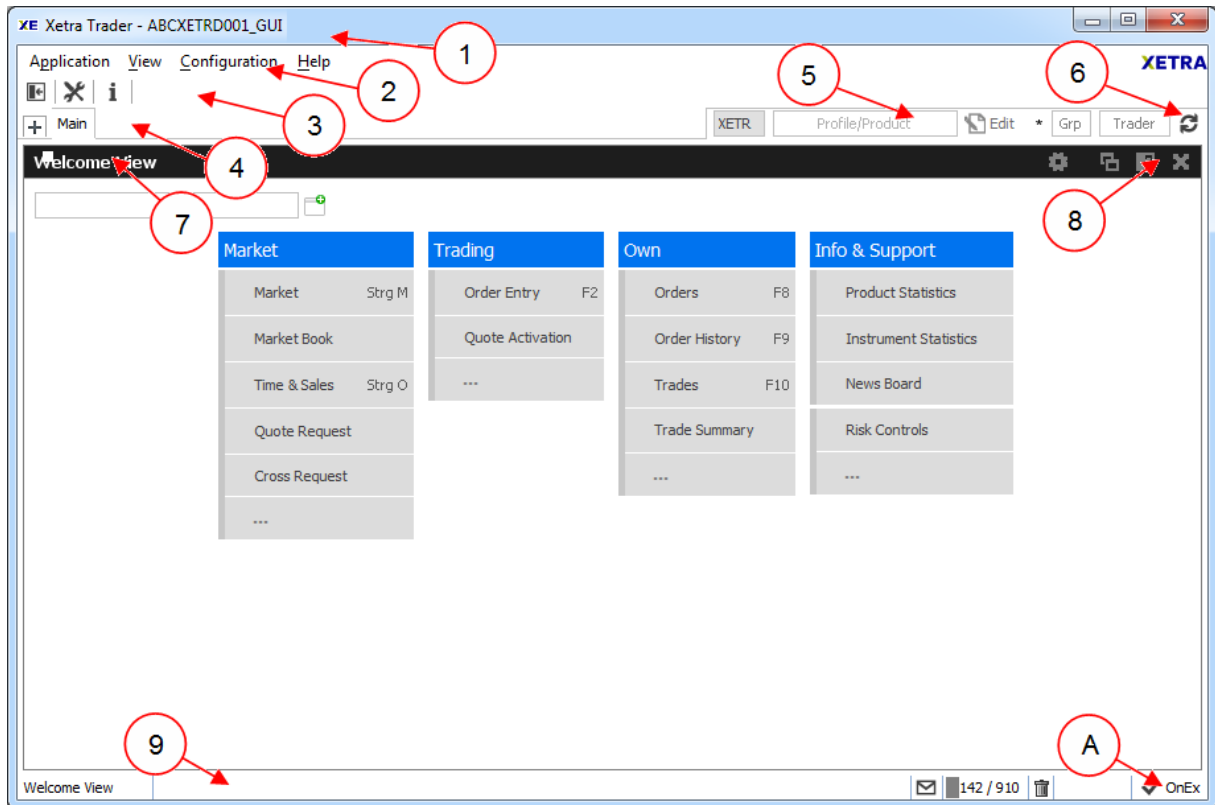


Fig. 1: Screenshot of the XetraTrader *Main* window showing the *Welcome* view.

| Item | Description |
|------|--|
| 1 | Application window title, displays the name of the application and the environment level (SIMU for simulation). |
| 2 | Menu bar. The menu bar contains the actions provided both by: 1) the application. 2) and by the currently selected view. While the actions provided by the application are fixed, the actions provided by the currently selected view will change automatically, if a different view is selected. The menu bar is explained in more detail below. |
| 3 | Toolbar. The toolbar provides quick access to the most important functions. The toolbar is automatically updated once a different view is selected. |
| 4 | This is the desktop tab area. Multiple desktops can be created by a click on the plus-sign on the left hand side of this space and are presented by their name here. Desktops can be switched by a single click on the respective tab in this area. In the example above only one tab is available which is called <i>Main</i> . In this example the <i>Main</i> desktop tab contains only the <i>Welcome</i> view. The <i>Main</i> tab is initially presented to the user if the user logs in for the first time. Tabs can be renamed by a double click on the tab. |

| | |
|---|--|
| 5 | <p>The desktop filter. This area provides filter fields which will be in effect for all of the views of the currently selected desktop. If the desktop is switched, this filter will also switch, because it is part of the currently selected desktop.</p> <p>Two basic filters are provided here:</p> <ul style="list-style-type: none"> • <i>Profile/Product</i>: Enter a product or profile here to use it on all views of the currently selected desktop tab. • <i>Trader</i>: This filter allows a head trader and supervisor to filter the display of orders and trades on all windows of the current desktop for a specific user name. This filter is only provided to head traders and supervisors. • <i>Group</i>: Group filter to filter for data in the context of the selected user group. |
| 6 | <p>The 'Go'-button. Clicking on this button applies the filter. This button will also be present in most views, and anytime this icon is displayed it can be used to apply a filter next to it. The filter can also be applied by pressing the <i>enter</i> or <i>return</i> key.</p> |
| 7 | <p>This is the view title of the Welcome view. In this particular example it is the only view which is displayed on the desktop and it occupies the whole space of the desktop. The desktop is explained in more detail below in this section.</p> |
| 8 | <p>These buttons affect the currently selected view and provide quick access (from left to right) to: externalize the current view, to split the current view and to close the current view.</p> |
| 9 | <p>Status bar. The status bar always displays the last message of the currently selected view. If the view changes, the status bar automatically changes as well. Double clicking the status bar opens the Log Messages view which displays the history of status messages.</p> |
| A | <p>The system connection status display. In this area the current connection status to the trading systems are displayed, for which the user is logged in.</p> |

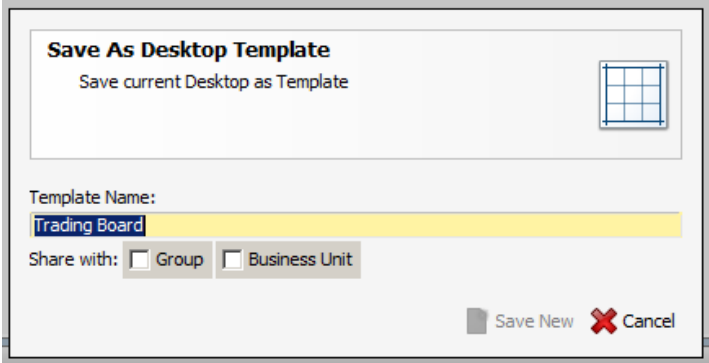
2.1.1 Menu Items and Actions

The menu bar displays the following menus:

- Application
- View
- Action
- Configuration
- Help

If the currently selected view does not provide any actions, the *Action* menu is not shown. The various menu items that display in the menus, depending on the selected view, are described in the

following. For the *Action* menu only the most common actions are described - the description of the specific actions is part of the description of the respective view.

| Menu | Menu Item | Description |
|-------------|------------------------|---|
| Application | New Window | Opens a new instance of the application. |
| | Close Window | Closes the currently open instance of the application. |
| | Save Settings | Saves the current configuration of the application. |
| | Preferences | Opens the Application Preferences view. |
| | Toggle Full Table Mode | Turns the full table mode on or off. Can be used in table view to save some space. |
| | Login / Logout | Opens the Login/Logout dialog. |
| | Save Desktop Template | Saves the currently selected desktop tab into a named desktop template. Templates can be shared within the own user group or business unit (depending on the user level): |
| | |  |
| | Desktop Templates | Selects a predefined desktop configuration. This menu also allows to delete own desktop templates. |
| | Exit | Closes all windows of the currently running application. |
| View | New View | Splits the currently active view to open a new empty view. |
| | Find | Opens the find dialog to start a search in the table of the currently selected view. |
| | Print | Opens the print dialog to print the currently selected view. |
| | Export | Opens the export table dialog to export the table of the currently selected view. |
| | Show Log Properties | Opens the Log Messages view for the current view Opens the view Properties. |
| Action | Add | Starts the creation of a new element. |
| | Modify | Starts a modification of the selected element. |

| | | |
|---------------|-------------------|--|
| | Delete | Deletes the selected elements. |
| Configuration | Exchange Accounts | Opens the Exchange Accounts view. |
| | Alerts | Opens the Alert Configuration view. |
| | Profiles | Opens the Profiles view. |
| | Text Field | Opens the Text Field Configuration view. |
| Help | Browse Help | Starts a web browser to display the online help. |
| | About | Displays the version number of the application. |
| | On this View | Starts a web browser to display the online help for the currently active view. |
| | What's New | Opens the What's New view. |

2.1.2 Buttons and Icons

The following table shows the generic buttons and icons of the application. The actions which are triggered by these buttons behave in the same way throughout the application:

| General Buttons / Icons | | |
|-------------------------|-------|--|
| Icon | Image | Description |
| Apply | | Submits the data shown in the view without performing a reset afterwards. Only enabled if all mandatory fields of the corresponding view are filled. |
| Submit | | Submits the data shown in the view and performs a reset after successful operation to indicate that the task is done. Only enabled if all mandatory fields of the corresponding view are filled. |
| OK | ✓ | Applies changes and closes the window |
| Cancel | ✗ | Closes the window without any further action |
| Refresh | ↻ | Loads or reloads the display |
| Reset | ↶ | Resets fields to predefined values |
| Expand | ⊕ | Clicking the <i>Expand</i> icon expands the table to display a specific market depth |
| Collapse | ⊖ | Clicking the <i>Collapse</i> icon collapses the table, restoring the initial view |
| Lock | 🔒 | Access to this function has not been granted |
| News | ✉ | Opens the News Board view |

2.1.3 Status Bar and Message Log

During the entry of data into a form window, the window logic validates the input from the user and decides whether or not to display additional information in the *Status Bar*. As a result of actions that are triggered on a window, the system will respond with a message indicating the status of the transaction, whether it was successful or not.

All these messages are displayed in the *Status Bar* of the window. If the content of the message does not fit into the status bar, the full text is available by double clicking the *Status Bar* which opens the *Messages Log* window.

The *Message Log* can also be opened via the menu option *View -> Show Log*.

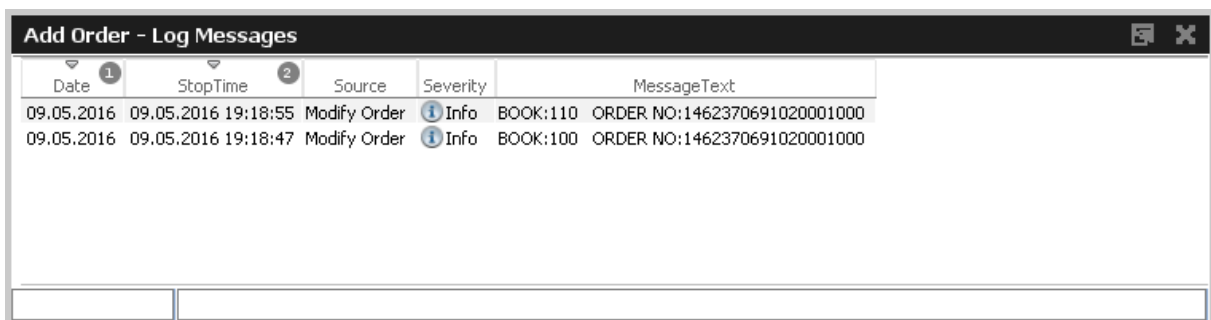


Fig. 2: Screenshot of the Messages Log window.

2.2 Trading Desktop

The *Trading Desktop*, or simply the '*desktop*', allows you to open a variety of views (*Market* view, *Orders* view, *Order Entry*, etc.) within a single display. Within the *Trading Desktop*, views can be resized, they can be moved, be closed or even taken out of the *Trading Desktop* to have them as external windows.

Multiple *Trading Desktops* within the same main window are also supported - they can be created and switched from the desktop tab area. The capabilities of the Desktop are explained next.

Adding a new view to the Desktop

An empty *Trading Desktop* which is opened for the first time will display the *Welcome* view as described before. This *Welcome* view displays the complete menu available. A view can be opened by a click on the respective menu item. Once an item has been chosen, the *Welcome* view will be replaced by the requested view.

A new view can be added to the current desktop by clicking the Split icon from the view title bar:



Fig. 3: Screenshot of the Split icon.

Alternatively, new views can also be added by a click on the outmost (left, right, top or bottom) border of the *Trading Desktop*:

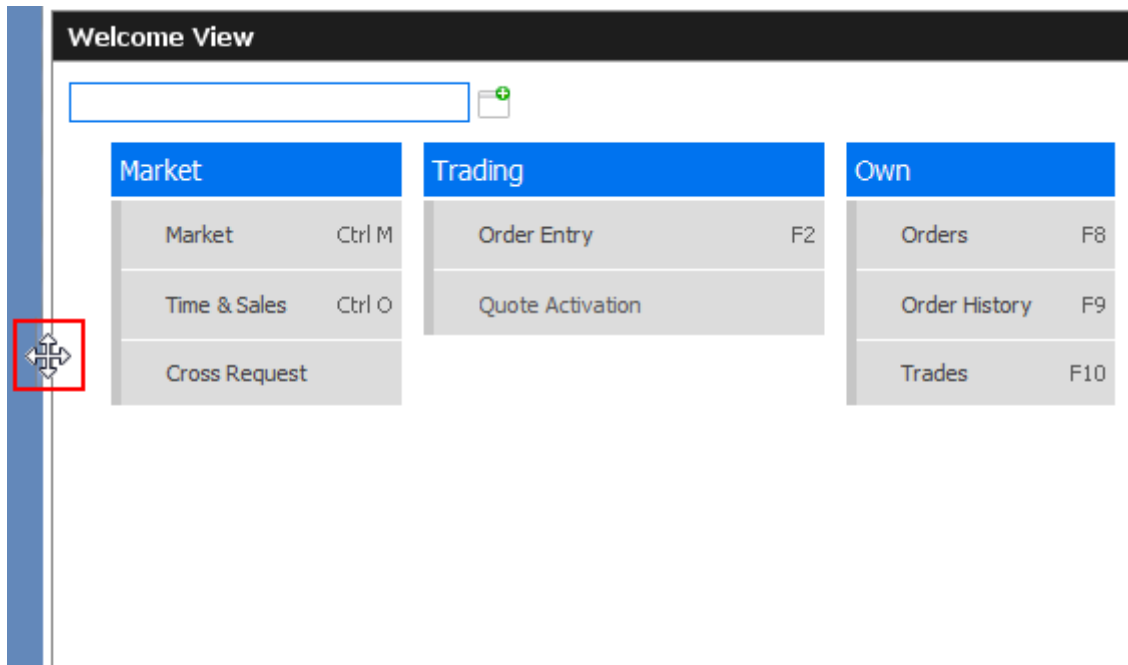


Fig. 4: Screenshot of the *Trading Desktop* illustrating how to add a new view

If a new empty panel cannot be created this way, this would mean the *Trading Desktop* is full and other windows inside of it must be closed to make space for a new one.

If a view is closed using the Close-icon (see illustration below) the view will not close - instead it will be replaced by the *Welcome* view to allow for a quick change to a different view. If the *Welcome* view is then closed, the space that has been used by that view will be provided to the remaining views of the current desktop.



Fig. 5: Screenshot of the *Trading Desktop* illustrating how to close a view

Resizing

Views can simply be resized by clicking and dragging the slider between the views:

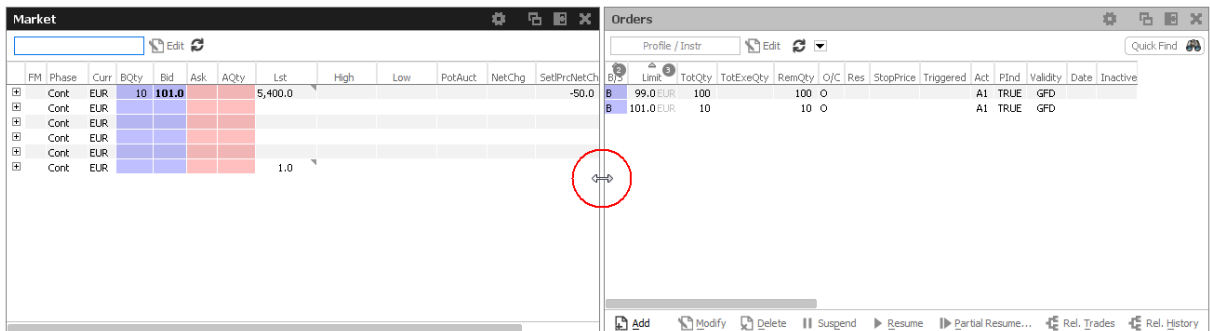


Fig. 6: Screenshot of the *Trading Desktop* showing how to resize views

Moving a view

Views can be moved inside of the desktop by clicking and dragging the view title:



Fig. 7: Screenshot of the *Trading Desktop* illustrating how to move a view to a new target

While dragging the title, the view will be extracted from the current desktop and a tiny preview of the view is shown at the location of the mouse. A blue bar appears which indicates the new location of the view. The new location can be changed by moving the mouse pointer across the desktop. If the new target location is to the liking of the user, a click on the mouse button will insert the view into the new location.

If the mouse button was pressed outside the borders of the current desktop, the view will be opened as an external window. The next section describes a different way to externalize a view.



Fig. 8: Screenshot of the *Trading Desktop* illustrating how to drop a view to a new target

Externalizing a view

As described in the previous section about moving a view, a view can be externalized if the view title has been dragged outside the boundaries of the current desktop, and the mouse button pressed.

It may be more convenient to externalize a view just by a click on the Externalize-Icon in the view title:



Fig. 9: Screenshot illustrating how to externalize a view

Creating a new Desktop

A new desktop can be created using the Plus-Icon from the desktop tab bar:

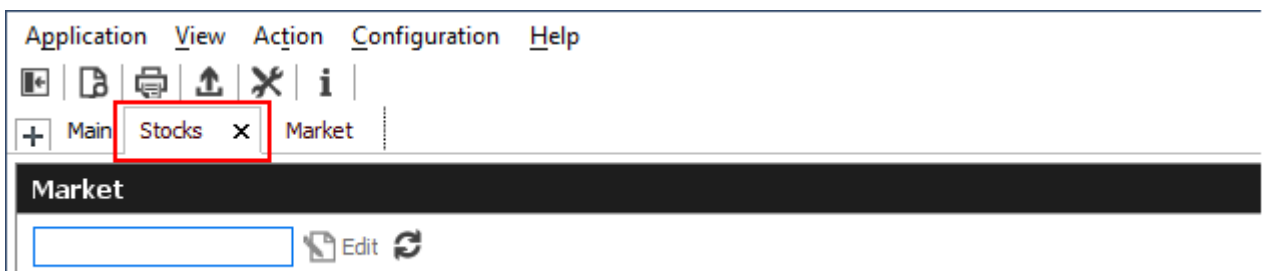


Fig. 10: Screenshot of the *Trading Desktop* showing the desktop tab bar

Desktops can be switched by simple clicks on the respective tab of the desktop tab bar. A user defined name can be given to the current desktop tab by double clicking the desktop tab label, and by typing the new name of the tab.

Desktop tab placement

Desktop tabs can be reordered simply by dragging the respective tab to a new location.



2.3 Forms and Fields

2.3.1 Text Input

Fields that only require the input of text can be filled in by typing the corresponding value. However, many of the entry fields support the selection of a value from a context list, which is provided by right clicking the mouse button:

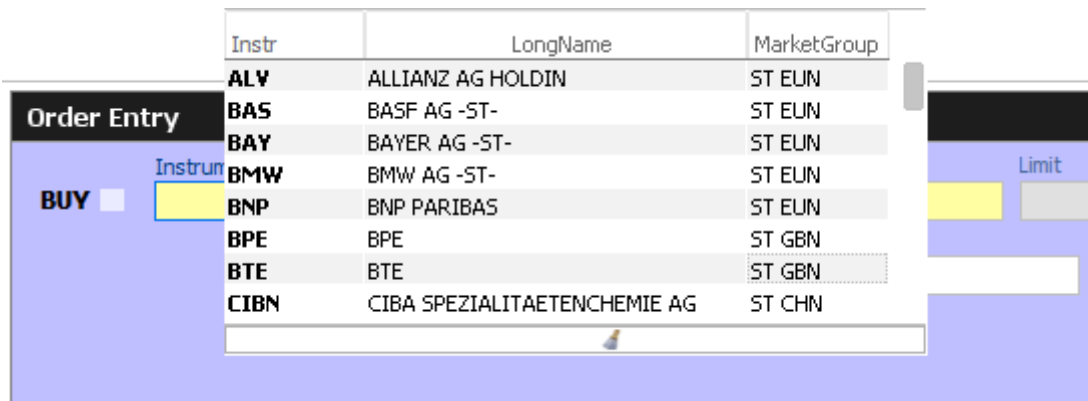


Fig. 11: Text Field Chooser

These fields that support the selection of a value from a list, also provide some help via the keyboard: By typing the first characters of the value to be entered, a context menu will automatically pop-up to provide a list of matching values:

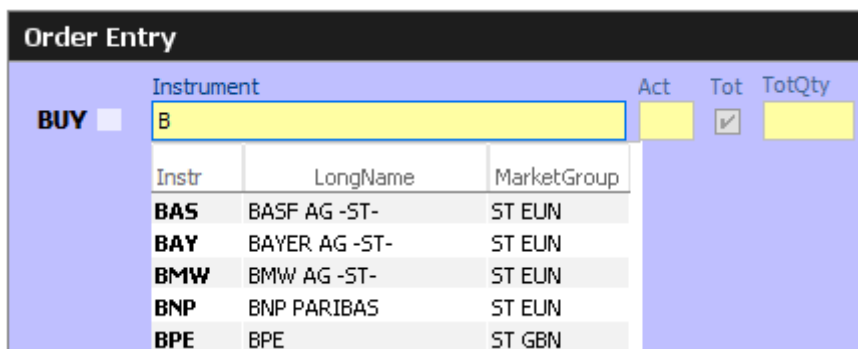


Fig. 12: Text Field Chooser providing a list of values matching the typed string.

By using the cursor up and down keys, the value can be chosen. The tab or enter key closes the pop-up and copies the selected value into the field. The pop-up can be closed using the escape key without selecting a value.

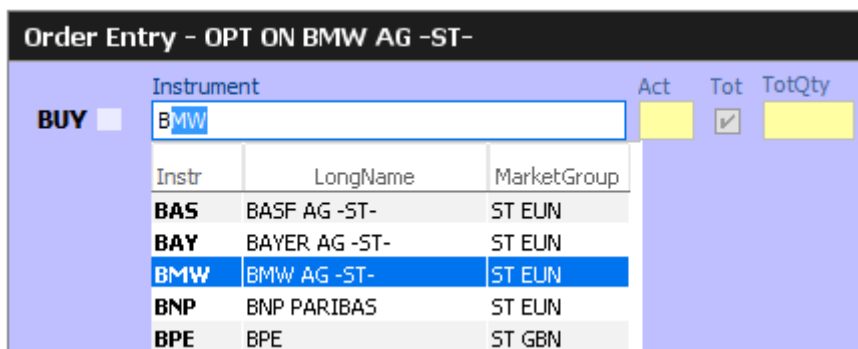


Fig. 13: Text Field Chooser providing a list of matching values, the current value is selected.

Text fields that provide completion also allow the list of available values to be scrolled through using

the cursor up/down keys. The cursor up key selects the previous value and the cursor down key selects the next value from the list.

2.3.2 Number Input

If the field the user wants to specify requires numeric input, the number can be typed using the keyboard. Alternatively a contextual pop-up provides easy access to change or enter a number.

A click with the left mouse on the number increases the value by the selected number, a right click decreases that value. A click on **C** clears the entry field.

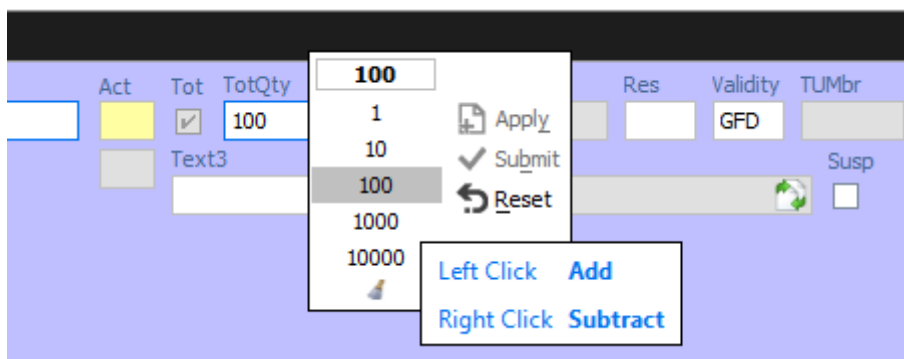


Fig. 14: Number Chooser

2.3.3 Date Chooser

The *Date Chooser* opens by right-clicking the *Date* filter field of the main window, which allows you to select the required date. The currently selected value is indicated with a blue background. A new date can be selected by simple clicking on the respective cell:



Fig. 15: Date Chooser

The *Date Chooser* allows selecting a date in a range of three months around the currently selected date. However, the *Date* field allows entering dates in a wider range than the *Date Chooser*.

2.3.4 Colour Chooser

The *Colour Chooser* allows changes to the colours for the following items: Foreground, Background, Mandatory, Highlight, Selection and Table Background to be changed:

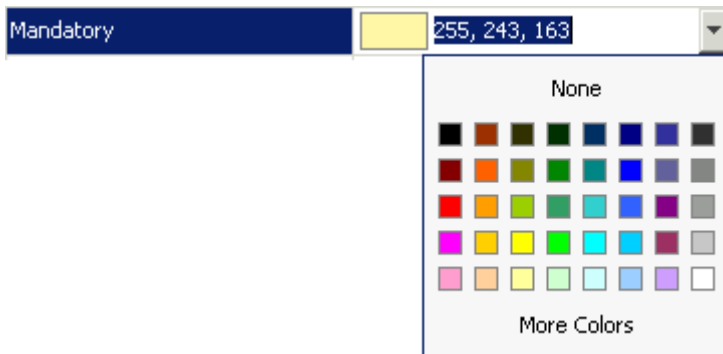


Fig. 16: Color Chooser

The three numbers 255, 243, 163 from the screenshot above identify the selected colour, each value refers to one of the elementary colours: red, green, blue. Values from 0 to 255 per number are allowed. These values do not need to be typed - the desired colour can also be picked from the Colour Chooser.

2.3.5 Font Chooser

The *Font Chooser* allows selection of a font, style, and size to be chosen for:

- The presentation of data in forms and tables. Fonts for column headers and for table elements (cells) can be set individually.
- The fonts of buttons, titles, and other window elements can be changed via *Appearance / Font*.

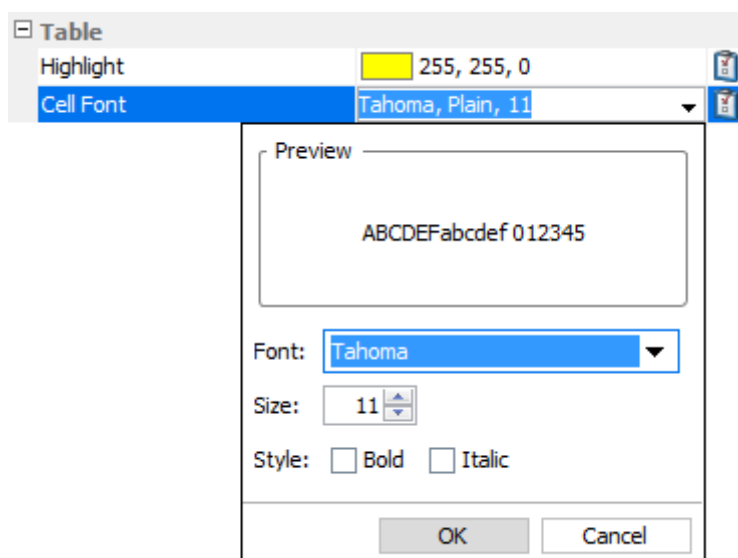


Fig. 17: Font Chooser

2.4 Tables

In general there are two types of views in the application: tables and forms and occasionally a combination of both of them. The elements of a table are the table cells, which are ordered by rows and columns.

Users can control the data displayed in the table:

- First of all, the user decides which data is to be displayed, by using the filter.
Please Note: It is advised to be as specific as possible when using the filter, in order to save bandwidth and in order to keep the application responsive.
- Decide which columns should be visible. Some windows provide special functions for selecting a certain set of columns (e.g. the *Market* view). But in general the user can select which columns to display (an explanation follows on how to do this).
- Change the sort order of the table (explanation follows).
- Decide which columns to highlight, by changing the background colour for individual columns.
- The general display of tables may be changed by changing the look and feel from the *Preferences* view; change the font, font size or foreground and background colour.

2.4.1 View Filter and Generic Filter

A filter is used to tell the view which data to display. A filter usually consists of one or more entry fields, which are sometimes indicated by a yellow background to indicate that input is required by the user. If all the required (mandatory) fields are filled, the *Go*-button is enabled and clicking the *Go*-button or pressing the Enter/Return key starts the inquiry.

Some filter fields cannot be removed - these fields are called the *View Filter* fields of a view. The user can however also add more fields to the filter line, in order to further narrow down the filtering and to reduce the amount of data displayed which the user is looking for. In this context these filter fields are now called a *Generic Filter*. The user can add these fields by dragging the column header (with ALT-key pressed) into this filter line.

In general a table view has one filter row. The row starts with the view provided *View Filter* fields, followed by the *Generic Filter* (if provided by the user).

The screenshot shows a 'Product Statistics' window with a table of futures contracts. Above the table, there are filter fields: 'Futures', 'Edit', '* LongName', '* Curr', and a refresh button. The table has columns: Product, LongName, Curr, U/L, U/L Curr, U/L Exch, U/L Prc, CVol, PVol, and FutVol. The data rows are as follows:

| Product | LongName | Curr | U/L | U/L Curr | U/L Exch | U/L Prc | CVol | PVol | FutVol |
|---------|--------------------------------------|------|------|----------|----------|---------|------|------|--------|
| CONF | FUT 8-13 Y. SWISS GOV.BONDS 6% | CHF | | | | | | | |
| EVAR | VARIANCE FUT ON EURO STOXX 50 INDEX1 | EUR | EVAR | | | | | | 1 |
| F2PE | FUT ON KYOTO 2 | EUR | P1EB | EUR | XETR | 0.00 | | | |
| FBAS | STOCK FUTURE ON BASF | EUR | BAS | EUR | XETR | 0.000 | | | |
| FBTE | FUT ON BTE | GBX | BTE | GBX | XFRA | 0.0 | | | |
| FCIB | STOCK FUTURE ON CIBA | CHF | CIBN | | | | | | |

Fig. 18: View Filter and Generic Filter

2.4.2 Adding and removing a Generic Filter Field

In addition to the predefined filters in each panel, additional *Generic Filters* can be added for all available columns of a panel. By holding the 'Alt' key and dragging any column header on the space labelled 'Alt-Drag Column Header here..', a filter for the values of this column is added:

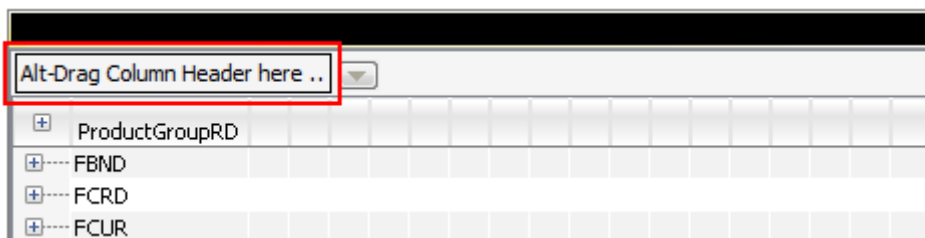


Fig. 19: Generic Filter - Filter Creation by using Alt-Drag

Example: In the screenshot below, the column 'Text' of the *Orders* table is 'alt-dragged' to create a new Filter.

The screenshot shows an 'Orders' table with a filter applied to the 'Text' column. The filter is represented by a box labeled 'Text' above the column header. The table data is as follows:

| Limit | TotExeQty | TotQty | RemQty | O/C | Res | Active | Text |
|-------|-----------|--------|--------|-----|-----|--------|------------|
| .95 | EUR | 1 | 1 | O | | | Customer A |
| .96 | EUR | 1 | 1 | O | | | Customer A |
| .96 | EUR | 1 | 1 | O | | | Customer A |
| .96 | EUR | 1 | 1 | O | | | Customer A |
| .96 | EUR | 1 | 1 | O | | | Customer A |
| .96 | EUR | 1 | 1 | O | | | Customer B |

Fig. 20: Add a Filter via ALT+Drag

Generic Filters can also be added by clicking on the down arrow button (▾) and choosing a value from the list of available columns.

Deletion of *Generic Filters* can be done in two different ways:

1. Deletion with Alt-Hover

Press 'Alt' and move the mouse across the filter that you want to delete (in the screenshot: 'Text'). When the mouse cursor reaches the text field, a white cross with a blue background (✕) appears in the top right corner. By clicking on the cross, the filter is removed.

