# Deutsche Börse Group's T7 - Cash Markets

# T7 Release 14.0 – Trader, Admin and Clearer GUI

## Manual

Version 2

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# 1 Introduction

## 1.1 Introduction

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

The applications provided and specified herein are: *Cash Trader*, the application provided to traders, *Cash Admin* which is tailored to the service administrator and *Cash Clearer* 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

The functions of the GUI applications have been organized based on the different roles of the users, which are explained in the next paragraphs.

### Roles and Applications

The GUI applications *Cash Trader*, *Cash Admin* and *Cash 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 Cash:

| GUI Application | Role | Functionality |
|---|---|---|
| **Cash Trader 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 |
| **Cash Admin GUI** | Used by the service administrators and user data view users. | User Maintenance and Entitlements, Trade Enrichment Rules, Risk Controls |
| **Cash Clearer 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 General GUI Concepts and Functions.

Please refer to the following chapters for an overview of the functions provided by the applications *Cash Trader* (chapter 3), *Cash Admin* (chapter 4) and *Cash Clearer* (chapter 5).

## 1.3 List of terms and Abbreviations

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. |
| **CA-S** | *Continuous Auction with Specialist* trading model, i.e. trading model of T7 Börse Frankfurt. |
| **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). |
| **CCP** | Central Counterparty. CCPs support clearing of trades executed in CCP eligible instruments on T7. |
| **CLOB** | Central Limit Order Book |
| **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. |
| **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 *application*. |
| **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 *Cash Trader* - 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 Cash Markets . |
| **ISIN** | 12 digits international security identification number. For multi currency instruments only unique with the specific currency. |
| **Lean order** | Lean orders are supported on high and low frequency sessions but not on *Cash Trader* 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** | Large In Scale, 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 T7 system during the online day. |
| **MDI** | Market Data Interface |
| **Midpoint Order** | Orders that are traded in a separate, in-transparent ('dark') order book. Executions of Midpoint orders will take place at the midpoint between the best ask and best bid of the CLOB. |
| **Order Book** | Identical to Market Depth |
| **(TES) 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) 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". |
| **PUEV (trade)** | Cross Market OTC trade, specific to pre-approved OTC Trade Uploads in the context of cross exchange OTC trading of German Stock Exchanges within the trading venue Börse Frankfurt (MIC: XFRA) |
| **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. |
| **TES** | Cash T7 Entry Services. The T7 Entry Services enable traders to enter pre-arranged off book trades. TES trades can be entered using the respective views of the *Cash Trader* GUI. |
| **ToB** | Trading on-Behalf (by market supervision) |
| **Top of Book** | Overview in which the best bid and best ask limits with accumulated volumes of the order book are displayed. |
| **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.<br>If displayed in views, Trader refers to the *User Name* of the *Exchange Account* 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: Agent, Proprietary or Market Maker. This field is not visible in *Cash Trader*, but the *Order Entry* 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 Xetra classic 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 Cash Exchange's T7 GUI applications, namely *Cash Trader*, *Cash Admin* and *Cash 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 *Cash Trader*, *Cash Admin* and *Cash 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 Cash legacy trading system Trading GUI. This desktop will be described later in this section.

The application window consists of the following elements:

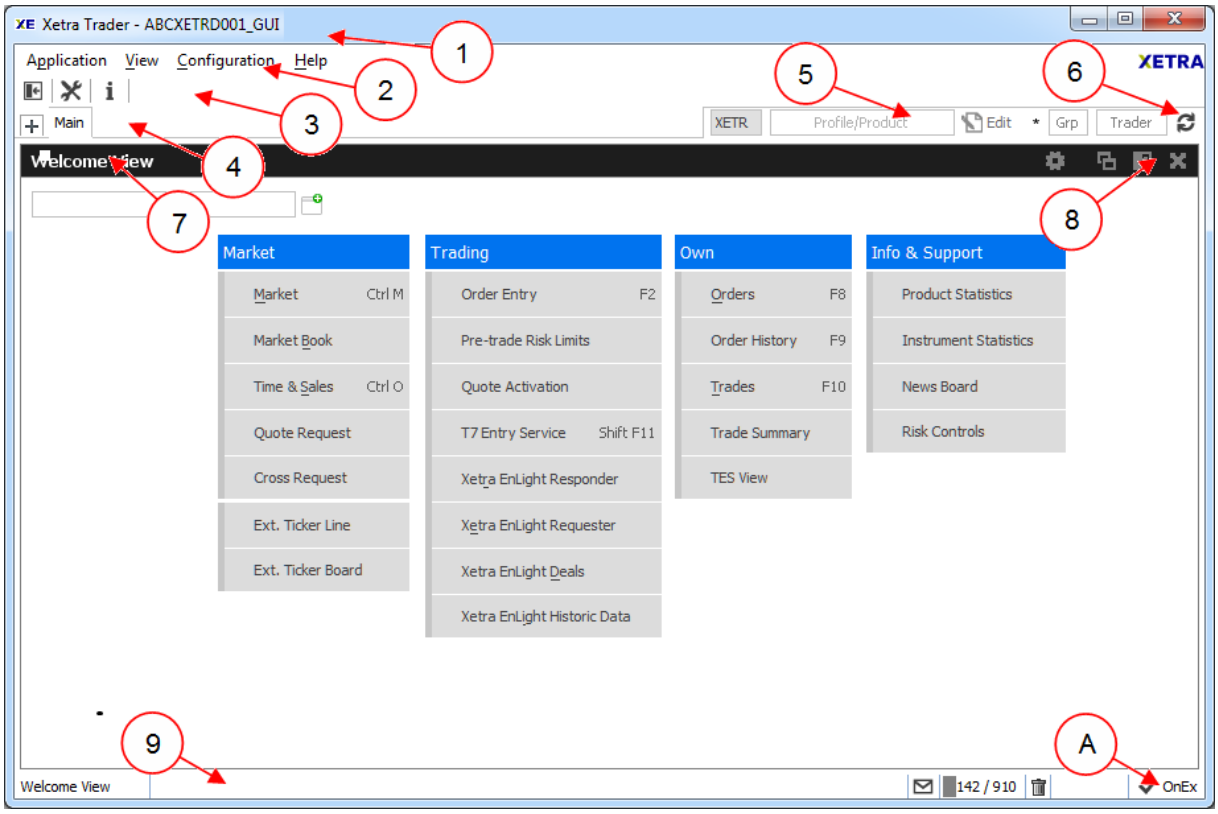



Fig. 1: Screenshot of the Cash Trader *Main* window showing the *Welcome* view.

| 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:<br>1) the application.<br>2) and by the currently selected view.<br>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.<br>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.<br>In the example above only one tab is available which is called *Main*. In this example the *Main* desktop tab contains only the Welcome view. The *Main* 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 | 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.<br>Two basic filters are provided here:<br>• *Profile/Product*: Enter a product or profile here to use it on all views of the currently selected desktop tab.<br>• *Trader*: 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.<br>This filter is only provided to head traders and supervisors.<br>• *Group*: Group filter to filter for data in the context of the selected user group. |
| 6 | 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 *enter* or *return* key. |
| 7 | 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. |
| 8 | 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. |
| 9 | 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.<br>Double clicking the status bar opens the Log Messages view which displays the history of status messages. |
| A | 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. |

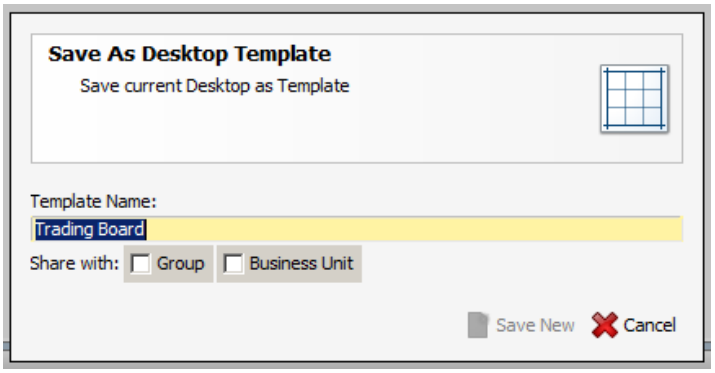
### 2.1.1 Menu Items and Actions

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. |
| | 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):<br>  <br> |
| | Desktop Templates | Select a predefined or an own desktop configuration. This menu also allows to delete own 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 | Opens the Log Messages view for the current view |
| | Properties | Opens the view Properties. |
| | Save Columns | Saves the columns of this view in current order, useful after user has reordered or hidden columns. Newly open view will thus display same column order. |
| 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. |
| | fx Formula | Allows to create user defined columns and formulas. |
| | fx Constants | Allows to create user defined constant values per product/contract. |
| | Profiles | Opens the Profiles view. |
| | Text Field | Opens the Text Field Configuration view. |
| | Counterparties | Opens the Configuration view for TES and Xetra EnLight counterparties. |
| Help | Browse Help | Starts a web browser to display the online help. |
| | About | Displays the version number, Trader info and GUI system info of the application. |
| | Collect screens | Brings all open windows of current GUI to the active screen. |
| | 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. |
| | Bulk Templates | Opens the dialog to download the (TES) templates for bulk actions. |

### 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 *Expand* icon expands the table to display a specific market depth |
| Collapse | | Clicking the *Collapse* 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*.

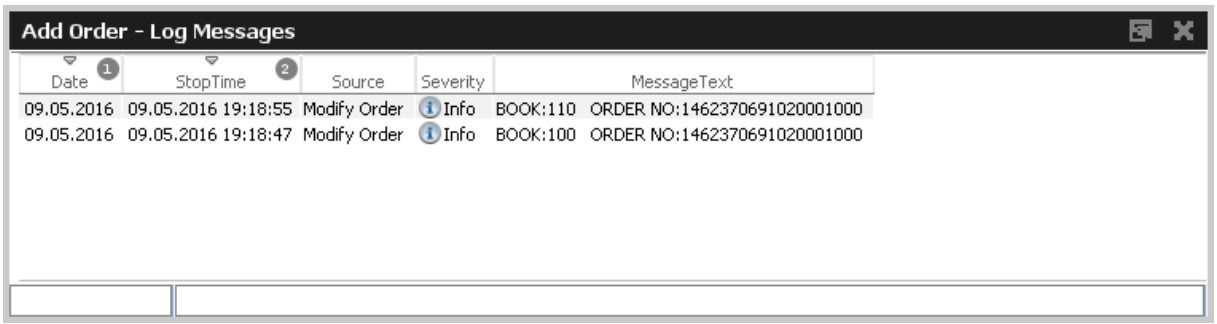



Fig. 2: Screenshot of the Messages Log window.

## 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*:

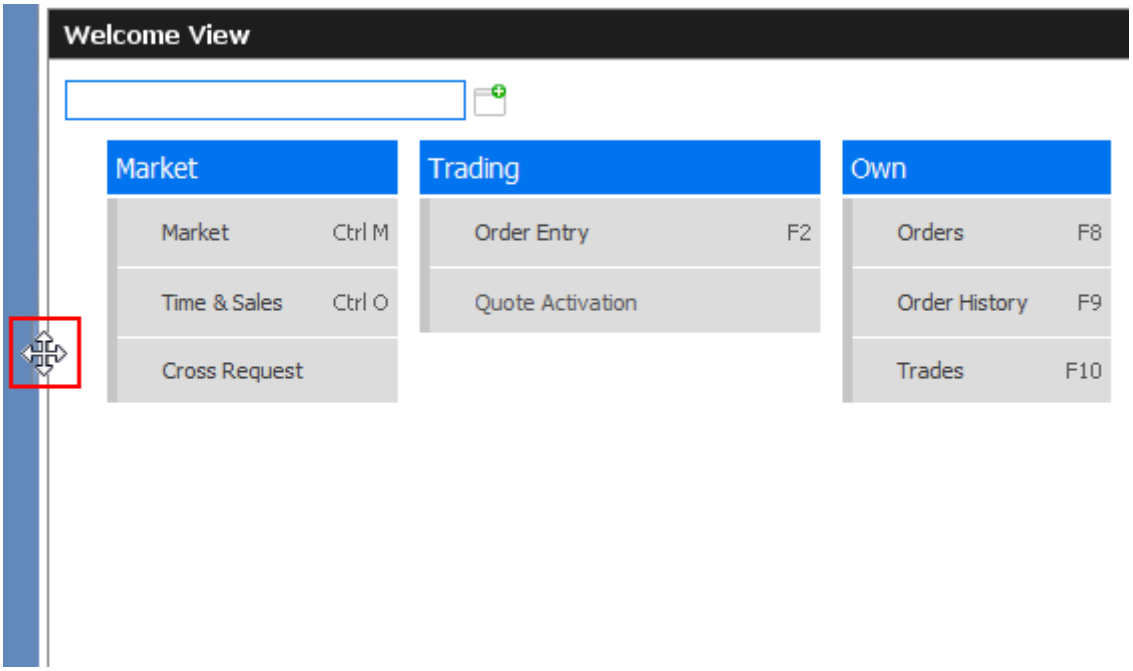



Fig. 4: Screenshot of the *Trading Desktop* illustrating how to add a new view

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:

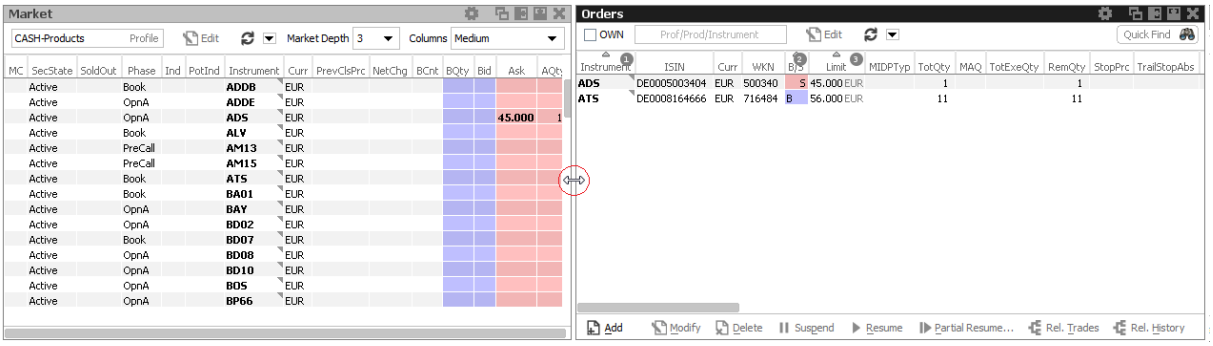



Fig. 6: Screenshot of the *Trading Desktop* showing how to resize views

### 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.

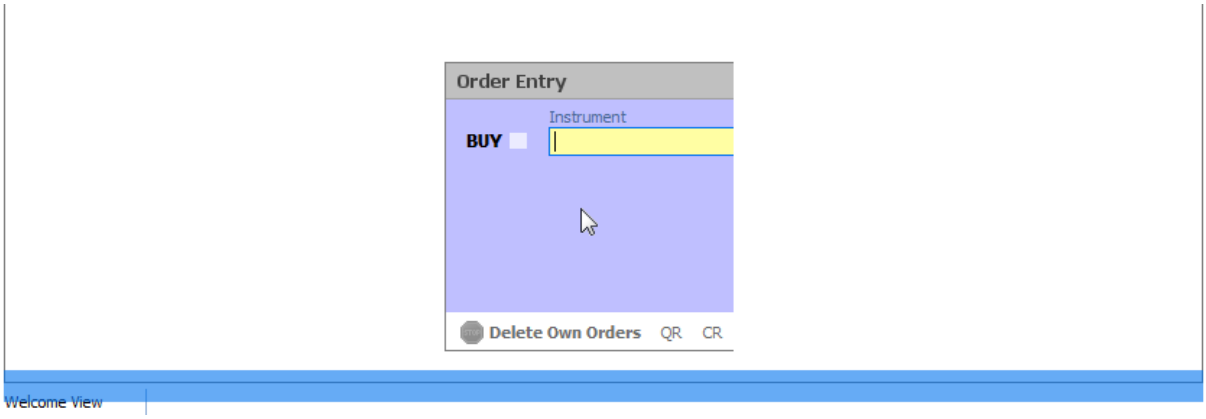



Fig. 8: Screenshot of the *Trading Desktop* illustrating how to drop a view to a new target