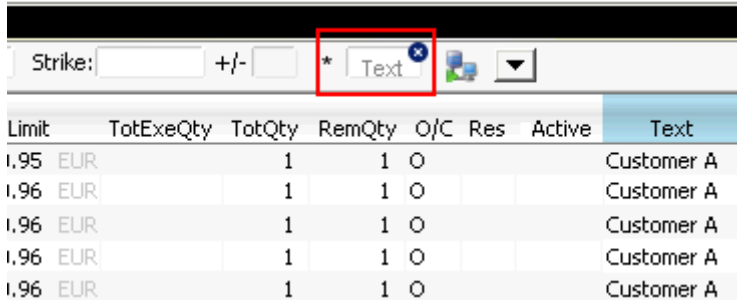


Fig. 21: Remove Filter via ALT-Hover

2. Deletion via 'Arrow Down' Button

A generic filter can also be removed by clicking on the down arrow symbol (▼) and selecting the column name from the list of filters.

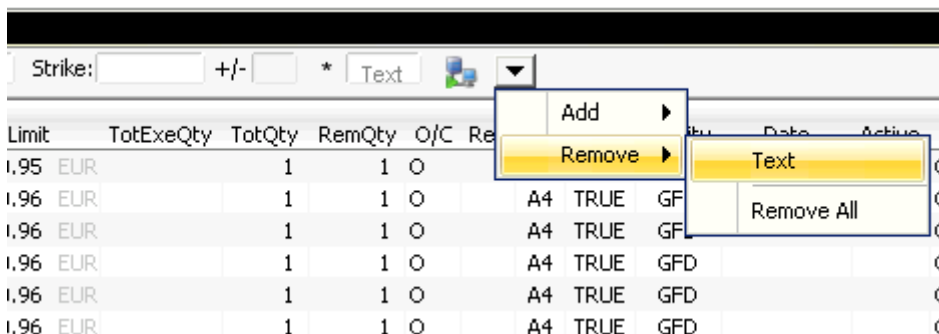


Fig. 22: Remove filter via arrow symbol

2.4.3 Using Generic Filters

A new generic filter will now display in the row above the table. The filter settings can be set by manually adding any value or using the context menu (right-clicking in any filter field). Please note that the background colour of the filter turns to yellow as long as the filter is not applied via the enter key or inquiry icon. After it is applied, only records complying with the filter settings are displayed.

Each filter can also be configured, to only display values with a specific restriction, which can be selected by clicking on the (*) symbol on the left of every generic filter field. Available restrictions are:

- **Exact:** Only records exactly matching the filter value are displayed.
- **Substring:** Only records partly matching the filter value are displayed.

- **Greater than:** Only records greater than the filter value are displayed.
- **Less than:** Only records lower than the filter value are displayed.

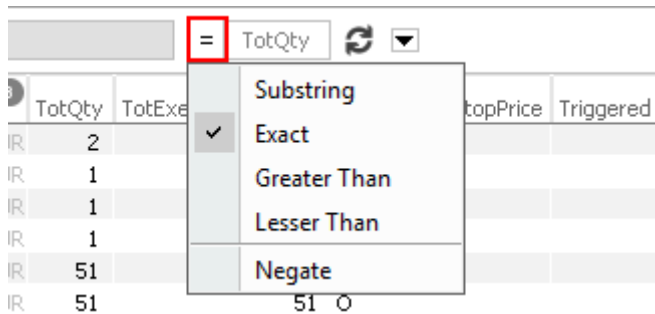


Fig. 23: Filter Restrictions

All Filter Settings can also be inverted by activating the 'Negate' setting from the filter restriction menu.

A combination of the 'Negate' option and a filter restriction will produce an output based on the following logic:

- **Not Exact:** The Output must differ from the filter value.
- **Not Substring:** The Output must differ from the filter value or any substring of the filter value.
- **Not Greater than:** The Output must be smaller or equal to the filter value.
- **Not Less than:** The Output must be greater or equal to the filter value.

As each column can be added multiple times as a *Generic Filter*, several values and restrictions can be combined for advanced search options.

Example:

Two 'Date' filters can be combined to show all records for one day by using the 'Greater Than' restriction for the first Date-Filter and the 'Lesser Than' option for a second Date-Filter.

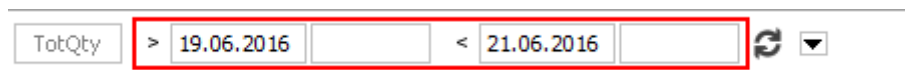


Fig. 24: Combination of multiple Filters and Restrictions

2.4.4 User group and trader filter

The main window features a user group and trader filter which can be used by users with user level Head Trader (*Trader* field only) and user level Supervisor users. It is located in the top right corner of the trading desktop:

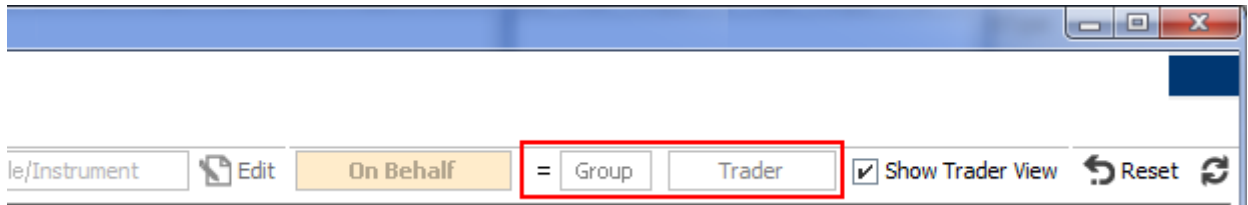


Fig. 25: User group and trader filter of the main view.

2.4.5 Quick Find

The *Quick Find* function provides a quick way of finding data among the currently displayed data in a table. This function is not available in all tables. It is strongly suggested to use the regular filter or user defined filters instead if possible, as this *Quick Find* filter is applied only on the data which is already displayed:

| Trades | | | | | | | | | | | | | | | | | | |
|--------------------|---------|--------|-----|--------|--------|--------|-----|-----|-----|-----------|-----------|-----|--------|-----|------|-------|----------|-----------|
| ADS (DE0005003404) | | | | | | | | | | | | | | | 5403 | | | |
| Contract | TrdTyp | L/M | B/S | OrdQty | ExeQty | Prc | O/C | P/F | Res | StopPrice | Triggered | Grp | Trader | Act | PInd | TrdID | TrdState | TrdItemID |
| ADS (DE0005003404) | REGULAR | LIMIT | S | 1 | 1 | 5403.0 | EUR | C | F | | | GR1 | TRD001 | A1 | Y | 2 | NEW | 400 |
| ADS (DE0005003404) | REGULAR | LIMIT | S | 1 | 1 | 5403.0 | EUR | C | F | | | GR1 | TRD001 | A1 | Y | 3 | NEW | 600 |
| ADS (DE0005003404) | REGULAR | MARKET | B | 11 | 1 | 5403.0 | EUR | O | P | | | GR1 | TRD001 | A1 | Y | 2 | NEW | 300 |
| ADS (DE0005003404) | REGULAR | MARKET | B | 11 | 1 | 5403.0 | EUR | O | P | | | GR1 | TRD001 | A1 | Y | 3 | NEW | 500 |
| ADS (DE0005003404) | REGULAR | LIMIT | B | 1000 | 20 | 5403.0 | EUR | C | P | | | GR1 | TRD001 | A1 | Y | 6 | NEW | 1101 |
| ADS (DE0005003404) | REGULAR | LIMIT | S | 20 | 20 | 5403.0 | EUR | C | F | | | GR1 | TRD001 | A1 | Y | 6 | NEW | 1201 |

2.4.6 Tables: Sort

Users may choose either default sorting or enable user defined sorting to create their own sort order. For user defined sorting, users can single-click on the corresponding column header. A first click sorts the table to the chosen column in ascending order. A second click causes the sorting to be done in descending order. The latest chosen column is always the sort criterion which is used first. Previously chosen sort criteria follow-up and are applied as sort criteria 2 or 3. Please note that only three sort criteria are supported.

The picture below shows the visibility of the applied sort criteria within a window.

| Product | LongName | CUP | U/L | Exch | Prc | Vol | Exch | Fast | Status |
|-------------|------------------------------|-----|------|------|------|-----|------|------|--------|
| ALV | ALLIANZ AG HOLDIN | EUR | ALV | XETR | 0.00 | 76 | XEUR | | ACTIVE |
| BAS | BASF AG -ST- | EUR | BAS | XETR | 0.00 | | XEUR | | ACTIVE |
| BAY | BAYER AG -ST- | EUR | BAY | XETR | 0.00 | | XEUR | | ACTIVE |
| BMW | BMW AG -ST- | EUR | BMW | XETR | 0.00 | | XEUR | | ACTIVE |
| BNP | BNP PARIBAS | EUR | BNP | XFRA | 0.00 | | XEUR | | ACTIVE |
| BPE | BPE | GBP | BPE | XFRA | 0.00 | | XEUR | | ACTIVE |
| BTE | BTE | GBX | BTE | XFRA | 0.0 | | XEUR | | ACTIVE |
| CIBN | CIBA SPEZIALITAETENCHEMIE AG | CHF | CIBN | | | | XEUR | | ACTIVE |

Fig. 26: Visibility of Sort Criteria in a Table

2.4.7 Tables: Find

The *Find* window is used to search for a specific word in a table.

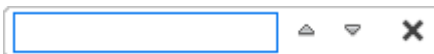


Fig. 27: Find dialogue

The user enters the text to search for in the *Find* entry field. Checking the *Match Case* box specifies a case sensitive search. Checking the *Whole Word* box restricts the search to whole words only. Clicking the *Find Previous* button searches the entered text backwards from the current position through the table. Clicking the *Find Next* button searches the entered text from the current position forward through the table. If a match is found, the cursor is set to the first occurrence of the search text. If no match is found in the direction of the search, it continues at the other end of the table.

2.4.8 Tables: Print

For windows that display a table the *Print Table* window allows the user to print the content of a table.

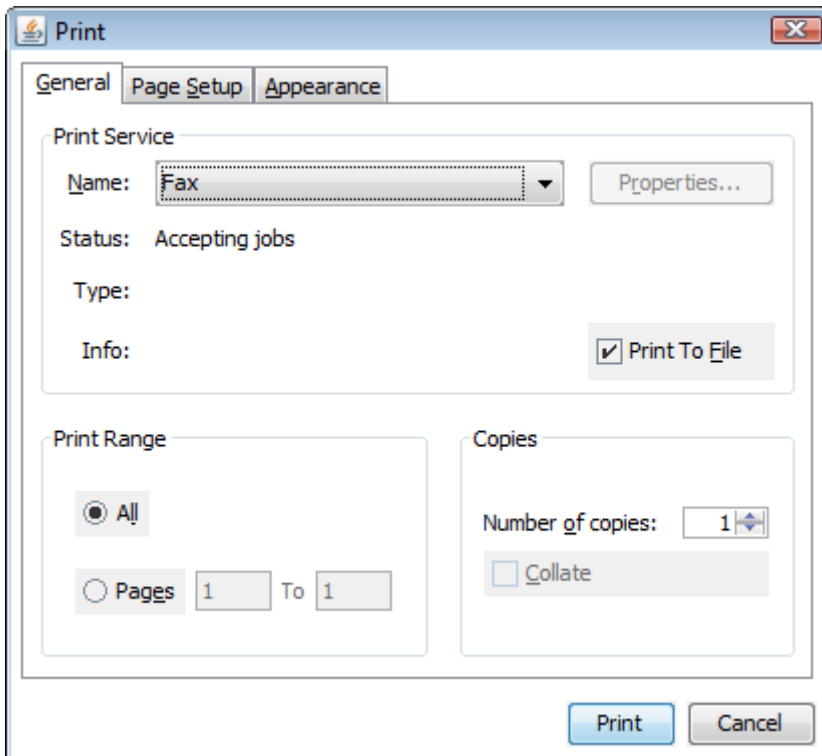


Fig. 28: Print Dialogue

2.4.9 Tables: Import

The table import function can be used to import a comma separated file (the separator character being the semicolon, regardless of any regional settings in the operating system used) into the table of the current view, provided that table import is supported on that view.

Clicking the Import menu item, a file selection dialog opens which allows browsing the file system and to select the input file.

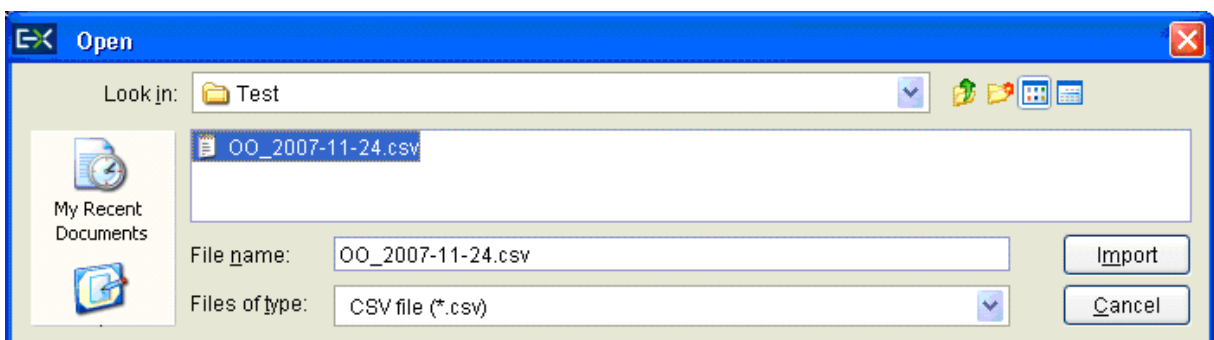


Fig. 29: Import Dialogue

When the window is opened, the *Files of type* field is pre-filled with a CSV file. Clicking the *Import* button causes the file to be imported.

2.4.10 Tables: Export

The table export function can be used to export the content of the table of the currently selected view into a comma-separated values file (the separator character being the semicolon, regardless of any regional settings in the operating system used). The table export function is generally available, even on those views that do not support the import of data.

The *Export Options* dialog opens by clicking the *Export* option from the *View* menu. Using the *Export Row Options* option the user can then decide to export data from all rows or only from the selected rows. The *Export Column Options* controls which columns should be exported: all or only the visible ones.

The *Export Path* supports selecting a file or path using a file browser, which can be opened using the ellipsis (...).

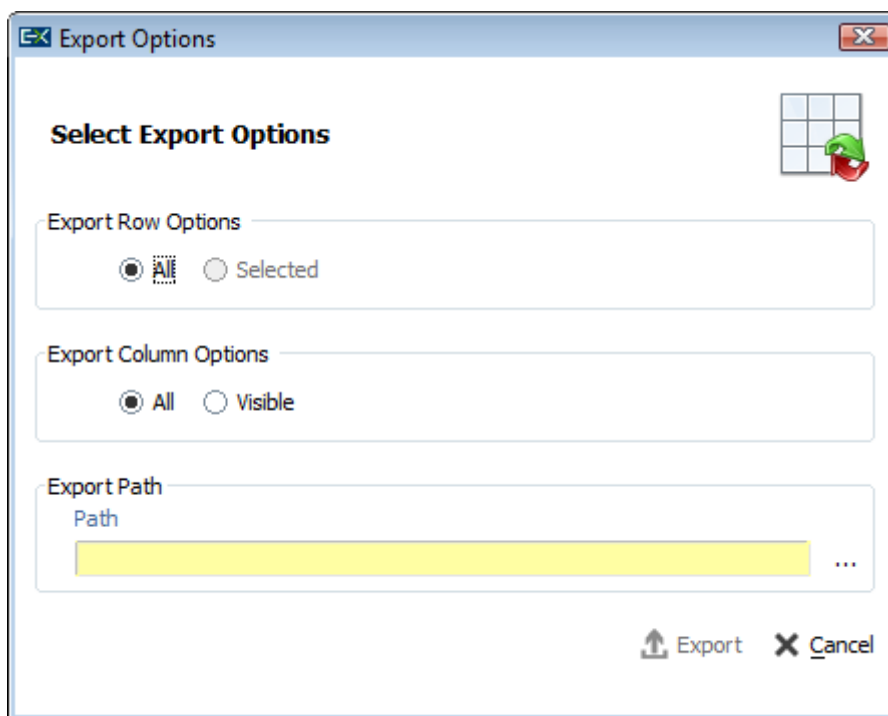


Fig. 30: Export Options

The following file formats are supported:

- text files (*.txt)
- comma separated files (*.csv)

Clicking the *Export* button, the table data is exported. If the exported file already exists in the system, a confirmation dialog is displayed.

2.4.11 Tables: Hide/Show Columns

The *Column Selection* pop-up allows the user to determine which columns in the table are visible. The pop-up is displayed if the user clicks with the right mouse in a column header and moves the

mouse over the *Show/Hide* entry:

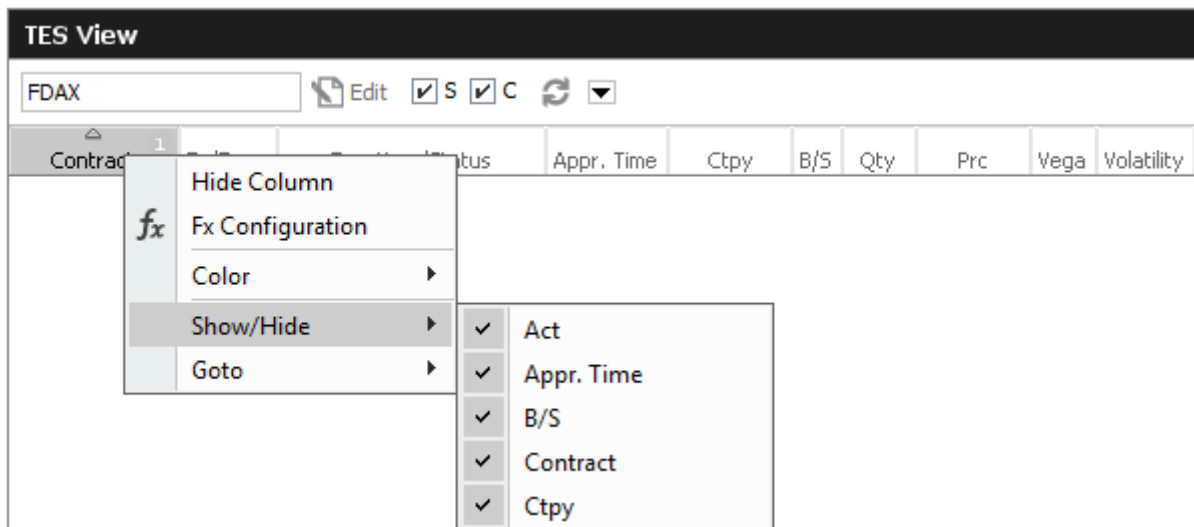


Fig. 31: Column Selection Pop-up

After selecting/deselecting the corresponding columns, a click outside the pop-up will close it.

2.5 Profiles

Most views in the application that display data related to products and instruments (*Market* view, *Orders* view, *Trades* view, to name just a few), feature a Profile/Product selector field. This field accepts the entry of a single product, but it also accepts the entry of a profile, which may contain a selection of any number of single and multiple products and even single or multiple instruments.

A set of ready to use profiles is provided by the application, however, users are encouraged to define their own selection of products and instruments for daily use - which is very simple, following the description below. User defined profiles can also be shared among other users of the same user group - or even among the whole business unit (only supervisor user level has the permission for that).

2.5.1 Generated Profiles

An old acquaintance comes back to the GUI: the predefined, or better: generated product profiles. These profiles are updated over night and thus are always up to date. These generated profiles combine products that are in the same functional area:

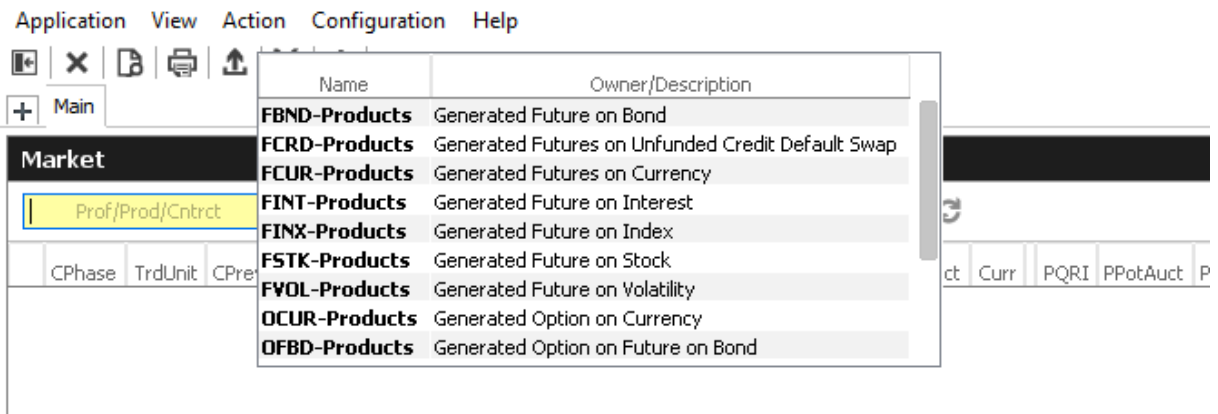


Fig. 32: The generated product profiles popup opens by a right mouse click

2.5.2 Activity Profile

The activity profile is a generated profile which is automatically updated to contain all the products and instruments a trader seems to be interested in. To be interested means: all instruments for which the user had orders or quote requests entered on the current day, and for which trades are available.

This profile is useful e.g. on the Market view to have a quick overview on the market data of instruments the user is most interested in:

| Market | | | | | | | | | | | | | | | |
|---|------------|------|-------|-------|---------|-------|---------|----------|---------|--------------|---------|---------|---------|------|----|
| ABCFRTRD001_ACTIVITY | | | | | | | | | | | | | | | |
| Edit Up to: Expiry Strike +/- <input checked="" type="checkbox"/> S <input type="checkbox"/> C Type | | | | | | | | | | | | | | | |
| CPhase | Contract | Curr | CBQty | CBid | CAsk | CAQty | CLst | CPotAuct | CNetChg | SetPrcNetChg | COpen | CHigh | CLow | CVol | FM |
| Cont | FDAX Dec13 | EUR | 100 | 100.0 | | | 2.0 | | | -5,448.0 | 2.0 | 2.0 | 2.0 | 84 | |
| Cont | FEU1 Jan14 | EUR | | | 54.00 | 1 | | | | | | | | 50 | |
| Cont | FEU3 Jan14 | EUR | | | 54.0000 | 1 | 54.0000 | | | -42.0100 | 54.0000 | 54.0000 | 54.0000 | 51 | |

Fig. 33: Activity profile

Please Note: Profiles are stored relative.

The main benefit of using profiles is that they are stored relative to the front month expiration (this applies to both user defined profiles as well as profiles provided by the exchange). If, for example, the contract *FDAX Mar13* is part of a user defined profile, it will automatically rollover to *FDAX Jun13* on the trading day after the expiration of *FDAX Mar13*.

The following shows an empty Profile/Product field of the *Market* view:

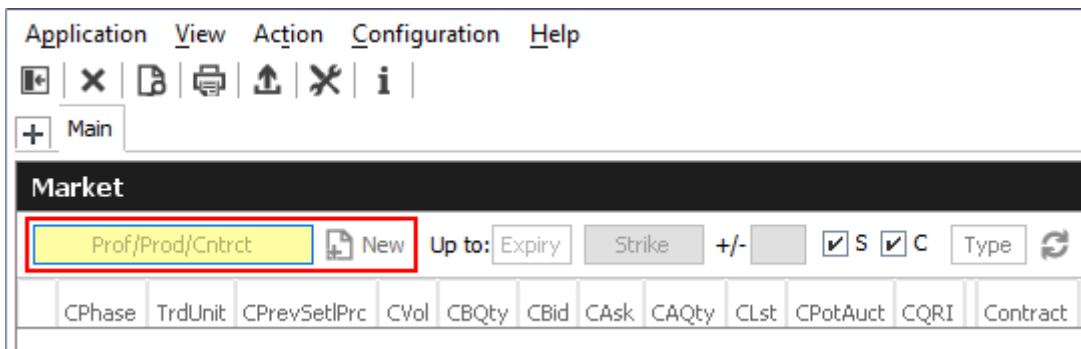


Fig. 34: Profile/Product Selector

This field supports the entry of a single product, contract or a profile as can be seen here:

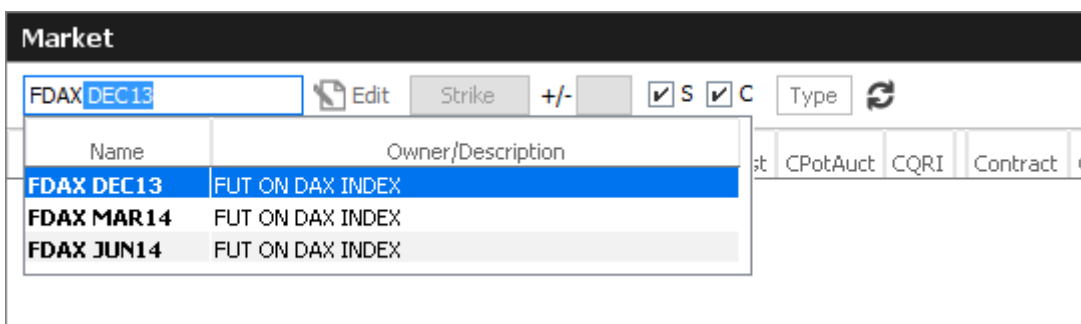


Fig. 35: Profile/Product Selector accepting the entry of a product, contract or profile

A right click of the mouse on the Product/Profile field will bring up the list of profiles which are currently available. Here, the Option on Index Future profiles has been selected from the list:

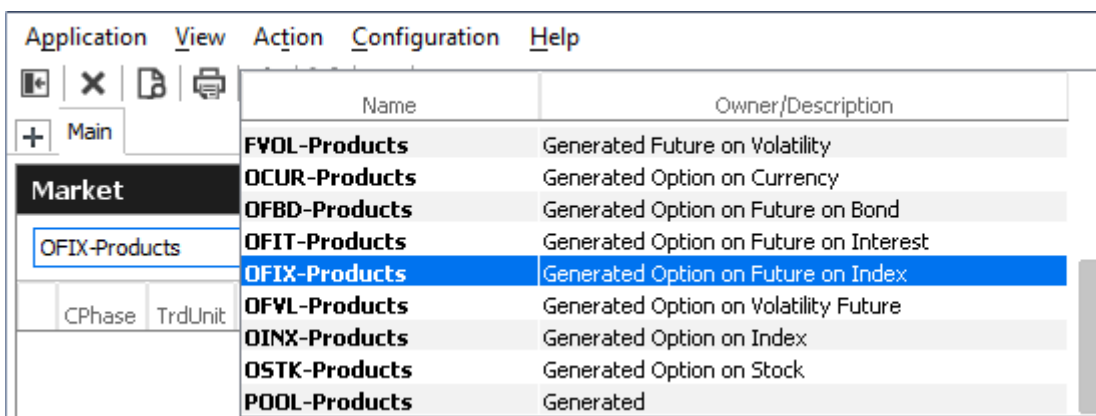


Fig. 36: Profile pop-up opened on the Profile/Product Selector

2.5.3 User Defined Profiles

Most users will however want to use a profile which contains only those products and instruments, which are of interest to them. The profile chooser allows creating a new profile on the fly, just by

typing its new name, clicking the Edit button and selecting the products and instruments of interest (the *Edit* button then changes into a *Close*-button):

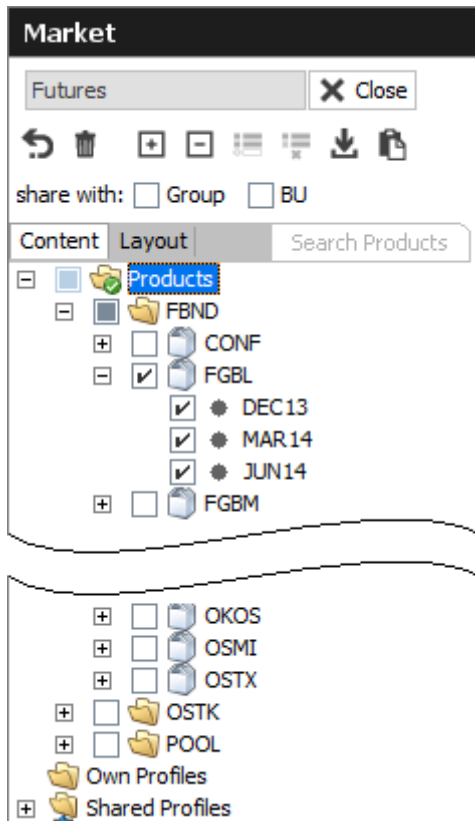


Fig. 37: Profile/Product Selector showing the Profile Editor, editing the user defined profile "My Futures"

It is also possible to select products just by pasting from the clipboard. In order to do so, just mark a list of products in a text editor, e.g. "ALV,BMW,LHA", copy these to the clipboard with Ctrl-C, then select the profile selector (or the view containing it) and pressing Ctrl-V.

Products can also be imported from a file. Product will be ordered in the same sequence as they are found in the import file. The products may be separated in the same way as in the clipboard example above, or be separated by new lines:

```
ALV
BMW
LHA
```

Fig. 38: File import file containing a list of products

The main part of the profile editor is the profile/product/contract tree, with the main nodes:

2.5.4 Products (Tree)

2.5.5 Own Profiles (Tree)

2.5.6 Shared Profiles (Tree)

2.5.4 Products Tree

The products node displays all available products, instruments in a hierarchical tree, starting with the product type or a specific market group as the top most level. The hierarchical levels are:

- Market Group
- Product
- Instrument

Clicking the checkbox next to an item of the tree will select/deselect that item and all subsequent parts of it.

2.5.5 Own Profiles Tree

Own profiles lists all the profiles that have been created by the user. Details of the profile can be reviewed by expanding the respective node.

2.5.6 Shared Profiles Tree

User defined profiles can be shared with the own user group and business unit, depending on the own user level. Please note that only the creator of a profile can modify a shared profile.

These are the profiles that the user shares with the own user group and business unit. Please note that only the creator of a profile can modify a shared profile. Details of the profile can be reviewed by expanding the respective node.

In the seldom case that a name of a shared profile is identical to a name of an own profile, the own profile will be used to inquire. In order to be able to use the shared profile instead, please rename the own profile to resolve the naming conflict.

2.5.7 Layout of profiles










The *Layout* tab of the *Profile Editor* provides functions for the advanced user:

- Own profiles can be reordered by dragging the respective item to the desired location.
- Items of own profiles can be given a user defined background colour.
- Separators can be added to the profile.

Layout of profiles

The profile editor features a number of icons, buttons and checkboxes, as described below:

| Profile Editor | |
|----------------|-------------|
| Icon/Button | Description |
| | |

| | |
|---|--|
|  | Expands all the products and contracts in the Products tree, which are part of the current profile |
|  | Collapse all expanded products |
|  | Clears the current profile. Marks all products and contracts as not checked. |
|  | Deletes the profile. |
|  | Applies changes and closes the profile editor |
|  | Merge selected profile into the current profile |
|  | Delete selected own profile |
|  | Import into current profile |
|  | Paste products from clipboard to profile |
| <input type="checkbox"/> | This node (product type, product, expiration or strike) is not checked and is not part of the profile. |
| | Only parts of this node have been checked. Click on the node to see which details have been checked, or press the icon. |
| <input checked="" type="checkbox"/> | This node (product type, product, expiration or strike) is checked and so has everything in it. |
| Group | If checked, the current profile will be shared with all users of the own user group. This function is provided to head traders and supervisors only. |
| BU | If checked, the current profile will be shared with all users of the own business unit. This function is provided to supervisors only. |

Reordering of Profiles

Profile elements can be reordered on the Layout tab by drag and drop of an item:

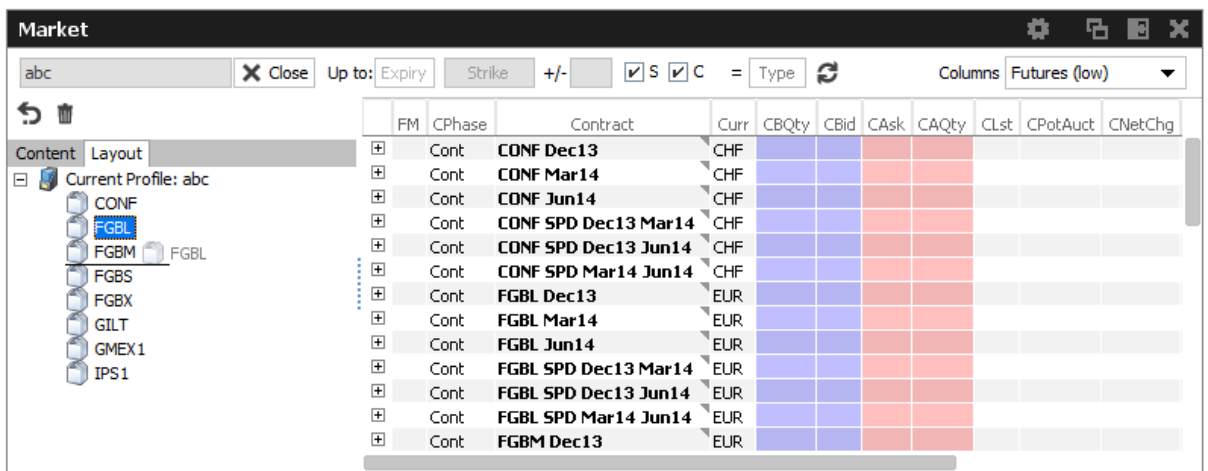


Fig. 39: Reordering of Profiles

Custom background color per product

Select a custom background colour per product using the context menu:

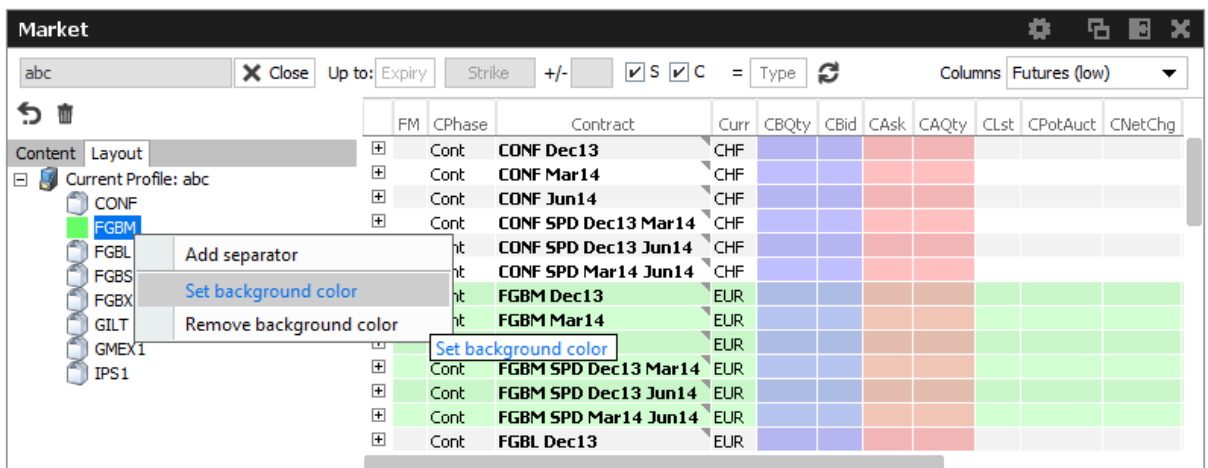


Fig. 40: Custom background color per product

Separators

Add a separators using the context menu:

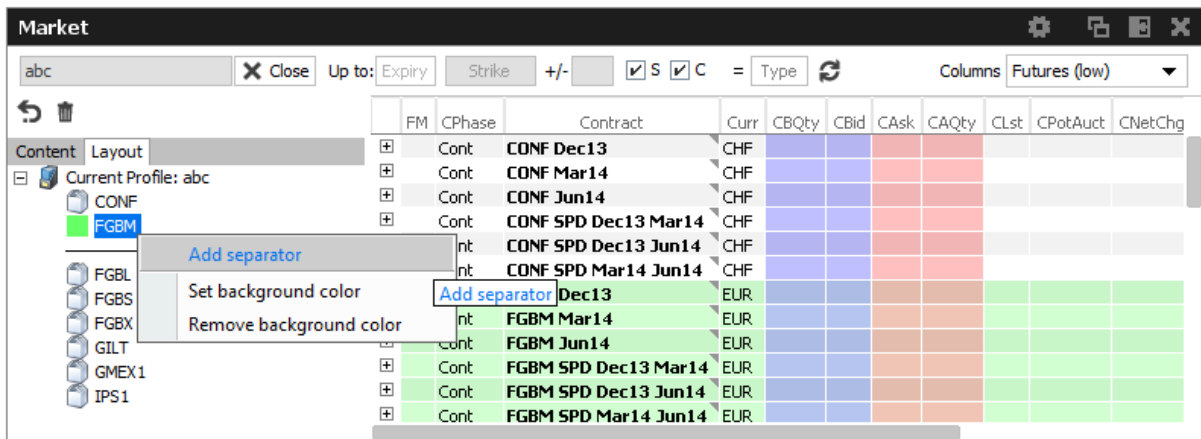


Fig. 41: Separators

2.5.8 Sharing of profiles

User defined profiles can be shared with the own user group and business unit, depending on the own user level. Please note that only the creator of a profile can modify a shared profile.

In the rare case that a name of a shared profile is identical to a name of an own profile, the own profile will be used to inquire.

2.6 Preferences

Generally, there are two levels of preferences in the application:

- Preferences that apply to the whole application (*Application Preferences*)
- Preferences that are valid for a single view (*View Preferences*)

The *Application Preferences* can be accessed from the *Application* menu, the *View Preferences* are available from the *View* menu.

The *Preferences* view is basically the same, for both of the types.

The *Application Preferences* view allows the user to define general properties that are valid for the whole GUI:

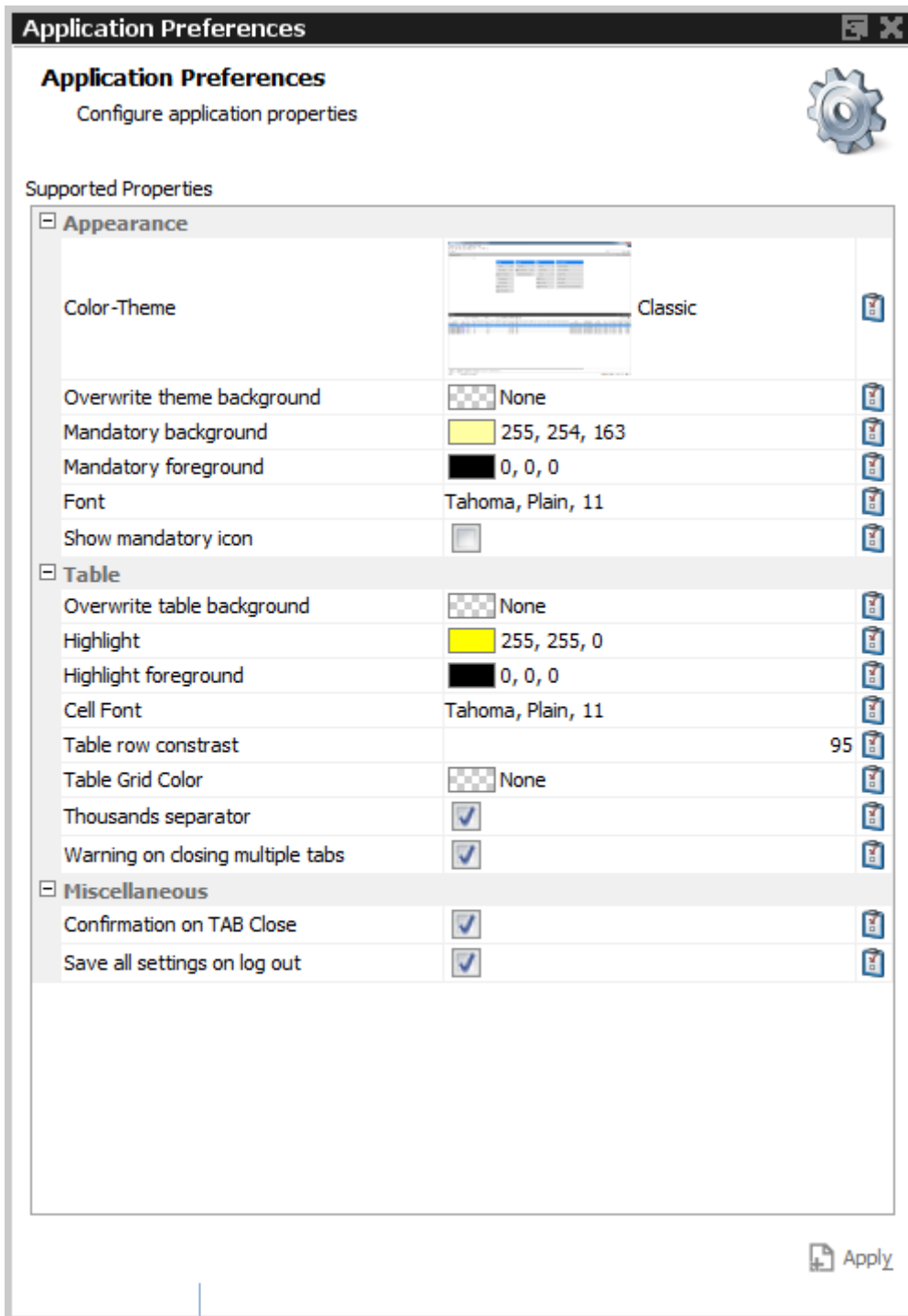


Fig. 42: Application Preferences view

Where the *View Preferences* follows the currently selected view and provides the settings for that single view instance.

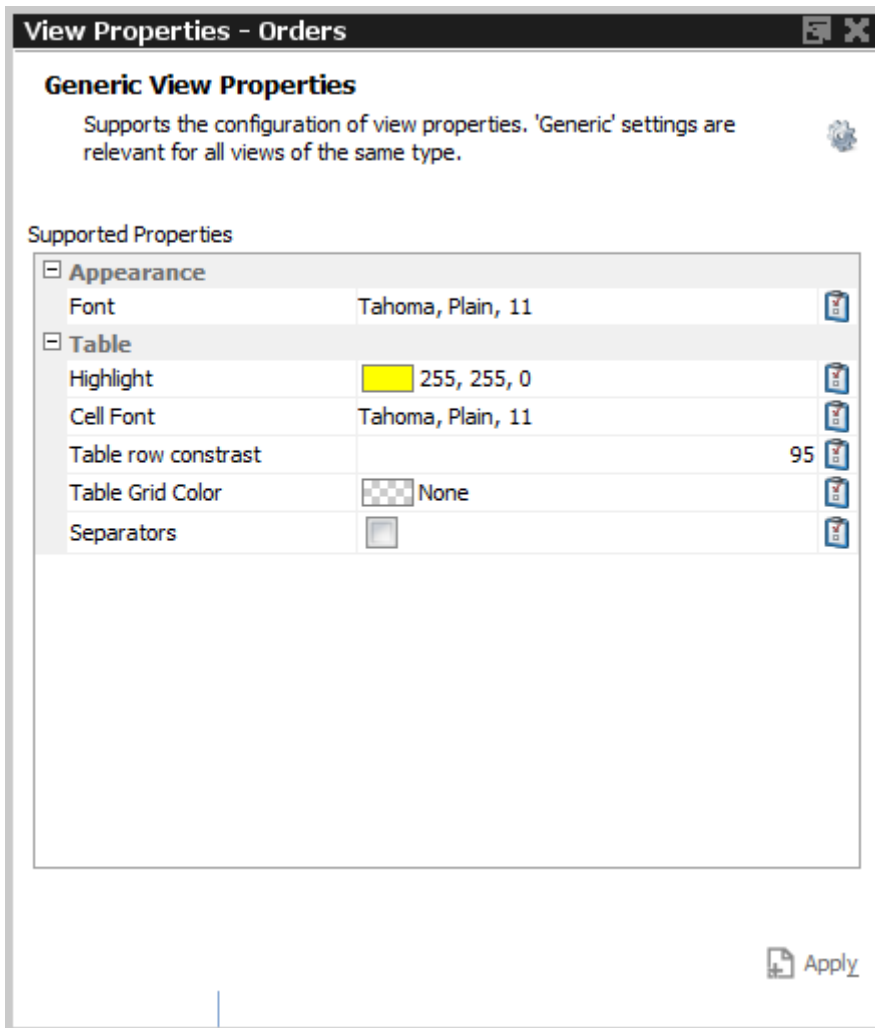


Fig. 43: View Preferences window

2.7 Master Login

The *Master Login* window is the first window which is presented to the user on the start of the application. The user must specify the name and credentials of the master login account, which is required to gain access to the application.

The *Master login* window does not grant access to any of the possible back ends - these accesses are defined via the Exchange Accounts view, which is available from the Welcome view once the user is logged in.

Master login name can be recognized by the extension “_GUI”. If the user forgets to add “_GUI”, the extension will automatically be added into the field by the application.

The *Info* box below the *Network Connection Settings* reveals the environment variables that are used by *Xetra Trader*, *Xetra Admin* and *Xetra Clearer*, if set. These variables don't need to be configured, but if they are, the application will use the user defined values instead of the defaults. The file system paths which are currently being used can be reviewed in this area:

GUI Version Check

In order to ensure the integrity and smooth operation of the *Xetra Trader*, *Xetra Admin* and *Xetra Clearer*, a version check guarantees that outdated versions of these GUIs will not connect to our trading environment.

Outdated versions could connect to our system in the past in case the Trading GUI stayed open over night during a software update, and in case a trader was using a locally stored link to our GUI. This will be detected by the version check.

If this happens, a new GUI instance via the Xetra-homepage needs to be started.

| Window Description | | |
|-----------------------------|---------|---|
| Field | Tab | Description |
| MarketPlace | | The MarketPlace the Master User is registered for. |
| Market | | The market the Master User is assigned to. This field is only provided in XetraTrader and XetraAdmin. |
| Master User | | Master account login name. |
| Master Password | | Master account login password |
| Client Key Password | | An optional password which can be used to decrypt the client key. The client key is required for internet connections only. |
| Login | | Log in |
| Login Without Settings | | Allows to login without using the settings of the last session. This function provides access to the GUI in the event of problems with the trader profile. |
| Logout | | Log out |
| Change Master Password | | Opens the Change Master Password dialog. Changes the password for the master login in sync with the exchange account password of the XetraExchange's T7. |
| Network Connection Settings | | A click onto this bar collapses/expands the Network Connection Settings pane |
| Leased Line | Network | Select Leased Line radio button for a leased line type of connection |
| Internet | Network | Select Internet radio button for the connection via the internet |
| Next | Network | Switches to the next tab of the Network Connection Settings wizard |
| No Proxy | Proxy | Select No Proxy for a direct internet connection |
| Use Proxy | Proxy | Select Use Proxy for a connection through a web proxy |
| Proxy | Proxy | HTTP proxy machine name |

| | | |
|-----------------------------------|----------|--|
| Proxy Port | Proxy | HTTP proxy port |
| Automatic Proxy Configuration URL | Proxy | URL for automatic proxy configuration |
| Detect Proxy | Proxy | Press this button to probe for an automatic detection of the web proxy |
| Client Key | Security | This is the file location of the client SSL public key file |

2.8 Configuration Menu

2.8.1 Exchange Accounts

The Exchange Accounts view supports the definition and review of connections to the various T7 trading system back ends for the logged in user. User names can be entered here and passwords can be changed.

The view is split into two areas: the upper table ("Current Associations") displays the current state of the sessions in the *Status* column. Connection problems are indicated in the *Message* column.

For users of *XetraTrader* only the connection to the market is shown here.

For users of *XetraAdmin* and *XetraClearer* (*Xetra* only) the connection to the market and to RDS is shown.

The lower table ("New Associations") allows the entry and modification of user names and passwords. Changes can easily be made by double clicking in the respective field of the table. The table supports the direct change of values in the table.

Changes can be applied using the *Apply* button. Outstanding password changes are then performed in the respective system.

Users of *XetraTrader* and *XetraAdmin* will only be able to configure the username and password for the T7 connection to the market.

2.8.2 Alert Configuration

The *Alert Configuration* provides an audio and visual event service to automatically trigger an audio signal (a .WAV file) or a popup window or both when certain events occur (e.g. matching of an order, order book deletion, risk limit exceeded).

It is possible to specify user defined filter criteria, which works in the same way as the generic filters in table views. Please refer to chapter 2.4.1 for a full description of these generic filters.

It is possible to specify additional fields for display in the alert popup (e.g. columns from the selected view), and it is possible to specify a background colour in order to provide an additional indication about the event.

2.8.3 Profiles

Most views in the T7 GUIs that display data in table format allow filtering on a profile of products or instruments. This can be a generated or user defined profile, the mechanism is described in chapter 2.5 in full detail.

All the views that support filtering on a profile, allow also the maintenance of these profiles. This is described in chapter 2.5 *Profiles*.

In order to provide easy access to this important filtering feature of the T7 GUIs, it is possible to access the *Profiles* editor from the *Configuration* menu.

2.8.4 Text Configuration

The *Text Configuration* provides a text field service to automatically fill certain text fields based on the settings by the user.

The configuration consists of the fields *Text1*, *Text2*, *MIOrdNo*, *Act*, *ClientID*, *InvID* and *InvQual*, where the Text field is the key of the configuration. This means, if a certain Text value was entered in the Text field of the Order Entry, all the rest of the above mentioned values (if configured) will be copied into the respective fields of the Order Entry.

It is possible to give priorities for the *Text Field Configuration* using the *Prio* field: The priority controls the order of suggestions in the drop down lists for the respective fields of the *Order Entry*.

The Text Field Configuration view features a *Product* column. The product value is used as a trigger, which automatically applies the respective configuration once that product is specified in the Order Entry.

The *TotQty* column allows specifying a default order quantity for automatic prefilling, once the specified product has been selected.

3 XetraTrader GUI

The XetraTrader application is provided to participants for the use by traders, market makers and participant trading view users.

3.1 Overview

Overview of the functions provided by *XetraTrader*. The functions are grouped into the categories Market, Trading, Own and Info & Support (please refer to the screenshot below):

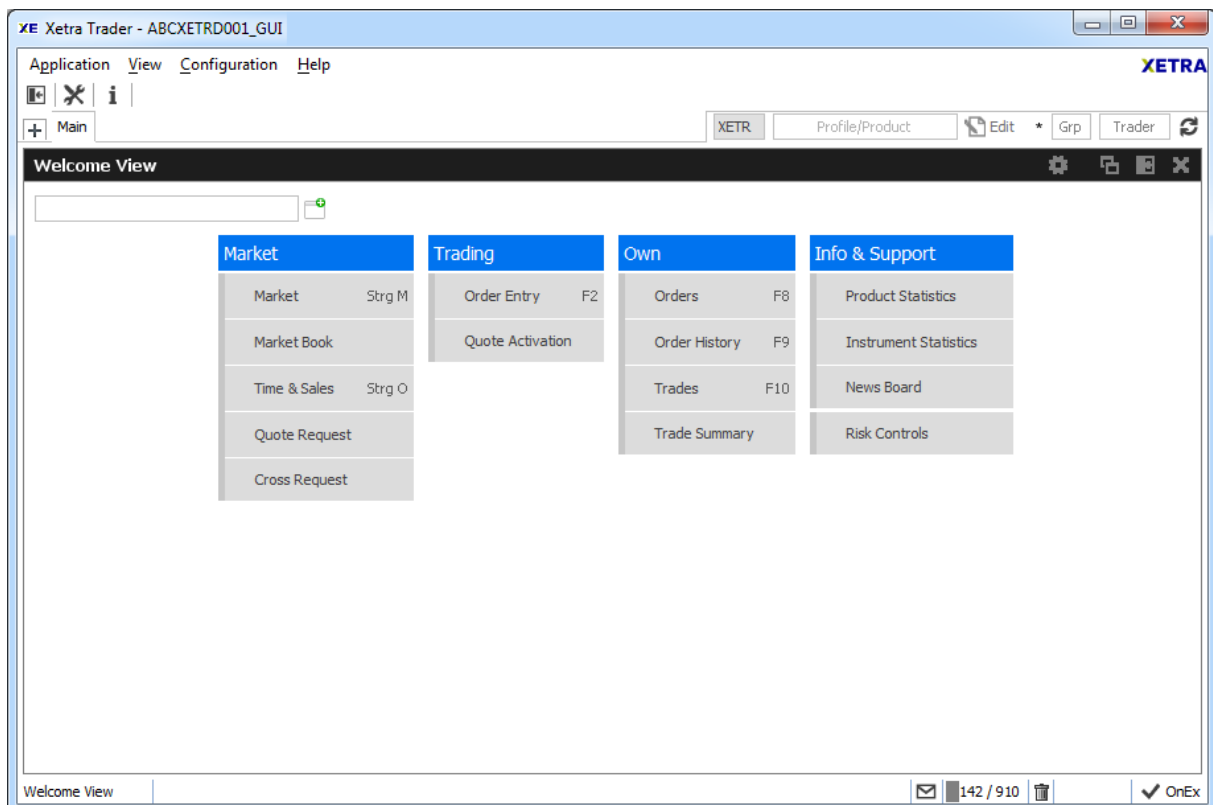


Fig. 44: Screenshot of the *XetraTrader* main window showing the *Welcome* view.

These functions are further described in chapter 3.2 Market, 3.3 Trading, 3.4 Own and 3.5 Info & Support.

Please don't miss chapter 2 *General GUI Concepts and Functions* which describes the general behaviour of this application. All the features explained there have been designed to improve your productivity.

3.2 View Descriptions: Market

Market comprises all GUI functions that deal with the display of current or statistical market information on a product and instrument level.

3.2.1 Market

The *Market* view displays the top of book (inside market) and market depth for selected instruments. Additional information which might be relevant for trading is also displayed, for instance settlement price information, quote request and cross request indications, daily high and low price, last price and more. Market Orders are displayed.

At least a product, instrument or profile must be specified, before the view displays any information.

When a single instrument is selected the *Market* view will display an additional instrument information header in a separate row above the *Market* view's main table. The intention of this extra information header is to show static information at once with dynamic data for the instrument. As the columns showing static data are removed from the display below, this allows for a compact and slim market view appearance. While default column setting of the static data header displays a ready-to-use data set, the view can be customized by using the usual Show/Hide Columns pop-up when right-clicking on a particular column.

The *Order Entry* can be opened or prefilled by clicks in the *Market* view.

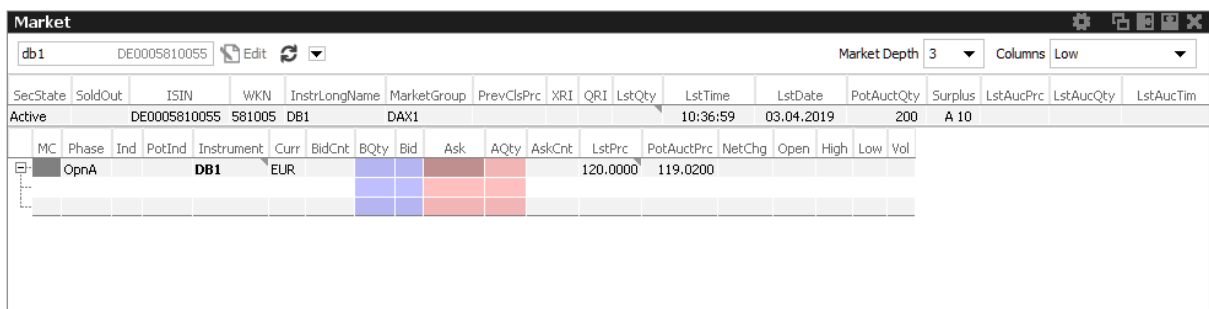


Fig. 45: Screenshot of the Market view (not all columns visible)

Columns Presets

The *Columns* filter controls which set of columns are displayed:

| Value | Description |
|----------------|---|
| Full profile | Displays all columns. |
| Medium profile | Displays a small set of columns relevant for trading. |
| Low profile | Displays only the minimum required columns for trading. |

Description of Columns

| Column | Description |
|--------|-------------|
|--------|-------------|

| | |
|---------------|---|
| MC | Display Market Conditions codes. Possible values: <ul style="list-style-type: none"> • F - Fast market • SA - Stressed Auto • SF - Stressed Auto+Fast |
| SecState | Security state, e.g. Active, Inactive, Suspended, Expired. |
| Phase | Instrument trading state |
| Instrument | Instrument ID |
| InstrLongName | Long name of instrument |
| Ind | Interruption indicator specifies whether a volatility interruption ('V'), an extended volatility interruption ('X') takes place. |
| PotInd | Potential interruption indicator. Indicates that the current auction price would lead to a volatility interruption at the end of the auction. This column is only filled in case of a scheduled auction (opening-, intraday- or closing auction). |
| PrevClsPrc | Previous day closing price |
| NetChg | Netted change of the last trade price (Lst) to the previous day closing price. |
| Vol | Total volume in the instrument traded in the course of the day. |
| Low | Daily low price |
| High | Daily high price |
| BidAvg | Average bid price of the price level |
| BidAcc | Accumulated bid quantity of the price level |
| BQty | Bid quantity |
| Bid | Bid price |
| Ask | Ask price |
| AQty | Ask quantity |
| AskAcc | Accumulated bid quantity of the price level |
| AskAvg | Average bid price of the price level |
| LstPrc | Last price |
| LstTime | Last trade time |
| LstQty | Last trade quantity |

| | |
|-------------|---|
| QRI | Quote request indicator |
| XRI | Cross request indicator |
| Curr | Currency |
| Exch | Exchange ID of the instrument |
| CumEx | CumEx indicator |
| AuctPrc | Indicative auction price. Only displayed during an auction phase. In case of yield traded instruments the yield value is displayed. |
| AuctQty | Quantity which can be executed at the indicative price - Entries appear only during an auction with an open order book or during an auction with a closed order book with market imbalance indicator set to 'ON'. The order book must be crossed. |
| Surplus | Remaining auction quantity, which can be accepted at the auction price and side of the surplus. |
| LstAucPrc | Last auction price |
| LstAucQty | Last auction quantity |
| LstAucTim | Last auction time |
| Trades | Total number of trades of the day (excluding Best Trades). |
| BidCnt | Number of orders in the accumulated bid order volume. |
| AskCnt | Number of orders in the accumulated ask order volume. |
| BESTLstPrc | Last price of BEST order. |
| BESTLstQty | Last trade quantity of BEST order. |
| BESTLstTime | Last trade time of BEST order. |
| VDOLstPrc | Last price of VDO Iceberg order. |
| VDOLstQty | Last trade quantity of VDO Iceberg order. |
| VDOLstTime | Last trade time of VDO Iceberg order. |

Display of the Market Depth

The *Market* view also features the display of the market depth for the displayed instruments. A click on the plus-sign (⊕) of the displayed rows, on the left hand side of the table, opens the display of the best bid/ask limits with accumulated volumes per instrument. The market depth display is described in full detail in the next chapter 3.2.2.

Similar to the *Market* view, the *Order Entry* view can be opened or prefilled by clicks in the market depth row of the *Market* view.

Actions supported by Market view

The *Market* view supports a number of context driven actions, which can be invoked by a left or right mouse click in the cells of the table:

Preselection of Order Entry

The *Order Entry* will be automatically prefilled by the selected instrument, Buy/Sell side and Limit if one of the following columns is clicked in the Market view: BQty, Bid, Ask, AQty. If the *Order Entry* is currently not open, it will automatically be opened. In case more than one *Order Entry* is currently in use, the *Order Entry* will not be prefilled, since it is not clear which one should be the target.

If the clicked is the Bid or Ask column, the Limit will be prefilled.

If the clicked is the BQty or AQty column, the Qty and Limit will be prefilled.

As part of the *View Preferences* the user can define whether the click on a price or qty cell should be treated as a Bid/Ask action or Hit/Take action. Please refer to chapter 2.6 for a description of the *View Preferences*.

Quote Request and Cross Request

A right click on any of the other cells of the *Market* view opens a context menu that provides functions for triggering of quote and cross requests.

Depending on whether the quote or cross request function is selected, a dialogue opens to ask for the quantity (cross requests) or quantity and side (quote request).

Please refer to chapters 3.2.5 and 3.2.6 for more information on *Quote Request* and *Cross Request*, respectively.

3.2.2 Market Depth

The market depth is displayed as part of the *Market* view. In order to see the market depth for a selected instrument, the plus-sign (⊕) on the left hand of the table can be clicked to expand the display of the market depth. The market depth, if opened, is then displayed below the top of book (inside market) row. The market depth can also be collapsed with the minus-sign (⊖).

In the screenshot below the top of book is displayed above the market depth for ALV (DE0008404005). The instrument name is only displayed in rows showing the top of book.

| Phase | BQty | Bid | Ask | AQty | Lst | Instrument |
|--------|------|-----|-----|------|-----|--------------------|
| ⊕ Cont | | | | | | ADS (DE0005003404) |
| ⊖ Cont | 201 | 17 | 18 | 201 | | ALV (DE0008404005) |
| | 163 | 16 | 19 | 50 | | |
| | | | | | | |
| ⊕ Cont | | | | | | BMW (DE0005190003) |
| ⊕ Cont | | | | | | CBK (DE0008032004) |

Fig. 46: Screenshot of the top of book and market depth display

The actions made by left or right click in cells of the market depth (prefilling of the Order Entry) are the same as for the rest of the *Market* view. Please refer to the previous chapter 3.2.1 for a description.

The maximum depth of market depth display can be limited via the *Market Depth* action in the Action menu of the Market view. This is the maximum depth which is accepted by the view - the depth might further be limited by the system limitation of the respective product.

3.2.3 Market Book

The *Market Book* view displays the bid and ask limits with volumes for a single instrument, ordered by and aggregated on price level, just like the expanded Market view. However, the key feature of the view is the display of own orders in correspondence to the current market situation (OwnBidQty, OwnAskQty).

The market depth display of the *Market Book* does not need to be expanded by hand - it is always expanded. This allows to setup a trading desktop with multiple *Market Book* views.

Market orders are also displayed.

Limitation: it is not the full depth which is displayed, the depth displayed is defined by the market depth delivered via MDI. Stop orders are not displayed.

| BidCnt | OwnBidQty | BidAccQty | BidAggrQty | Limit | AskAggrQty | AskAccQty | OwnAskQty | AskCnt |
|--------|-----------|-----------|------------|-----------|------------|-----------|-----------|--------|
| | | | | 402.0 EUR | 60 | 375 | 60 | 1 |
| | | | | 401.0 | 215 | 315 | 215 | 1 |
| | | | | 400.0 EUR | 100 | 100 | 100 | 1 |
| BidCnt | OwnBidQty | BidAccQty | BidAggrQty | Limit | AskAggrQty | AskAccQty | OwnAskQty | AskCnt |
| 1 | 77 | 77 | 77 | 399.0 EUR | | | | |
| 1 | 132 | 209 | 132 | 398.0 | | | | |
| 1 | 24 | 233 | 24 | 397.0 EUR | | | | |

Fig. 47: Screenshot of the Market Book view

| Market Book | |
|-------------|--------------------------|
| Column | Description |
| BidCnt | Number of Orders |
| BidAccQty | Bid accumulated quantity |
| BidAggrQty | Bid aggregated quantity |
| Limit | Price |
| AskAggrQty | Ask aggregated quantity |
| AskAccQty | Ask accumulated quantity |
| AskCnt | Number of Orders |

| | |
|--------------------------|--|
| OwnBidQty / OwnAskQty | Accumulated quantity of all own standard orders with a limit displayed in the Limit column. For iceberg orders the overall quantity is displayed. Quotes and orders of other traders within the same subgroup are not displayed. |
|--------------------------|--|

The following fields are only displayed during an auction:

| Market Book | |
|-------------|---|
| Fields | Description |
| AuctPrc | Indicative auction price. Only displayed during an auction phase. In case of yield traded instruments the yield value is displayed. |
| AuctQty | Quantity which can be executed at the indicative price - Entries appear only during an auction with an open order book or during an auction with a closed order book with market imbalance indicator set to 'ON'. The order book must be crossed. |
| Surplus | Remaining auction quantity, which can be accepted at the auction price and side of the surplus. |

If the order book is not crossed, AuctPrc, AuctQty and Surplus are not displayed, instead the top of book is displayed.

3.2.4 Time & Sales

The *Time & Sales* view displays an overview of all trades executed for a particular instrument within the specified time boundaries for the current business day.

| Table Description | |
|-------------------|--|
| Column | Description |
| Instrument | Instrument ID |
| TrdTime | Date and time Time of the match |
| Prc | Matched trade limit |
| Qty | Matched trade quantity |
| TrdTyp | Type of a trade. Possible trade types are e.g. BEST, REGULAR, VDO. |
| TrdInd | Trade indicator depicting essential trading conditions under which trade happened, e.g. EXCHANGE_LAST, HIGH-/LOW_PRICE, OPENING_PRICE, OFFICIAL_CLOSING_PRICE. |

| | |
|-------------|---|
| Curr | Currency |
| Aggr | Aggressor indicator (B, S or empty) |
| Buy | Number of Buy orders involved in the match |
| Sell | Number of Sell orders involved in the match |
| MatchStepID | Match Step ID of the trade |
| Exch | Exchange ID |

3.2.5 Quote Request

Quote requests are supported via the QR (Quote Request) button of the *Order Entry* and via the context menu in the *Market* view.