### 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

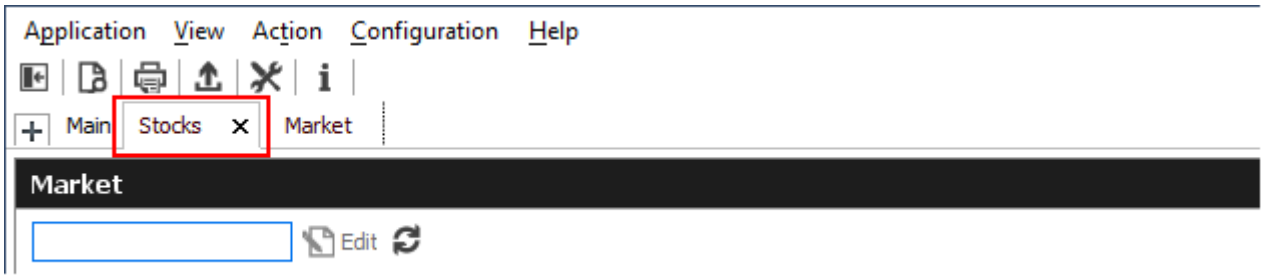
A new desktop can be created using the Plus-Icon from the desktop tab bar:

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:

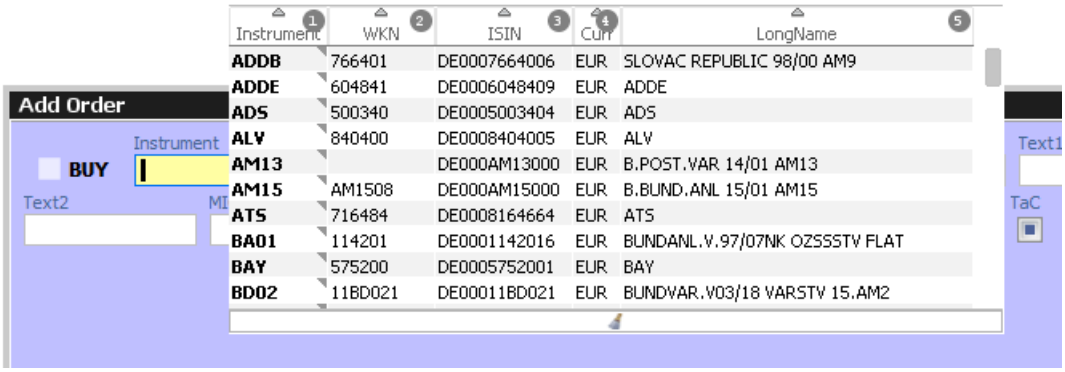



Fig. 11: Context sensitive Field Chooser

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:

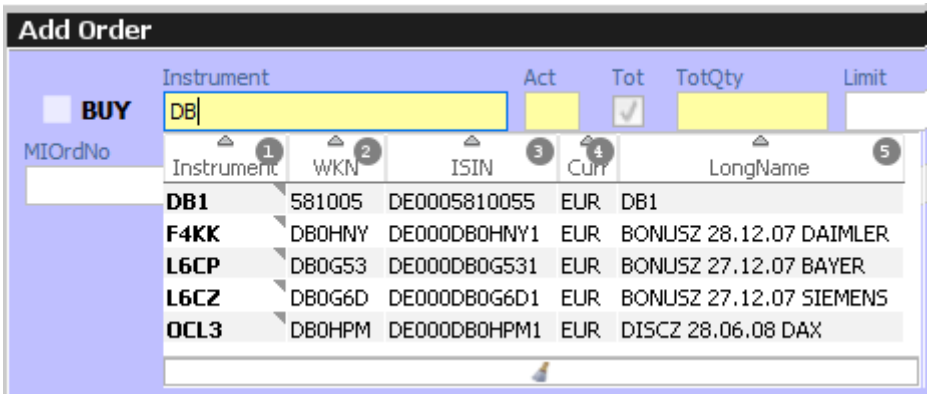



Fig. 12: Context sensitive Field Chooser providing a list of values matching the typed string.

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.

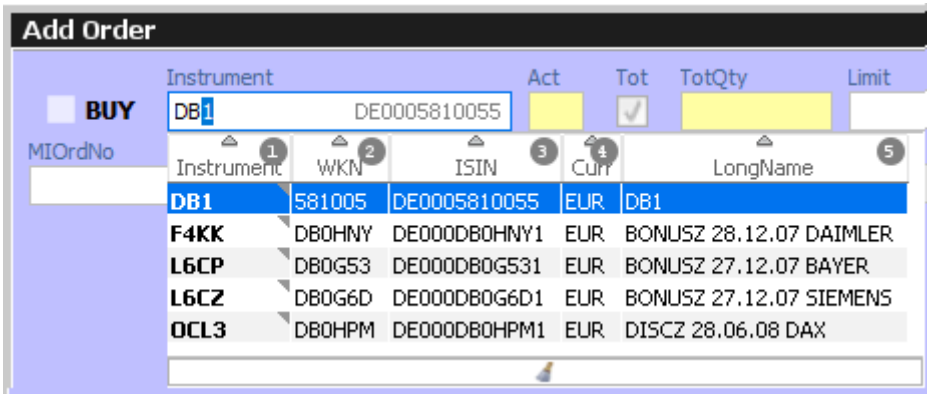



Fig. 13: Context sensitive Field Chooser providing a list of matching values, the current value is selected.

Context 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 context-sensitive pop-up window 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.

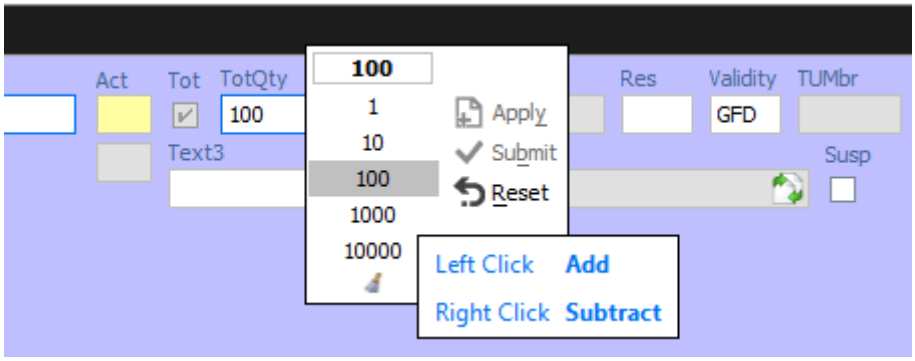



Fig. 14: Number Chooser

### 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 Color Chooser

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

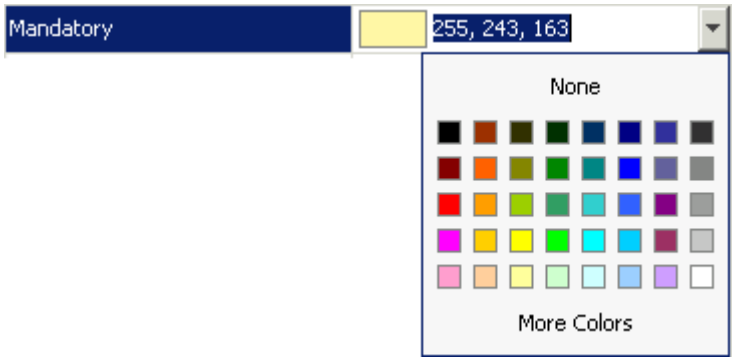



Fig. 16: Color Chooser

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

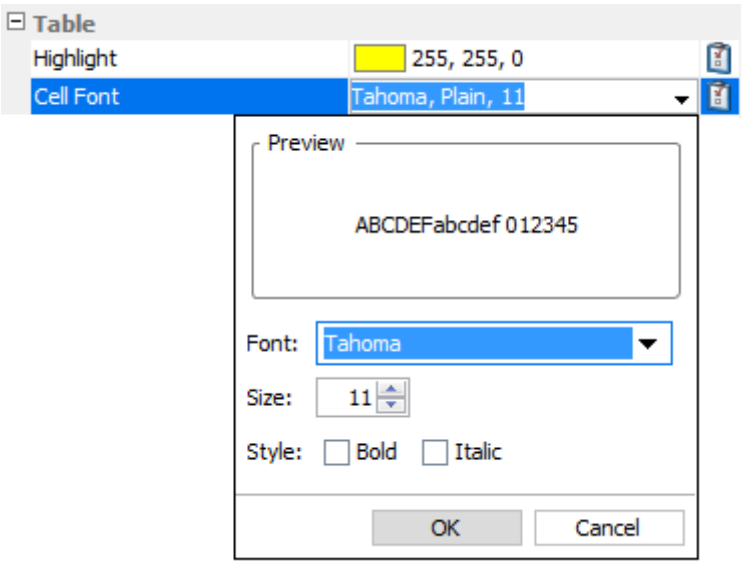



Fig. 17: Font Chooser

## 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 color 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 color.

### 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).

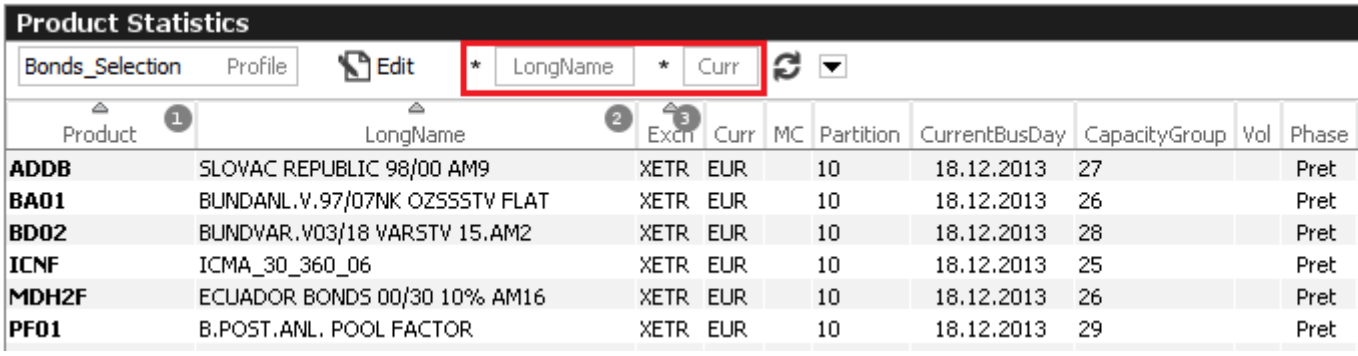



Fig. 18: View Filter and Generic Filter

### 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 labeled 'Alt-Drag Column Header here..', a filter for the values of this column is added:

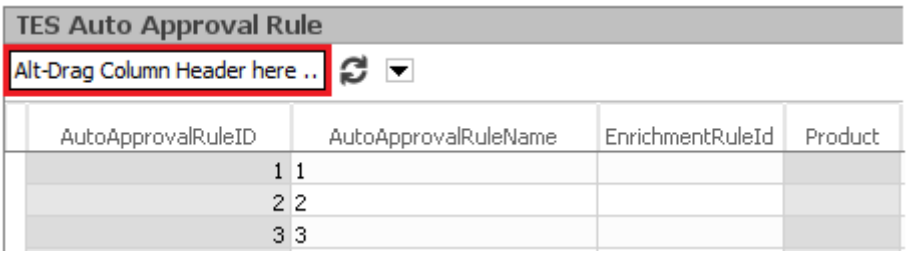



Fig. 19: Generic Filter - Filter Creation by using Alt-Drag

As showing in the **Example below**, the dragging feature works without the "Alt-Drag Column..." field being explicitly available. Just 'alt-drag' the desired column (here 'Act') of the view to the filter row to create a customized filter.

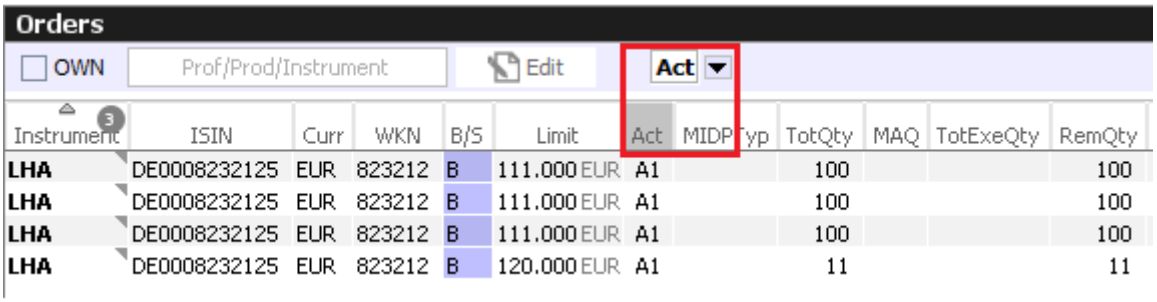



Fig. 20: Adding a Filter via ALT+Drag

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.

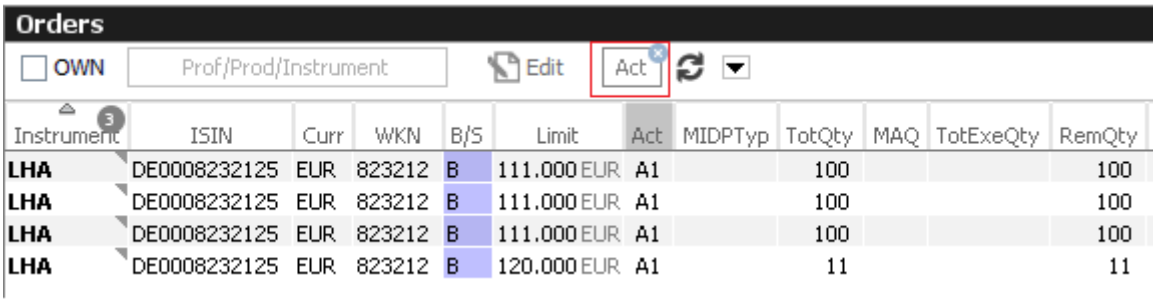



Fig. 21: Remove Filter via ALT-Hover

**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.

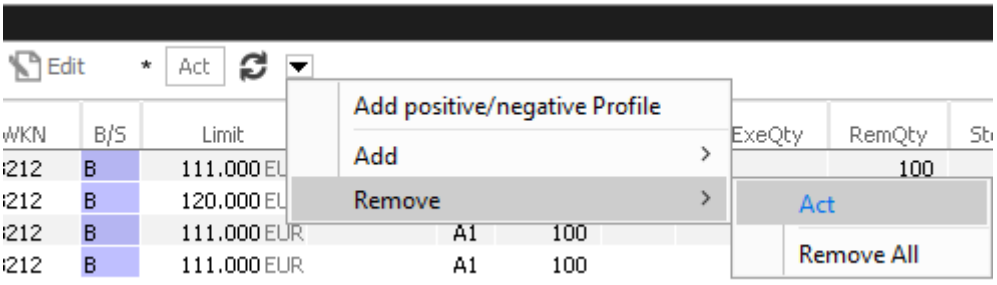



Fig. 22: Remove filter via arrow symbol

### 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 color 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.

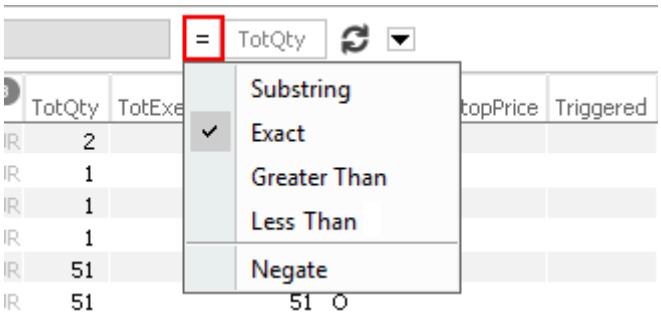


Fig. 23: Filter Restrictions

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 ‘Less 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:

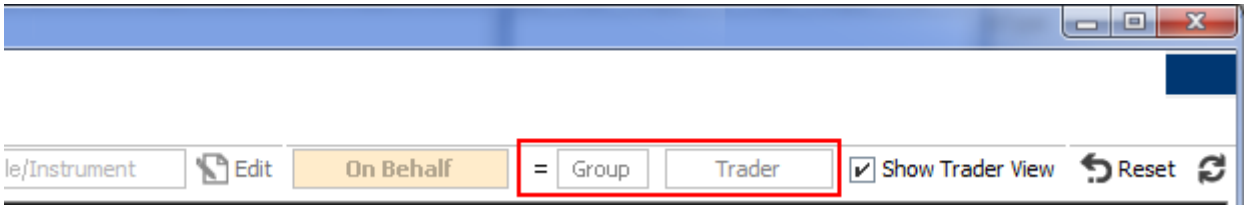
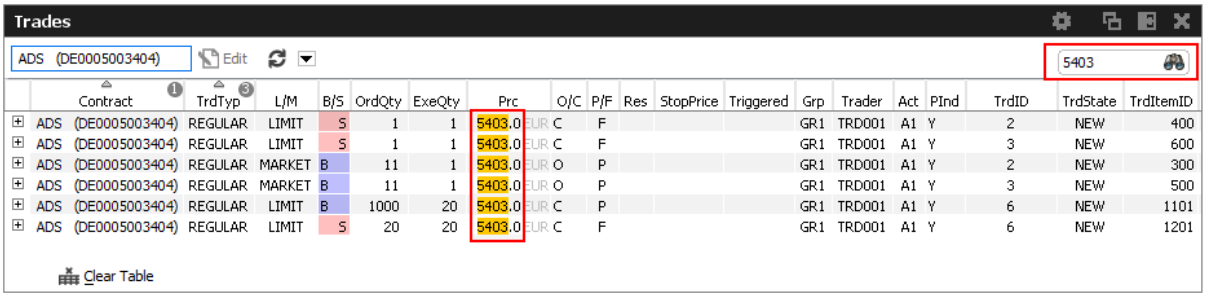



Fig. 25: User group and trader filter of the main view.

### 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:




| 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 |

Fig. 26: Trades view with highlighted results from quick find

### 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 1 | LongName 2 | Exch 3 | Curr | MC | Partition | Phase | TESProductState |
|---|---|---|---|---|---|---|---|
| **ADDB** | SLOVAC REPUBLIC 98/00 AM9 | XETR | EUR | | 10 | Trad | OFF |
| **ADDE** | ADDE | XETR | EUR | | 10 | Trad | ON |
| **ADS** | ADS | XETR | EUR | | 10 | Trad | ON |
| **ALV** | ALV | XETR | EUR | | 10 | Trad | ON |
| **AM13** | B.POST.VAR 14/01 AM13 | XETR | EUR | | 10 | Trad | ON |
| **AM15** | B.BUND.ANL 15/01 AM15 | XETR | EUR | | 10 | Trad | ON |
| **ATS** | ATS | XETR | EUR | | 10 | Trad | ON |
| **BA01** | BUNDANL.V.97/07NK OZSSSTV FLAT | XETR | EUR | | 10 | Trad | ON |
| **BAYX** | BAY | XETR | EUR | | 10 | Trad | ON |
| **BD02** | BUNDVAR.V03/18 VARSTV 15.AM2 | XETR | EUR | | 10 | Trad | ON |
| **BD07** | B.BAHN OBL.90 12/20 NOFLAT 4Q.AM7 | XETR | EUR | | 10 | Trad | ON |

Fig. 27: 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. 28: 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.

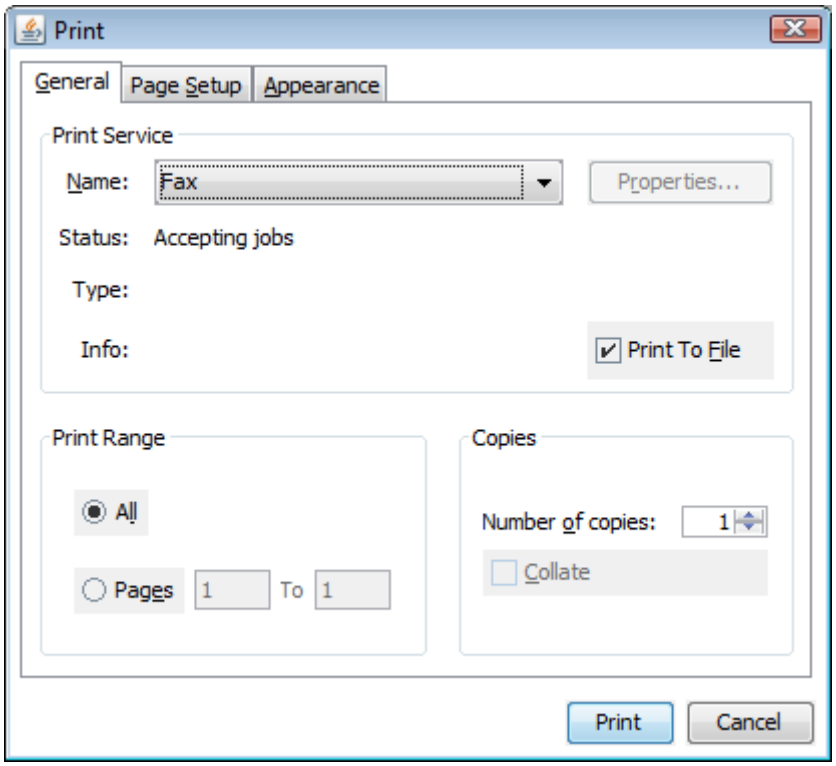



Fig. 29: Print Dialogue

### 2.4.9 Tables: Import

The table import function can be used to import a comma separated file into the table of the current view, provided that table import is supported on that view. The separator to be used in the csv file can be defined in the GUI's Preferences (-> 2.6 Preferences). Clicking the Import menu item, a file selection dialog opens which allows browsing the file system and to select the input file.

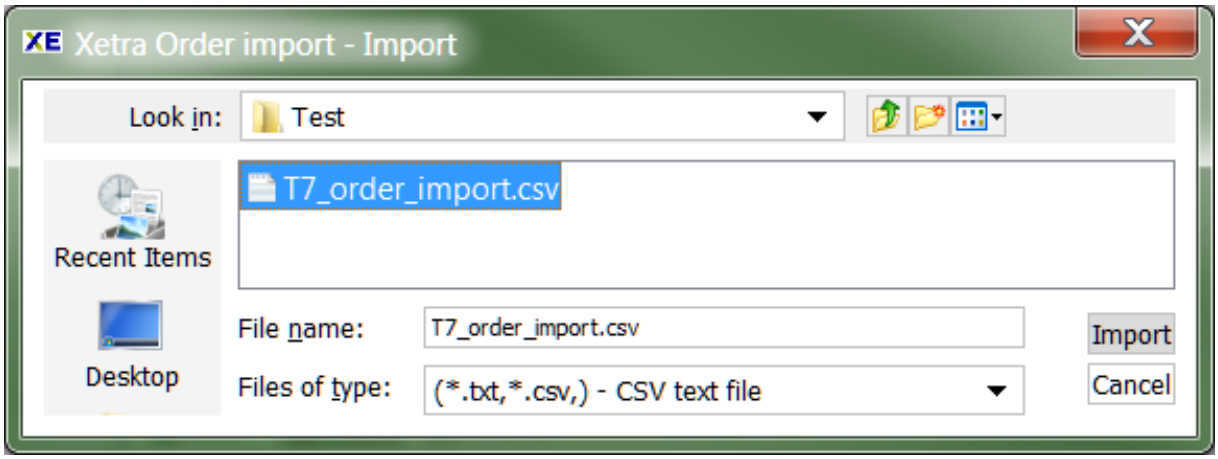



Fig. 30: Import Dialogue

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 to be used in the csv file can be defined in the GUI's Preferences (-> 2.6 Preferences). 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 (**...**).

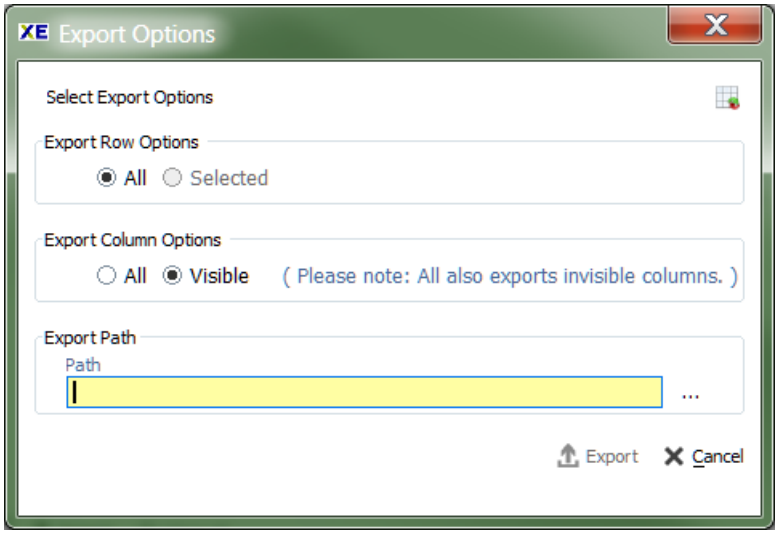



Fig. 31: Export Options

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:

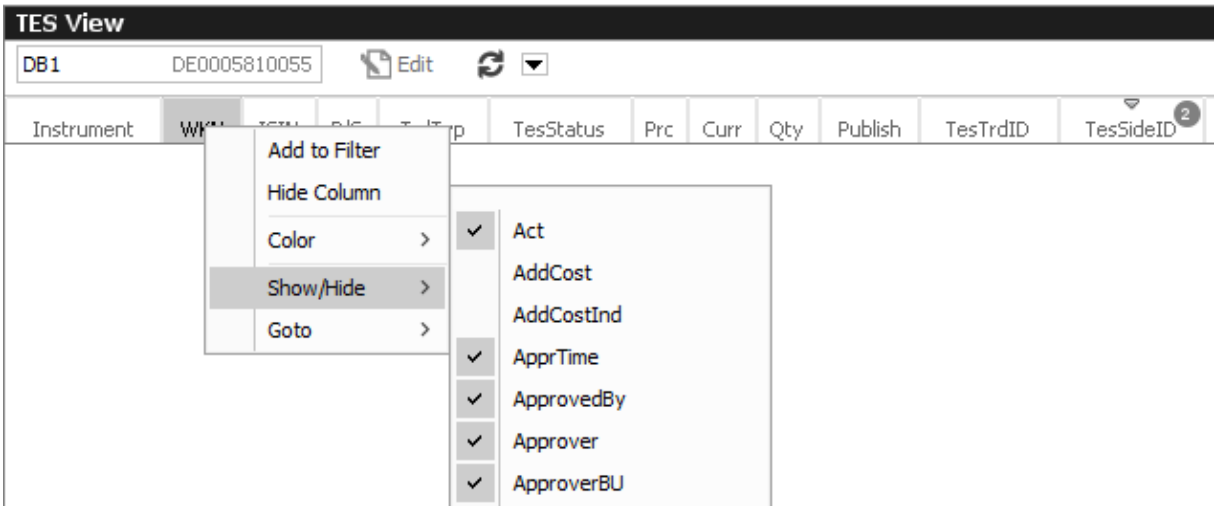



Fig. 32: Column Selection Pop-up

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/Instrument selector field. This field accepts the entry of a single product or instrument, 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.

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

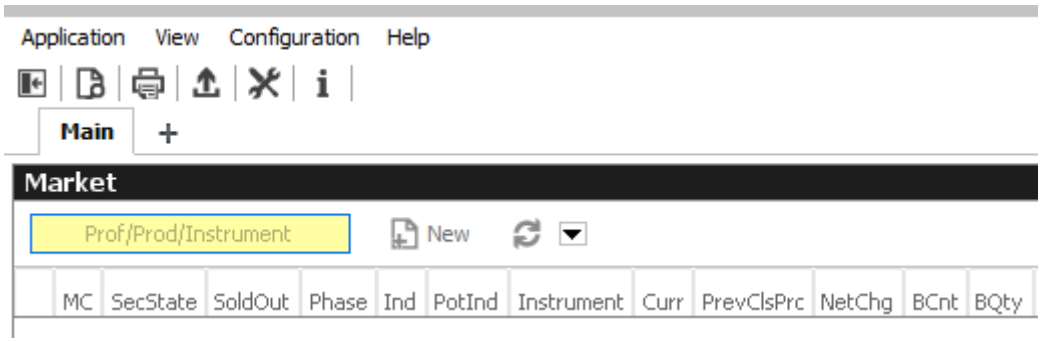



Fig. 33: Profile/Product Selector

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

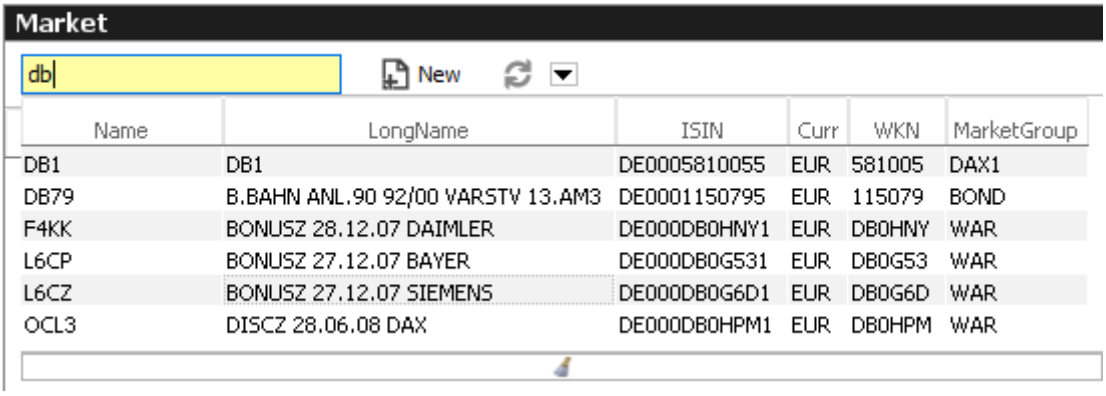



Fig. 34: Profile/Product Selector accepting the entry of a product, instrument or profile

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

*Generated Profiles* are created by the Cash GUI without user intervention and are usually based on the available market groups, like BOND-Marketgroup or DAX1-Marketgroup. They can be accessed by right-clicking in the profile selector field.

Please note, for Börse Frankfurt, no ready to use profiles are provide instead user defined - or user activity profiles (see below) can be utilized.

A right click of the mouse on the Product/Profile field will bring up the list of profiles which are currently available. Here, the DAX1 market group has has been selected from the list:

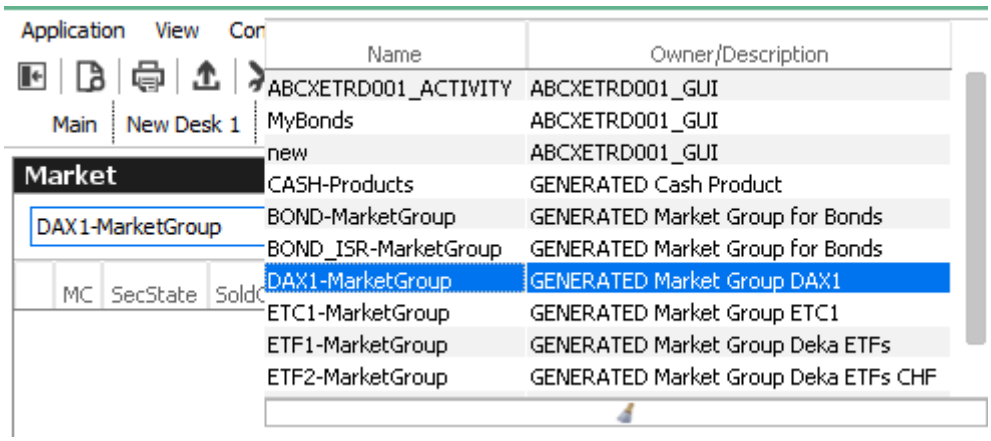



Fig. 35: A right-click into the profile selector field allows to select generated (and user defined) profiles

### 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 had entered orders or quote requests 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.