Quote requests are indicated in the CQRI and PQRI columns of the *Market* view and in the *Quote Request* view:

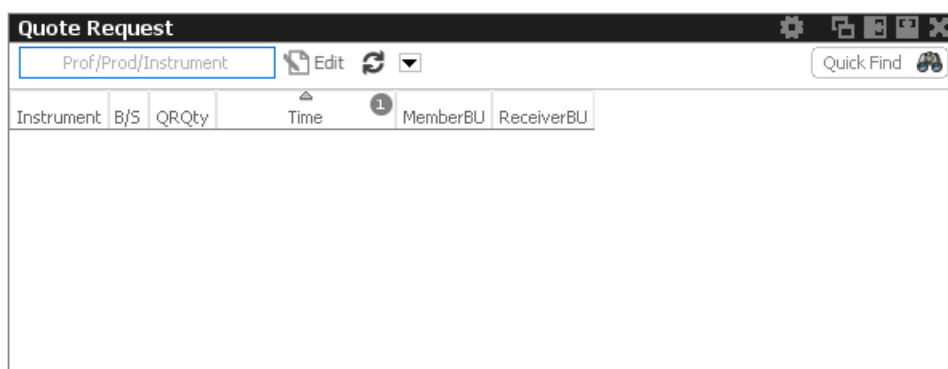


Fig. 48: Screenshot of the *Quote Request* view

3.2.6 Cross Request

The announcement of a cross request, i.e. the request to announce a pre-arranged trade to the regular market, is provided via a right-mouse click in the *Market* view table, and as an action of the *Order Entry*. Please refer to the *Market* view (chapter 3.2.1) and *Order Entry* (chapter 3.3.1) respectively.

Cross requests are displayed in the XRI column of the *Market* view and in a special *Cross Requests* view.

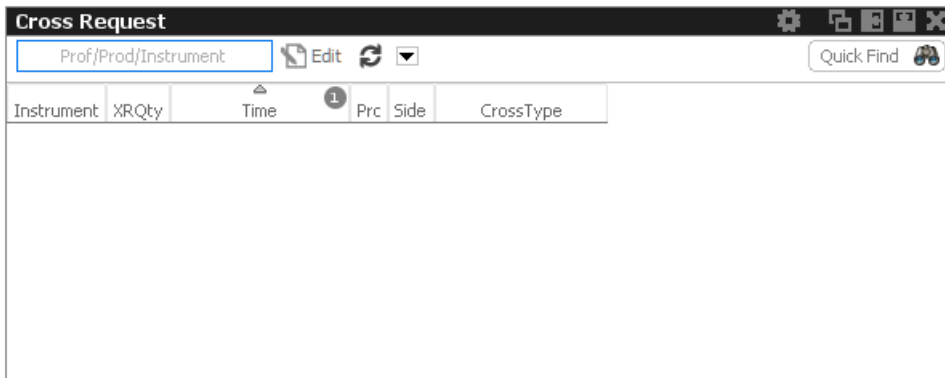


Fig. 49: Screenshot of the *Cross Request* view

| Table Description | |
|-------------------|--------------------------------------|
| Column | Description |
| WKN | WKN of the instrument (if available) |
| Instrument | Instrument ID |
| ISIN | ISIN of the instrument |
| LongName | Instrument long name |
| Qty | Matched trade quantity |
| Time | Time stamp of the cross request |
| Exch | Exchange ID |

3.2.7 Ext. Ticker Line

The *Ext. Ticker Line* displays external index prices of cooperation exchanges using a ticker line.

The *Ext. Ticker Line* displays the following information of the underlyings: UnderlyingID, LastTime and LstPrc. In case the available space for display of the underlying information is not sufficient, the *Ticker* will smoothly scroll the content of the underlying ticker, in order to cycle the display for all products of the selected profile.

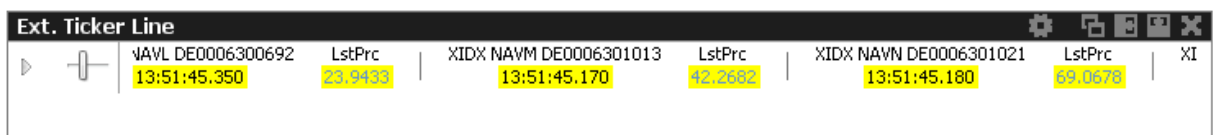
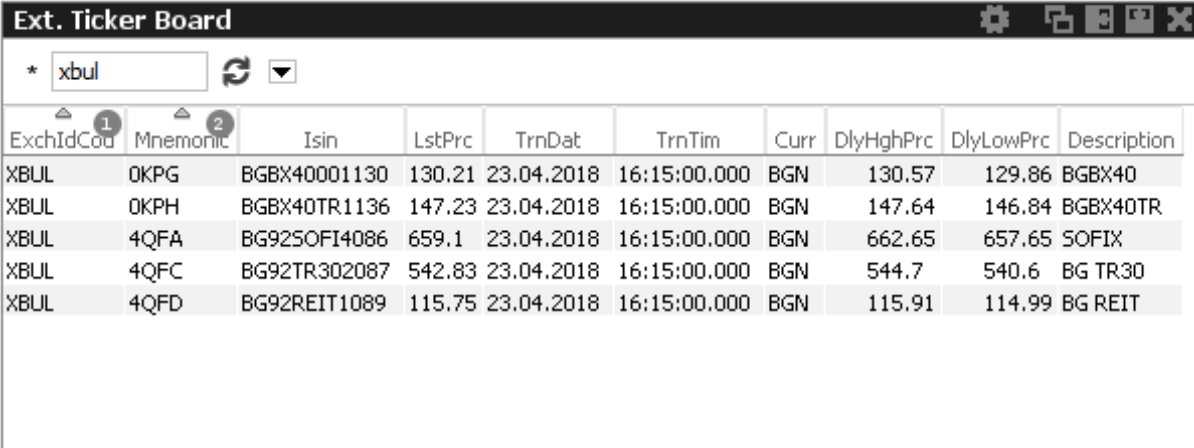


Fig. 50: Screenshot of the *Ext. Ticker Line*

3.2.8 Ext. Ticker Board

The *Ext. Ticker Board* displays external index prices of cooperation exchanges in a tabular view. The display is automatically updated via broadcast.



The screenshot shows a window titled "Ext. Ticker Board" with a search bar containing "xbul" and a refresh button. Below the search bar is a table with the following columns: ExchIdCod, Mnemonic, Isin, LstPrc, TrnDat, TrnTim, Curr, DlyHghPrc, DlyLowPrc, and Description. The table contains five rows of data for various external indices.

| ExchIdCod | Mnemonic | Isin | LstPrc | TrnDat | TrnTim | Curr | DlyHghPrc | DlyLowPrc | Description |
|-----------|----------|--------------|--------|------------|--------------|------|-----------|-----------|-------------|
| XBUL | OKPG | BGBX40001130 | 130.21 | 23.04.2018 | 16:15:00.000 | BGN | 130.57 | 129.86 | BGBX40 |
| XBUL | OKPH | BGBX40TR1136 | 147.23 | 23.04.2018 | 16:15:00.000 | BGN | 147.64 | 146.84 | BGBX40TR |
| XBUL | 4QFA | BG92SOFI4086 | 659.1 | 23.04.2018 | 16:15:00.000 | BGN | 662.65 | 657.65 | SOFIX |
| XBUL | 4QFC | BG92TR302087 | 542.83 | 23.04.2018 | 16:15:00.000 | BGN | 544.7 | 540.6 | BG TR30 |
| XBUL | 4QFD | BG92REIT1089 | 115.75 | 23.04.2018 | 16:15:00.000 | BGN | 115.91 | 114.99 | BG REIT |

Fig. 51: Screenshot of the *Ext. Ticker Board*

| Table Description | |
|-------------------|----------------------------------|
| Column | Description |
| ExchIdCod | Exchange ID code |
| Mnemonic | Mnemonic of external index |
| Isin | ISIN code of external index |
| LstPrc | Last Price of external index |
| TrnDat | Transaction date |
| TrnTim | Transaction time |
| Curr | Currency |
| DlyHghPrc | Highest price of the current day |
| DlyLowPrc | Lowest price of the current day |
| Description | Description of external index |

3.3 View Descriptions: Trading

The Trading area comprises all GUI functions that deal with the entry and maintenance of orders and risk functions for market makers.

3.3.1 Order Entry

The *Order Entry* view allows to enter an order for a single instrument. Traders may open and close as many *Order Entry* views as desired. The *Order Entry* view also supports the maintenance of the last entered order (that was entered using the current instance of the GUI) and it includes the *Hit*, *Bid*, *Take* and *Ask* functions. Also integrated is the display of the inside market. Please note the new field *ClientID* which becomes mandatory when using 'A' account. This numeric *ClientID* serves as a reference to the 35 characters long ESMA Client Identification Code. **Please note:** When trading bonds decimals will be displayed if the minimum tradable unit is less than one. For equities and warrants, quantity decimals will be entered and displayed in the same integer format as before.

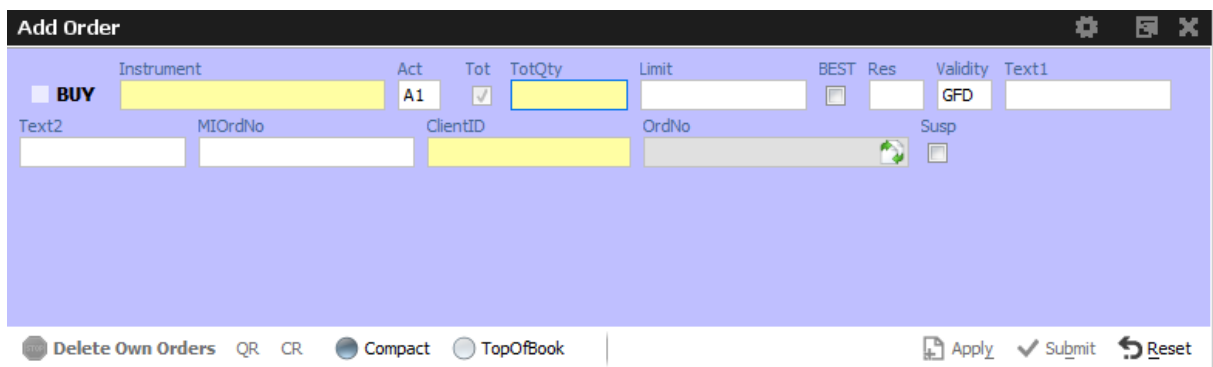


Fig. 52: Screenshot of the *Order Entry* view in compact mode and TopOfBook pane hidden

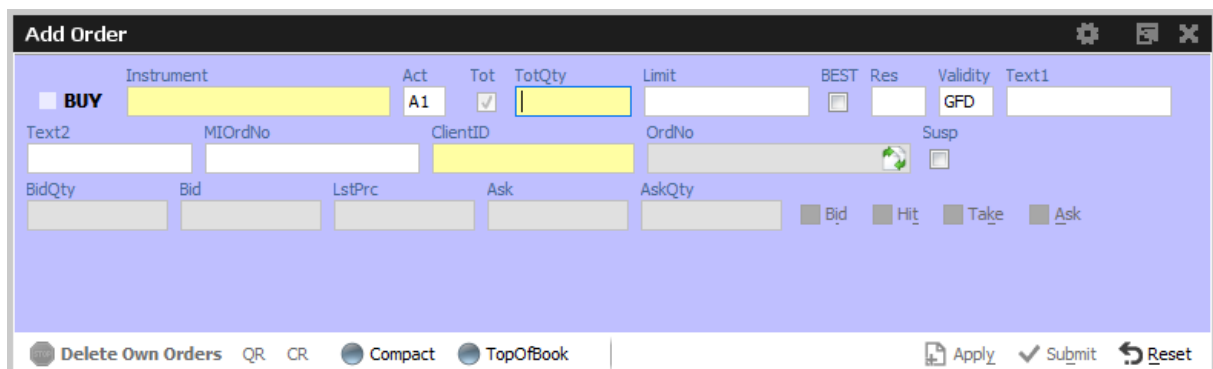


Fig. 53: Screenshot of the *Order Entry* view in compact mode showing the TopOfBook pane

Functions provided:

- Order Entry/Modify/Delete
- Bid/Hit/Take/Ask actions and price information.
- Cross Request Entry
- Delete Own Orders action (Panic button)
- Display of quantity infos and transaction size limits when mouse over TotQty field.

If all mandatory fields of the *Order Entry* are filled, the Apply button is enabled to apply the order. The Apply button submits the order, and in case the order entry was successful, the view switches

into Order Maintenance mode to either re-apply or modify the last submitted order. Reapplying the order by using button *Apply New* or its shortcut allows a frequent entry of the same order.

The Submit button does the same as the Apply button, additionally the Qty and Limit fields are cleared to indicate the order has been successfully submitted, and the view stays in Order Entry mode, not providing *Apply New* feature. If the Order Entry was opened externally, the view will be closed, if the entry of the order was successful.

If the Apply or Submit button is pressed, the buttons become inactive and will stay inactive as long as the order has been processed (either successful or unsuccessful). Normally it is obvious whether or not a particular order has been successfully submitted or not: the Submit button will clear Qty and Limit if the order was successfully processed, and the Apply button will switch the *Order Entry* into *Order Maintenance* mode in that case.

The *Order Entry* view can be prefilled by a click in the *Market* view and *Orders* view. If more than a single *Order Entry* has been opened in the current desktop, an external *Order Entry* window will be opened and prefilled.

After an order has been submitted using the Apply-Button, the view will switch into Order Maintenance mode, and the button group changes to "Delete", "Modify", "Apply New" and "Reset" buttons:



- Delete will delete the selected order.
- Modify will update the order which has been entered last on this view.
- Apply New will enter a new order with the current values.
- Reset will clear all fields and will then apply the saved view properties.

Additional fields which are not required in the current context are automatically hidden if the *Order Entry* is in compact mode (which is the default). The underlying fields and top of book fields are displayed on request of the user:

| Field Option | Function |
|--------------|---|
| Compact | Toggles the display of additional order fields. |
| TopOfBook | Provides the informational top-of-book display fields for quick trading actions: Hit, Bid, Take, Ask. |

The optional forms can be expanded, by default these forms open in the collapsed state. The collapsible state can be saved.

Order Entry - Standard Fields:

| Field | Description |
|----------|-----------------------|
| Buy/Sell | Buy/Sell code button. |

| | |
|--------------|--|
| Instr | Instrument short name, or WKN, or ISIN. The context menu offers the following columns of information: Instrument short name, ISIN, WKN and Instrument long name. The entry field allows the entry of any one of these items, as long as the selected value refers to exactly one single instrument. |
| Act | Account. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| Tot | Checkbox to indicate that the Qty field will represent the order total quantity, disregarding any partial matches. |
| Qty/TotQty | Quantity of the order. If the "Tot" field is checked, this is the total quantity of the order. |
| Limit | Limit and Currency of the Order. Market orders are indicated by a blank limit field. |
| BEST | Checkbox to indicate order qualifies for BEST execution principle. Checkbox only enabled for regular market and limit orders submitted with the Trading Capacity (account) 'Agency'. |
| Res | Order restriction: AOO - Auction only. BOC - Book or Cancel. CAO - Closing Auction. ICE - Iceberg Order or VDO Order. IAO - Intraday Auction. OAO - Opening Auction. OCO - One Cancels the Other. STP - Stop order. |
| StopPrice | Trigger price for OCO and Stop orders. Only visible for stop order (please refer to the <i>Res</i> field to select a stop order). |
| TrailStopPct | Trailing stop order, trailing distance in percentage of last price. |
| TrailStopAbs | Trailing stop order, trailing distance price value. |
| VDOLimit | "Second limit" price up to/down to a bid/ask VDO can be executed at the MidPoint price. |
| RndLowQty | Iceberg order lowest random quantity value. |
| RndHighQty | Iceberg order highest random quantity value. |
| InitQty | Initial iceberg display quantity. |

| | |
|----------|---|
| Validity | The validity of the order: FOK - Fill Or Kill GFD - Good For Day GTC - Good Till Cancelled GTD - Good Till Date IOC - Immediate Or Cancel GTX - Good Till Crossing/Auction (only for VDOs). |
| Date | Date of the validity in case of GTD. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| OrdNo | Order number generated by T7. |

Order Entry - Extended Fields:

| Field | Description |
|---------|--|
| CrossID | The CrossID used for Self-Match Prevention (SMP). Both orders and/or quotes, that origin from the same business unit, must contain the same CrossID value for a SMP action to take place. Orders and quotes actively participating in the order book are verified for SMP during the instrument state "Continuous" only. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |

Order Entry - TopOfBook:

| Field | Description |
|-------------|-----------------------------|
| Bid, BidQty | Best bid limit and bid qty. |
| LstPrc | Last trade price. |
| Ask, AskQty | Best ask limit and ask qty. |

Order Entry - Actions:

| Field | Description |
|-------------------|---|
| Delete Own Orders | Deletes all types of own orders (standard, lean and short order message layout) for the currently selected instrument in all Account types. |
| CR | Button: Trigger cross request for the selected instrument and Qty of the Order Entry. |
| Bid | Enter a Buy order at the best bid limit. |
| Hit | Enter a Sell order at the best bid limit. |
| Take | Enter a Buy order at the best ask limit. |
| Ask | Enter a Sell order at the best ask limit. |
| Compact | Toggle the display of the hidden fields and the extended fields. |
| TopOfBook | Toggle the display of the TopOfBook field group. |
| Reset | The <i>Reset</i> action completely clears the <i>Order Entry</i> , and applies default settings, if available. |

TotQty, Close on Submit, and Close on Modify preset

The TotQty preset in the *View Properties* of the *Order Entry* controls whether or not the *Tot* checkbox is selected on the modification of an order from the *Orders* view.

Close on Submit controls whether or not the *Order Entry* should close, if an order has been successfully submitted using the *Submit* button.

Close on Modify controls whether or not the *Order Entry* should close, if an order has been successfully modified using the *Modify* button.

In order to set a default, press *Apply* and *Save as default* in the *View Properties*, and press *Save Settings* on the *Main* view.

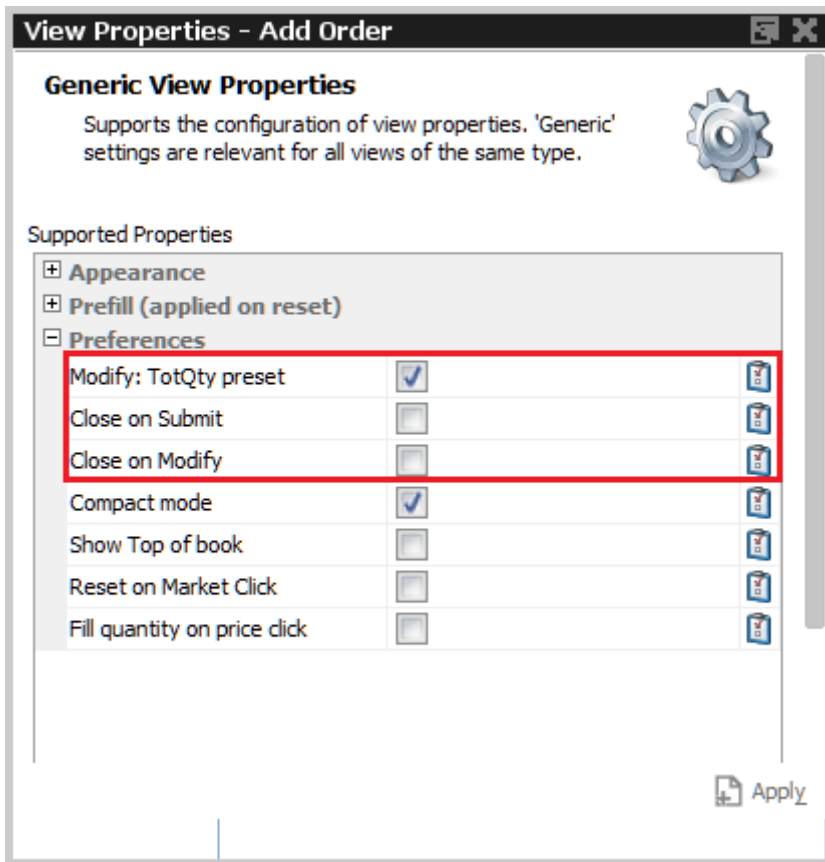


Fig. 54: Screenshot of the *View Properties* view

Order Modify

Since with XetraTrader the *Order View* could also modify an order, no special *Order Modify* view window is used to change details of an existing order. Please refer to the description of the *Order Entry* window for details of the order modification.

The persistence indicator will not be changed on the modification of an order - this applies especially to orders which have been entered using a third party application.

Suspend/Resume of Orders

Suspend/resume of orders is supported in *XetraTrader*:

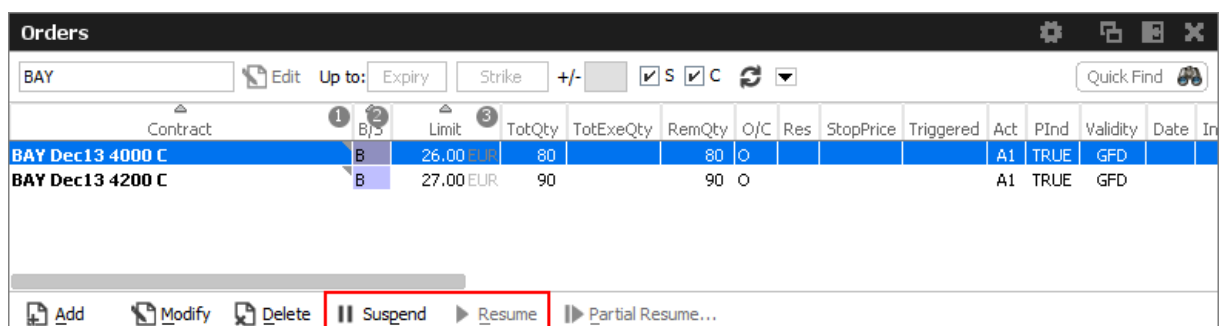


Fig. 55: Screenshot of the *Orders* view showing the *Suspend* and *Resume* actions

Suspending an order technically deletes that order from the market, and resuming of an order is technically the entry of a new order with identical properties.

The suspend flag *Susp* of the *Order Entry* can be selected for new orders, but is display only for the maintenance of an order. Please toggle the suspension state of the order via the *Suspend* and *Resume* buttons of the *Orders* view.

Suspended orders will not be removed immediately from the *Orders* view if the user logs out or closes the GUI. These orders will be removed:

- at the end of the day
- in the event of a technical problem of the GUI/GMC server

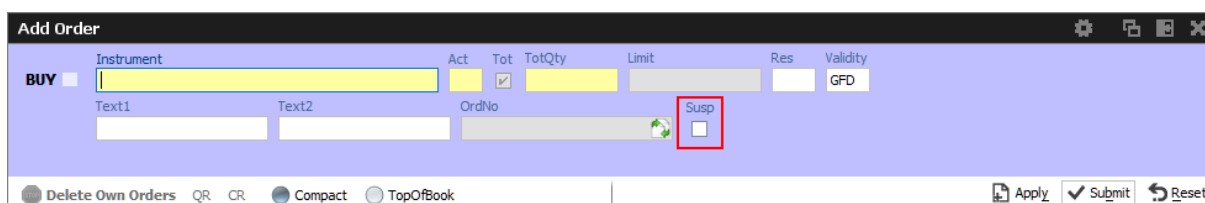


Fig. 56: Screenshot of the *Order Entry* showing the *Susp* checkbox

Self-Match Prevention (SMP)

Self-Match Prevention allows members to prevent unintended crossing of their orders and quotes.

For intended crossing, cross request functionality is offered by XetraT7. With the cross request functionality, an exchange participant is allowed to enter relating orders and quotes which could immediately match against each other. The precondition is that the participant enters a cross request prior to entering orders or quotes which could match immediately signalling its intention to the market.

However, the legal situation in the origin country of several exchange participants does not allow crossing at all. With the *Self-Match Prevention* functionality participants are able to avoid the execution of an order/quote against another order or quote from the same business unit in the same instrument.

For this functionality an optional field *CrossID* is added to all order and quote transactions. Both orders and/or quotes, that origin from the same business unit, must contain the same *CrossID* value for a SMP action to take place. Orders and quotes actively participating in the order book are verified for SMP during the instrument state "Continuous" only.

In order to allow traders to use the SMP functionality within the T7 Trader GUI, the *Order Entry* features the *CrossID* field in the extended layout (press the *Compact* button of the *Order Entry* for this field to show up):

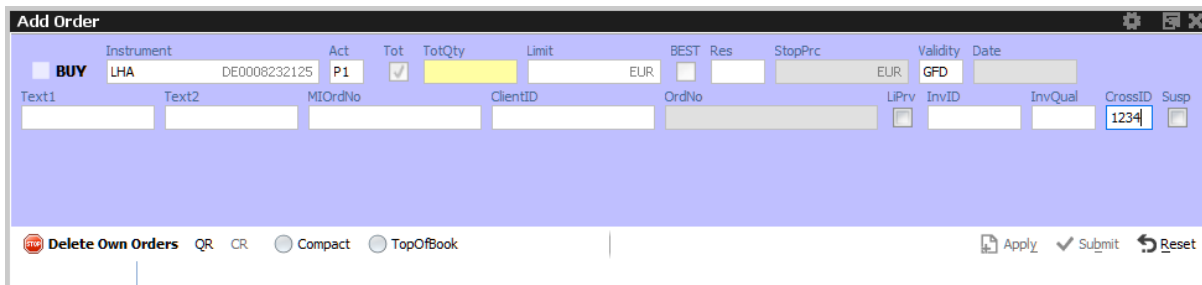


Fig. 57: Screenshot of the *Order Entry* showing the *CrossID* field

This field is also provided in the *Orders* and *Order History* view.

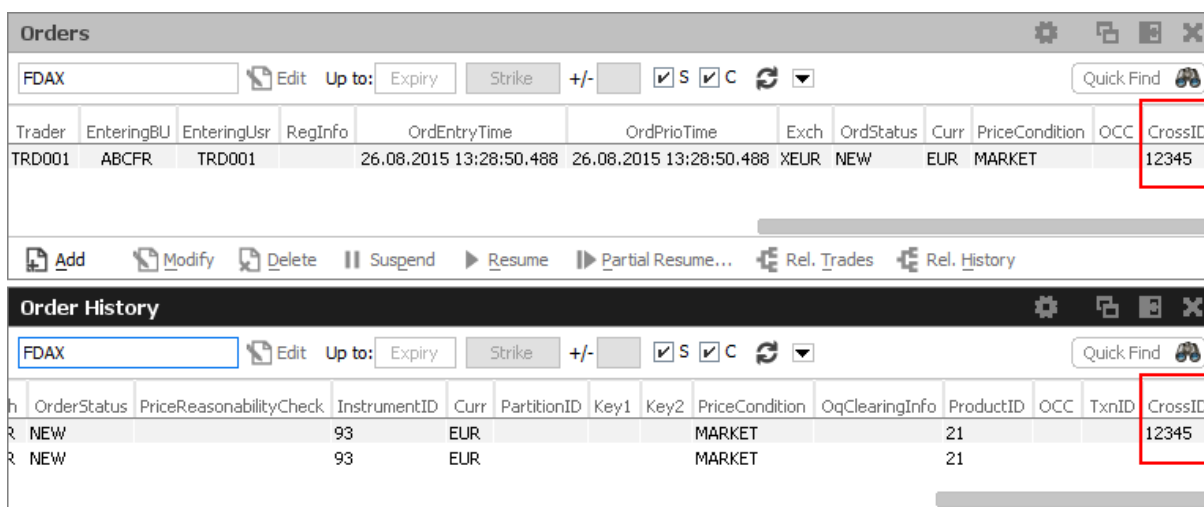


Fig. 58: Screenshots showing the *CrossID* column of the *Orders* and *Order History* view

These HistoryType values inform about the SMP event:

- Self Match Cancel: This event is set for an incoming order which triggers the SMP.
- Self Match Delete: This event is set for an order already in the book, which is triggered by the SMP.

3.3.2 Quote Activation

The *Quote Activation* view enables market makers for a specified product or profile:

- to review the current quote activation status
- to change the quote activation status

In order to aid market makers in the configuration of the activation status, bulk-edit operations can be performed by filtering on the view.

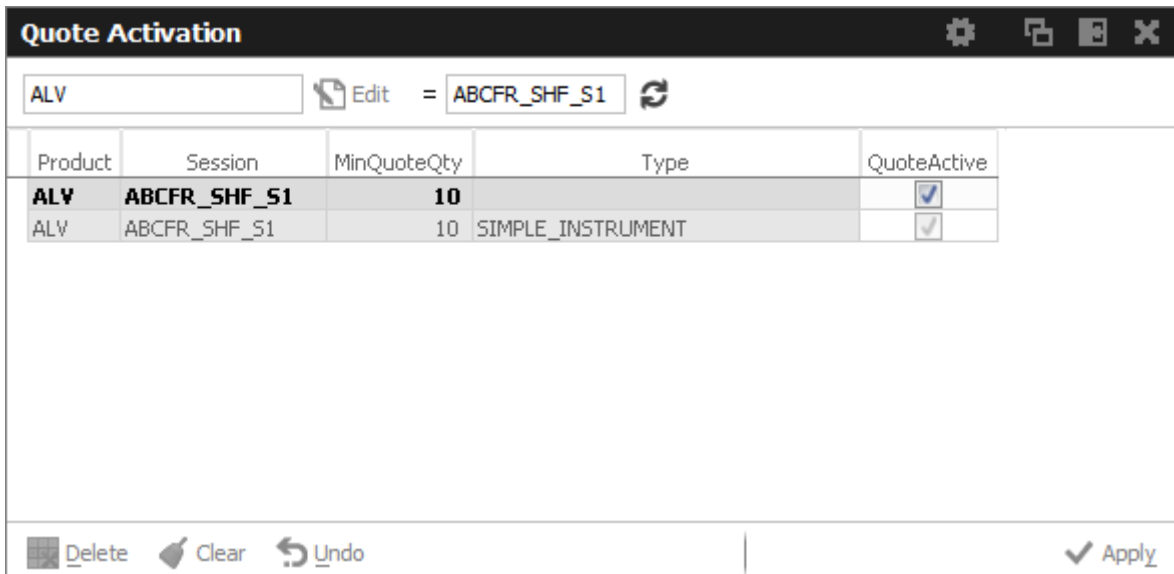


Fig. 59: Screenshot of the *Quote Activation* view

The *Quote Activation* view understands two different levels of scope for the activation status:

- session × product.
- session × product × instrument type.

It is possible to change the quote activation state on the *Market Maker Protection* view by clicking into the respective *QuoteActive* checkbox of the table.

It is not possible to define the quote activation status for a given session both on "product" and "product × instrument type" level. You need to decide which one to use.

Important: in the *Quote Activation* view only the rows in bold are active. The greyed out rows are inactive and should be considered as non-existent.

The *Quote Activation* scope parameters:

| Field | Description |
|-------------|--|
| Product | Product. |
| Session | A session identifier. |
| MinQuoteQty | Minimum quote quantity. |
| QuoteActive | Displays the current activation state of the quote, if the <i>instrument type</i> is set: Active or Inactive. This view is not updated by broadcast, the display can be refreshed using the refresh button. |
| BoC Quote | Flag for <i>Book or Cancel</i> restriction for Quotes. Can only be set when <i>QuoteActivation</i> is done, i.e. <i>QuoteActive</i> checkbox is ticked. Afterward <i>BocQuote</i> checkbox is unticked again. |

Values can be changed by a double click on the respective cell. The change of multiple lines is supported using the *Modify* button.

Changes are immediately effective.

3.3.3 Xetra T7 Entry Services

The *T7 Entry Services* (TES) view supports the entry of bilateral off-book transactions in tradeable instruments. With this service, participants benefit from the customized trading in Xetra markets and the advantages of standardized settlement services provided by Deutsche Börse Group.

The *T7 Entry Services* view offers entry of two TES Types, OTC and LIS:

- OTC: bilateral off-book trading functionality of Cash Market without any price and quantity validation and with no reporting obligation is implemented as a new TES type OTC.
- LIS: TES type LIS to support execution of pre-arranged trades (on-exchange off-book trade entry). TES Type LIS must fulfil *large in scale* requirement, specific block size and price validation for cash market.