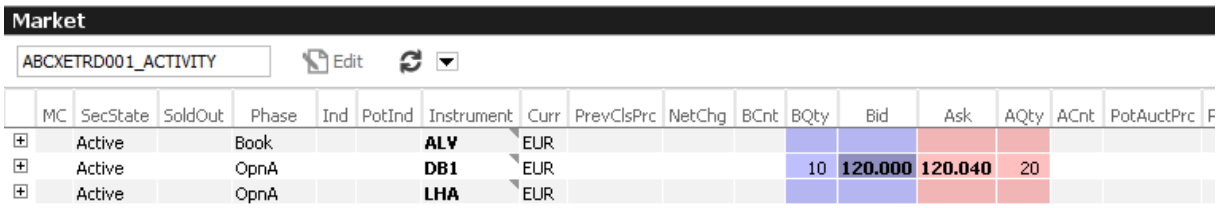



Fig. 36: Activity profile

### 2.5.3 User Defined Profiles

Most users 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 *New* button and selecting the products and instruments of interest (the *New* button then changes into a *Save*-button):

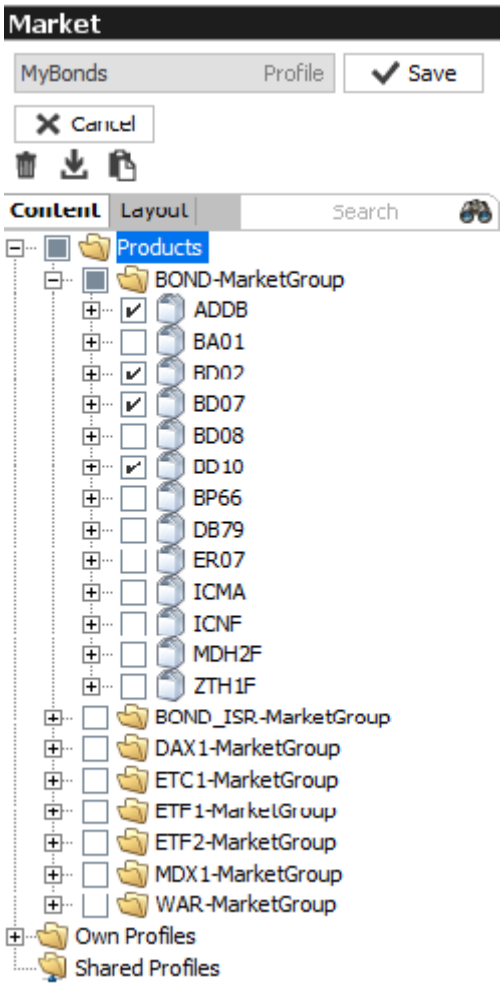



Fig. 37: Profile/Product Selector showing the Profile Editor, editing the user defined profile “MyBonds”

For Börse Frankfurt the it will not be possible to directly select products and instruments from the Product Tree but by searching for them.

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. "BUD,DB1,LHA", copy these to the clipboard with Ctrl-C, then select the profile selector (or the view containing it) and pressing Ctrl-V (or use the paste icon).

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

DB1

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. Please note, for Börse Frankfurt the *Product Tree* feature is not available.

### 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 color.
- Separators can be added to the profile.

Please note, for Börse Frankfurt the *Profile Layout* feature is not available.

### 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 |
| | 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. |
| | 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 Profile elements

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

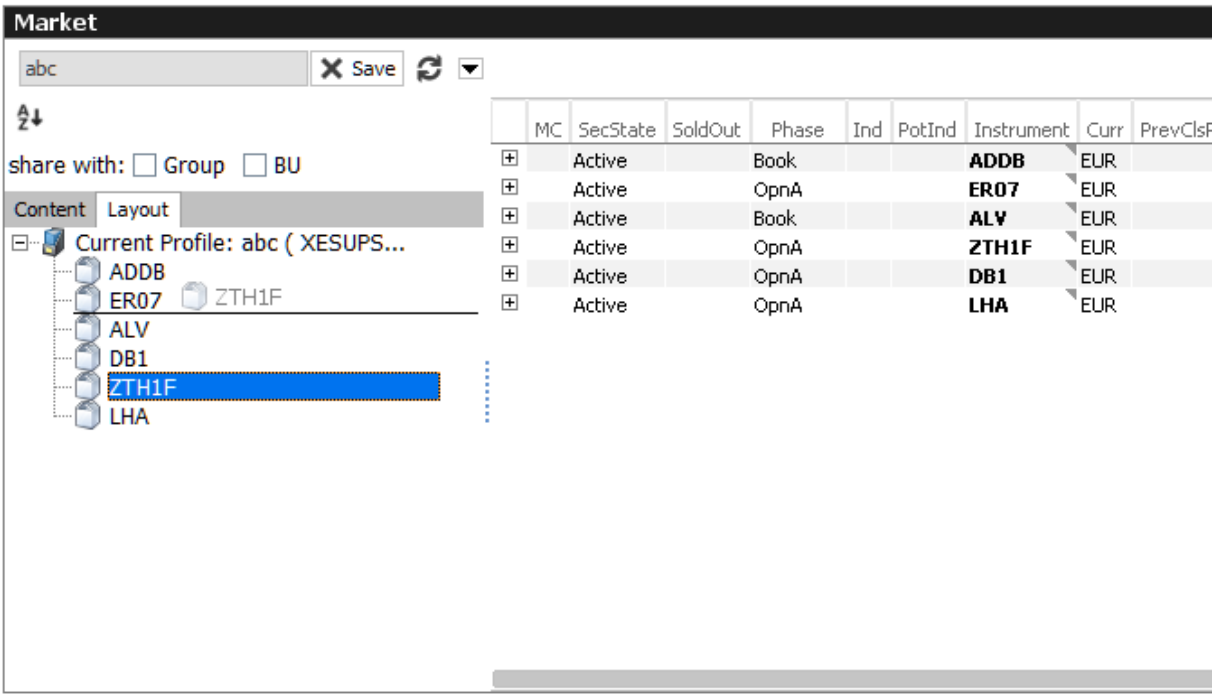



Fig. 39: Reordering of Profiles

### Custom background color per product

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

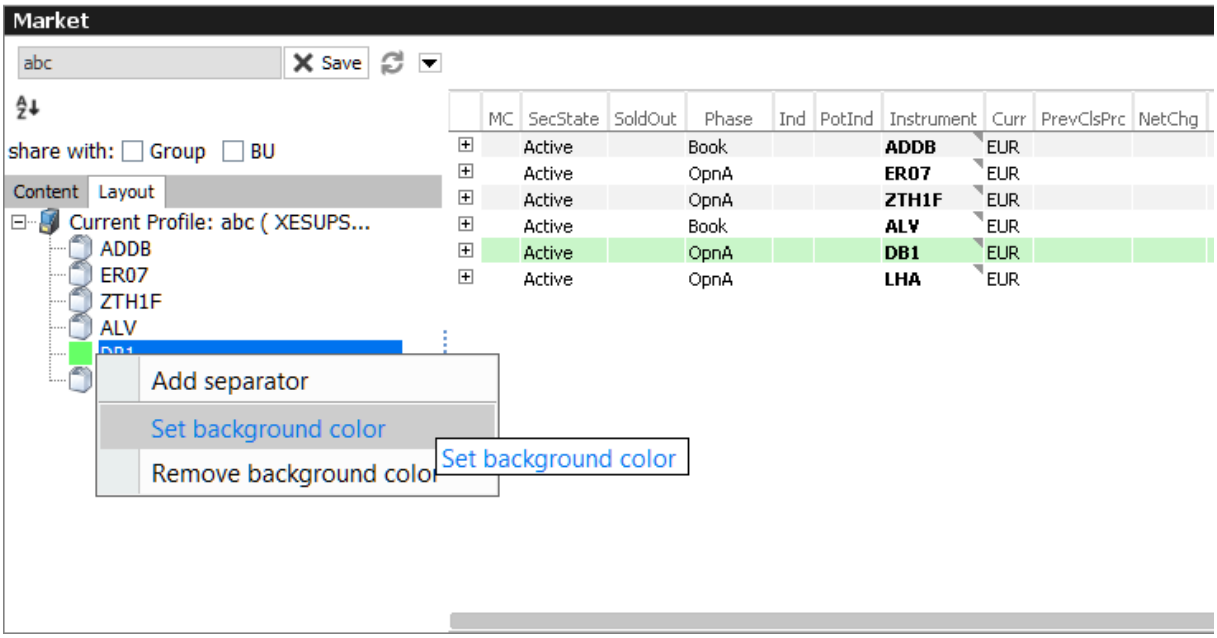



Fig. 40: Custom background color per product

### Separators

Add a separators using the context menu:

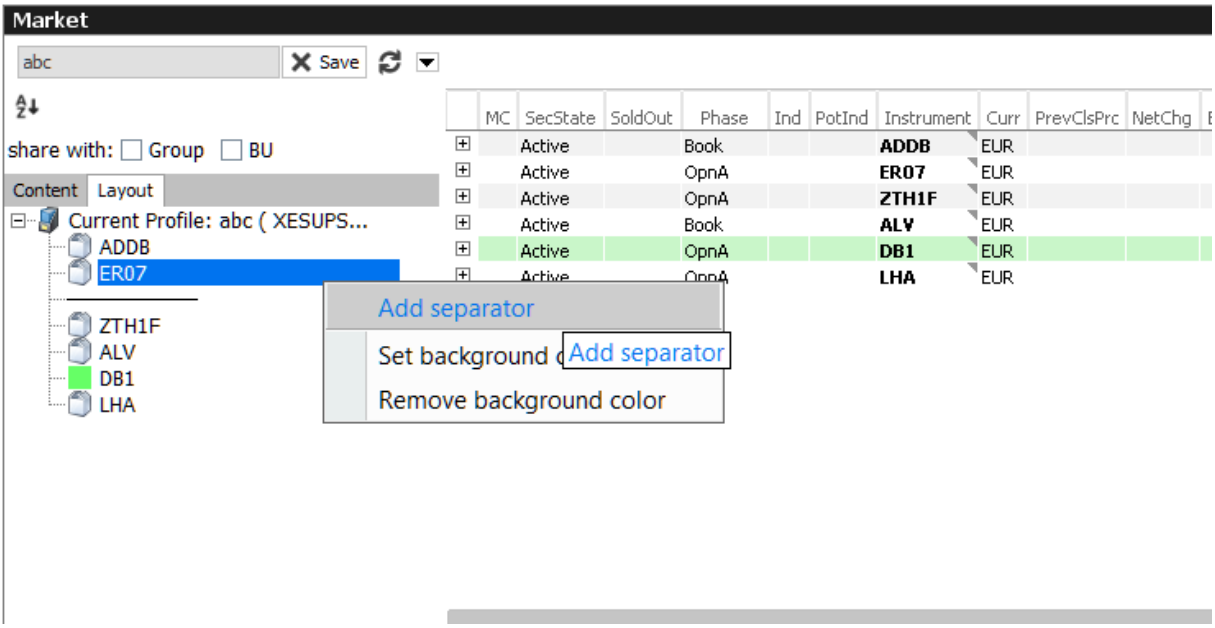



Fig. 41: Separators

### 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:

- *Application Preferences* - settings that apply to the whole application
- *View Preferences* - settings that are valid for a selected view

The former can be accessed from the *Application* menu, the latter is available from the *View* menu or by clicking the view's settings icon . In either view the resets the selected item to its default setting.

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

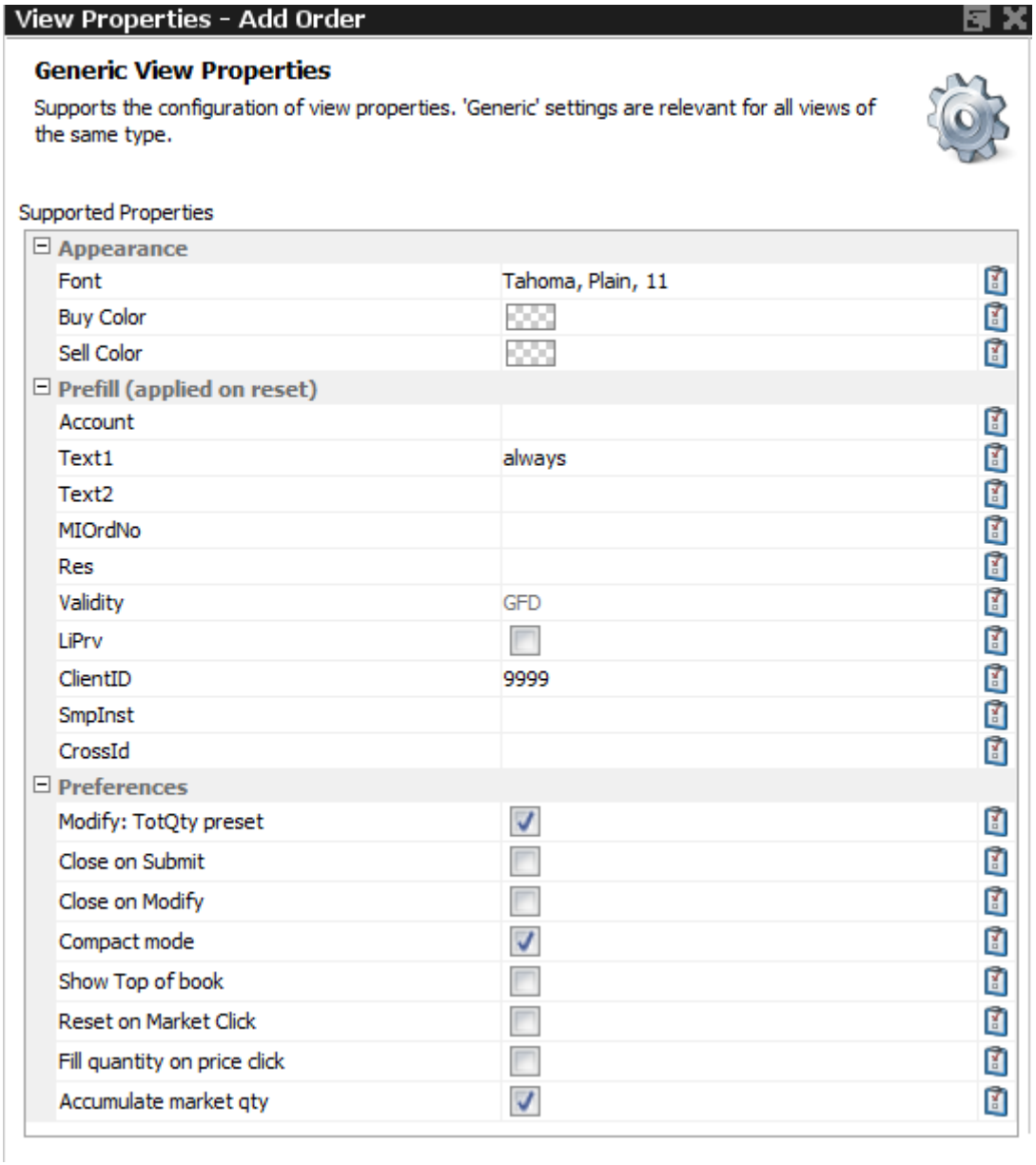



Fig. 42: Specific preferences for the *Orders* view

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

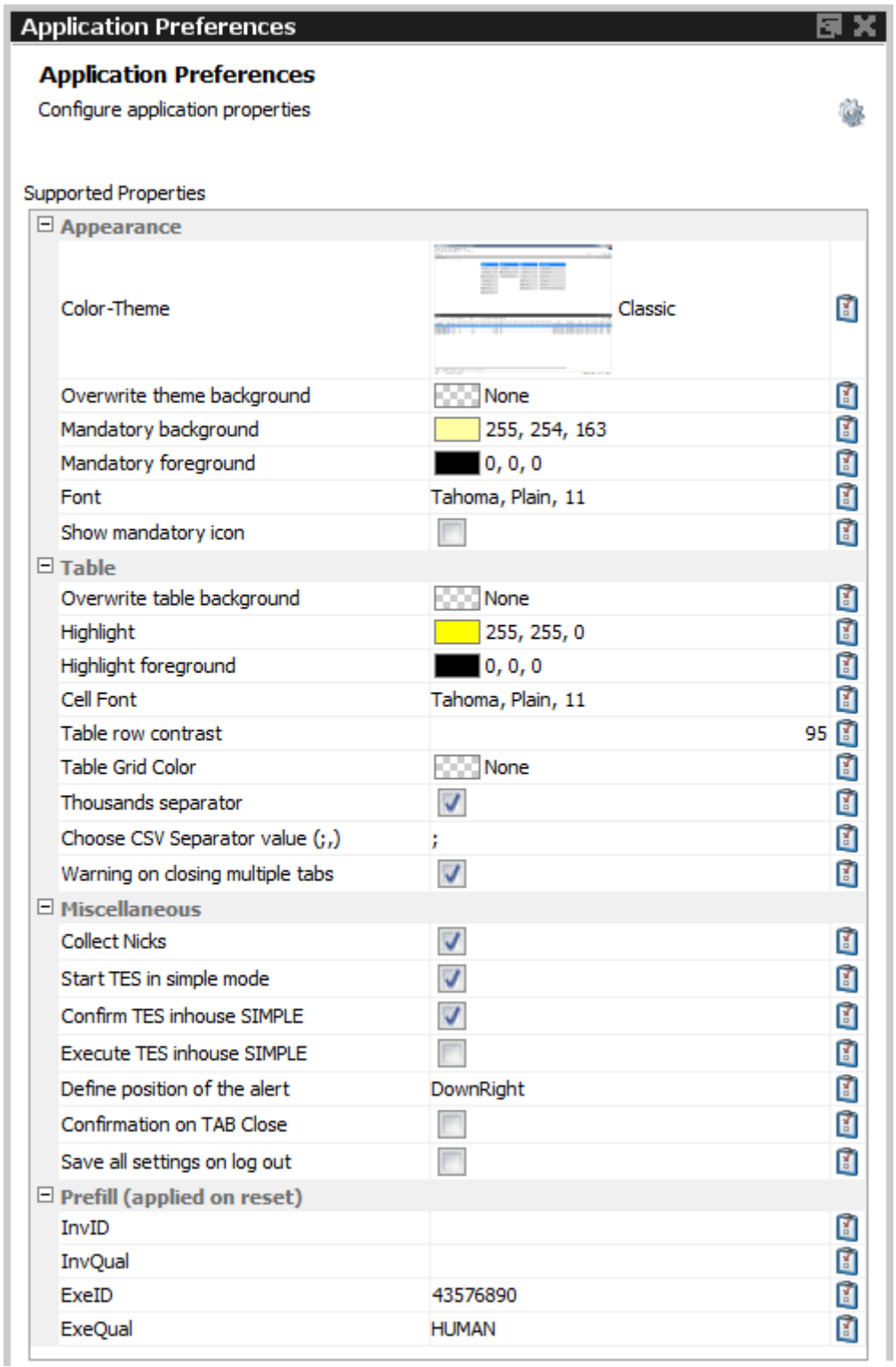



Fig. 43: Application Preferences view

## 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 *Cash Trader*, *Cash Admin* and *Cash 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 *Cash Trader*, *Cash Admin* and *Cash 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 Cash-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.<br>This field is only provided in Cash Trader and Cash Admin. |
| 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.<br>Changes the password for the master login in sync with the exchange account password of the Cash Exchange'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 *Cash Trader* only the connection to the market is shown here.

For users of *Cash Admin* and *Cash Clearer* (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 Cash Trader and Cash Admin 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 color 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. This 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 Field Configuration

The *Text Field Configuration* view provides a service to define certain text fields to be conveniently used later in appropriate entry masks, e.g. in Order Entry.

In addition to the manual creation of text field configurations, these can also be imported and exported. The import dialog allows to remember the file location by ticking the *Save Path* checkbox.

Single entries or all records may be deleted by using the corresponding action buttons. Furthermore a search function allows to easily find erroneous entries or just arbitrary text (more details at the end of this chapter).

The configuration consists of the fields

- *Text1*, *Text2*, *Text4/MIOrdNo*,
- *Act*,
- *ClientID*,*Text5/LEI*,
- *InternalField1*, *InternalField2*,
- *RateID*, *Publish*, *InvID*, *InvQual*,

with the text fields being the key of a configuration record.

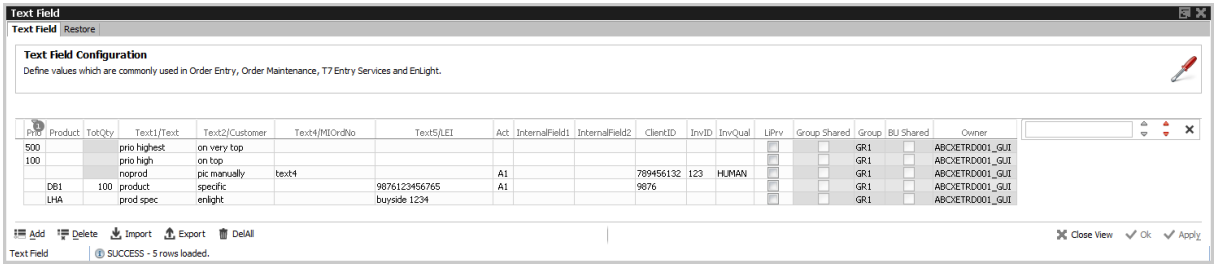



Fig. 44: Screenshot of the *Text Field Configuration* view

This means, if a matching text value was entered in the text field of e.g. the *Order Entry*, all the rest of the above mentioned values (if configured) will be copied into the respective fields of an entry mask. Alternatively the user can right-click into a textfield to get a list of text field configs to chose from.

The ordering in this list can be controlled by prioritizing the text field configs. Simply fill in a numeric value in the *Prio* field: Text field configs with a high *Prio* value appear on top of the selection list.

By filling the *Product* column, the respective text field configuration will be applied automatically once the product is specified in the *Order Entry* mask.

The *TotQty* column allows specifying a default order quantity for automatic prefilling in the *Order Entry* mask, once the specified product has been entered.

The *InternalField* columns allow to enter information for internal use only, i.e. data entered here is only shown to the trader but is never part of the entered order or TES trade.

Suitable entry masks are currently the following:

- Order Entry,
- all TES Entries,
- Cash Enlight Request Details and - Quote Entry.

To ease maintaining bigger amounts of text config records, a text search on the upper right side of the table is available. To search for errornous text entries the red arrows must be used while the grey arrows execute a standard find. Both search modes do not consider upper or lower case, i.e. all variants of the entered text will be found. The search field can be opened again by pressing CTRL+F (STRG+F on german keyboards) if accidently closed.

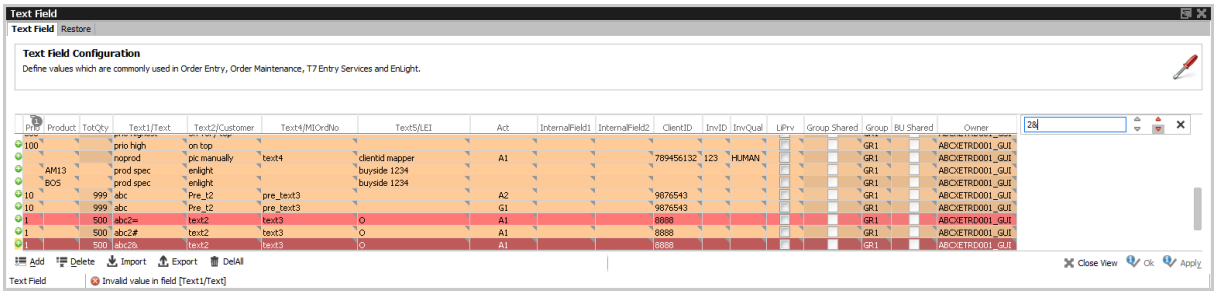



Fig. 45: Screenshot of the *Text Field Configuration* depicting the error search feature

# 3 Cash Trader GUI

The Cash Trader 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 *Cash Trader*. The functions are grouped into the categories Market, Trading, Own and Info & Support (Please refer to the screenshot below):

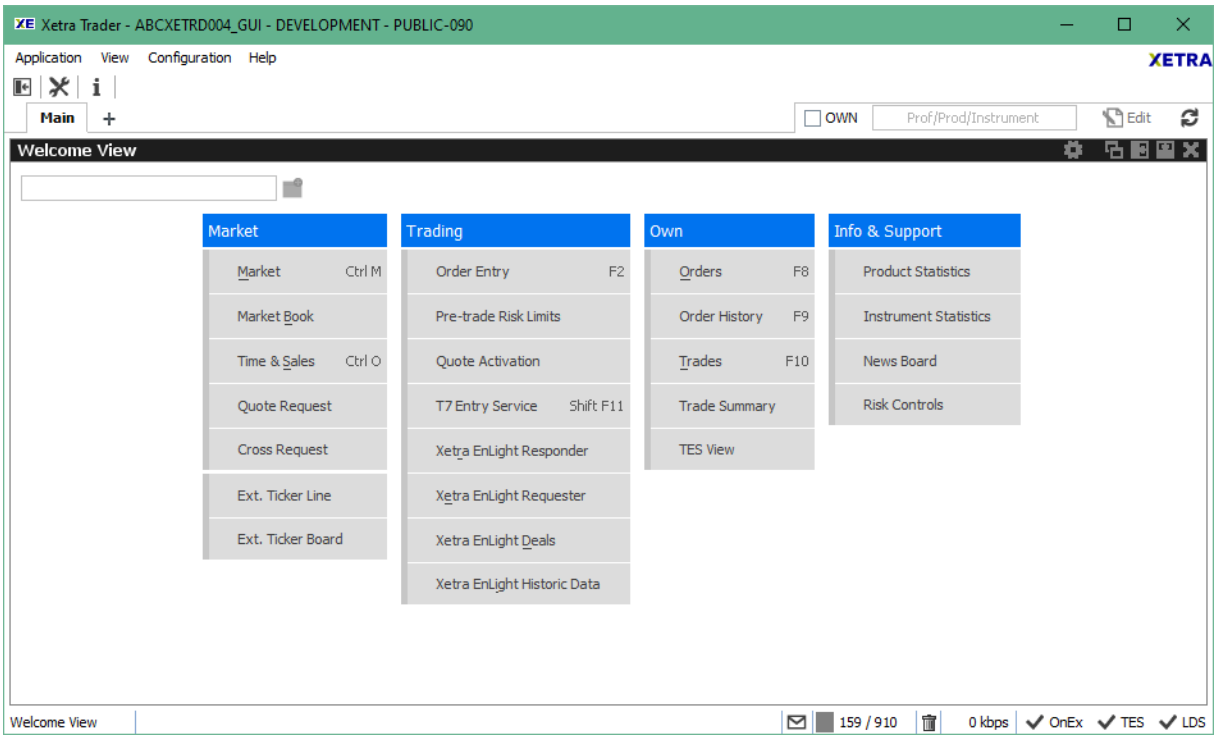



Fig. 46: Screenshot of the *Cash Trader* main window showing the *Welcome* view

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 behavior 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 thereby highlighting important static information at once with dynamic data for the instrument. While default column setting of the static data header displays a ready-to-use data set, both columns set can be customized by using the Show/Hide feature from the pop-up when right-clicking on a particular column.

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

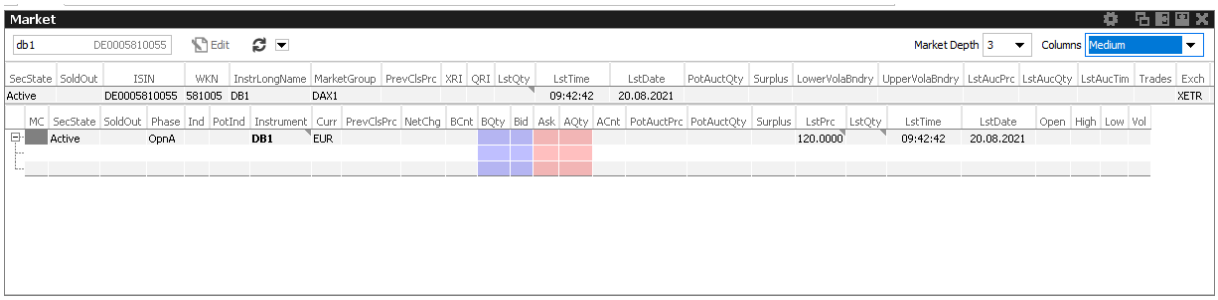



Fig. 47: Screenshot of the Market view (not all columns visible)

#### 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. |
| CA profile | Displays a set of columns relevant for *Continous Auction with Specialist* |

**Description of available columns (including columns of the static data row)**

| Column | Description |
|---|---|
| MC | Market Conditions codes on instrument level. Possible values:<br>• F - Fast market<br>• SA - Stressed Auto<br>• SF - Stressed Auto+Fast |
| SecState | Security status information |
| SoldOut | Soldout indicator information |
| Phase | Instrument trading state |
| Instrument | Instrument ID |
| InstrLongName | Long name of the instrument |
| Marketgroup (static) | Name of the market group the instrument belongs to |
| 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.<br>This column is only filled in case of a scheduled auction (opening-, intraday- or closing auction). |
| PrevClsPrc | Previous day closing price. If no newer price is existing, Previous Closing Price value for an instrument will be kept for more than one business day thus allowing Netchange (NetChg) value always being calculated and displayed in Market view. |
| 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 |
| BAvg | Average bid price of the price level |
| BAcc | Accumulated bid quantity of the price level |
| BCnt | Number of buy orders at the price level |
| BQty | Bid quantity |
| Bid | Bid price |

| | |
|---|---|
| Ask | Ask price |
| AQty | Ask quantity |
| ACnt | Number of sell orders at the price level |
| AskAcc | Accumulated ask quantity of the price level |
| AskAvg | Average ask price of the price level |
| LstPrc | Last price |
| LstTime | Last trade time |
| LstDate | Last trade date |
| LstQty | Last trade quantity |
| QRI | Quote request indicator |
| XRI | Cross request indicator |
| Curr | Currency |
| Exch | Exchange ID of the instrument |
| CumEx | CumEx indicator |
| Surplus | Remaining auction quantity, which can be accepted at the auction price and side of the surplus. |
| LowerVolaBndry | Minimum boundary of allowed price for volatility corridor. Displayed only if instrument's trading phase is setup for Automated Volatility Corridor Expansion Model. |
| UpperVolaBndry | Maximum boundary of allowed price for volatility corridor. Displayed only if instrument's trading phase is setup for Automated Volatility Corridor Expansion Model. |
| LstAucPrc | Last auction price |
| LstAucQty | Last auction quantity |
| LstAucTim | Last auction time |
| Trades | Total number of trades of the day . |
| BAcc | Number of orders in the accumulated bid order volume. |
| AAcc | Number of orders in the accumulated ask order volume. |
| MatDate | Maturity Date. |
| TrdMdl | Trading model type. |
| MinTradeUnit | Minimum trade unit of instrument. |
| Quote Provider | Name of Issuer/ Quote provider. |

| | |
|---|---|
| CpnRate | *Coupon Rate.* |
| U/L Isin | ISIN of underlying. |
| StrikePrc | Strike price of Warrant. |
| SecSubTyp | Cash Security Subtype. |
| QuotUnt | Quotation Unit, e.g. POINTS, PERCENT, SHARES. |
| CovInd | Cover Indicator |
| LstRetailPrc | Last Retail trade price |
| LstRetailQty | Quantity of the last Retail trade |
| LstRetailTim | Time of the last Retail trade |
| RetailTrades | Total number of trades generated due to the execution of a Retail order against the RLP quote / order. |
| RetailVol | Retail trade volume |
| LstRetailAuctPrc | Last Retail auction price |
| LstMidpointPrc | Last midpoint trade price. |
| LstMidpointQty | Last midpoint trade quantity. |
| LstMidpointTime | Last midpoint trade time. |

#### 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 last used *Order Entry* prefilled.

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

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

For an overview of all properties available, just open the properties dialog of the *Order Entry* or refer paragraph *Order Entry properties - presets* of 3.3.3 Order Entry Properties and preferences.

**Quote Request and Cross Request**

A right click on any of the other cells of the *Market* view opens a context menu that offers some useful actions, including the quote and cross request action (the latter is not supported for Börse Frankfurt (MIC: XFRA)).

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). For an overview of all properties available, just open the settings menu of the *Order Entry* or refer paragraph 3.3.3 Order Entry Properties and preferences.