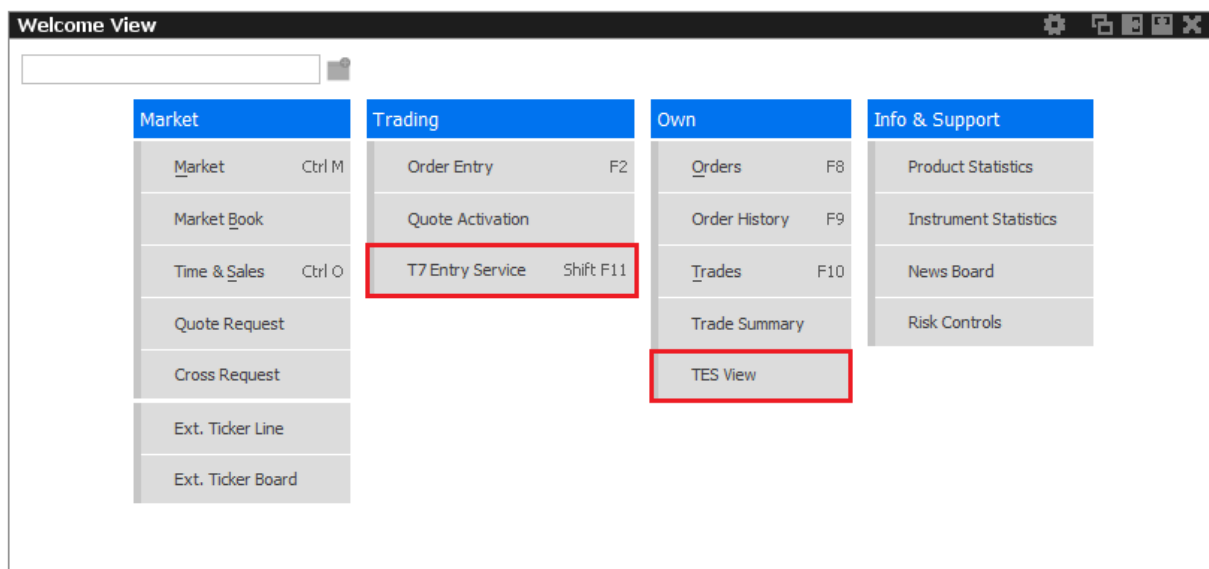


Fig. 60: Screenshot of the *Welcome View* highlighting T7 Entry Services views

T7 Entry Services facts in short:

- The person entering a TES trade is called the *Initiator* of the trade. The counterparty is called the *Approver*.
- The full user ID is required to specify the approving (counterparty) trader of a TES trade.
- Bilateral trades can be started on the Buy and on the Sell side.
- In order to inquire on a TES trade, the traded product must be specified along with the TESTr-dID. However, it is advised to simply double click the respective TES trade in the TES View, in order to prefill the TES Entry, which is much more convenient.

- Completed TES Trades, i.e. state EXECUTED, are displayed in the *Trades* view as well. TES Trades in other states only in TES View.
- Two entry modes - *Simple* (default) and *Broker*. The former allows quick entry of mandatory TES data while Broker mode allows to view and change more (clearing) data.
- Auto Approval - GUI definable Auto Approval rule for Approver.
- Due to regulatory requirements, Regulatory Market Makers are obliged to flag orders and quotes entered under a market making agreement for liquidity provision (liquidity provision activity).
Flagging is done by setting *LiPrv* field accordingly. According to related ESMA guidelines for MiFID II, following scenarios of *liquidity provision activities* are defined:
 - Participant performing algorithmic trading to pursue a market making strategy (Trading Capacity set to M or P).
 - Participant performing a *liquidity provision activity* (not denoted as a market making strategy), dealing on own account (Trading Capacity set to M or P).
 - Participant performing a *liquidity provision activities* executes orders on behalf of clients (Trading Capacity set to A).

TES Trade states

The following trade states of TES trades can be observed which inform about the current state of the TES transaction:

| TES State | Description |
|---------------|---|
| Pending | The TES trade has been entered and is waiting for approval of the counterparty. |
| Approved | The TES trade has been ratified by the counterparty, but approval of other counterparties are still outstanding. |
| Auto_Approved | The TES trade has been automatically approved by executing an Auto-Approval rule defined for a particular trader and product. |
| Executed | The TES trade has been fully ratified. |
| Deleted | The TES trade has been deleted. |
| Suspended | The TES trade has been entered in suspended state, for activation at a future point in time. |
| Reversed | The TES trade has been reversed. |

T7 Entry Services - Bilateral, Simple & Broker Mode The Xetra T7 Entry Service view supports the entry of regular block trades of type *OTC* and *LIS* of bilateral TES trades in a single view.

The TES Entry view is split into two sections, the first section describing the kind of tradeable which is dealt with (the red box of the following screenshot depicting this area), and the second section describing the counterparties which take part on the trade (the blue box below):

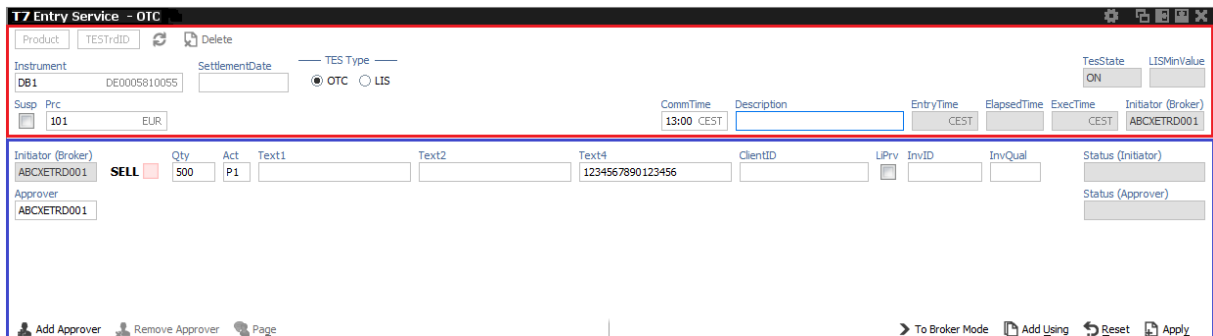


Fig. 61: Screenshot of TES Entry view in Simple Mode highlighting tradeable section and counterparty section

This bottom area in blue is switchable, in order to allow for addressing multiple counterparties.

The view has two main operating modes. A *Simple Mode* for the entry of a bilateral TES trade (which is the default), and a *Broker Mode* which is used for a more verbose view on the (clearing) data of participants. In *Broker Mode* it is also possible to enter a bilateral trade, and in fact you can switch between these two modes to allow for different representations of the trade you are about to enter. The following screenshot shows the TES Entry view in the more flexible *Broker Mode*:

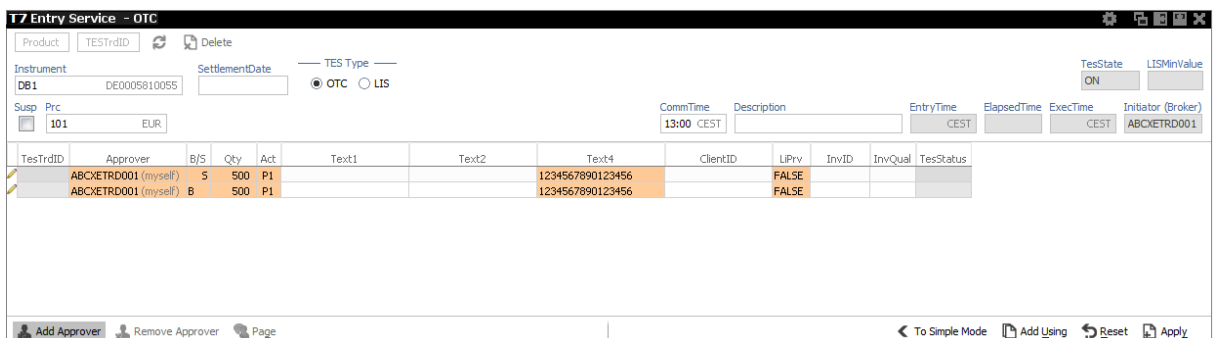


Fig. 62: Screenshot of the TES Entry view in Broker Mode

In this mode, each counterparty is displayed as a single row in the table of this window.

The TES Trade Entry provides a view property to allow to set the default mode to Simple or Broker mode. The default mode is Simple.

The table can be edited directly: a double click on a cell puts the table into edit mode and starts the editing of the clicked cell.

Approver column

The Approver column on the T7 Entry Services tabs indicate the Approver of this counterparty row. The approver is identical to the owner of that row.

TES: In-house trades in Simple mode

The TES Trade Entry supports the entry of in-house block trades also in Simple entry mode. But please be aware that the trade is entered and automatically approved and executed immediately at the push of the Apply button. The implication of the Simple entry mode is, that the clearing

information provided will also be used for the approver side. This could be desirable. However, the user is warned about this fact via this dialogue, and can choose to accept that and enter the trade (Yes) or stop and switch into the Broker mode instead (No):

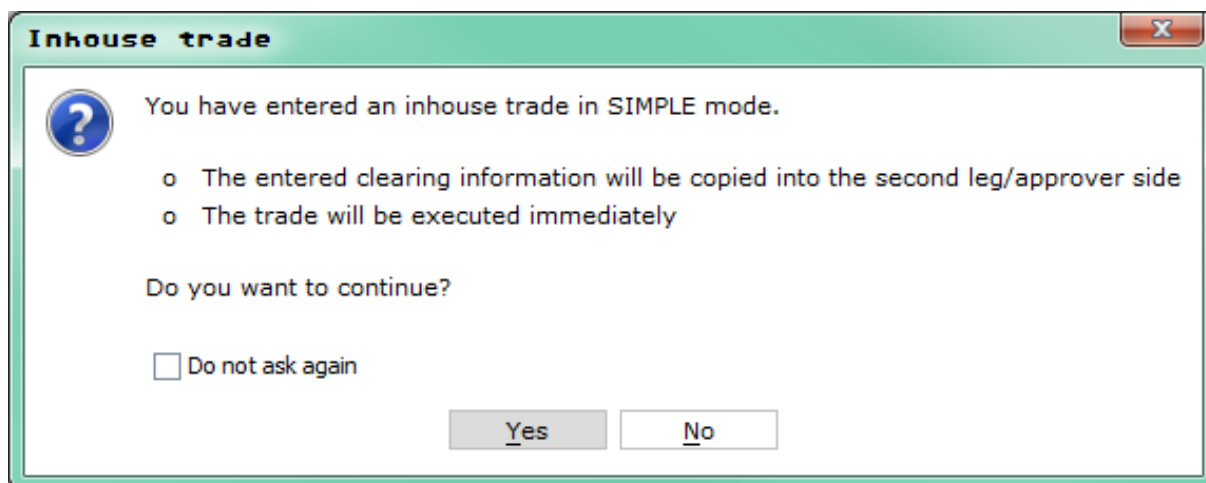


Fig. 63:

TES Alert: Approval Notification

Once a TES trade has been entered, an approval broadcast is submitted to the target traders. As long as a Xetra trader has the T7 Xetra Trader GUI open at that time, the corresponding TES trade will be indicated in the Trader GUI of the Approver via a confirmation popup:



The Approver can then click the *Show TES View* button to show the trade in the *TES View*. A double click on the trade then opens the TES Entry, ready for approval of the TES trade.

TES: Full UserID Required for Approver field

The full UserID needs to be specified for the counterparty side. Instead of a UserID, a nickname may be chosen instead, if the nickname has already been registered using the *TES Counterparty* view.

For convenience, the context popup of the Approver field provides a list of traders which are already registered by the TES Counterparty view. It is also possible to type the member ID or the first letters of a nickname while the popup is open to quickly find the respective counterparties from that list. The popup provides the following information: Counterparty, Nickname and Comment.

TES: User Group and User Level

The User Group and User Level concept of the T7 trading system also apply to TES trades. The currently assigned user level and user group of a trader which currently impacted the on-exchange trading activities therefore also effects the TES trading activities of this user.

Overview of the user levels in the light of TES trading:

| | |
|-------------|---|
| Trader | A trader is an individual admitted for trading at the exchange. Unlike a head trader and supervisor, a regular trader cannot see the TES trades of other traders from the same user group or any other user group or business unit. |
| Head trader | A head trader is part of a user group and may see, maintain or approve TES trades of traders in the same user group in Xetra Trader - granted, that the required entitlements are assigned. |
| Supervisor | The supervisor user level may see, maintain or approve TES trades of all users of the same business unit - granted, that the required entitlements are assigned. |

TES: Trade Commencement, Entry, Approval and Execution Time

Introduction of TES Times: Time of Commencement, TES Entry Time, TES Execution Time:

- The Time of Commencement is the time of trade agreement (outside the system) between the counterparties and can be entered manually by the initiator. The Time of commencement cannot be in the previous day and cannot be more than 24 hours older than the TES entry time for TES types *LIS* and *OTC*.
- The TES Entry Time is the time of the technical entry of the TES trade into the T7 system, and will be automatically assigned by the exchange.
- The Side Approval Time is automatically assigned by the exchange at the time of the respective side's approval.
- The TES Execution Time is given to all executed sides once the trade is fully approved.


The Time of Commencement is the only time which can be entered manually. The time zone must be CET/CEST. Since it is foreseeable that some users from other time zones could mistake their local time with the system time, the TES Trade Entry displays the difference of the given time to the current system time:



Fig. 64: Detail of TES Entry screen highlighting Commencement Time field

A quick look onto that special display ("diff: 44 minutes ago") reduces the possibility of an error.

TES: Bulk Load (Import)

The *TES* facility features a special import function to upload TES trades. This import view is accessible via the view's import function - either by clicking  and choosing *Import* or via GUI menu *View->Import*.

Using the *Import*-button on the *Import* view, a csv-file can be selected for import (the separator character being the semicolon, regardless of any regional settings in the operating system used). The *GUI* then reads the file and displays the to be imported TES trades in the table for review. Errors that are found while reading the import file are indicated by a red background color. A click on such a red line will show a detailed message about the problem in the status bar. The data in the table is not directly editable - errors should be fixed in the file to be imported.

After the table has been checked for errors, the imported file can be applied using the *Apply* button.

Please note: Template files for this bulk load functionality can be downloaded from the landing page.


TES Bulk Load: Auto Approval

TES trades will be automatically approved during the import, if the fields required for approval are filled in the import file for the counterparty side: Act (S) and TraderID (S). For details please refer to 4.2.5 TES Auto Approval Rule.

TES: Page Broker

Once the TES trade is approved by all participants, neither the initiator nor any counterparty can do any change to the TES trade anymore. Since to err is human, we provide a means to let the counterparty inform the broker in the event the trade details are incorrect.

In that event a popup will open in the T7 Trader GUI of the initiator displaying the request of the counterparty to update details of the trade.

In order to indicate that message was received by the counterparty, a green checkbox icon () is displayed next to the delivered message:

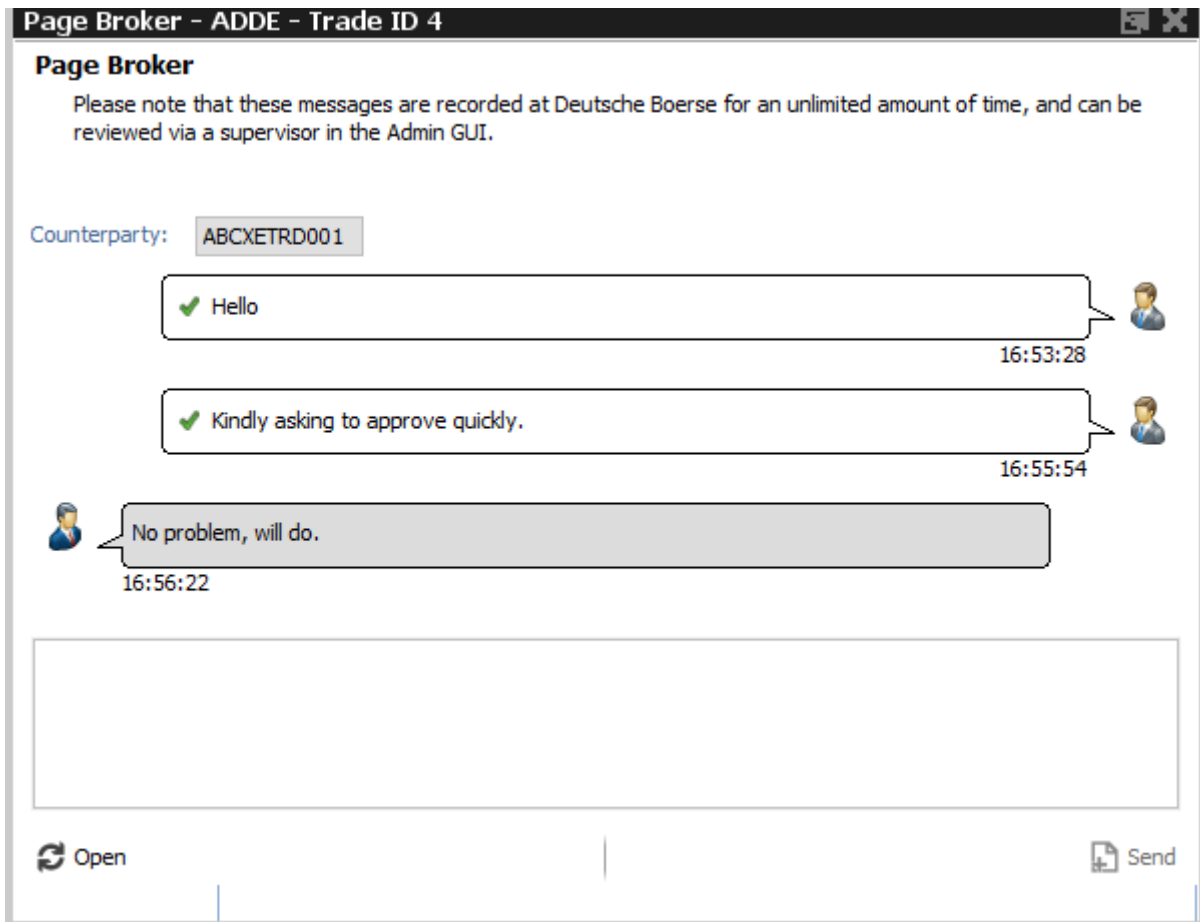


Fig. 65: Screenshot of the *Page Broker* dialogue

Please note that these messages are recorded at Deutsche Boerse and are provided to the member on request.

TES: Description Field

The Initiator of a TES trade can not specify the clearing information fields for the counterparty, e.g. Text1, Text2, MIOrdNo. In order to compensate for that, a new Description field is provided, which allows the initiator to give a hint to the counterparty about the background of the trade:



Fig. 66: Screenshot of the *TES Trade Entry* view highlighting the *Description* field

TES: Display of LIS Minimum value

Every TES trade of type LIS must fulfill instrument specific block size validation. For each TES trade side the TES trade price multiplied by the side quantity must be equal or higher than the *LISMinValue*. *LISMinValue* is filled for TES Trade Type LIS only.



Fig. 67: Screenshot of the *TES Trade Entry* view highlighting the *LISMinValue* field

Trade IDs (TES ID, TES Side ID, TesTrdID)

While the TES ID and TES Side ID are valid for an unratified TES Trade, the Deal IDs and Deal Item IDs are assigned once a TES trade has been executed (fully ratified).

The following table gives an overview and description of these IDs:

| Field | Description |
|--------------|--|
| TES ID | This ID references the whole TES trade with all counterparties involved for a given product. |
| TES Side ID | The TES Side ID refers to a specific TES trade approving side of the TES trade. |
| Deal ID | One unique Deal ID is assigned for the whole TES Trade. |
| Deal Item ID | A unique Deal Item ID is assigned for each TES trade side. |

TES: Entry of suspended Block Trades

GUI supports entry of suspended TES trades. The suspended checkbox must be ticked for that during entry of the TES trade. It is possible (but not mandatory) to specify a Price for a suspended TES trade.



Fig. 68: Screenshot of the *TES - Trade Entry* view showing the entry of a suspended TES OTC trade

This trade is then visible in the TES View in state *SUSPENDED*, and can later be *unsuspended*, which then starts the approval process.

Field description of the TES Trade Entry view:

| Field | Description |
|--------------------|--|
| Product TESTrID | The TES Product in combination with the TESTrID is used to identify a TES trade. The TESTrID is assigned by the system after the trade has been entered. After the TES Trade has been entered, the trade can be retrieved using these fields. |

| | |
|----------------|--|
| TesState | <p>The TES activity state:</p> <ul style="list-style-type: none"> • On Enable all TES activities (TES trading, TES deal cancellation) • Halted Disable TES trading activities (TES entry and side approval). TES deal cancellation is still possible. This state will be used in exceptional situations. It is used to indicate that the TES trading is stopped temporarily. • Ended Disable TES trading activities (TES entry and side approval). TES deal cancellation is still possible. This state will be used at the end of the day. It is used to indicate the end of the current trading day. • Off Disable all TES activities (TES trading, TES deal cancellation). |
| LISMinVal | TES Type LIS only: <i>Large In Scale</i> minimum value. Usually a result of price times quantity. |
| Instrument | Tradeable instrument. |
| Settlementdate | Settlement date (optional). |
| TES Type | TES Type of the TES Trade - OTC or LIS (large in scale). |
| Susp | Checkbox to mark or unmark a TES trade as suspended. |
| Prc | The price of the TES trade. Only multiples of the tick size of the product are allowed. |
| CommTime | Time of Commencement. Time of day when traders have agreed on a deal via phone or chat. Needs to be entered in central European (summer) time (CET/CEST). |
| Description | The Description field allows the Initiator to pass some background information about the TES trade to the counterparties. |
| EntryTime | The TES Trade entry time. |
| ElapsedTime | The elapsed time since the entry of the TES trade. |
| ExecTime | The TES Trade execution time. |
| Initiator | This is the person entering the TES trade. |
| TesTrdId | Trade ID of an executed TES trade. |
| Approver | The approver (owner) of the trade. |
| B/S | Buy or sell code of the counterparty. |

| | |
|--------------|---|
| Qty | Quantity of the counterparty. |
| Act | Position account. |
| Text1, Text2 | These fields are mandatory or optional according to the settings in the <i>Preferences</i> and can be filled with an up to 12 characters user defined text. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |

3.3.4 Xetra EnLight the selective RFQ Service

Xetra EnLight is the new *Selective Request for Quote* service to negotiate on-exchange off-book transactions electronically in the T7 trading system. After a negotiation with one counterparty or several ones, a resulting deal is directly sent to the clearing and settlement systems without any further interaction from the participants, providing straight-through-processing for the participants. The XetraTrader GUI implementation of Xetra EnLight is the reference implementation of this Request for Quote service. It comprises a set of use-case tailored GUI views that interact with each other.

Depending on the perspective of the user, the starting point differs:

The *Xetra EnLight Requester* will start from the *Xetra EnLight Requester view* to create a new Xetra EnLight Request add one or more respondents.

The *Xetra EnLight Respondent* on the other hand would start with the *Xetra EnLight Responder view* to check for any currently running or newly incoming Xetra EnLight requests. For users to take part in Xetra EnLight as a respondent, a registration at the exchange is required on an individual ISIN basis.

As it is expected to have more respondents than requesters, the Xetra EnLight Responder is considered the main view of the whole Xetra EnLight service in the GUI, and for that reason we will start with that view.

Definitions and Abbreviations

| Term | Description |
|--------------------------|--|
| Xetra EnLight Request | Xetra EnLight <i>Request for Quote</i> is sent by the requester to get quotes from respondents. |
| Xetra EnLight RfQ Event | This is the name of the lifecycle of an Xetra EnLight Request. |
| Xetra EnLight Requester | The user who starts the RfQ event and sends an Xetra EnLight is the requester. |
| Xetra EnLight Respondent | The user(s) to whom the Xetra EnLight Request is targeted to by the requester. |
| Xetra EnLight Quote | A quote sent by the respondents in response of the Xetra EnLight Request. |
| Xetra EnLight Deal | The Xetra EnLight requester may accept a specific Xetra EnLight Quote to create an legally binding Xetra EnLight Deal. |

Ownership

The T7 user level group concept of User, Head Trader and Supervisor user also applies to Xetra EnLight. This means that a Head Trader of the same user group or a Supervisor user of the owning user's business unit is allowed to view or perform actions on an Xetra EnLight Request, which is currently owned by different trader within that user group or business unit, granted that such user has the correct entitlement.

The ownership however does not change.

Visibility

A Head Trader of the same user group or a Supervisor user of the owning user's business unit is allowed to view or perform actions on an Xetra EnLight Request, which is currently owned by different trader within that user group or business unit, granted that such user has the correct entitlement.

3.3.5 Xetra EnLight Responder

The *Xetra EnLight Responder* is the core component and the starting point of the Xetra EnLight functionality from the viewpoint of respondents. Respondents can see all currently active Xetra EnLight requests targeted at the logged in user.

The respondent can check the status and details of any already sent quote.

This view is dynamically updated. The following screenshot illustrates the Xetra EnLight Responder type of GUI view:

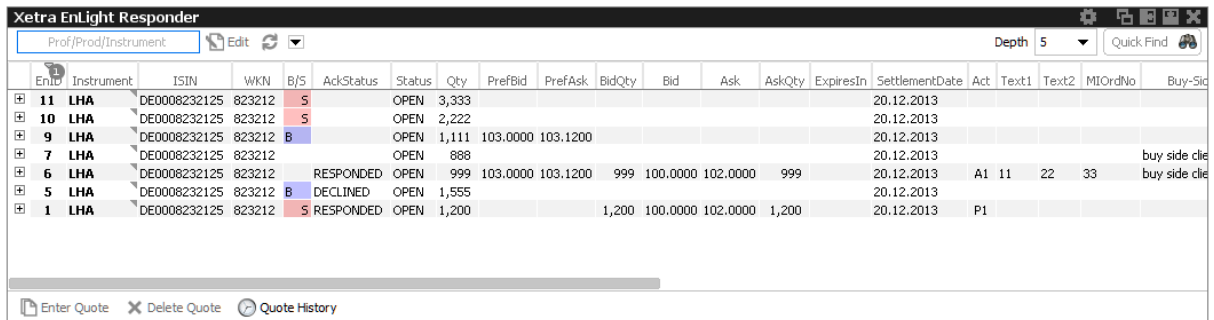


Fig. 69: Screenshot of the Xetra EnLight Responder

The view displays data in two levels of depth:

- Level 1: The list of all currently running Xetra EnLight requests for which the logged in user is chosen as a respondent, together with any potential quote that might be submitted by that respondent.
- Level 2: The quote history for the selected Xetra EnLight request, the most recent quote is shown at the top of the list.

The maximum depth in display of level 2 can be directly controlled in the view via the Depth control. Incoming Xetra EnLight requests are displayed automatically. Please check also the section about Xetra EnLight alerts (→ 3.3.12 Xetra EnLight Alerts), since a default Xetra EnLight alert is already set up by default as a convenience for the user. This Xetra EnLight alert notifies the Xetra EnLight respondent about any incoming new Xetra EnLight request.

Xetra EnLight requests are displayed as long as they are active. Once the Xetra EnLight quote has been matched, its Status changes. Xetra EnLight deals as a result of matched Xetra EnLight Quote are displayed in the Xetra EnLight deals view.

Xetra EnLight requests which are set to Closed or are expired are removed from this view.

Functions provided on the Xetra EnLight Responder:

- The Xetra EnLight request from the perspective of the respondent features a timestamp. This timestamp is used to highlight requests that are 'hot'. An already existing Xetra EnLight request that becomes hot again indicates, that the requester has changed parameters of the request. It is also possible to pick the Time column as a sort criteria in the table.

Available actions of the Xetra EnLight Responder:

| Action | Description |
|-------------------------------|---|
| Enter Quote (Double Click) | Opens the Xetra EnLight Quote Entry. |
| Delete Quote | Deletes the Xetra EnLight quote. The respondent can delete the own quote as long as it is active i.e. not deleted by Xetra EnLight. Both quote sides as part of the Xetra EnLight Quote are deleted at once. When quote is deleted and the Xetra EnLight RfQ event is still 'Open', the respondent can enter a new quote again. |

| | |
|---------------|--|
| Quote History | Opens the Xetra EnLight Quote History view |
|---------------|--|

Available filter fields on the Xetra EnLight Responder:

| Field | Description |
|----------------------------|--|
| Profile/Product/Instrument | The profile, product or instrument filter. |
| Depth | Controls the number of level 2 rows in the table |

Available fields of the Xetra EnLight Responder table level 1:

| Field | Description |
|------------|---|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument. |
| ISIN | ISIN of the instrument. |
| QuoteID | ID of the Xetra EnLight Quote. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| Status | <p><i>Status of RfQ:</i></p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> |
| AckStatus | <i>Acknowledgement status</i> of the respondent. e.g. RESPONDED, DECLINED. |
| Qty | Quantity of Xetra EnLight RfQ. |
| PrefBid | The preferred bid price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| PrefAsk | The preferred ask price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| BidQty | Quote Bid Quantity. |

| | |
|-----------------|---|
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| ExpireTime | Expiry duration of RfQ event. Allows requester to optionally set an expiry time in minutes and seconds for the RFQ event. |
| ExpiresIn | Remaining expiry duration of RfQ event. |
| Buy-Side Client | Free message text field. Allows requester to optionally disclose name of commissioning buy side client (if applicable) to all respondents. |
| SettlementDate | Settlement date of instrument. Allows requester to optionally request quotes for a settlement date other than T+2. |
| Act | Position Account |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| ExeID | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with InvId. |
| ExeQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |
| Requester | The user name of the requester. <i>Display only.</i> |

| | |
|--------------------|--|
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |
| RespondentGrp | Name of user group inside the business unit the respondent belongs to. <i>Display only.</i> |
| LastUpdateTime | Timestamp of the last change by the responder. |

Available fields of the Xetra EnLight Responder table level 2:

| Field | Description |
|------------|--|
| EnID | The ID of this Xetra EnLight Request. <i>(Not displayed.)</i> |
| Instrument | Instrument mnemonic. <i>(Not displayed.)</i> |
| WKN | WKN of the instrument. |
| ISIN | ISIN of the instrument. |
| QuoteID | ID of the Xetra EnLight Quote. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| Status | <p><i>Status of RfQ:</i></p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> <p><i>(Not displayed.)</i></p> |
| AckStatus | <i>Acknowledgement status</i> of the respondent. e.g. RESPONDED, DECLINED. |

| | |
|-----------------|---|
| Qty | Quantity of Xetra EnLight RfQ. |
| PrefBid | The preferred bid price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| PrefAsk | The preferred ask price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| Buy-Side Client | Free message text field. Allows requester to optionally disclose name of commissioning buy side client (if applicable) to all respondents. |
| SettlementDate | Settlement date of instrument. Allows requester to optionally request quotes for a settlement date other than T+2. |
| Act | Position Account. (<i>Not displayed.</i>) |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. (<i>Not displayed.</i>) |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. (<i>Not displayed.</i>) |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. (<i>Not displayed.</i>) |
| ExpireTime | Expiry duration of RfQ event. Allows requester to optionally set an expiry time in minutes and seconds for the RFQ event. |
| ExpiresIn | Remaining expiry duration of RfQ event. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. (<i>Not displayed.</i>) |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. (<i>Not displayed.</i>) |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. (<i>Not displayed.</i>) |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. (<i>Not displayed.</i>) |

| | |
|--------------------|--|
| Requester | The user name of the requester. (<i>Not displayed.</i>) |
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. (<i>Not displayed.</i>) |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |
| LastUpdateTime | Timestamp of the last change by the responder. |

3.3.6 Xetra EnLight Requester

The *Xetra EnLight Requester view* is the starting point for the Xetra EnLight functionality from the viewpoint of an Xetra EnLight requester. The view displays all currently existing Xetra EnLight requests that have been submitted by that broker, or that are visible to that broker. It serves as a quick overview of all currently running Xetra EnLight requests.

From here, the most interesting functions are the *Add Xetra EnLight* and view *Details* actions, which lead to the Broker Details view, which is the core Xetra EnLight functionality used by Xetra EnLight requesters. A new Xetra EnLight Request can be started or the development of existing one can be tracked or maintained from here.