### 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. 48: 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.

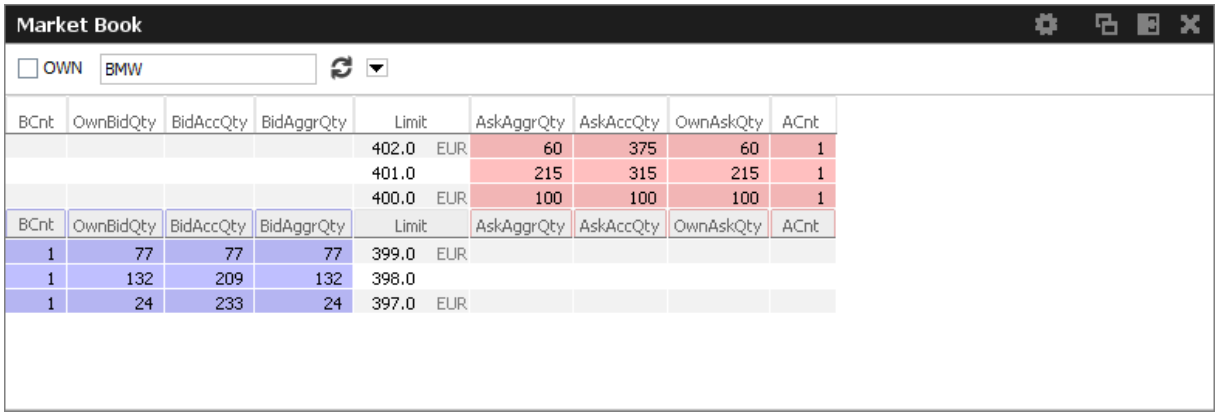



Fig. 49: Screenshot of the Market Book view

| Market Book | |
|---|---|
| **Column** | **Description** |
| BCnt | Number of buy Orders |
| BAccQty | Bid accumulated quantity |
| BAggrQty | Bid aggregated quantity |
| Limit | Price |
| AAggrQty | Ask aggregated quantity |
| AAccQty | Ask accumulated quantity |
| ACnt | Number of sell Orders |
| OwnBQty / OwnAQty | 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 | Trade type; valid values e.g. REGULAR, ICEBERG and others |
| 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 |
| Agsr | Aggressor side (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 `QuoteR` button of the *Order Entry* and via the context menu in the Market view.

Quote requests are indicated in the `QRI` column of the *Market* view and listed in the *Quote Request* view:

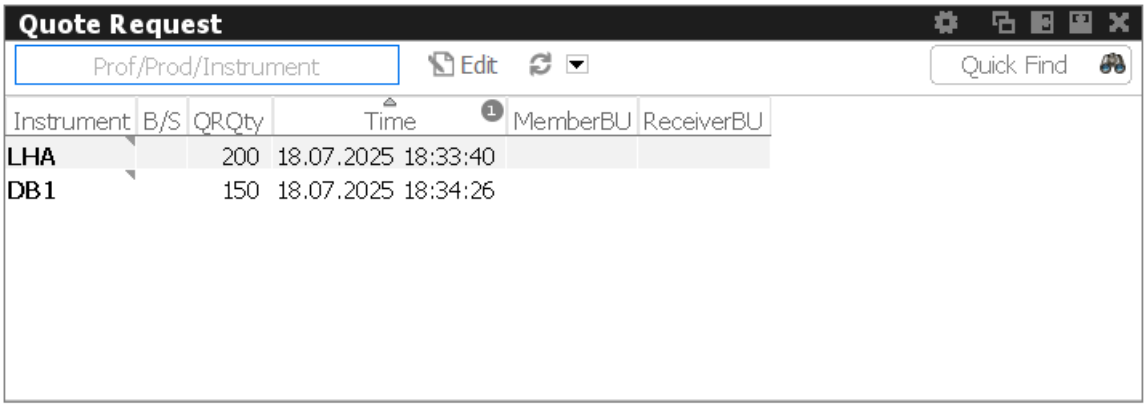



Fig. 50: Screenshot of the *Quote Request* view

| Column | Description |
|---|---|
| Instrument | Instrument ID |
| B/S | Side of the quote request |
| QRQty | Quote request quantity |
| Time | Time stamp of the quote request |
| MemberBU | BU of the member issuing the request |
| ReceiverBU | BU of the member receiving the request |

### 3.2.6 Cross Request (not available for Börse Frankfurt (MIC: XFRA))

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 via the `CrossR` (Cross Request) action in 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 listed in the *Cross Requests* view:

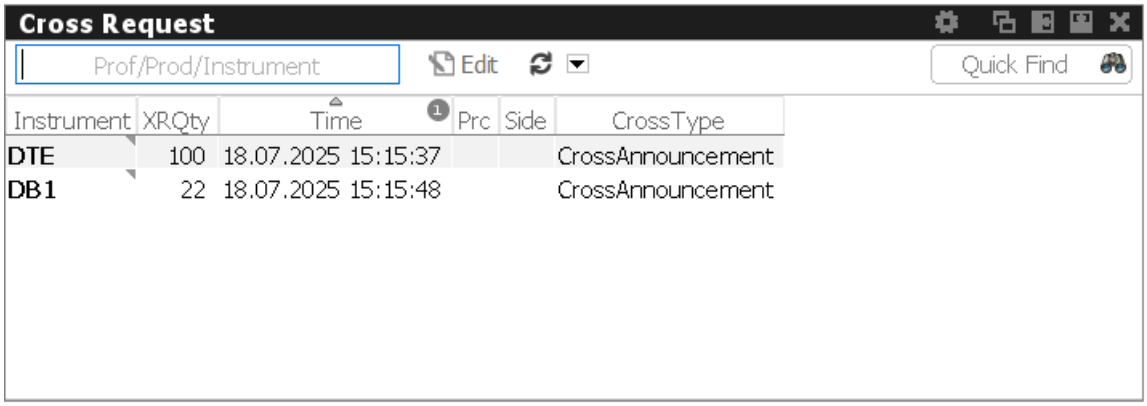



Fig. 51: Screenshot of the *Cross Request* view

| Column | Description |
|---|---|
| Instrument | Instrument ID |
| XRQty | Cross request quantity |
| Time | Time stamp of the cross request |
| Prc | Price of the cross request |
| Side | Buy/Sell side of the cross request |
| CrossType | Type of the cross request |

### 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.

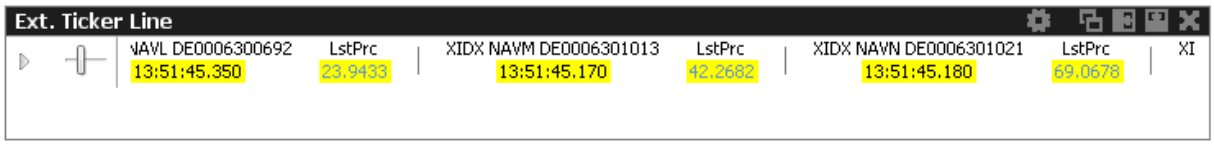



Fig. 52: Screenshot of the *Ext. Ticker Line*

### 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.

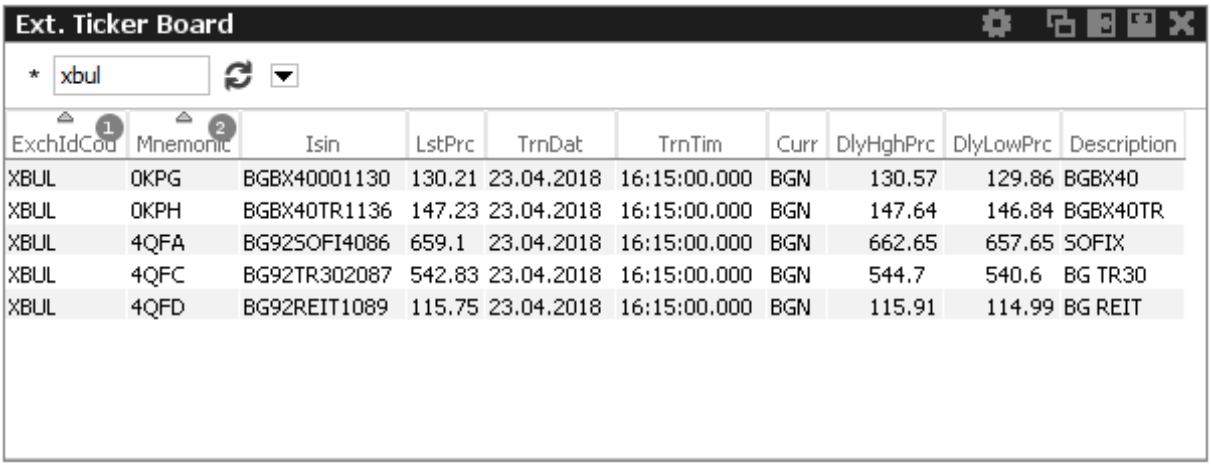



Fig. 53: Screenshot of the *Ext. Ticker Board*

| Table Description | |
|---|---|
| **Column** | **Description** |
| Exch | 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 |
| Close | Close price of the 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:** When trading bonds decimals will be displayed if the minimum tradeable unit is less than one. For equities and warrants, quantity decimals will be entered and displayed in the same integer format as before.

The numeric `ClientID` field becomes mandatory for account types A/B/R and must be empty for accounts P/M/Broker-Dealer.

The `ClientID` identifies the trader and serves as a reference to the 35 characters long ESMA Client Identification Code. Additionally, due to MIFID 2 regime validations, based on the account entered mandatory yet not filled fields might be dynamically displayed in compact mode, although they are usually not part of compact mode fields.

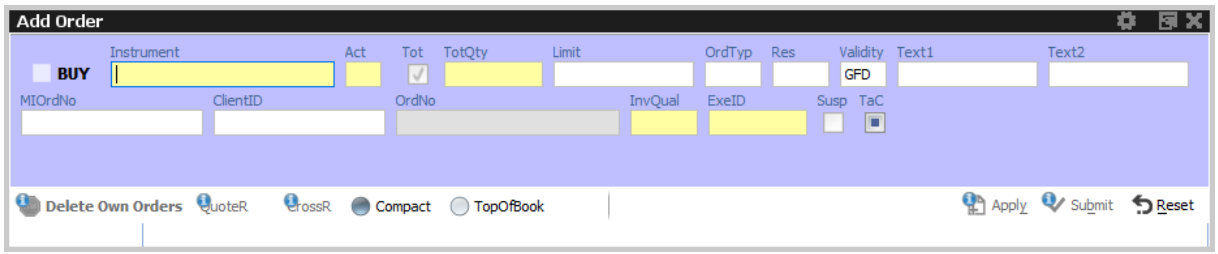



Fig. 54: Screenshot of the *Order Entry* view in compact mode and TopOfBook pane hidden

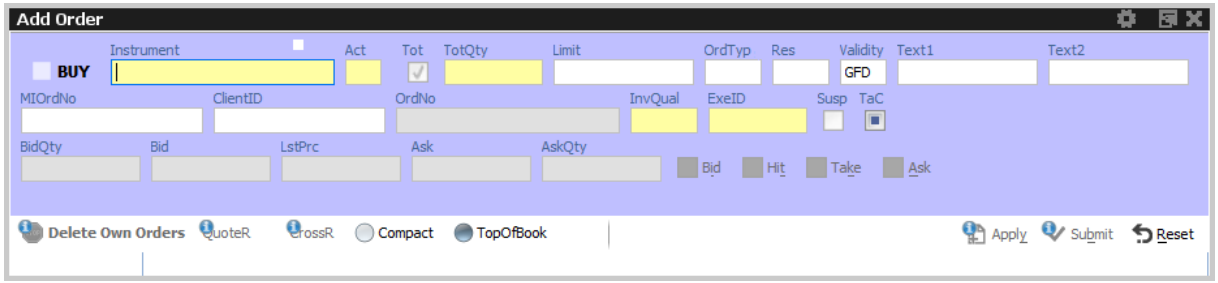



Fig. 55: Screenshot of the *Order Entry* view in compact mode showing the TopOfBook pane

Functions provided:

- Order Entry/Modify/Delete
- Bid/Hit/Take/Ask actions and price information.
- Quote / Cross Request Entry
- Delete Own Orders action (Panic button)

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 the `Apply New` feature. If the Order Entry was opened externally, the view will be closed, if the entry of the order was successful.

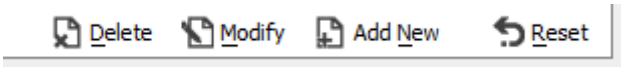
If the Apply or Submit button is pressed, the buttons become inactive and will stay inactive as long as the order has been processed (either successful or unsuccessful). Normally it is obvious whether or not a particular order has been successfully submitted or not: the Submit button will clear Qty and 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, the most recently used one will be prefilled.
Using several properties of the *Order Entry* the behavior can be fine tuned. For example, the *Order Entry*'s property *Accumulate market qty* controls how the quantity gets prefilled:

If not ticked, the *Order Entry* is filled with the exact quantity when clicking the *Qty* column of a certain row of the Market Depth. If ticked (default), the quantity is accumulated as usual.

For an overview of all properties available, just open the properties dialog of the *Order Entry* or refer to paragraph *Order Entry Properties - presets* further below.

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 that 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. |
| Instrument | Instrument short name (symbol), or WKN / ISIN, for multi currency instruments `<ISIN.CUR>`.<br>The context menu offers the following columns of information: Instrument short name, WKN, ISIN, CURR 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, e.g. for multi currency instruments the ISIN is only unique with the currency. |
| Act | Account. |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| 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.<br>*Market* orders are characterized by a blank limit field. |
| OrdTyp | Order type - valid values include:<br>• ICE - Iceberg Order<br>• MIDP - Midpoint Order<br>• MIDPS - Midpoint Sweep Order<br>• OCO - One Cancels the Other Order<br>• STP - Stop Order |

| | |
|---|---|
| Res | Order restriction - valid values including:<br>• AOO - Auction only<br>• BOC - Book or Cancel<br>• CAO - Closing Auction<br>• IAO - Intraday Auction<br>• MTH - Main Trading Hours only<br>• OAO - Opening Auction<br>• SAO - Special Auction |
| MAQ | Minimum Acceptable Quantity. Valid only for Midpoint orders. |
| StopPrc | Trigger price for OCO and Stop orders.<br>Only displayed for `OrdTyp=STP` or `OrdTyp=OCO`. |
| TrailStopPct | Trailing stop order, trailing distance in percentage of last price. |
| TrailStopAbs | Trailing stop order, trailing distance price value. |
| 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:<br>FOK - Fill Or Kill<br>GFD - Good For Day<br>GTC - Good Till Canceled<br>GTD - Good Till Date<br>IOC - Immediate Or Cancel |
| Date | Date of the validity in case of GTD. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| OrdNo | Order number generated by Cash Markets application. |

| | |
|---|---|
| Susp | If checked, order is entered as suspended for later activation from *Order Entry* view. |
| TaC | Optional order attribute for *Trade At Close*. It depicts following settings:<br>• ☑ : Order does participate in Trade-At-Close phase<br>• ☐ : Order does not participate in Trade-At-Close phase<br>• ■ : user specific default value as defined in *User Maintenance* will be used. |

**Order Entry - Extended Fields:**

| Field | Description |
|---|---|
| StopPrc | Trigger price for OCO and Stop orders.<br>Only enabled for `OrdTyp=STP` or `OrdTyp=OCO`. |
| Date | Date field. Enabled only for validity GTD. |
| CrossID | The CrossID used for both Self-Match Prevention (SMP) in the regular order book and Self-Cross Prevention (SCP) in the Midpoint order book.<br>• *SMP:* Both orders and/or quotes originating from the same business unit must contain the same CrossID value for a SMP action (cf. *SmpInst* below) to take place. Orders and quotes actively participating in the order book are verified for SMP during the instrument state “Continuous” only.<br>• *SCP:* Both orders originating from the same business unit must contain the same CrossID value for a SCP action to take place. Orders resting in the Midpoint order book are verified for SCP during the instrument state “Continuous” only. |
| SmpInst | *SMP Instruction* - determines the deletion action in case of an SMP event:<br>• Cancel aggressive - cancel of the incoming order/quote<br>• Cancel passive - cancel the entire book order(s)/quote(s) with the same SMP ID<br>• Cancel aggressive and passive - reduce the quantity of both incoming and book orders/quotes until at least one is completely canceled |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |

| | |
|---|---|
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

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. |
| CrossR | Button: Trigger cross trade announcement for the selected instrument and Qty of the Order Entry (not available in Börse Frankfurt (MIC: XFRA)) |
| QuoteR | Button: Trigger quote 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 | Button: Toggle the display of the hidden fields and the extended fields. |
| TopOfBook | Button Toggle the display of the TopOfBook field group. |

| | |
|---|---|
| Reset | The `Reset` action completely clears the *Order Entry*, and applies default settings, if available. |

### Order Modify

Since with Cash Trader the *Order View* can 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 *Cash Trader*:

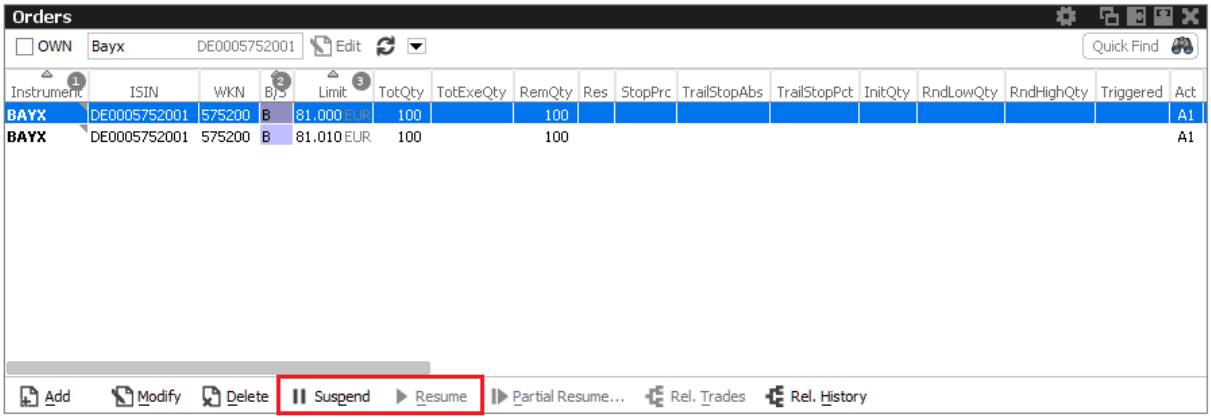



Fig. 56: Screenshot of the *Orders* view showing the *Suspend* and *Resume* actions

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

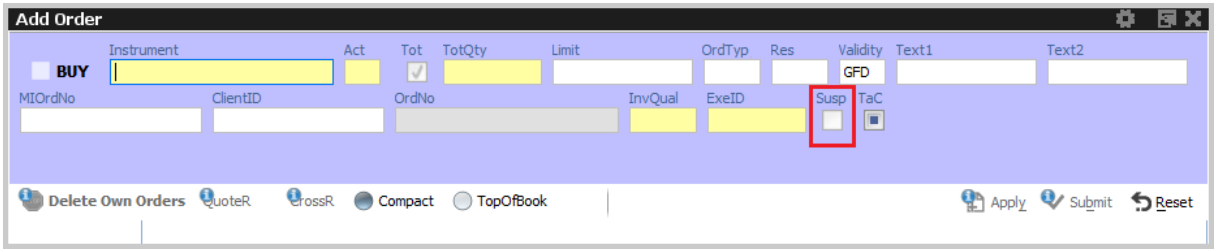



Fig. 57: Screenshot of the *Order Entry* showing the *Susp* checkbox

### 3.3.2 Self-Match Prevention (SMP) and Self Cross Prevention (SCP)

Self-Match Prevention (SMP) allows members to prevent unintended crossing of their orders and quotes while Self-Cross Prevention (SCP) allows members to prevent unintended crossing of their *Midpoint* orders. For both SMP and SCP, the `CrossID` field of the order entry is utilized.

SMP and SCP are explained in the following two sub chapters.

#### Self-Cross Prevention

Every Midpoint order in T7 Cash GUI may be entered with a filled `CrossID` field.

For Midpoint matching, this CrossID will be taken into account to avoid orders with an identical CrossID matching each other, i.e. achieving a Midpoint Self-Cross Prevention. All sitting Midpoint orders in the Midpoint order book will be checked for the given CrossID and once they are crossed with other orders with the same CrossID (regardless of the current Midpoint price and MAQs), the sitting Midpoint orders will be canceled (deleted). For Midpoint Sweep orders, once they reach the CLOB, the CrossID will be used for the already existing Self-Match Prevention process (see below for details).

The Order Entry features the `CrossID` field in the extended layout so the user simply presses the `Compact` button of the Order Entry for this field to be displayed:

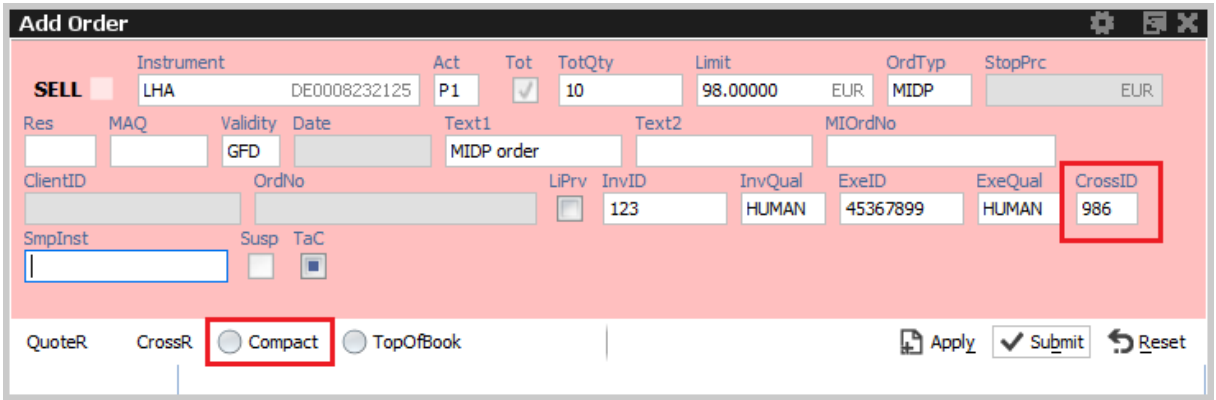



Fig. 58: Screenshot of the *Order Entry* in extended layout highlighting disabled Compact Mode to show the `CrossID` field

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

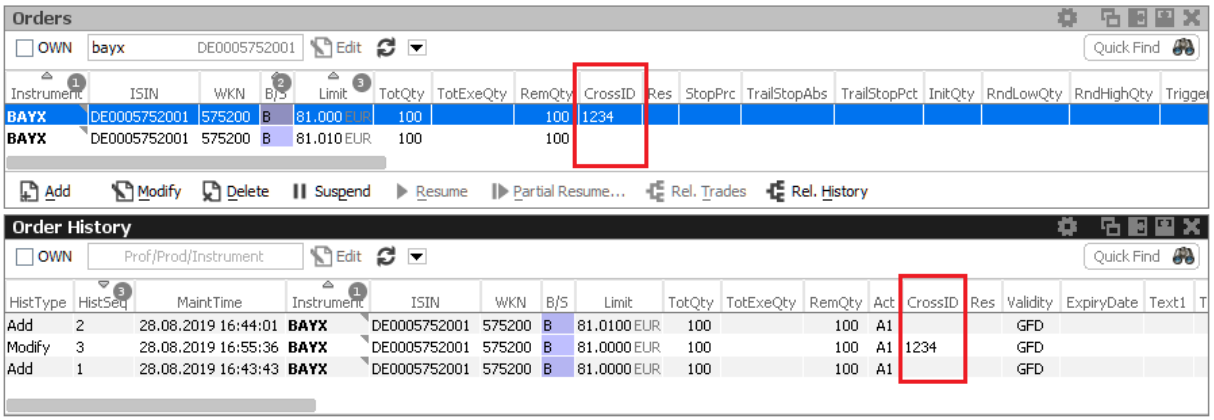



Fig. 59: Screenshots showing the *CrossID* column of the *Orders* and *Order History* view

### Self-Match Prevention (SMP)

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 intended crossing, the cross request functionality is offered by Cash Markets T7. By using it an exchange participant is allowed to enter relating orders and quotes which can immediately match against each other. The precondition is that the participant enters a cross request prior to entering orders or quotes which can match immediately signaling its intention to the market. However, the legal situation in the origin country of several exchange participants does not allow crossing at all.

To use the SMP functionality the optional fields `CrossID` and `SmpInst` need to be filled. The `CrossID` must be identical for both orders and/or quotes that origin from the same business unit. By filling the `SmpInst` field the trader controls what deletion instruction will be applied in case of an SMP event:

- Cancel aggressive - cancel the remaining quantity of the incoming order or quote (**NEW**)
- Cancel passive - cancel the entire book order(s) or quote(s) of the match price level, regardless of the size of the incoming aggressive order (**NEW**)
- Cancel both (aggressive and passive) - reduce the quantity of both incoming and book order/quote until at least one is completely canceled (existing behavior)

Both fields are located next to each other and get visible by disabling the compact mode of the *Order Entry* view.

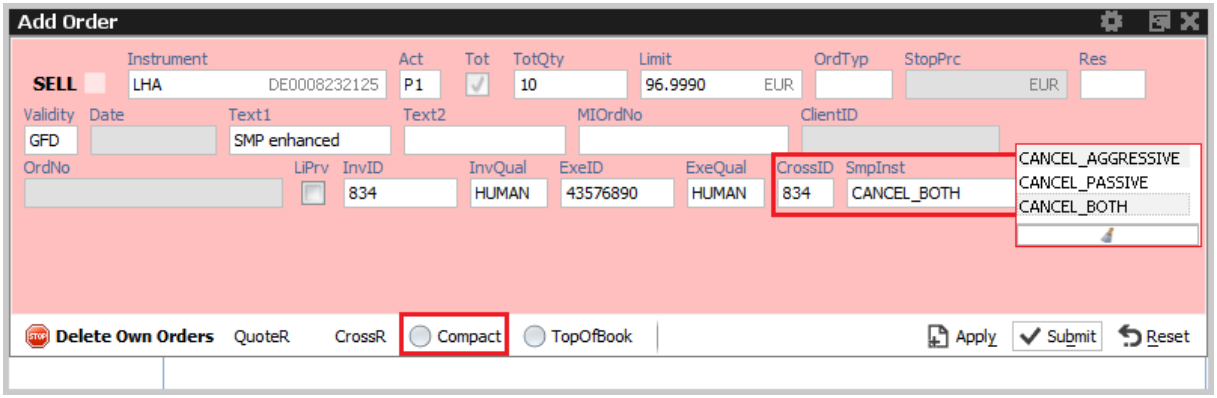



Fig. 60: Screenshot of the *Order Entry* highlighting the fields needed for SMP

Orders and quotes actively participating in the order book are verified for SMP during the instrument state “Continuous” only.

The fields `CrossID` and `SmpInst` are also displayed in the views *Orders* and *Order History*. Additionally, these *History Type* 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.

### 3.3.3 Order Entry Properties and preferences

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.

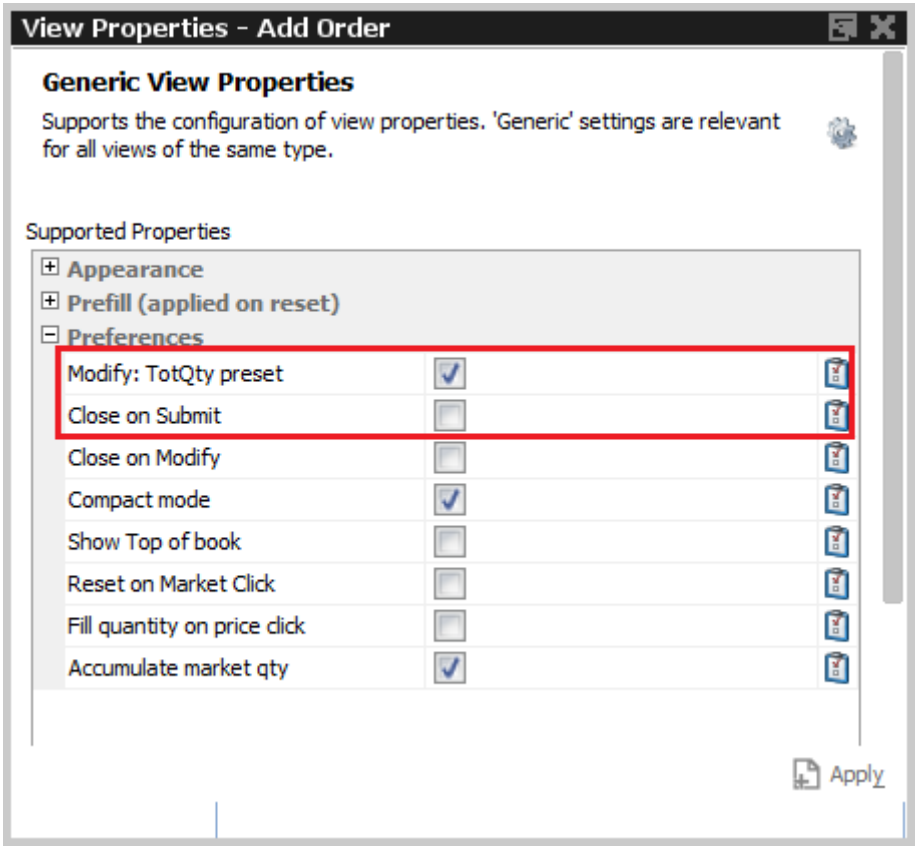



Fig. 61: Screenshot of the *View Properties* view

*Reset on Market click* controls whether or not the *Order Entry* is reset before filling data from Market view.

*Fill Quantity on Prc Click* controls whether or not the *Order Entry* is filled with the related quantity as well when clicking on a Bid/Ask cell in market view.

*Accumulate Market Quantity* controls how the how the quantity gets prefilled when clicking in the market view: If not ticked, the *Order Entry* is filled with the exact quantity as displayed in the *Qty* column of a certain row of the Market Depth. If ticked (default) the quantity is accumulated as usual.

In order to save changes, press *Apply* in the *View Properties*and press *Save Settings* in the *Application* menu.

### 3.3.4 Pre-trade Risk Limits

The *Pre-trade Risk Limits* view allows entitled participants to define and maintain limits for the daily maximum notional value of all entries, modifications and executions of orders and quotes per product and trading side.

Only products that have been defined to be eligible for the Pre-Trade Risk Limit check can be viewed and maintained. Viewing and adding action for this view are controlled by two different entitlements.

This view is not updated automatically.

In general, Pre-trade risk limits can be set for three risk limit types (-levels), separately for the buy and sell side:

1. Exchange level (EXCH_FOR_BU): Cash Market Supervision defines PTRLs for any Business Unit (BU) using the Cash Controller GUI.
2. Clearer level (CM_FOR_BU): Clearing members define PTRLs for their related non-clearing member using the Cash Clearer GUI. *Kindly note,* a Settlement Institute (SI) member will not be able to define PTRLs for its non-clearing members.
3. BU level (BU_RISK_GROUP): Properly entitled (admin) participant defining risk limits for its User Risk groups using the Cash Admin GUI.

The newly entered Pre-trade risk limits will be enabled on the date specified in the field *Activation-Date*, i.e activating limits intraday is not permitted. If *ActivationDate* is empty, the limits are active. To then have the limit figures take effect, any positive number greater '0' needs to be entered. If no value is set, trader can enter transactions without any limit. Contrary, a value of '0' restricts the trader completely.

A full description of this view can be found in Cash Admin GUI, chapter 4.2.1 Pre-trade Risk Limits and Cash Clearer GUI, chapter 5.2.1 Pre-trade Risk Limits.

### 3.3.5 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. Please note, this view is not updated automatically but needs to be refreshed manually.

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

- session $\times$ product.
- session $\times$ product $\times$ instrument type.