The *Xetra EnLight Requester view* has also a link to the Xetra EnLight Request *History*, which has the history of all past Xetra EnLight requests of the current business day. Apart from audit purposes, the history can be used to start a new Xetra EnLight Request on the basis of a historic one, which is then used as template.

| EnID | Instrument | ISIN | WKN | DJS | Status | TotalQty | OpenQty | PrefBid | PrefAsk | NoOfRespondents | StartTime | ReportID | Requester | EnteringRequester | BestQuoteBidQty | BestQuoteBid | BestQuoteAsk | BestQuoteAskQty |
|------|------------|--------------|--------|-----|--------|----------|---------|----------|----------|-----------------|-------------------------|----------|-------------|-------------------|-----------------|--------------|--------------|-----------------|
| 9 | LHA | DE0008232125 | 823212 | B | OPEN | 500 | 500 | 102.0000 | 104.2000 | 2 | 19.03.2019 10:07:14.931 | | ABCXETRD002 | ABCXETRD002 | 500 | 102.0000 | | |
| 3 | LHA | DE0008232125 | 823212 | B | OPEN | 15,300 | 15,300 | 101.0000 | 103.1200 | 2 | 19.03.2019 10:08:45.203 | | ABCXETRD002 | ABCXETRD002 | | | | 103.0000 15300 |
| 2 | LHA | DE0008232125 | 823212 | B | OPEN | 1,200 | 1,200 | | | 2 | 19.03.2019 10:07:14.931 | | ABCXETRD002 | ABCXETRD002 | | | | |

Fig. 70: Screenshot of the Xetra EnLight Requester view

Available actions on the Xetra EnLight Requester view:

| Action | Description |
|---------------------------|--|
| Add Xetra EnLight | Opens the Xetra EnLight Request Details view. |
| Duplicate | Opens the Xetra EnLight Request Details view, the selected request will be used as template for the creation of a new Xetra EnLight request. |
| Details (Double click) | Opens the Xetra EnLight Request Details prefilled, allows to make modifications to the Xetra EnLight Request. |
| History | Opens the Xetra EnLight Request History to show a history log of all past Xetra EnLight requests that are not currently active. |

Available filter fields on the Xetra EnLight Requester view:

| Field | Description |
|----------------------------|----------------------|
| Product/Instrument/Profile | The traded contract. |

Available fields of the Xetra EnLight Requester table:

| Field | Description |
|------------|---|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument. |
| ISIN | ISIN of the instrument. |
| SmartRFQ | <i>Anonymous Request for Quote event.</i> If ticked, request is sent anonymously to respondents unknown to the requester. Manually selected respondents can be included. Quoting by unknown respondents is done anonymously as well. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| Status | <p><i>Status of RfQ:</i></p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> |
| Qty | Quantity of Xetra EnLight RfQ. |

| | |
|-------------------|---|
| PrefBid | The preferred bid price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| PrefAsk | The preferred ask price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| ExpiresIn | Remaining expiry duration of RfQ event. |
| ExpireTime | Expiry duration of RfQ event. Allows requester to optionally set an expiry time in minutes and seconds for the RFQ event. |
| NoOfRespondents | Number of respondents in this Xetra EnLight RfQ event. |
| StartTime | Start time of the Xetra EnLight Request. |
| ReportID | A report ID which can be used for in-house purposes. |
| LastUpdateTime | Timestamp of the last change by the requester. |
| Requester | The user name of the requester. <i>Display only.</i> |
| RequesterBU | Name of Business Unit the requester belongs to. <i>Display only.</i> |
| RequesterBUID | Numeric ID of the BU the requester belongs to. <i>Display only.</i> |
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |
| RequesterGrp | Name of user group inside the business unit the requester belongs to. <i>Display only.</i> |
| RequesterID | Numerical ID of the requester of the Xetra EnLight Request. |
| BestQuoteBidQty | Quantity of best bid Quote. |
| BestQuoteBid | Best bid Quote. |
| BestQuoteAsk | Best ask Quote. |
| BestQuoteAskQty | Quantity of best ask Quote. |

3.3.7 Xetra EnLight Requester Details

The *Xetra EnLight Request Details* is the basis to start an Xetra EnLight RfQ event workflow. In the upper area the instrument can be specified and the *Smart RfQ* mode can be activated. Furthermore the Buy or Sell side can be selected and the quantity can be specified. This area also features a dynamically updated market view (with limited depth) for the specified instrument. A click into a row of this view prefills the preferred bid/ask cells of the respondent table.

For any Xetra EnLight RfQ event an expiry duration time can be set. If it is not provided, then the

default maximum duration time at the product level is used which is defined by the exchange.

In the upper right some additional data to support the requester is displayed, like *LISMinValue* or current TES state of the specified instrument. *LISMinValue* means *Large In Scale* minimum value and is usually a result of price times quantity. If TES State is OFF, no Xetra EnLight EnLight event can be started.

The lower area of the *Xetra EnLight Request Details* features the respondent table. The requester can specify preferred values for bid and ask and select desired respondents. Respondents can be saved in a favorite list for quick retrieving for upcoming requests. Up to five favorite lists are shown in a favorites lists row below the respondent table. Start and stop editing this list is done by clicking on the pencil icon right off this list.

To allow for a compact display, initially some fields of the respondents table are hidden. These can be displayed by right-clicking on any column header of the table, selecting clicking Show/Hide and the desired column name.

After a Xetra EnLight request has been submitted, text fields with clearing and MiFID related data (e.g. Act, ClientID, InvID) are displayed, just above the buttons row. Those fields get not saved when the view is closed so at least the account information has to be entered again to allow for accepting a quote.

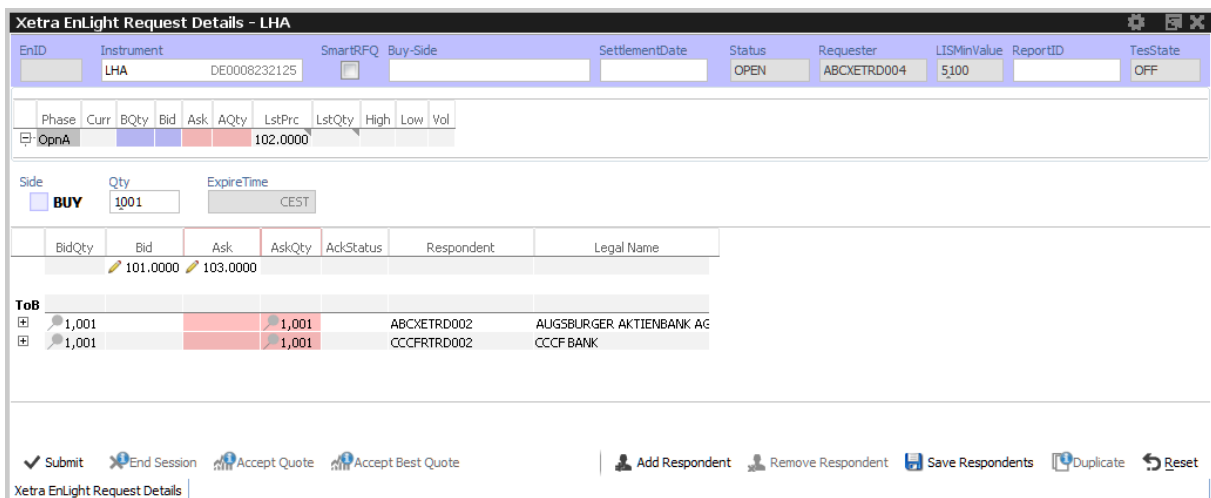


Fig. 71: Screenshot of the Xetra EnLight EnLight Request Details view

Functions provided on the Xetra EnLight Request Details:

- **Smart RfQ Mode - anonymous mode:** Send an anonymous *Request for Quote* to registered participants. Additionally to manually selected known respondents the request will be sent to those participants who have agreed to be part of Smart RfQ program and selected via a specific exchange algorithm. The requester as well as the respondents will get no private information of the counterparty during the RfQ event, i.e. all fields with trader / BU related information of the counterparty will be empty. Whether *Smart RfQ* is available for an instrument is configurable and decided by the Exchange.

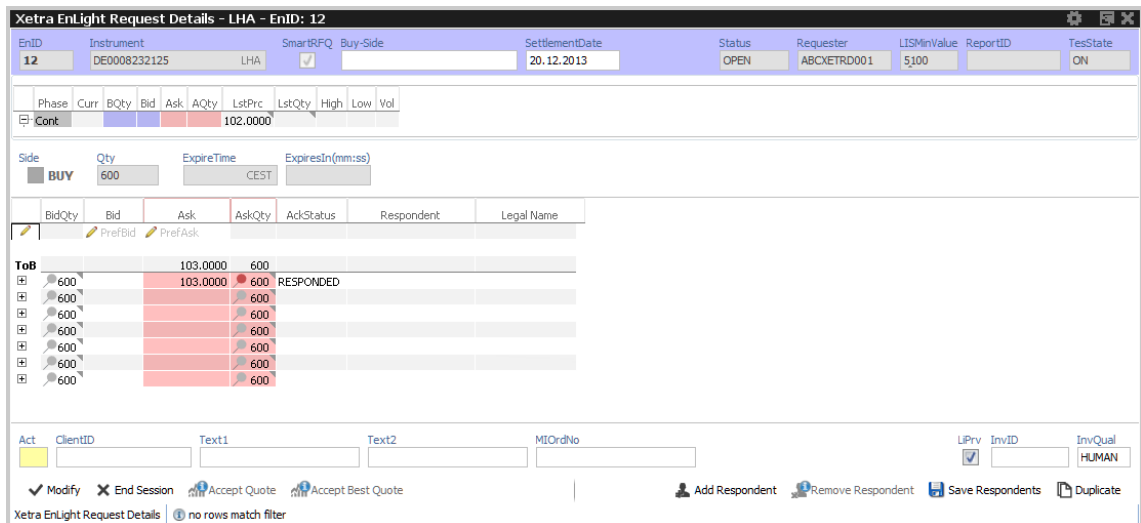


Fig.

72: Screenshot of the Xetra EnLight EnLight Request Details with anonymous quoting respondents

- **Top of Book view:** Display and dynamic update of top of book including market depth for the chosen instrument.
- **Copy Top of Book to RfQ:** A click into a row of the embedded market view prefills requester’s preferred bid/ask cells of the respondent table.
- **Disclose price/side information :** Price and Side information of the RfQ might be disclosed to respondents. Side has to be selected and preferred Bid/Ask values have to be entered prior to disclosing by right-clicking into respondents table.
- **Pinning :** If requester has specified preferred value for Bid or Ask, the *Pinning* feature gets activated. It is a visual help to compare the requesters preferred values with responders quotes. When *Pinning* is active, a pin icon will appear in the respondents rows, next to bid, ask or quantity cells. A grey pin indicates that no response or a response with a price worse than the preferred price has been received. A red pin indicates that a response with a price equal or better than the preferred price has been received.
- **Automatic display of Xetra EnLight deals:** When a quote is accepted by the requester, the Xetra EnLight deals display is embedded at the bottom of the Xetra EnLight Request Details view to show details of the deal of the current Xetra EnLight request. Please refer to Xetra EnLight deals (→ 3.3.11 Xetra EnLight Deals) for a description of that view.

Available fields of the Xetra EnLight Request Details entry form:

| Field | Description |
|------------|--|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |
| Instrument | Instrument mnemonic. |

| | |
|-----------------|---|
| SmartRfQ | <i>Anonymous Request for Quote event.</i> If ticked, request is sent anonymously to respondents unknown to the requester. Manually selected respondents can be included. Quoting by unknown respondents is done anonymously as well. |
| Buy-Side Client | Free message text field. Allows requester to optionally disclose name of commissioning buy side client (if applicable) to all respondents. |
| SettlementDate | Settlement date of instrument. Allows requester to optionally request quotes for a settlement date other than T+2. |
| Status | <p><i>Status of RfQ:</i></p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> |
| Requester | The user name of the requester. <i>Display only.</i> |
| LISMinValue | TES Type LIS only: <i>Large In Scale</i> minimum value. Usually a result of price times quantity. |
| ReportID | A report ID which can be used for in-house purposes. |
| TesState | TES activity state, e.g. ON, HALTED, OFF. Must be ON to allow entering Xetra EnLight requests. |
| Side | Buy or Sell Side of Xetra EnLight request. |
| Qty | Quantity of new Xetra EnLight request |
| ExpireTime | Allows requester to optionally set an expiry time in minutes and seconds for the RFQ event. |

Available fields of the Xetra EnLight respondents table:

| Field | Description |
|--------|---|
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. In first row of respondent table the requester might specify a <i>preferred</i> Bid price. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. In first row of respondent table the requester might specify a <i>preferred</i> Ask price. |

| | |
|------------|--|
| AskQty | Quote Ask Quantity. |
| AckStatus | <i>Acknowledgement status</i> of the respondent. e.g. RESPONDED, DECLINED. |
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| Legal Name | Legal name of respondent. |
| QuoteID | ID of the Xetra EnLight Quote. This field is hidden by default. |

Following fields are displayed only after Xetra EnLight request has been submitted:

| Field | Description |
|----------|---|
| Act | Position Account (mandatory) |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |

3.3.8 Xetra EnLight Request History

The Xetra EnLight Request History shows a history log of all past Xetra EnLight requests that are not currently active.

The view is a table with two levels of depth:

Level 1: The request summary as formerly shown in the Xetra EnLight Requester view.

Level 2: The list of respondents for the selected request, including the quote details in the same row. This display is similar to what was formerly shown in the Xetra EnLight Request Details view on level 1. Please note that there is no third level provided here, to show also the quote history.

Fig. 73: Screenshot of the Xetra EnLight Request History view

Available actions on the Xetra EnLight request history view:

| Action | Description |
|--------------------------------|--|
| Quote History | Opens the Xetra EnLight Quote History view to display the quote history for the selected Xetra EnLight request and respondent. For this action to get enabled, a respondent need to be selected. |
| Request Details (Double click) | Opens the Xetra EnLight Request Details of selected Xetra EnLight Request. |
| Duplicate | Selected Xetra EnLight Request will be used as template for the creation of a new Xetra EnLight request. |

Available filter fields of the Xetra EnLight Request History view:

| Field | Description |
|----------------------------|--|
| Product/Instrument/Profile | The product, instrument or profile filter. |

Available fields of the Xetra EnLight Request History table, level 1:

| Field | Description |
|-------|--|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |

| | |
|-------------------|--|
| Instrument | Instrument which has been chosen by the Xetra EnLight requester. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| SmartRFQ | <i>Anonymous Request for Quote event.</i> If ticked, request is sent anonymously to respondents unknown to the requester. Manually selected respondents can be included. Quoting by unknown respondents is done anonymously as well. |
| Qty | Quantity of Xetra EnLight RfQ. |
| PrefBid | The preferred bid price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| PrefAsk | The preferred ask price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| LastDealPrc | Last price of the Xetra EnLight deal. |
| LastDealQty | Last quantity of the Xetra EnLight deal. |
| NoFillReason | Reason why quote was not chosen. |
| Text | Free format text field. |
| StartTime | Start time of the Xetra EnLight Request. |
| QuoteID | Quote ID. This field is hidden by default. |
| ReportID | A report ID which can be used for in-house purposes. |
| LastUpdateTime | Timestamp of the last change by the requester. |
| Requester | The user name of the requester. <i>Display only.</i> |
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |

| | |
|--------------------|--|
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |
| RespondentBU | Name of user group the entering respondent belongs to inside the business unit. <i>Display only.</i> |

Available fields of the Xetra EnLight Request History table, level 2:

| Field | Description |
|--------------|---|
| EnID | (<i>Not displayed.</i>) |
| Instrument | (not displayed.) |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| SmartRfQ | (<i>Not displayed.</i>) |
| Qty | (not displayed.) |
| PrefBid | The preferred bid price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| PrefAsk | The preferred ask price of the requester for this Xetra EnLight RfQ event. Respondents are not required to match the preferred price and may respond with quotes outside the requested range. |
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| NoFillReason | Reason why quote was not chosen. |
| StartTime | (not displayed.) |
| QuoteID | Quote ID. This field is hidden by default. |




| | |
|--------------------|--|
| ReportID | (not displayed.) |
| LastUpdateTime | (not displayed.) |
| Requester | (not displayed.) |
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |
| RespondentBU | Name of Business Unit the respondent belongs to. <i>Display only.</i> |

3.3.9 Xetra EnLight Quote Entry

The *Xetra EnLight Quote Entry* allows the Xetra EnLight respondent to send a single or two sided Xetra EnLight quote. At a time, only one Xetra EnLight quote (consisting of single or two quote sides) from a respondent can be present for a particular Xetra EnLight request. A quote can be sent only for an open Xetra EnLight request by the user who is specified as the respondent in the Xetra EnLight request or a supervisor of the respondent. If a Smart RfQ is active, the request is sent to respondents not known by the requester. The *Xetra EnLight quote* entered by the respondent is only visible to that respondent (and its supervisor) and to the requester. If the responder is a smart respondent, the identity is not disclosed to the requester and the respondent does not know the identity of the requester, i.e. respective display fields remain empty.

Fig. 74: Screenshot of the Xetra EnLight Quote Entry view

Functions provided on the Xetra EnLight Quote Entry:

- **Copy Requester's RfQ data:**  copies preferred bid/ask price and requested quantity into the respective quote fields.
- **Top of Book view:** Display and dynamic update of top of book including market depth for the instrument to quote for.
- **Copy Top of Book to quote:** A click into a row of the embedded market view fills the bid/ask values of the quote. Only the enabled side gets prefilled.
- **Fast Bid/Ask changes:** By clicking  /  buttons the Bid/Ask values of the quote fields can be increased or reduced in steps of minimum trade unit size and submitted directly if all mandatory fields are filled.
- **Price and Quantity validation on Submit:** If one of the given prices does not match the price step table, an information is shown to inform about that fact. If one of the given quantities is below the *Large In Scale* minimum value, an information is shown to inform about that fact.
- **Automatic display of Xetra EnLight deals:** Once the first deal was submitted by the requester, the Xetra EnLight deals display opens automatically as part of the Xetra EnLight Quote Entry view, to show all available deals in the context of the current Xetra EnLight request. Please refer to Xetra EnLight Deals (→ 3.3.11 Xetra EnLight Deals) for a description of that view.

Following actions are available on *Xetra EnLight Quote Entry* view:

| Action | Description |
|--------------|--|
| Submit Quote | Apply the new Xetra EnLight Quote, or apply changes to the Xetra EnLight Quote. All the quote sides as part of the Xetra EnLight Quote will be updated together by the respondent. The Xetra EnLight Quote update is in essence a quote deletion and entry of new quote. |
| Delete Quote | Deletes the Xetra EnLight Quote. |
| Working | Indicates respondent's general interest in the current RfQ event to the requester. |
| Decline | Declines any quoting for the current RfQ event. |

Available fields of the *Xetra EnLight Quote Entry* - all fields except for the quote entry itself are *Display only*:

| Field | Description |
|----------------|---|
| EnID | The ID of this Xetra EnLight Request. <i>Display only</i> . |
| Instrument | ISIN and Instrument mnemonic as specified by the requester. |
| LISMinValue | <i>Large In Scale</i> minimum value. Usually a result of price times quantity. |
| SettlementDate | Settlement date of instrument. Allows requester to optionally request quotes for a settlement date other than T+2. |
| Status | <p>Status of RfQ:</p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> |
| AckStatus | <i>Acknowledgement status</i> of the respondent. e.g. RESPONDED, DECLINED. |
| Requester | The user name of the requester. <i>Display only</i> . |
| Side | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| Qty | Quantity of Xetra EnLight RfQ. |
| PrefBid | Preferred Bid price as specified by the requester. |
| PrefAsk | Preferred Ask price as specified by the requester. |
| ExpireTime | Expiry duration of RfQ event. Allows requester to optionally set an expiry time in minutes and seconds for the RFQ event. |

| | |
|----------------------|---|
| ExpiresIn | Remaining expiry duration of RfQ event. |
| Legal Name Requester | Legal name of the requester. |
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| Buy-Side Client | Free message text field. Allows requester to optionally disclose name of commissioning buy side client (if applicable) to all respondents. |
| Act | Position Account |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |

3.3.10 Xetra EnLight Quote History

The Xetra EnLight Quote History view allows to review all past quotes in the context of a distinct Xetra EnLight requester and respondent. From the viewpoint of an Xetra EnLight respondent the sent quote and quote updates are displayed together with any potential messages, in the correct chronological order.

The following screenshot indicates the Xetra EnLight Quote History type of view:

| EnID | Instrument | ISIN | WKN | QuoteID | B/S | Qty | PrefBid | PrefAsk | BidQty | Bid | Ask | AskQty | Text | NoOfRespondents | Requester | EnteringRequester | Respondent | EnteringRespondent | RespondentGrp |
|------|------------|--------------|--------|---------|-----|-------|---------|---------|--------|----------|-------|--------|------|-----------------|-------------|-------------------|-------------|--------------------|---------------|
| 4 | LHA | DE0008232125 | 823212 | 5 | B | 1,002 | | | | 102.0000 | 1,002 | | | | ABCXETRD002 | ABCXETRD002 | CCCFRTRD002 | CCCFRTRD002 | GR1 |
| 4 | LHA | DE0008232125 | 823212 | 4 | B | 1,002 | | | | 101.9800 | 1,002 | | | | ABCXETRD002 | ABCXETRD002 | CCCFRTRD002 | CCCFRTRD002 | GR1 |
| 3 | LHA | DE0008232125 | 823212 | 3 | S | 1,001 | | | 1,001 | 100.0000 | | | | | CCCFRTRD002 | CCCFRTRD002 | ABCXETRD002 | ABCXETRD002 | GR1 |
| 3 | LHA | DE0008232125 | 823212 | 2 | S | 1,001 | | | 1,001 | 99.9800 | | | | | CCCFRTRD002 | CCCFRTRD002 | ABCXETRD002 | ABCXETRD002 | GR1 |
| 2 | LHA | DE0008232125 | 823212 | 1 | B | 900 | | | | 101.6200 | 900 | | | | CCCFRTRD002 | CCCFRTRD002 | ABCXETRD002 | ABCXETRD002 | GR1 |

Fig. 75: Screenshot of the Xetra EnLight Quote History view

Available actions on the Xetra EnLight Quote History view:

No actions available - this view is display only.

Available fields of the Xetra EnLight Quote History view:

| Field | Description |
|-------------------|--|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |
| QuoteID | ID of the Xetra EnLight Quote. <i>Display only.</i> |
| Instrument | Instrument mnemonic is specified by the requester. <i>Display only.</i> |
| WKN | WKN of the instrument. |
| ISIN | ISIN of the instrument. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| NoFillreason | Reason why quote was not chosen. |
| Qty | Quantity of Xetra EnLight RfQ. |
| PrefBid | Bid price of the Xetra EnLight request. |
| PrefAsk | Ask price of the Xetra EnLight request. |
| BidQty | Quote Bid Quantity. |
| Bid | The Quote Bid Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| Ask | The Quote Ask Price. The price of the Bid side should be lower than or equal to the Ask side price of the Xetra EnLight Quote. |
| AskQty | Quote Ask Quantity. |
| Text | Free format text field. |
| LastUpdateTime | Timestamp of the last change by the responder. |
| Requester | The user name of the requester. <i>Display only.</i> |
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |

| | |
|--------------------|--|
| Respondent | The Xetra EnLight Respondent. |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |

3.3.11 Xetra EnLight Deals

The *Xetra EnLight Deals* view provides an overview of all deals that the logged-in user takes part in. Xetra EnLight deals are shown to the requester and also to the involved respondent.

This view is updated dynamically.

| EnID | EnDealID | Instrument | ISIN | WKN | B/S | TesTrdID | Price | Qty | DealStatus | Respondent | DealTime | ExpireTime | Expires | ReportID | Status | Text | DealReportID | DealLastUpdate | BidQty | Bid | Ask | AskQty | BestBidQty | BestBid |
|------|----------|------------|--------------|--------|-----|----------|----------|--------|------------|-------------|-------------------------|------------|---------|----------|--------|------|--------------|-------------------------|--------|-----|-----|--------|------------|---------|
| 13 | 4 | MDB | DE0006622400 | 662240 | S | | 19.0000 | 250 | FINAL | CCCFRTRD001 | 19.03.2019 15:00:09.912 | | | | CLOSED | | | 19.03.2019 15:00:09.912 | | | | | | |
| 4 | 3 | LHA | DE0008232125 | 823212 | B | | 102.2000 | 20.000 | FINAL | CCCFRTRD001 | 19.03.2019 14:58:59.100 | | | | CLOSED | | | 19.03.2019 14:58:59.100 | | | | | | |
| 12 | 2 | LHA | DE0008232125 | 823212 | B | | 103.0000 | 600 | FINAL | | 19.03.2019 14:48:00.156 | | | | CLOSED | | | 19.03.2019 14:48:00.156 | | | | | | |

Fig. 76: Screenshot of the Xetra EnLight Deals view

Available fields of the Xetra EnLight Deals view:

| Field | Description |
|------------|--|
| EnID | The ID of this Xetra EnLight Request. <i>Display only.</i> |
| QuoteID | ID of the Xetra EnLight Quote. <i>Display only.</i> |
| EnDealID | Xetra EnLight deal ID. |
| Instrument | Instrument mnemonic is specified by the requester. |
| WKN | WKN of the instrument. |
| ISIN | ISIN of the instrument. |
| B/S | Buy or Sell Side of Xetra EnLight negotiation request. |
| Price | Price of the Xetra EnLight deal. |
| Qty | Quantity of the deal. |
| DealStatus | Status of the Xetra EnLight deal e.g. FINAL. |

| | |
|------------|--|
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| DealTime | Time when deal was established. |
| ReportID | A report ID which can be used for in-house purposes. |
| Status | <p><i>Status of RfQ:</i></p> <p>Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.</p> <p>Expired : Expiry duration (product specific or defined by requester) has been exceeded.</p> <p>Closed: The Xetra EnLight Request status is changed to Closed if the requester closes the Xetra EnLight Request manually or accepts a quote.</p> |
| Text | Free format text field. |
| BidQty | Quote Bid Quantity. |
| Bid | Bid price of the request. |
| Ask | Ask price of the request. |
| AskQty | Quote Ask Quantity. |
| BestBidQty | Best Quote Bid Quantity. |
| BestBid | Best bid price of the request. |
| BestAsk | Best ask price of the request. |
| BestAskQty | Best Quote Ask Quantity. |
| BidVWA | On-book volume weighted average bid price for size traded in RFQ. |
| AskVWA | On-book volume weighted average ask price for size traded in RFQ. |
| OwningGrp | User group of the owning user. |
| Requester | The user name of the requester. <i>Display only.</i> |
| Trader | TraderID of Requester |

| | |
|--------------------|--|
| EnteringRequester | The user that entered the respective Xetra EnLight request, not the user owning that request. In the context of Xetra EnLight there is no takeover of ownership. |
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for the the same Xetra EnLight request. For each selected respondent the login name including the Business unit name and the user name i.e. 'ABCFRTRD001' will be provided. When <i>SmartRfQ</i> is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| EnteringRespondent | The user that entered the respective Xetra EnLight quote, not the user owning that quote. In the context of Xetra EnLight there is no takeover of ownership. |
| RequesterBU | Name of Business Unit the requester belongs to. <i>Display only.</i> |
| RequesterBUID | Numeric ID of the BU the requester belongs to. <i>Display only.</i> |
| RequesterGrp | Name of user group inside the business unit the requester belongs to. <i>Display only.</i> |
| RequesterID | Numerical ID of the requester of the Xetra EnLight Request. |
| RespondentBU | Name of Business Unit the respondent belongs to. <i>Display only.</i> |
| RespondentBUID | Numeric ID of the BU the respondent belongs to. <i>Display only.</i> |
| RespondentGrp | Name of user group inside the business unit the respondent belongs to. <i>Display only.</i> |
| RespondentID | Numerical ID of the respondent. <i>Display only.</i> |
| SettlementDate | Settlement date of instrument. Allows requester to optionally request quotes for a settlement date other than T+2. |
| Act | Position Account |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |

| | |
|---------|--|
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| ExeID | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with Invld. |
| ExeQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |

3.3.12 Xetra EnLight Alerts

The *Alert Configuration* is extended by a new preconfigured *Xetra EnLight Alert* configuration entry to inform both the Xetra EnLight requester about incoming Xetra EnLight quotes and Xetra EnLight respondents about new Xetra EnLight requests via a pop-up. Please note that this alert cannot be deleted but deactivated or modified if required.

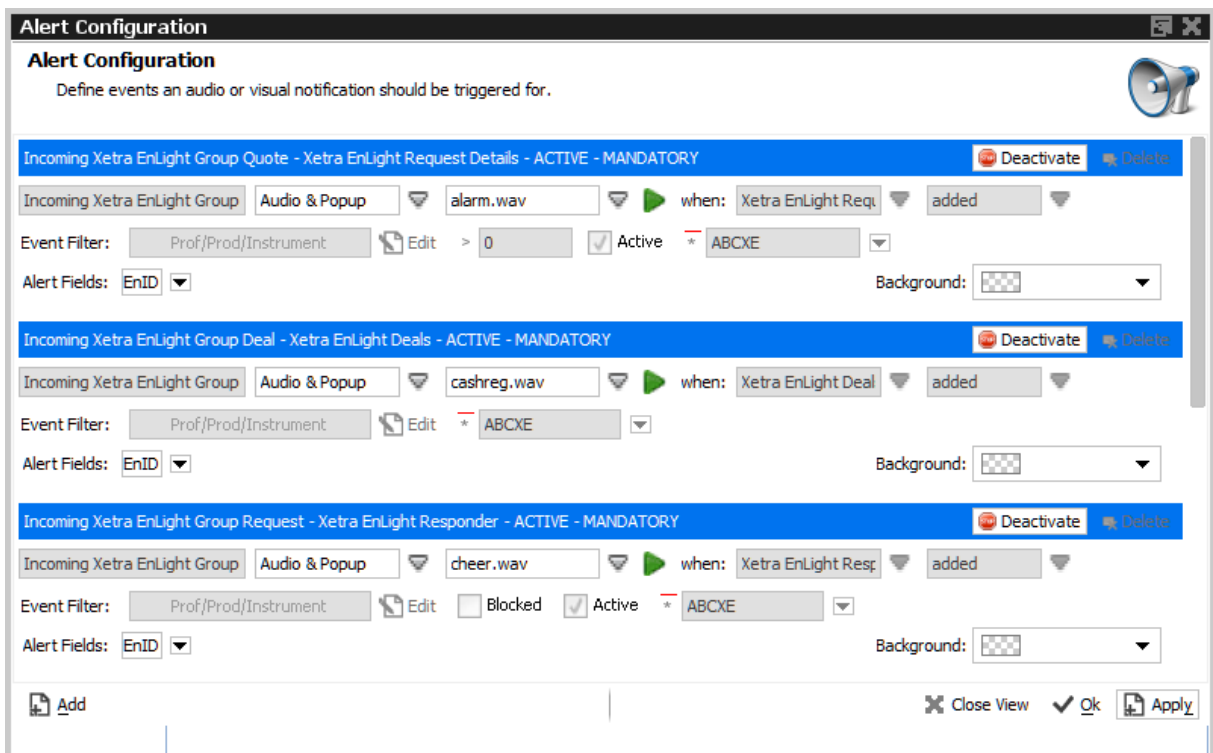
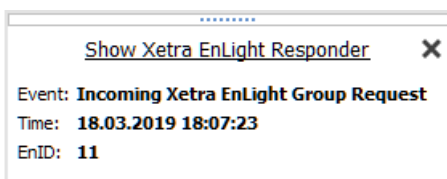


Fig. 77: Screenshot of the Xetra EnLight Alerts view showing preconfigured Xetra EnLight Alerts

If one of these alerts is triggered, a pop-up opens:



A single click into the pop-up headline opens the *Xetra EnLight Responder* filtered to the specific event ID.

3.4 View Descriptions: Own (Orders and Trades)

The Own area provides an overview on own orders and trades.

3.4.1 Orders

The *Orders* view shows an overview of all own standard orders of the logged in user (or user group / business unit, depending on the user level and filter). It is possible to open an *Order Maintenance* view for a selected order, delete selected orders, open the *Related Trades* view or the *Order History* view for the selected order.

| Display Name | Description |
|-----------------|--------------------------------------|
| ISIN | ISIN of the instrument |
| WKN | WKN of the instrument (if available) |
| Instrument | Instrument short name |
| InstrumentId | Numeric ID of the instrument |
| B/S | Buy or Sell code. |
| Limit, Currency | Limit and Currency of the Order. |
| TotQty | Total order quantity. |
| TotExeQty | Total executed order quantity. |
| RemQty | Remaining unmatched qty. |
| DispQty | Displayed order quantity. |

| | |
|---------------|--|
| Res | Order restriction: AOO - Auction only. BOC - Book or Cancel. CAO- Closing Auction. ICE - Iceberg Order or VDO Order. IAO - Intraday Auction. OAO - Opening Auction. OCO - One Cancels the Other. STP - Stop order. |
| StopPrice | Stop price of a stop limit order. |
| Triggered | Indicates whether the current order originates from a triggered OCO or stop order. |
| Act | Account. |
| Plnd | Persistency indicator. Orders entered by <i>XetraTrader</i> will always be entered as persistent orders. However, orders that have been entered using a third party application will retain their persistency state, when modified by <i>XetraTrader</i> . |
| Validity | The validity of the order: FOK - Fill Or Kill GFD - Good For Day GTC - Good Till Cancelled GTD - Good Till Date IOC - Immediate Or Cancel GTX - Good till Crossing/Auction (VDO only) |
| Inactive | This indicator is set for a Closing Auction only orders, Opening auction only orders and Auction only orders, if the current instrument phase does not match the trading phase for which the order was intended. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientOrdID | Client order number. |
| OrdNo | Order number generated by T7. |
| OrdVer | Order version number. |
| OrdNoClearing | Converted order number used by Xetra CCP |
| BU | Owning business unit. |
| BUID | Numerical ID of Owning business unit. |

| | |
|---------------|--|
| Grp | User group of the owning user. |
| Session | Owning SessionID. |
| Trader | Owner of the order (refers to the user name of the exchange account of the respective trading system). |
| EnteringBU | Entering business unit. |
| EnteringUser | Entering user ID. |
| ExecutingUser | Executing User ID . |
| OrdEntryTime | Time of the entry of the order. |
| OrdPrioTime | Order matching priority time. |
| OrdStatus | Status of the order: new, partial filled or suspended. |
| Date | Date of the entry of the order. |
| Exch | Exchange Identifier. |
| CrossID | The CrossID used for Self-Match Prevention (SMP). |
| CapacityGroup | Capacity group. |
| VDOLimit | "Second limit" price up to/down to a bid/ask VDO can be executed at the MidPoint price. |
| ESMA | European Securities and Markets Authority Action Code. |
| LiPriv | Flag to indicate whether an order is submitted as part of a market making strategy. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| ExeID | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with InvId. |
| ExeQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |
| BstFlg | Indicates order has been entered as BEST execution order. |
| VDO | Volume Discovery Iceberg Order. |

3.4.2 Order History

The *Order History* view shows an overview of all order changes of own standard orders of the logged in user for the current business day.

Lean orders (which cannot be entered via the XetraTrader) are not displayed. For head traders or supervisors, orders of all traders of the own user group or business unit can also be inquired.

| OrderHistoryType | ISIN | Instr | B/S | LimitPrice | TotalQty | AccumTradedQty | RemQty | Res | StopPrice | Triggered | Act | Persisten |
|------------------|--------------|-------|-----|------------|----------|----------------|--------|-----|-----------|-----------|-----|-----------|
| Add | DE0005190003 | BMW | B | 39.10 EUR | 1500 | | 1500 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | B | 39.20 EUR | 500 | | 500 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | S | 40.80 EUR | 2000 | | 2000 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | S | 42.10 EUR | 800 | | 800 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | S | 40.60 EUR | 1000 | | 1000 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | B | 42.20 EUR | 1200 | | 1200 | | | | A1 | TRUE |
| Add | DE0005190003 | BMW | S | 45.60 EUR | 3000 | | 3000 | | | | A1 | TRUE |

Fig. 78: Screenshot of the *Order History* view

The table is dynamically updated whenever there is a change for orders which are visible or which apply to the filter criteria. New orders, order modifications, full or partial matches and order deletions are reflected in this window dynamically.

The Related History is also available from the Order History view. Use the double click or right mouse context menu for a selected order to open the Related History:

Please refer to chapter 3.4.1 for a description of the table fields, except for the following:

| Display Name | Description |
|--------------|---|
| HistType | Displays the type of order change: Add, Modify, Delete, MatchPartial, MatchFull and Cancelled, Triggering of Order, Losing and gaining Ownership. |
| BEST | Order has been executed as Best Order |
| BESTReject | Reject reason for BEST Order |

3.4.3 Trades

The *Trades* view displays information about own trades for the current business day, for a selected instrument, product or profile. If the user is a head trader or supervisor, the *Trades* view also displays all the trades belonging to their user group or their own business unit. All on exchange trades are shown, including those which originated from lean orders. Xetra EnLight deals will be displayed also.

| Instrument | TrdTyp | L/M | B/S | OrdQty | ExeQty | Prc | O/C | P/F | Res | StopPrice | Triggered | Grp | Trader | Act | PInd | TrdID |
|--------------------|---------|--------|-----|--------|--------|------------|-----|-----|-----|-----------|-----------|-----|--------|-----|------|-------|
| ADS (DE0005003404) | REGULAR | LIMIT | S | 1 | 1 | 5403.0 EUR | C | F | | | | GR1 | TRD001 | A1 | Y | 2 |
| ADS (DE0005003404) | REGULAR | LIMIT | S | 1 | 1 | 5403.0 EUR | C | F | | | | GR1 | TRD001 | A1 | Y | 3 |
| ADS (DE0005003404) | REGULAR | MARKET | B | 11 | 1 | 5403.0 EUR | O | P | | | | GR1 | TRD001 | A1 | Y | 2 |
| ADS (DE0005003404) | REGULAR | MARKET | B | 11 | 1 | 5403.0 EUR | O | P | | | | GR1 | TRD001 | A1 | Y | 3 |
| ADS (DE0005003404) | REGULAR | LIMIT | B | 1000 | 20 | 5403.0 EUR | C | P | | | | GR1 | TRD001 | A1 | Y | 6 |
| ADS (DE0005003404) | REGULAR | LIMIT | S | 20 | 20 | 5403.0 EUR | C | F | | | | GR1 | TRD001 | A1 | Y | 6 |

Fig. 79: Screenshot of the Trades view

The *Own* checkbox allows to filter the result to the login user id, which means to show only those order which are currently owned by the logged in user.

Table description:

| Field | Description |
|------------|--|
| Instrument | Instrument short name |
| ISIN | ISIN of the instrument |
| WKN | WKN of the instrument (if available) |
| B/S | Buy/Sell identifier. |
| ExeQty | Executed quantity of this order ID. |
| OrdQty | Order quantity of this order ID. |
| Price | Order Limit |
| P/F | Partial or Filled. |
| TrdTyp | Type of a trade. Possible trade types are e.g. BEST, REGULAR, VDO, ENLIGHT. |
| Res | Order restriction: AOO - Auction only. BOC - Book or Cancel. CAO- Closing Auction. ICE - Iceberg Order or VDO Order. IAO - Intraday Auction. OAO - Opening Auction. OCO - One Cancels the Other. STP - Stop order. . |
| Act | Account type. |

| | |
|---------------|---|
| StopPrice | Stop price of a stop limit order |
| Triggered | Indicates whether the current order originates from a triggered OCO or stop order. |
| TrdItemID | Trade item ID. |
| TrdState | Indicates whether the trade is new or reversed. |
| TrdID | Trade ID. |
| TrdReportID | Trade Report ID. |
| MatchStepID | Match Step ID. |
| OrdNo | Order number generated by T7. |
| OrdNoClearing | Order number used in CCP. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientOrdID | Client order number. |
| BU | Owning Business Unit. |
| Grp | User group of the owning user. |
| Trader | Owner of the trade (refers to the user name of the exchange account of the respective trading system). |
| Session | Owning SessionID. |
| OrdEntryTime | OnExchange: Date and time of the order entry. |
| OrdPrioTime | OnExchange: Date and time of the order priority. |
| TrdTime | OnExchange: Date and time of the order match. |
| StlCurr | Settlement currency. |
| StlAmnt | Settlement amount. |
| StlDate | Settlement date. |
| ExchRat | Exchange Rate. |
| VDOLimit | Price at which an VDO Order has been executed. |
| ESMA | European Securities and Markets Authority Action Code. |
| CCPCM | CCP clearing member. |

| | |
|-----------------|---|
| KVNo | Kassenvereins-Nummer. |
| StlLoc | Settlement location. |
| StlAct | Settlement account. |
| Cpty | Counterparty member. |
| CptyKVNo | Counterparty Kassenvereins-Nummer. |
| CptyStlLoc | Counterparty settlement location. |
| CptyStlAct | Counterparty settlement account. |
| CptyCM | Counterparty clearing member. |
| CapacityGroup | Capacity group. |
| Exch | Exchange Identifier. |
| LiPrv | Flag to indicate whether an order/transaction is submitted as part of a market making strategy. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| ExeID | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with Invld. |
| ExeQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| IncOrdInd | <i>Incoming Order Indicator</i> . Describes role of order in matching procedure, e.g. INCOMING: Incoming Order or Quote Side, RESTING: Order or Quote in Book, RESTING_PEAK_REFILL: Resting (iceberg) order with (peak) display qty refilled, |
| TargetCCPName | name of Target CCP |
| TargetCCPInd | Target CCP Indicator |
| IncOrdIndicator | Incoming Order Indicator |
| VDOLimit | "Second limit" price up to/down to a bid/ask VDO can be executed at the MidPoint price. |
| MktVal | Bonds Market Value |

| | |
|-----------------|--|
| AccrIntAMnt | Accrued Interest Amount |
| IntBearDays | Number of Interest bearing Days |
| TVTic | Trading Venue Transaction Code |
| IsDispo | Dispo Flag |
| LstCpnDeviatInd | Last Coupon Deviation Indicator |
| Couponrate | Couponrate |
| MatDate | Maturity Date |
| FlatInd | Flat Indicator |
| SegmMic | <i>Reporting Market.</i> Market Identifier Code (ISO 10383) required for reporting to supervisory authority. |

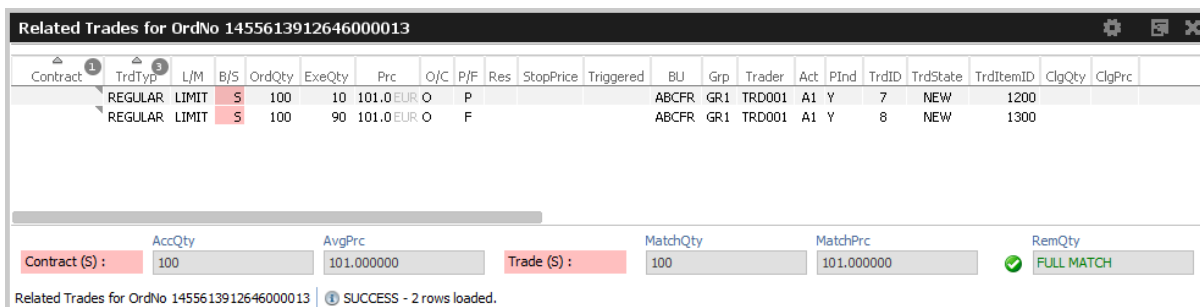
3.4.4 Related Trades

The *Orders* view as well as the *Trades* view features a *Rel. Trades* button to bring up a *Related Trades* view which is filtered to display all trades for the selected order number. This view is automatically updated by broadcast.

The *Related Trades* view is useful to quickly check all related trades of an order. The summary display at the bottom of that view displays the accumulated and average price and quantity, just like the *Trades* view. The benefit to use the related trades function to check the accumulated and average price and quantity compared to the *Trades* view is, that the user does not need to select all trades that belong to a certain order.

| Contract | TrdTyp | L/M | B/S | OrdQty | ExeQty | Prc | O/C | P/F | Res | StopPrice | Triggered | Grp | Trader | Act | PInd | TrdID | TrdState | TrdItc |
|----------|---------|-------|-----|--------|--------|--------|-----|-----|-----|-----------|-----------|-----|--------|-----|------|-------|----------|--------|
| | REGULAR | LIMIT | B | 10 | 10 | 10.0 | EUR | O | F | | | GR1 | TRD001 | A1 | Y | 5 | NEW | |
| | REGULAR | LIMIT | B | 10 | 10 | 10.0 | EUR | O | F | | | GR1 | TRD001 | A1 | Y | 5 | NEW | |
| | REGULAR | LIMIT | S | 100 | 10 | 10.0 | EUR | O | F | | | GR1 | TRD001 | A1 | Y | 16 | NEW | |
| | REGULAR | LIMIT | S | 100 | 10 | 10.0 | EUR | O | P | | | GR1 | TRD001 | A1 | Y | 6 | NEW | |
| | REGULAR | LIMIT | S | 100 | 10 | 10.0 | EUR | O | P | | | GR1 | TRD001 | A1 | Y | 15 | NEW | |
| | REGULAR | LIMIT | S | 100 | 70 | 10.0 | EUR | O | P | | | GR1 | TRD001 | A1 | Y | 5 | NEW | |
| | REGULAR | LIMIT | B | 1 | 1 | 10.0 | EUR | O | F | | | GR1 | TRD001 | A1 | Y | 17 | NEW | |
| | REGULAR | LIMIT | B | 2 | 2 | 120.01 | EUR | O | F | | | GR1 | TRD001 | A1 | Y | 1 | NEW | |

| | | | |
|-----------|-----------|------------|------------|
| AccBuyQty | AvgBuyPrc | AvgSellPrc | AccSellQty |
| | | 10.000000 | 10 |



| Contract | TrdTyp | L/M | B/S | OrdQty | ExeQty | Prc | O/C | P/F | Res | StopPrice | Triggered | BU | Grp | Trader | Act | PInd | TrdID | TrdState | TrdItemID | ClgQty | ClgPrc |
|----------|---------|-------|-----|--------|--------|-------|-----|-----|-----|-----------|-----------|-------|-----|--------|-----|------|-------|----------|-----------|--------|--------|
| | REGULAR | LIMIT | S | 100 | 10 | 101.0 | EUR | O | P | | | ABCFR | GR1 | TRD001 | A1 | Y | 7 | NEW | 1200 | | |
| | REGULAR | LIMIT | S | 100 | 90 | 101.0 | EUR | O | F | | | ABCFR | GR1 | TRD001 | A1 | Y | 8 | NEW | 1300 | | |

Contract (S) : 100 AccQty: 100 AvgPrc: 101.000000 Trade (S) : 100 MatchQty: 100 MatchPrc: 101.000000 RemQty: FULL MATCH

Related Trades for OrdNo 1455613912646000013 SUCCESS - 2 rows loaded.

Fig. 80: Screenshots showing how to open the *Related Trades* view from the *Trades* or *Orders* view

The RemQty field quickly informs about whether or not the selected order has been filled.

Be careful when opening the *Related Trades* from the *Trades* view: The indication “Full Match” when displayed for matched lean orders or quotes, is misleading.

3.4.5 Trade Summary

The *Trade Summary* view shows the same information as the *Trades* view, plus aggregated extra information according to the selected aggregation method.

Current one of the following aggregations can be chosen:

- Instrument
- OrderNo
- MIOrdNo
- Text

By default the view opens in collapsed mode, displaying the aggregated values. The rows can be expanded to display the trades which are the basis for the aggregation:

Display of trade executions and trade summary

The *Trades* view offers two kinds of display options for the display of own trades, which can be switched by a toggle button:

- The display of trade summary rows (which can be expanded), or
- The display of trade execution rows.

In the trade summary display, the trade executions are summarized on order level to inform about the average price, accumulated quantity, and whether or not the order has been fully executed. In this display, one summary row is displayed per original order. That row can be expanded by a click onto the plus-sign (\oplus) to show all the executions belonging to that order.

In the trade execution display, each execution is displayed per row. No special summary row is shown to display the average price.

Depending on whether the displayed data is the trade summary or trade execution, one of the following table descriptions applies:

Trade summary columns:

| Field | Description |
|---------------|--|
| Instrument | Instrument short name |
| ISIN | ISIN of the instrument |
| WKN | WKN of the instrument (if available) |
| B/S | Buy/Sell identifier. |
| AvgPrc | Average price of underlying executions (Volume Weighted Average). |
| AccQty | Accumulated order quantity |
| P/F | Partial or Filled of the last execution. |
| Res | Order restriction: AOO - Auction only. BOC - Book or Cancel. CAO- Closing Auction. ICE - Iceberg Order or VDO Order. IAO - Intraday Auction. OAO - Opening Auction. OCO - One Cancels the Other. STP - Stop order. . |
| Act | Account type. |
| StopPrice | Stop price of a stop limit order |
| Triggered | Indicates whether the current order originates from a triggered OCO or stop order. |
| TrdItemID | Trade item ID. Also known as deal item ID by the Xetrasystem. |
| TrdState | Indicates whether the trade is new or reversed. |
| TrdID | Trade ID. Also known as deal ID by the Xetrasystem. |
| TrdReportID | Trade Report ID. |
| MatchStepID | Match Step ID. |
| OrdNo | Order number generated by T7. |
| OrdNoClearing | Order number used in XetraClearing. |
| Text1 | Free format text field 1. Can be used by the member for own purposes, is part of the clearing fields. |
| Text2 | Free format text field 2. Can be used by the member for own purposes, is part of the clearing fields. |

| | |
|---------------|---|
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| ClientOrdID | Client order number. |
| BU | Owning Business Unit. |
| Grp | User group of the owning user. |
| Trader | Owner of the trade (refers to the user name of the exchange account of the respective trading system). |
| Session | Owning SessionID. |
| OrdEntryTime | OnExchange: Date and time of the order entry. |
| OrdPrioTime | OnExchange: Date and time of the order priority. |
| TrdTime | OnExchange: Date and time of the order match. |
| StlCurr | Settlement currency. |
| StlAmnt | Settlement amount. |
| StlDate | Settlement date. |
| ExchRat | Exchange Rate. |
| CM | Clearing member. |
| CCPCM | CCP clearing member. |
| KVNo | Kassenvereins-Nummer. |
| StlLoc | Settlement location. |
| StlAct | Settlement account. |
| Cpty | Counterparty member. |
| CptyKVNo | Counterparty Kassenvereins-Nummer. |
| CptyStlLoc | Counterparty settlement location. |
| CptyStlAct | Counterparty settlement account. |
| CptyCM | Counterparty clearing member. |
| CapacityGroup | Capacity group. |
| Exch | Exchange Identifier. |
| SegmMic | <i>Reporting Market.</i> Market Identifier Code (ISO 10383) required for reporting to supervisory authority. |

Trade executions columns:

The trade execution columns are identical to the columns of the *Trades* view.

3.4.6 TES View

TES View is provided as a display for all own approved as well as unapproved TES trades.

Columns of the *TES View*:

| Field | Description |
|------------|---|
| Instrument | Instrument identifier |
| WKN | WKN of the instrument (if available) |
| ISIN | ISIN of the instrument |
| TrdTyp | TES Type of the trade: OTC or LIS. |
| Prc | TES Trade Limit. Price is displayed together with the currency. |
| Curr | Currency of a TES Trade. |
| B/S | Buy/Sell identifier. |
| Qty | Quantity volume of the TES trade. |
| Act | Account type. |

| | |
|-------------|---|
| TESStatus | <p>The current status of the TES trade:</p> <ul style="list-style-type: none"> • Pending The TES trade has been entered and is waiting for approval of the counterparty. • Approved The TES trades has been ratified by the counterparty, but approval of other counterparties are still outstanding. • Auto_Approved The TES trades has been auto_approved according to defined auto-approval rule. • Executed The TES trades has been fully ratified. • Deleted The TES trade has been deleted. • Suspended The TES trade has been entered in suspended state, for activation at a future point in time. • Reversed The TES trade has been reversed. |
| TesTrdID | Trade ID of the TES Trade. |
| Text1,Text2 | Free format text field. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| Description | The Initiator of a TES trade can no longer use the text fields to pass on information to the Approver. In order to compensate for that, a the <i>Description</i> field is provided, which allows the initiator to give a hint to the counterparty about the background of the trade. |
| Initiator | Initiator of the TES trade (the person entering the trade) |
| Approver | Approver of the TES trade (the owner of the trader) |
| CommTime | Time of Commencement, the time of day the trade has been prearranged. |
| EntryTime | Entry time, the time the trade has been entered. |
| Elapsed | The elapsed time since the entry of the trade. |
| ApprTime | Approval time. |
| ExecTime | Execution time. |

| | |
|------------------|--|
| ApprovedBy | Trader ID of Approver. |
| ApproverBU | Approver business unit. |
| ApproverUserGrp | Approver user group. |
| InitiatorBU | Initiator business unit. |
| InitiatorUserGrp | Initiator user group. |
| DeleteReason | Reason for deletion of TES Trade, e.g. USER ACTION |
| Issuer | Name of Issuer. |
| RegID | Regulatory ID |
| SettlDate | The settlement date of the TES trade; has to be greater than the current business date. |
| SettlInst | Settlement institution. |
| SettlStyle | Settlement style. |
| SkipQtyCheck | If this flag is set to True, validations related to Maximum Order Quantity are not executed. Only for TES type LIS. |
| SkipValueCheck | If this flag is set to True, validations related to Maximum Order Value are not executed. Only for TES type LIS. |
| TrdCapacity | Trading Capacity / Account type. Valid Values: Agency Proprietary Market Making Riskless Principle |
| MaturityDate | Maturity of the bond, expiration date of the Reference Financial Future or expiration date of the Futures contract with longest term in case of Short Term Interest Rate Futures. |
| CustUndrPrc | Customer Underlying price. |
| Nominal | Equivalent value of the futures leg to be traded (in units of one thousand). |
| LiPrv | Flag to indicate whether an order/transaction is submitted as part of a market making strategy. |
| InvID | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| ExeID | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with InvId. |

| | |
|------------------|---|
| ExeQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |
| ClientID | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| ESMA | European Securities and Markets Authority Action Code |
| MktVal | Bonds Market Value |
| IntBearDays | Number of Interest bearing Days. |
| UserCurrExchRate | Currency Exchange Rate. |

3.5 View Descriptions: Info & Support

Info & Support provides a display of trading attributes and statistical information on product and instrument level, a display of market and other news, and risk control functions.

3.5.1 Product Statistics

Statistical market data on a product level is displayed in the *Product Statistics* view.

Field description of the *Product Statistics* view:

| Field | Description |
|---------------|---|
| Product | Product ID. |
| LongName | Product long name. |
| Vol | Total volume of all instruments associated to the product in the course of the day. BESTVol is not included in this figure. |
| Trades | Total number of trades (counted match steps) of all instruments associated to the product. BESTTrades is not included in this figure. |
| Exch | Exchange ID of the product. |
| MC | Market condition indicator. |
| Phase | Trading phase of the product. |
| Partition | Partition Id. |
| CurrentBusDay | Current business day. |
| CapacityGroup | Capacity group. |

| | |
|------------|--|
| BESTTrades | Number of trades resulting from BEST execution. |
| VDOTrades | Number of trades resulting from VDO midpoint execution. |
| BESTVol | (aggregated) Volume of trades resulting from BEST execution. |
| VDOVol | (aggregated) Volume of trades resulting from VDO midpoint execution. |

3.5.2 Instrument Statistics

Statistical market data on an instrument level is displayed in the *Instrument Statistics* view. Statistical data comprises of a daily total volume, last traded price, daily high and low price and previous day closing price.

Field description of the *Instrument Statistics* view:

| Field | Description |
|----------------|--|
| ISIN | ISIN of the instrument |
| WKN | WKN of the instrument (if available) |
| Instr | Instrument short name |
| InstrLongName | Instrument long name |
| TickSize | Tick size. |
| Vol | Total volume in the instrument traded in the course of the day. |
| TradeCount | Total number of trades (counted match steps) of the instrument. |
| Last | Last traded price in the instrument. |
| High | Day's highest price in the instrument. |
| Low | Day's lowest price in the instrument. |
| PrevClsPrc | Previous day's closing price. |
| LastAuctPrice | Last Auction Price. |
| Phase | Trading phase of the product. |
| MC | Display Market Conditions codes. Possible values: <ul style="list-style-type: none"> • F - Fast market • SA - Stressed Auto • SF - Stressed Auto+Fast |
| MinTradeUnit | Minimum tradeable unit |
| Quotation Unit | Quotation Unit - Points, Percent or Shares |

| | |
|---------|----------------|
| MatDate | Maturity Date |
| FlatInd | Flat Indicator |

3.5.3 Risk Controls

The *Risk Controls* functionality in the XetraT7 GUIs available to participants provides *Panic Cancel* actions. *Panic Cancel* actions enable users of XetraT7 with assigned 'Emergency Role', to mass delete orders and/or quotes in a particular market.

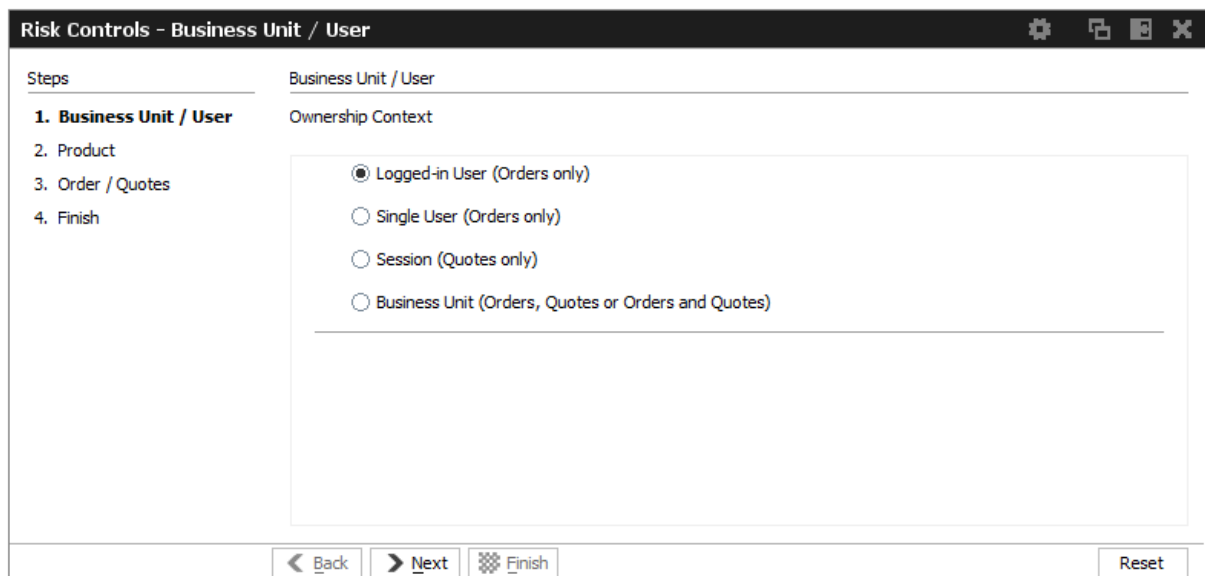


Fig. 81: Screenshot of the *Risk Controls* view

Please note, that on the *Risk Controls* view a single action will in most cases lead to the deletion of multiple orders and/or quotes. Because of that, the result of that single action might be multiple positive and/or negative results. Only the last result is displayed in the status bar. In order to see all results of that action please open the *Risk Controls - Log Messages* by a double click onto the status bar.

3.5.4 News Board

The *News Board* view displays important public and private trading relevant messages. The messages can be filtered according to their privacy type, source and category.

The most important news are *System-News* and *Market News*, the latter displays market news for the exchange published by Market Operation, e.g., information about delay in trading start, suspension of a product).

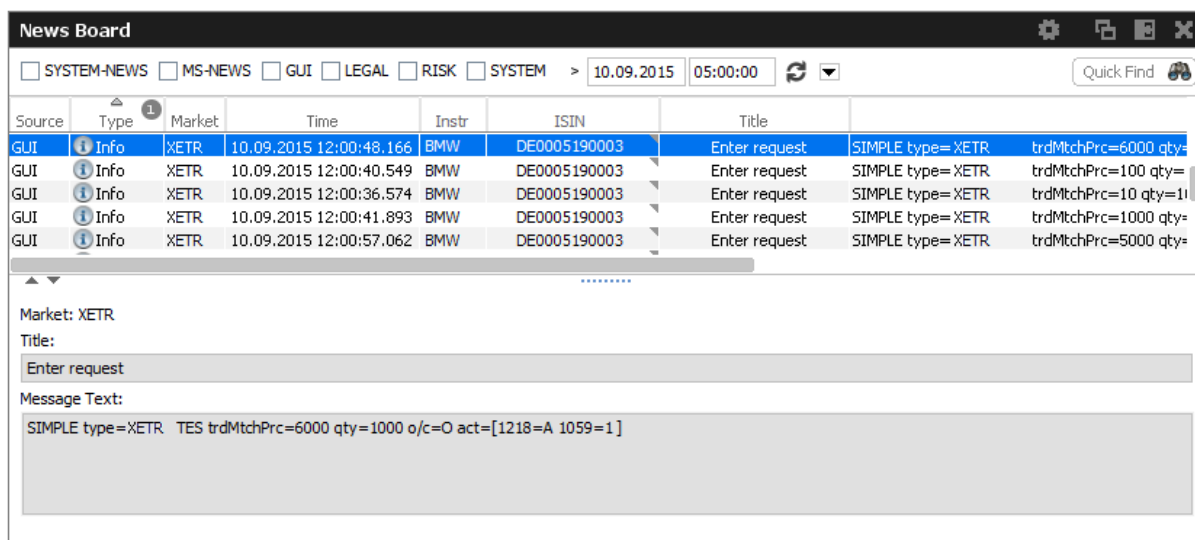


Fig. 82: Screenshot of the *News Board* view

The *News Board* view displays the following information:

- System-News
- MS-News: Market Supervision messages published by the exchange
- GUI: Messages which originate from all GUI views as a result of user interaction. These are the messages that are also displayed in the status bar of the respective view.
- Legal: Notification about the stop/release trading of a user or business unit

The view is updated automatically. Messages are sorted descending by date and time.

The message column of the table shows the headlines of any messages received. A click on a headline in the upper table displays the entire message in the detail box below.

4 XetraAdmin GUI

The *XetraAdmin* application is provided to participants for the use by the service administrator and user data view users.

Please refer to section 2 for a general description on how to use the application and how to access these functions using the *Welcome* view.

4.1 View Descriptions: Info & Support

4.1.1 News Board

Please refer to chapter 3.5.4 News Board for a description of this view.

4.1.2 Sessions

The *Sessions* view provides an overview of all sessions of the own business unit. The view also provides the mapping between SessionID, SessionName and displays the SessionType along with the CapacityType of the respective session.

| BUID | BUShortName | SessionID | SessionName | SessionType | SessionTypeName | CapacityType | CapacityTypeName | Quote Session | FIX Session |
|------|-------------|-----------|----------------|-------------|-------------------------|--------------|--------------------|---------------|-------------|
| 47 | ABCFR | 100061 | ABCFR_GUI_S1 | 1 | GUI_INFRASTRUCTURE | 1 | GUI_INFRASTRUCTURE | false | false |
| 47 | ABCFR | 100062 | ABCFR_GUI_S2 | 1 | GUI_INFRASTRUCTURE | 1 | GUI_INFRASTRUCTURE | false | false |
| 47 | ABCFR | 100063 | ABCFR_GUI_S3 | 1 | GUI_INFRASTRUCTURE | 1 | GUI_INFRASTRUCTURE | false | false |
| 47 | ABCFR | 209310 | ABCFR_SHF_S1 | 3 | STANDARD_HIGH_FREQUENCY | 3 | STANDARD_HF_FULL | true | false |
| 47 | ABCFR | 209311 | ABCFR_SHF_S2 | 3 | STANDARD_HIGH_FREQUENCY | 3 | STANDARD_HF_FULL | true | false |
| 47 | ABCFR | 209312 | ABCFR_SHF_S3 | 3 | STANDARD_HIGH_FREQUENCY | 3 | STANDARD_HF_FULL | false | false |
| 47 | ABCFR | 309313 | ABCFR_SLF_S1 | 4 | STANDARD_LOW_FREQUENCY | 5 | STANDARD_HF_LIGHT | true | false |
| 47 | ABCFR | 309314 | ABCFR_SLF_S2 | 4 | STANDARD_LOW_FREQUENCY | 5 | STANDARD_HF_LIGHT | true | false |
| 47 | ABCFR | 309315 | ABCFR_SLF_S3 | 4 | STANDARD_LOW_FREQUENCY | 5 | STANDARD_HF_LIGHT | false | false |
| 47 | ABCFR | 309316 | ABCFR_FG_S1 | 4 | STANDARD_LOW_FREQUENCY | 5 | STANDARD_HF_LIGHT | true | true |
| 47 | ABCFR | 309317 | ABCFR_LHFBO_S1 | 4 | STANDARD_LOW_FREQUENCY | 4 | STANDARD_LF_LIGHT | true | false |

Fig. 83: Screenshot of the *Sessions* view

4.1.3 Bandwidth Monitor

The *Bandwidth Monitor* view provides an overview of the current and maximum bandwidth consumption and connection latency for currently logged in users of *XetraTrader*, *XetraAdmin* and *XetraClearer*. Bandwidth charts per user are available, that can be toggled with a click into the respective cell of the chart column.

The bandwidth figure displays the net amount of bytes/s delivered to the client application (not counting any transport layer overhead). In addition Incoming traffic from the client application is not counted.

Using the *Reset* Button, the displayed maximum figures for bandwidth and latency can be set to 0 for the selected rows.

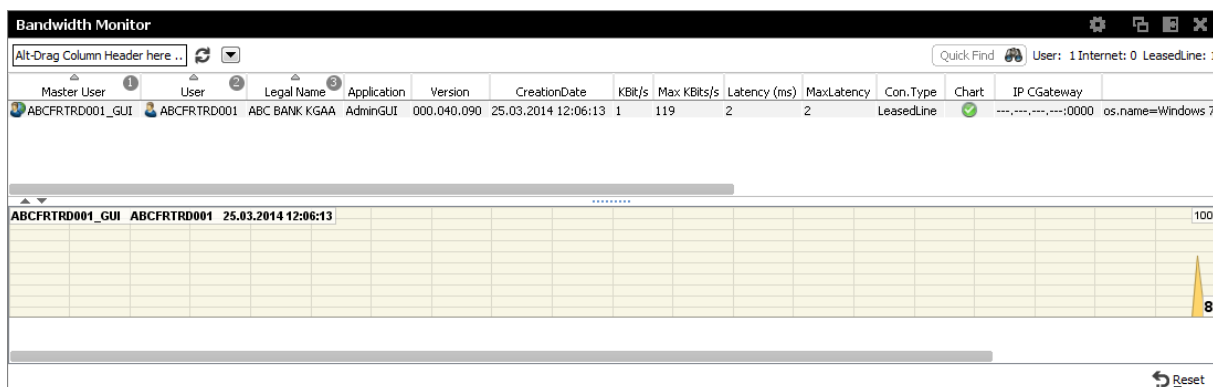


Fig. 84: Screenshot of the *Bandwidth Monitor* view

4.2 View Descriptions: Risk & Security

4.2.1 Quote Activation

The *Quote Activation* view allows the user to both deactivate and to re-activate quotes for a specified product or profile and session.

4.2.2 Risk Controls

The *Risk Controls* functionality in the XetraT7 GUIs available to participants provides *Panic Cancel* actions. *Panic Cancel* actions enable users of XetraT7 with assigned 'Emergency Role', to mass delete orders and/or quotes in a particular market.

4.2.3 Stop Release


The *Stop Release* functionality in the XetraT7 GUIs available to participants includes *Stop Trading* and *Release Trading* actions.

Stop Trading and *Release Trading Own BU* actions are effective for an entire Business Unit or selected users in a particular market and can be performed by a user of XetraT7 with 'Emergency Trading Stop Role' and user level 'Supervisor' assigned. The *Stop Trading* effectively prevents a user or business unit from the further entry of orders and quotes. In order to prevent any existing orders and quotes of the affected user or Business Unit from matching, *Stop Trading* also triggers the *Panic Cancel* function (pls. refer to 3.5.3 Risk Controls for more information).

4.2.4 Trade Enrichment Rules

Trade Enrichment Rules are a mechanism to enrich the missing clearing fields of trades resulting from executed quotes and orders with short order message layout during the trade enrichment process of the trade manager.

4.2.5 TES Auto Approval Rule

The *TES Auto Approval Rule* functionality allows participants to approve TES trades automatically according to pre-defined data. New rules can be defined manually by Adding them to the table via the view's import function - either by clicking  and choosing *Import* or via GUI menu *View->Import*.

TES Auto Approval Rule view, columns that are displayed:

| Field | Description |
|--------------------|---|
| Id | Rule Id. |
| InitiatingUserName | LoginName of the initiating user. |
| ExecQual | Executing Trader Qualifier, parameter that determines business logic of execution decision: algorithm, in case Execution Identifier represents an algorithmic identifier or human otherwise. |
| TradingCapacity | Trading Capacity. Valid Values: Agency Proprietary Market Making Riskless Principle |
| MarketGroup | MarketGroup Symbol, Category and OwnedBy data set. |
| User | Date set consisting of Login Name of user and OwnedBy. |
| ClientIdentifier | Numeric code used to identify client of the member/participant of the Trading Venue. Mandatory for account type 'A'. Serves as a reference to the 35 characters long ESMA Client Identification Code. |
| ExecIdentifier | Execution Identifier, identifying person or algorithm responsible for executing transaction within company. Not to be mixed up with Invld. |
| Text1,Text2 | Free format text field. |
| MIOrdNo | Member Internal Order Number, a private text field that can be used by the member for own purposes, is part of the clearing fields. |
| InvestIdentifier | Investment Identifier, identifying person or algorithm responsible for investment decision within company. |
| InvestQual | Investment Qualifier, parameter that determines the business logic of investment decision: algorithm, in case Investment Decision Maker represents an algorithmic identifier or human otherwise. |
| LiPrv | Checkbox to indicate whether an order is submitted as part of a market making strategy. Box ticked means true. |
| SkipQtyCheck | If this flag is set to True, validations related to Maximum Order Quantity are not executed. Only for TES type LIS. |
| SkipValueCheck | If this flag is set to True, validations related to Maximum Order Value are not executed. Only for TES type LIS. |

| | |
|---------------|--|
| MaxTradeValue | If provided, then it is validated that price multiplied by quantity is less than or equal to the value provided in this field. If the validation fails, then auto approval is not applied. |
|---------------|--|

4.2.6 User Maintenance

The *User Maintenance* view provides an overview of the users that are set up in the business unit of the logged in service administrator.

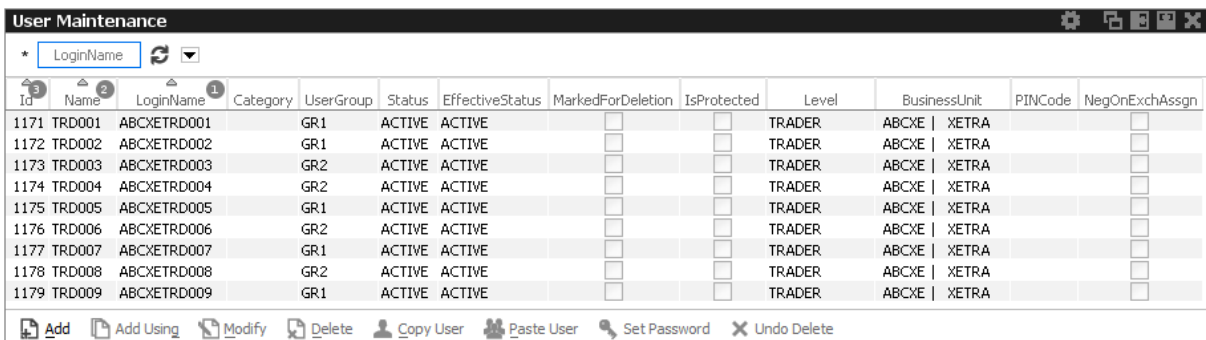


Fig. 85: Screenshot of the *User Maintenance* view

Actions are provided on the *User Maintenance* view that allows the modification and creation of users, also the creation on the basis of a selected user (Add Using) is supported. Deletion of a user is also provided, but user deletions will not be processed immediately - instead, a deleted user is marked for deletion, and will be removed during the nightly batch. New users will be setup, and existing users can be maintained using the *User Maintenance Wizard*, which opens for the *Add* and *Modify* function.

User Maintenance view, columns that are displayed:

| Field | Description |
|-----------|---|
| Id | Id number of the user, provided by the system. |
| Name | The Name is the LoginName minus the BusinessUnit name. |
| LoginName | Login Name, this is the ID of the exchange account to XetraExchange's T7. |
| Category | If applicable this field should be set by the service administrator when setting up a user. Trader with names starting with "OR" or "UR" must be marked with the category "OrderRoutingSystem". Trader with names starting with "TLP" or "ULP" must be marked with the category "TraderDevelopmentProgram". |
| UserGroup | The name of the user group the user belongs to inside the business unit. Every group can define their own name. Each user is assigned to maximum one user group. Also referred to as user group. |

| | |
|-------------------|---|
| Status | <p>The current trading status of the user. This status reflects whether or not the user has been suspended from trading using the Stop Trading function. This status does not reflect the trader examination status:</p> <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – the user is temporarily suspended from trading. |
| EffectiveStatus | <p>The EffectiveStatus describes the effective trading status of the user. This status combines the trading status of the selected user and the trading status of the user's business unit. The status can be:</p> <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – either the user or the business unit is suspended from trading. |
| MarkedForDeletion | Indicates whether the user is marked for deletion. |
| IsProtected | Indicates whether user is protected from deletion. Via this flag it is prevented that the last service administrator deletes the own account. |
| Level | <p>The level determines if the user may see orders and trades of other users of the same user group or business unit: The trader level may not see orders and trades of other traders of the same trader group. The head trader can see orders and trades of all users within the same user group. The supervisor can see orders and trades of all users within the same business unit.</p> |
| BusinessUnit | Business unit of the user. Identical to the BU of the logged in service administrator |
| PINCode | Encrypted four character code for authorization when contacting Market Supervision to reverse trades or mistrade handling. |
| MaxOrderValue | Maximum order value for user. Based on calculation Qty times (order) Limit. |
| MaxOrderQty | Maximum order quantity for user. Conditional mandatory based on market parameter OrderQtyValidationRule. |
| UOWId | UnitOfWork Identifier |
| NegOnExchAssgn | Flag indicates whether negative Trader examination is still active for user |
| NegTESAssign | Flag indicates whether negative TES role assignment is still active for user |

User Maintenance Wizard

The *User Maintenance Wizard* is a step by step process of setting up a new user or maintaining an existing user. The setup workflow consists of the following steps, in the order of appearance. Each step is displayed in a separate tab of the *User Maintenance Wizard*. Some tabs are described in separate chapters, please check the references:

1. General Attributes tab: definition of the user attributes
2. On-Exch Attributes & Roles tabs: assignment of entitlement roles
3. On-Exch Roles: assign On-Exchange roles to Market Groups
4. TES Attributes: maintain entitlement of TES trade types and TES roles
5. TES Roles: assign TES roles to Market Groups

Please note that in contrast to the handling of user attributes in T7 Eurex, the user group of a Xetrauser is a mandatory field (in the GUI).

User Maintenance - General Attributes

The *General Attributes* tab features a list of mandatory fields that need to be maintained for the setup of the user. As soon as all mandatory fields are correctly filled, the *Next* button is enabled to provide access to the next step of the user setup process.

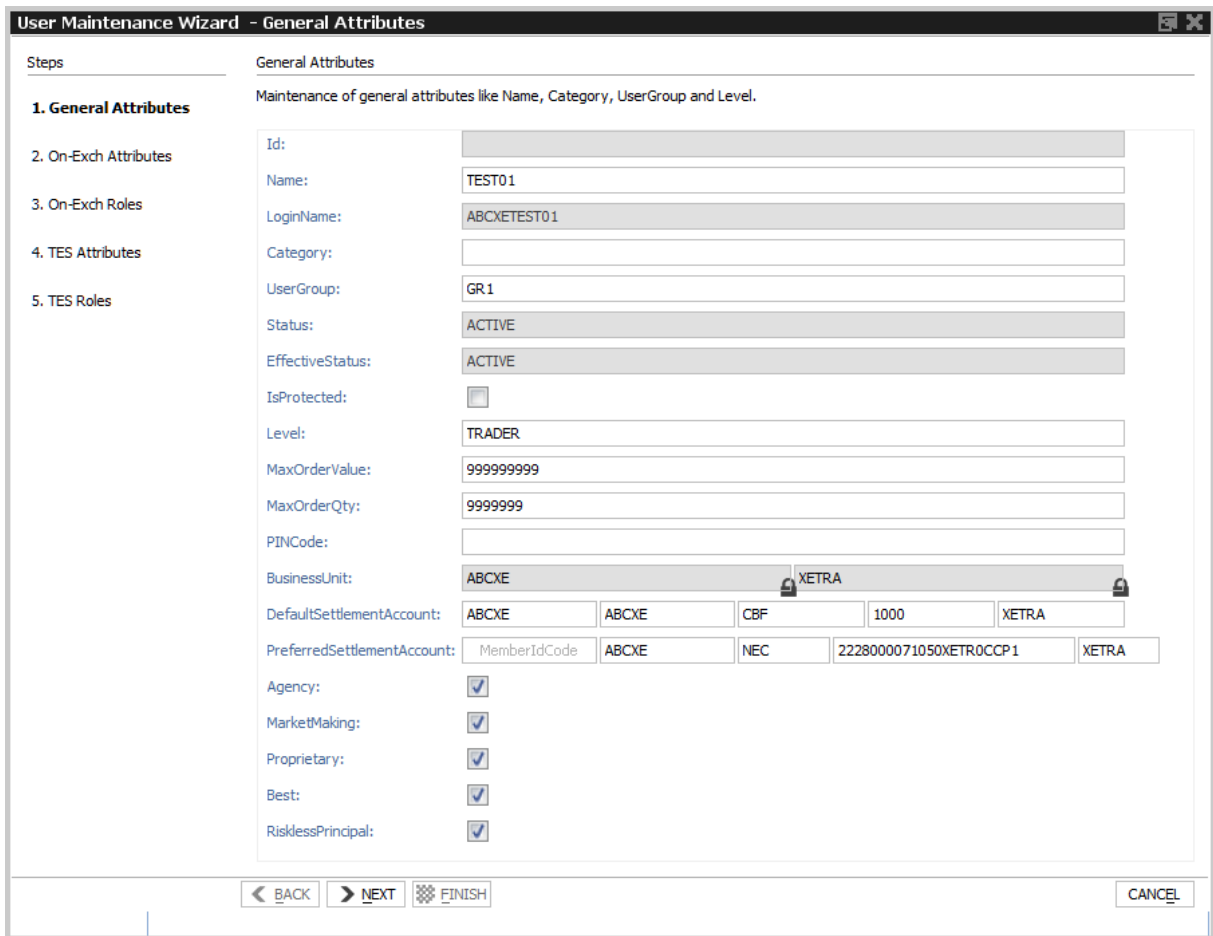


Fig. 86: Screenshot of the *User Maintenance Wizard* showing the *General Attributes* tab

Field description of *General Attributes* :

| Field | Description |
|-----------|---|
| Id | Id number of the user, provided by the system. |
| Name | The LoginName is constructed by adding this Name to the BusinessUnit. |
| LoginName | LoginName, this is the ID of the exchange account to XetraExchange's T7. For a new user the LoginName is automatically created by adding the Name to the BusinessUnit. |
| Category | If applicable this field should be set by the service administrator when setting up a user. Trader with names starting with "OR" or "UR" must be marked with the category "OrderRoutingSystem". Trader with names starting with "TLP" or "ULP" must be marked with the category "TraderDevelopmentProgram". |
| UserGroup | The name of the user group the user belongs to inside the business unit. Every group can define their own name. Each user is assigned to maximum one user group. Also referred to as user group. This field is mandatory. |

| | |
|------------------------------|--|
| Status | <p>The current trading status of the user. This status reflects whether or not the user has been suspended from trading using the Stop Trading function. This status does not reflect the trader examination status:</p> <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – the user is temporarily suspended from trading. |
| EffectiveStatus | <p>The EffectiveStatus describes the effective trading status of the user. This status combines the trading status of the selected user and the trading status of the users business unit. The status can be:</p> <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – either the user or the business unit is suspended from trading. |
| IsProtected | <p>Marks the user as to be protected from deletion. Via this flag it is prevented that the last service administrator deletes the own account.</p> |
| Level | <p>The level determines if the user may see orders and trades of other users of the same user group or business unit: The trader level may not see orders and trades of other traders of the same trader group. The head trader can see orders and trades of all users in their own user group. The supervisor can see orders and trades of all users in their own business unit.</p> |
| MaxOrderValue | <p>Maximum allowed order value for a single order. Based on calculation Qty times (order) Limit.</p> |
| MaxOrderQty | <p>Maximum order quantity for user. Conditional mandatory based on market parameter OrderQtyValidationRule.</p> |
| PINCode | <p>User PIN. Used by the exchange to identify a calling person.</p> |
| BusinessUnit | <p>Business Unit.</p> |
| Default Settlement Account | <p>Default & mandatory settlement account information for multiple CCP: <i>MemberID SettlementInstitute - MemberID Trading Participant - Settlement Location - Settlement Account</i></p> |
| Preferred Settlement Account | <p>Preferred & optional settlement account information for multiple CCP: <i>MemberID SettlementInstitute - MemberID Trading Participant - Settlement Location - Settlement Account</i></p> |
| Agency | <p>Allow the entry of orders for the trading capacity A.</p> |

| | |
|-------------------|--|
| MarketMaking | Allow the entry of orders for the trading capacity M. |
| Proprietary | Allow the entry of orders for the trading capacity P. |
| Best | Enables usage of <i>Xetra BEST</i> trading capacity to allow entry of BEST quotes. |
| RisklessPrincipal | Enables usage of Riskless Principal account. |

User Maintenance - On-Exchange Attributes and Roles

The *On-Exchange Attributes* and *On-Exch Roles* tabs support the maintenance (assignment & de-assignment) of entitlement roles to a user. These tabs are provided in *XetraAdmin* and *XetraClearer* to the service administrator for maintenance access at user level.

The difference of the On-Exchange Attributes and On-Exch Roles tab is that the On-Exchange Attributes control the generic user entitlement free of market context, whereas the On-Exch Roles control the entitlements per market group.

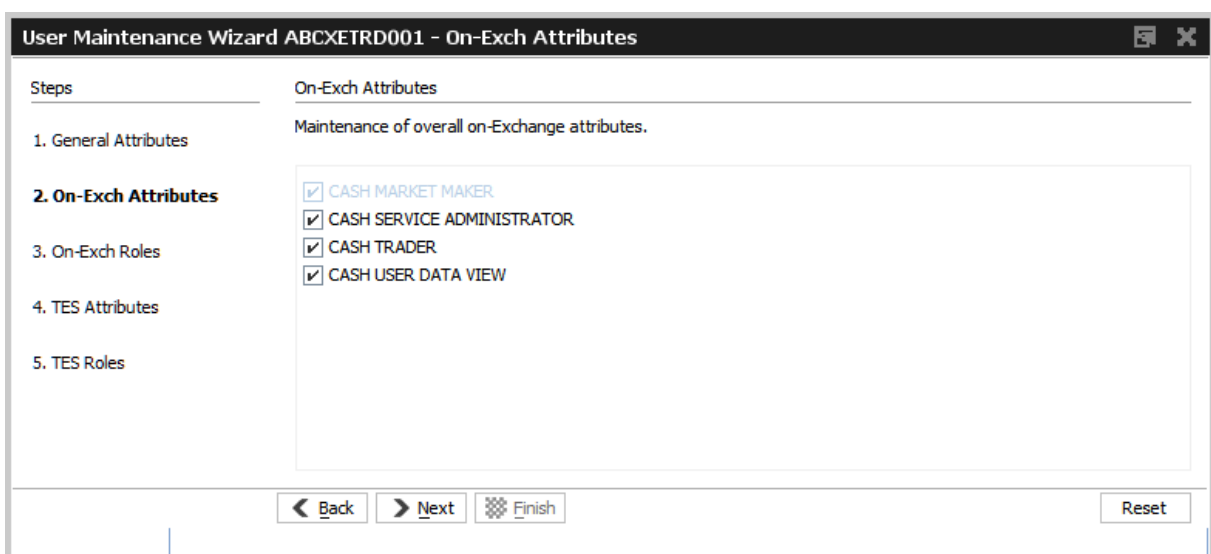


Fig. 87: Screenshot of the *User Maintenance Wizard* showing the *Attributes* tab

Entitlement View, Roles and GUIs

A user which is set up using the setup process is automatically assigned with a role containing negative entitlements which effectively prevents the user from trading until this role has been removed by XetraExchange. The role containing negative entitlements will be displayed on this tab if assigned - but in case it is displayed, it cannot be changed or removed by the service administrator.

The following table gives a detailed overview about the available combinations of view and maintenance access for the different roles in the applications:

| | | |
|--|--|------------------------------|
| | Trader, Market Maker, Trading View User | Service Administrator |
|--|--|------------------------------|

| | | |
|-------------------|---------------------------|----------------------------------|
| XetraAdmin | View only at a user level | Maintenance access on user level |
|-------------------|---------------------------|----------------------------------|

Fig. 88: Access levels for different users for the *Entitlement* tab

Entitlement is the combination of a product assignment group with a role - the *Entitlement* tab looks at the entitlements from the perspective of the product assignment groups to see their roles assigned.

In the example below, the column *MarketGroup* denotes the product assignment group where the columns USER DATA VIEW, TRADING VIEW, etc. denote the respective role. A set checkbox for the combination of a role and market group indicates that this combination of market group and role is assigned to the user.

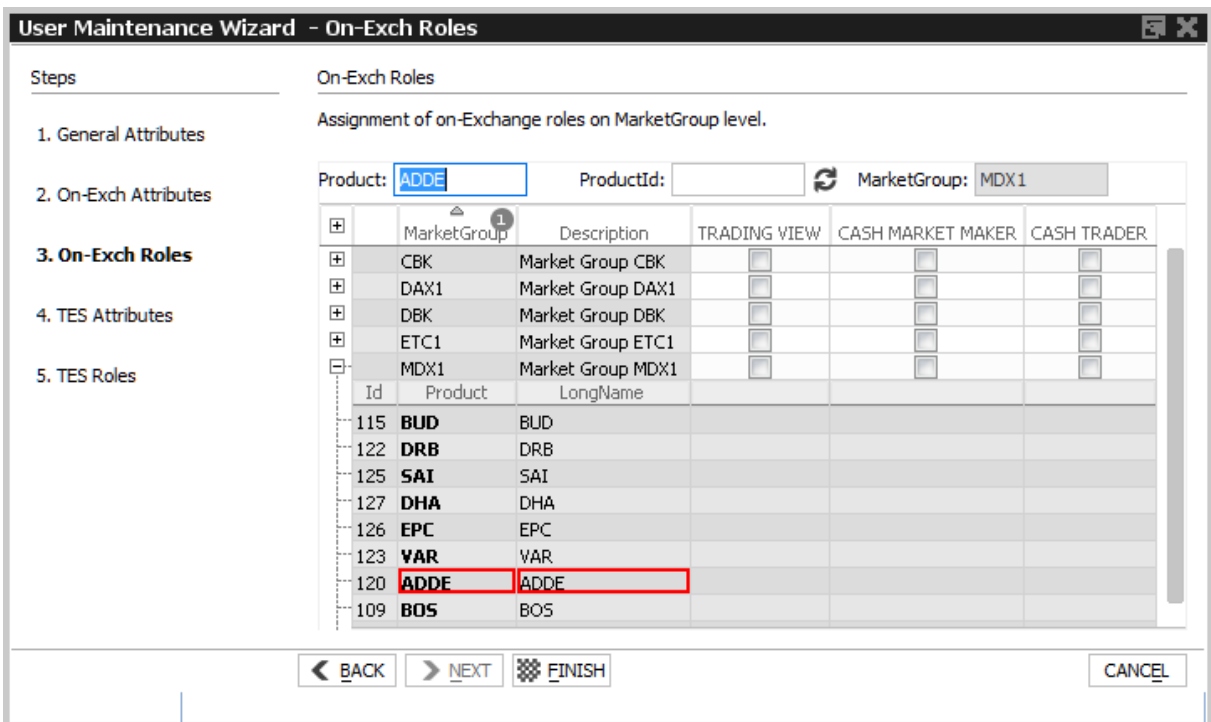


Fig. 89: Screenshot of the *User Maintenance Wizard* showing the entitlement roles on the *On-Exch Roles* tab

In this example the "Trading View" role and "Market Maker" role is assigned in combination with the respective product assignment groups.

The assignment can be given or taken away by clicking on the respective checkbox in the role columns.

Please note: Changes to the entitlement profile of the user will be effective in the next time the user logs in. However, changes are immediately effective on the ETI interface. In case entitlements have been removed from the user, those changes will also immediately prevent the entry of orders in the XetraTrader GUI.

Table of the *Entitlement* tab, *MarketGroup* level:

| Field | Description |
|-------|-------------|
|-------|-------------|

| | |
|--------------|----------------------------------|
| MarketGroup | Market group. |
| Description | Description of the market group. |
| TRADER | Entitlement role "Trader" |
| MARKET MAKER | Entitlement role "Market Maker" |
| ... | Entitlement roles |

Table of the *Entitlement* tab, *Product* level:

| Field | Description |
|----------|--------------------|
| Product | Product. |
| LongName | Product long name. |

TES Attributes

The *TES Attributes* tab allows to maintain the T7 Entry Service eligibility per TES type and TES role as well as for Xetra EnLight. Xetra EnLight trading will not be possible if neither a TES Broker role nor a TES trader role is assigned.



Fig. 90: Screenshot of the *User Maintenance Wizard* showing the *TES Attributes* tab

TES Roles

The *TES Roles* tab allows to assign roles for TES and Xetra EnLight on market group level. Entering a product or product ID in the respective field will open the market group containing the product.

In the example below, the column *MarketGroup* denotes the product assignment group where the columns TES BROKER VIEW, TES TRADER VIEW and TES VIEW denote the respective role. Xetra EnLight will not be possible if neither a TES Broker role nor a TES trader role has been assigned. A set checkbox for the combination of a role and market group indicates that this combination of

market group and role is assigned to the user.

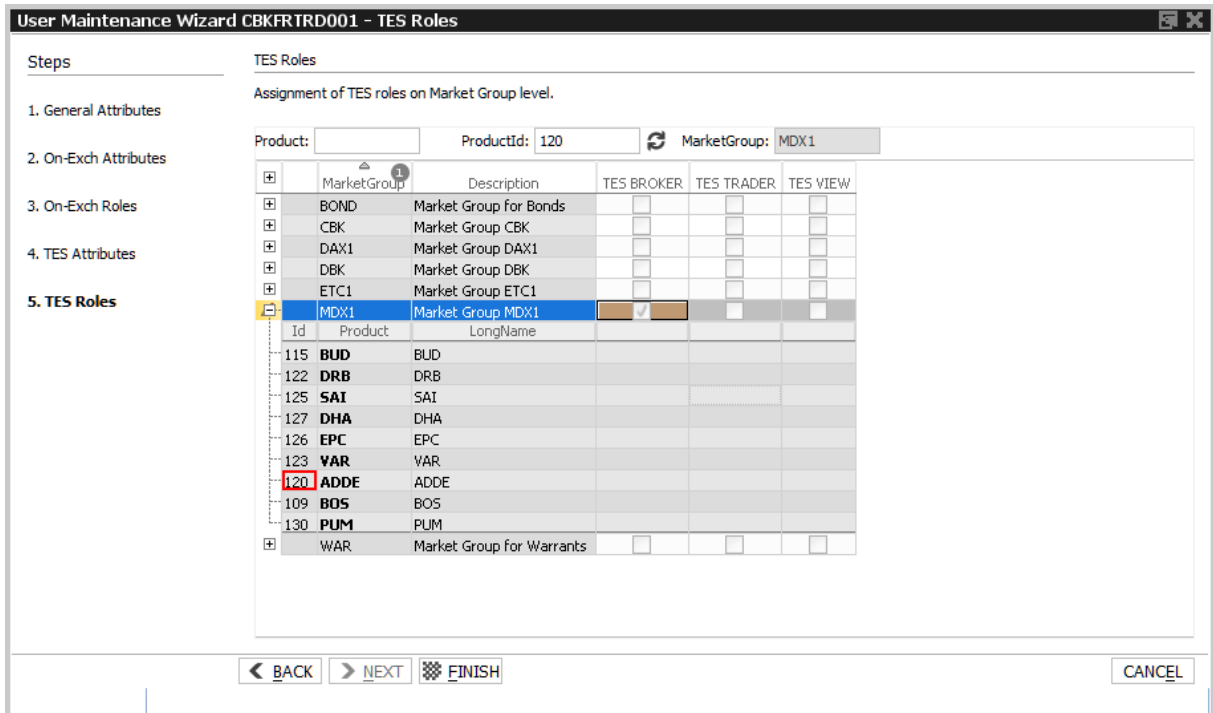


Fig. 91: Screenshot of the *User Maintenance Wizard* showing TES Broker role being assigned to market group MDX1.

Please note: Changes to the entitlement profile of the user will be effective in the next time the user logs in. However, changes are immediately effective on the ETI interface. In case entitlements have been removed from the user, those changes will also immediately prevent the entry of orders in the XetraTrader GUI.

Table of the *TES Roles* tab, *MarketGroup* level:

| Field | Description |
|-------------|----------------------------------|
| MarketGroup | Market group. |
| Description | Description of the market group. |
| TES Broker | Entitlement role "TES Broker" |
| TES Trader | Entitlement role "TES Trader" |
| TES View | Entitlement role "TES View" |

Table of the *Entitlement* tab, *Product* level:

| Field | Description |
|----------|--------------------|
| Product | Product. |
| LongName | Product long name. |

User Maintenance - Set User Password

The *Set User Password* dialog allows you to set or change the password of a user.

The *Master User* and *Master Password* need to be filled with the credentials of the operating service administrator. The *On Behalf* field displays the login name of the user which is currently being maintained. The *Generate Password* button allows you to generate a new password. This generated password is then displayed in clear text in the *Generated Password* field, it is also prefilled in the *New Password* and *Confirm Password* fields.


As a convenience, the password is also copied into the clipboard, which allows pasting it.

Set User Password

User password requirements:

- a minimum of 8 and a maximum of 16 characters
- valid characters: [a-z, A-Z, 0-9] and special characters: ['+', '-', '@', '!', '_', '\$', '%', '&', '/', '=', '*', '#]
- min 1 uppercase letter and min 1 lowercase letter
- min 1 special character
- maximum number of repeated characters allowed is 6
- a password history is maintained to prevent the last 10 passwords from being re-used.

| | |
|---|---|
| <p>On Behalf</p> <input type="text" value="ABCFRTRD001"/> | <p>Master User</p> <input type="text" value="ABCFRSEC001_GUI"/> |
| <p>Generated Password</p> <input type="text"/> | <p>Master Password</p> <input type="password"/> |
| | <p>New Password</p> <input type="password"/> |
| | <p>Confirm Password</p> <input type="password"/> |

 Generate Password



 Apply  Cancel

Fig. 92: Screenshot of the *User Setup Dialog*

5 XetraClearer GUI

The *XetraClearer* application is provided to clearing participants for the use by the backoffice and risk staff and user data view users.

Please refer to section 2 General GUI Concepts and Functions for a general description on how to use the application and how to access these functions using the *Welcome* view.

Only entitled users have access to functions provided in this member GUI.

5.1 View Descriptions: Info & Support

5.1.1 Backoffice Trades

The *Backoffice Trades* view is almost identical to the Trades view of XetraTrader, with the exception that the trade summary rows cannot be expanded, e.g. the partial matches are not displayed in this view.

For a description of this view please refer to chapter 3.4.3 Trades.

5.2 View Descriptions: Risk & Security

5.2.1 Stop Release

The *Stop Release* functionality in the XetraClearer T7 GUI available to clearing participants provides *Stop Release* actions to authorized users. The *Stop Release* view also serves as an overview of the current Stop Release status of all NCMs the clearing member has a clearing relation with.

| Id | BusinessUnit | State | StopTime | StoppedBy | OnBehalfOf | StopTimeClearer | StoppedByClearer | StopTimeMS | StoppedByMS |
|-----|--------------|-------|----------|-----------|------------|-----------------|------------------|------------|-------------|
| 259 | ABCXE | ✔ | | | | | | | |
| 260 | DEFXE | ✔ | | | | | | | |

Approve
 Reject

Fig. 93: Screenshot of the *Stop Release Business Unit* view

Stop / Release Business Unit actions are effective for an entire business unit in a particular market and can be performed by a user of XetraT7 with 'Clearing Member Stop' role and user level 'Supervisor' assigned. The *Stop Business Unit* effectively prevents a business unit from the further entry of orders and quotes. In order to prevent any existing orders and quotes of the affected user or Business Unit from matching, *Stop Business Unit* also triggers the *Panic Cancel* function.

| Field | Description |
|------------------|---|
| Id | Business unit Id |
| BusinessUnit | Business unit name |
| State | Stop/Release state: OK / Stopped |
| StopTime | Timestamp of the effective stop action (after approval) |
| StoppedBy | Member stopped by user Id |
| OnBehalfOf | On behalf of user Id |
| StopTimeClearer | Stopped by Clearer time |
| StoppedByClearer | Stopped by Clearer user Id |
| StopTimeMS | Stopped by MS time |
| StoppedByMS | Stopped by MS user Id |

5.2.2 User Maintenance

The *User Maintenance* view provides an overview of the users that are set up in the business unit of the logged in service administrator.

This view is identical to XetraAdmin, for a description of this view please refer to chapter 4.2.6 User Maintenance.

5.2.3 Backoffice Trades

The *Backoffice Trades* view is almost identical to the Trades view of XetraTrader, with the exception that the trade summary rows cannot be expanded, e.g. the partial matches are not displayed in this view.

For a description of this view please refer to chapter 3.4.3 Trades.

6 Change Log

| No | Chapter, page | Date | Change |
|-------|-----------------------------|-------------|---|
| 5.0.0 | General | 21-Mar-2017 | First public version for Release 5.0 |
| 5.0.1 | General | 20-Apr-2017 | Incorporate L1 review comments |
| 6.0.0 | General | 20-Sep-2017 | Major update for Release 6.0 |
| 6.0.0 | 3.3.1 | 25-Sep-2017 | Added details for ClientID |
| 6.0.0 | 2.1, 2.4.2 | 12-Oct-2017 | Updates |
| 6.0.0 | 2.x, 3.x, 6.x | 03-NOV-2017 | Update to VDO,BEST Order types |
| 6.0.0 | 2.x, 3.x, 6.x | 13-NOV-2017 | Rephrasing and updates |
| 6.0.0 | 3.4 | 17-NOV-2017 | Updates on BEST order fields |
| 6.0.0 | 3.3 | 24-NOV-2017 | Updating ClientID description for OrderEntry view |
| 6.1. | 2.6 | 10-APR-2018 | New GUI preferences |
| 6.1. | 3.2.,4.2.5 | 10-APR-2018 | Adding description for Ticker views; New User Maintenance wizard & field description for multiple CCP |
| 6.1. | 2.1, 4.2.5 | 28-MAY-2018 | Updated view for general GUI description, Updated User Maintenance View |
| 7.0 | 3.3.1-3.3.4, 3.4.6., 6.4 | 27-SEP-2018 | T7 Entry Services; Bonds trading |
| 7.0 | 1.2,1.3, 3.3.1-3.3.4, 4.2.6 | 09-OCT-2018 | Updates & corrections to TES, User Maintenance |
| 7.0 | 3.2.1. | 20-NOV-2018 | Enhanced Market View |
| 7.1 | 3.3.4 - 3.3.12 | 20-MAR-2019 | New Xetra Enlight views |
| 7.1 | 3.3.1 | 02-APR-2019 | Quantity info bubble, View properties |
| 7.1 | 3.4.3 | 10-APR-2019 | Xetra Enlight Deals info |
| 7.1 | 3.3.4. - 3.3.11 | 15-APR-2019 | Xetra EnLight updates |
| 7.1 | 4.2.6 | 30-APR-2019 | TES details for User Maintenance Wizard |
| 7.1 | 3.3.5-3.3.11 | 19-JUN-2019 | Updates of Xetra EnLight views |