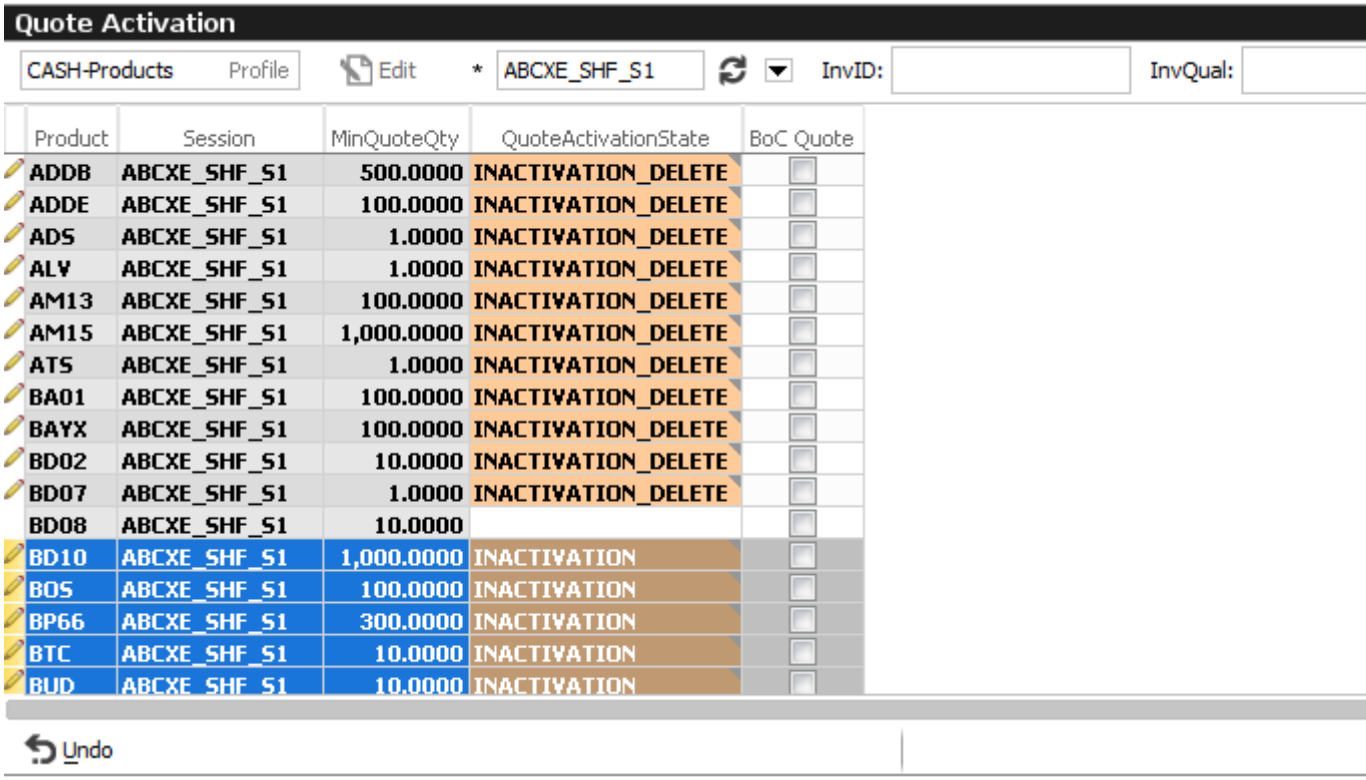



Fig. 62: Screenshot of the *Quote Activation* view

It is possible to change the quote activation state on the *Market Maker Protection* view by right-clicking into the respective *QuoteActive* cell of the table and select one of the listed valid values - INACTIVATION_DELETE, REACTIVATION or INACTIVATION.

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 |

| | |
|---|---|
| QuoteActivationState | Displays the current activation state of the quote:<br>• INACTIVATION_DELETE - quotes gets inactivated and deleted<br>• REACTIVATION - quotes get reactivated<br>• INACTIVATION - quotes get inactivated only<br>Please note, the status is not updated automatically but needs to be refreshed manually. |
| BoC Quote | *Not supported currently* |

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.

### 3.3.6 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 Cash markets and the advantages of standardized settlement services provided by Deutsche Börse Group.

For details on the pre-approved bilateral OTC Trade Upload feature please refer to chapter 3.3.7.

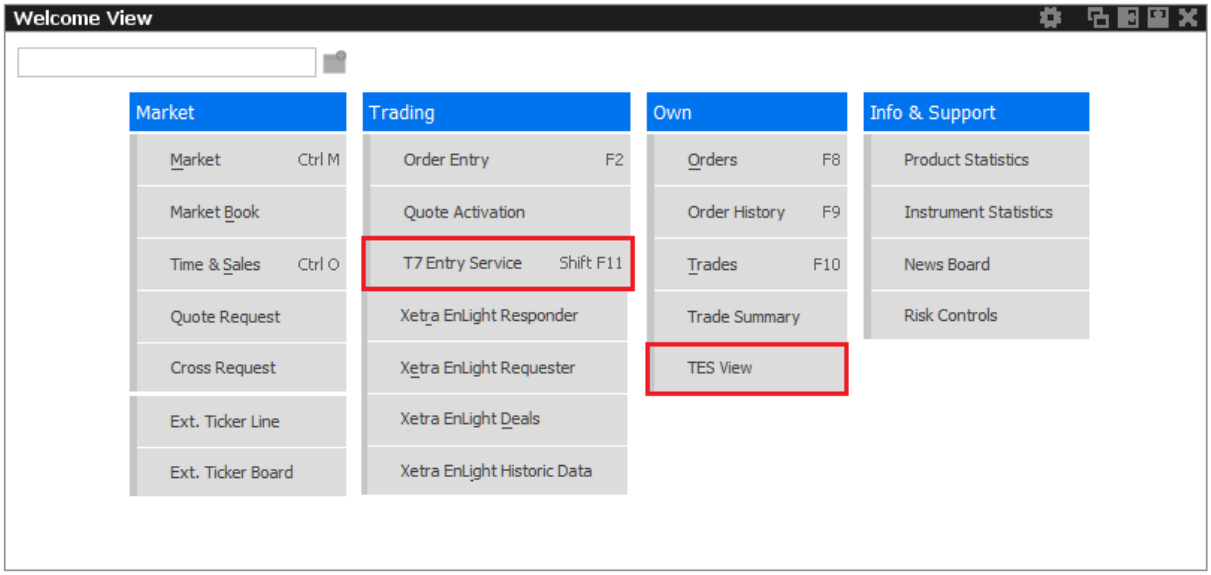



Fig. 63: Screenshot of the *Welcome View* highlighting *T7 Entry Services* views

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

- TES LIS: execution of pre-arranged trades (on-exchange off-book trade entry). TES Type LIS must fulfill *large in scale* requirement, specific block size and price validation for Cash Market.

- TES OTC: bilateral off-book trading functionality for Cash Market without any price and quantity validation and with no reporting obligation.

**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.
- By ticking the checkbox `Publish` TES trades are flagged for being publishing in CEF after approval.
- In order to inquire on a TES trade, the traded product must be specified along with the `TESTrdID`. However, tt is recommended to easily prefill the TES Entry by double-clicking the respective trade in the *TES View*.
- Completed TES Trades, i.e. in 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.
- 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 the **`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 activity* executes orders on behalf of clients (Trading Capacity set to A).

- **When using GUI defined TES Auto Approval Rules**, clearing data entered for an auto approval rule definition will **overwrite** clearing data which is entered during manual TES Entry. If the latter should persist, modify needs to be pressed again by the user entering the TES trade.

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 T7 Entry Service view supports the entry of regular block trades of the TES types *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):

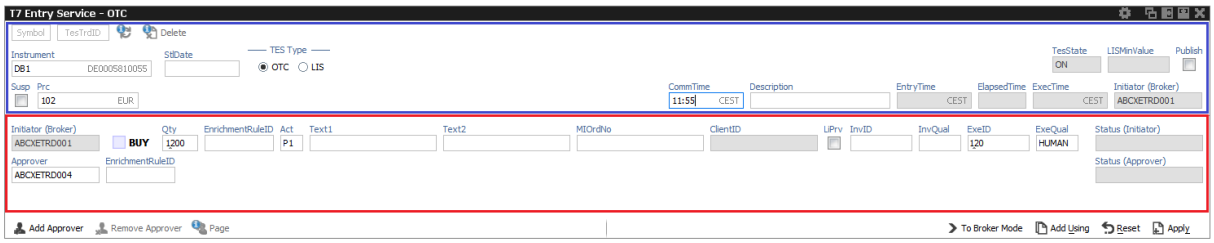



Fig. 64: Screenshot of TES Entry view in Simple Mode highlighting tradeable section and counterparty section

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*:

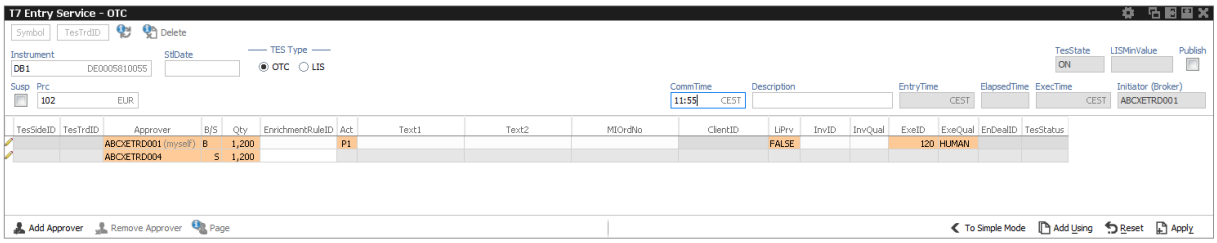



Fig. 65: Screenshot of the TES Entry view in Broker Mode

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.

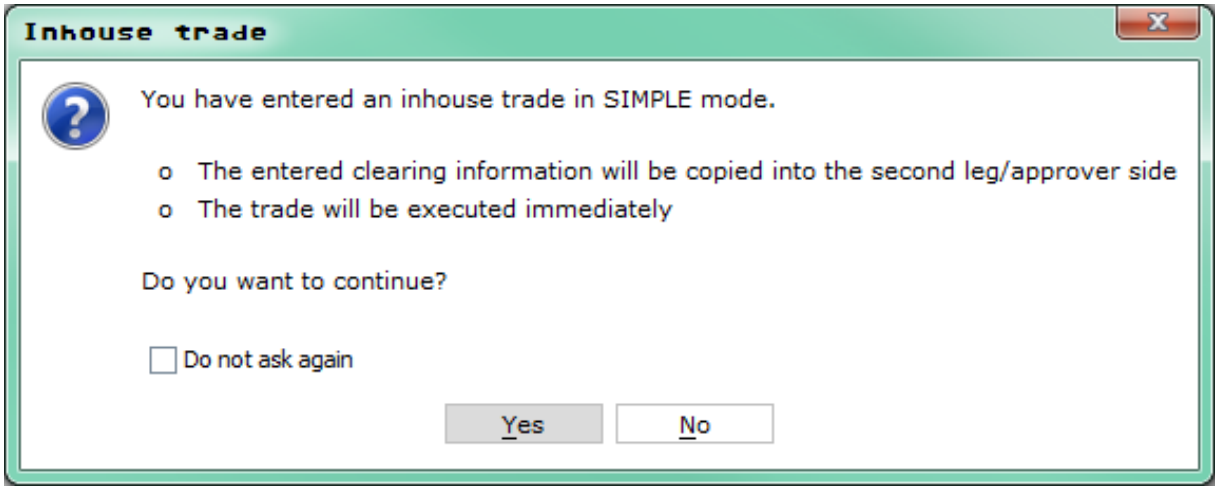
### Approver column

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

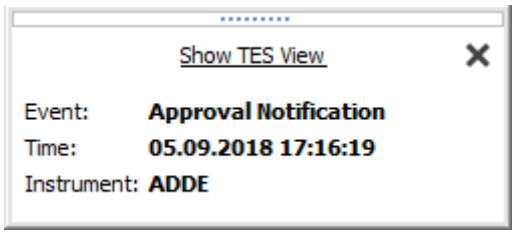
The TES Trade Entry supports the entry of in-house block trades also in Simple entry mode.

**Please be aware** that the trade is 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 can 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):




### TES Alert: Approval Notification

Once a TES trade has been entered, an approval broadcast is submitted to the target traders. As long as a trader has the T7 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 the Trader GUI - 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 can 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. 66: 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 the settings icon and choosing *Import* or via the 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:** Fitting template files for this bulk load functionality can be downloaded from the GUI menu *Help -> Export Bulk Templates*.

*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 4.2.6 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:

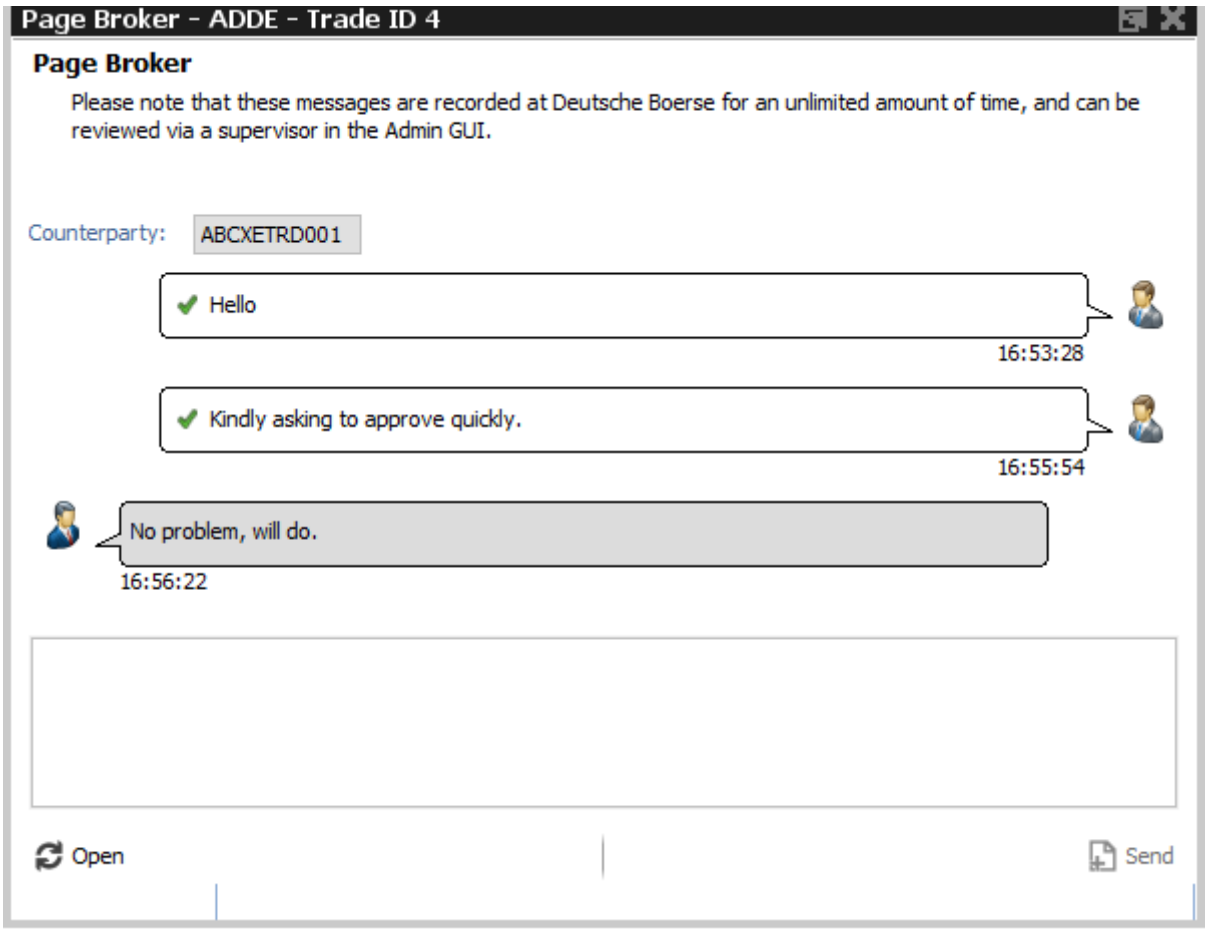



Fig. 67: Screenshot of the *Page Broker* dialogue

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 Description field is provided, which allows the initiator to give a hint to the counterparty about the background of the trade:

Fig. 68: 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. 69: 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 a not ratified 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. 70: 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 un-suspended, which then starts the approval process.

Field description of the TES Trade Entry view:

| Field | Description |
|---|---|
| Product<br>TESTrdID | The TES Product in combination with the TESTrdID is used to identify a TES trade. The TESTrdID is assigned by the system after the trade has been entered.<br>After the TES Trade has been entered, the trade can be retrieved using these fields. |
| TesState | The TES activity state:<br>• `On`<br>Enable all TES activities (TES trading, TES deal cancellation)<br>• `Halted`<br>Disable TES trading activities (TES entry and side approval).<br>TES deal cancellation is still possible.<br>`Halted` will be used in exceptional situations and indicates that TES trading is stopped temporarily.<br>• `ENDED`<br>Disable TES trading activities i.e. TES entry and side approval. TES deal cancellation is still possible.<br>Uploads of pre-approved OTC Trades is still enabled).<br>State `ENDED` will be used at the end of the day. It is used to indicate the end of the current trading day.<br>• `Off`<br>Disable **all** TES activities (TES trading, TES deal cancellation). |
| LISMinVal | TES Type LIS only: **L**arge **I**n **S**cale minimum value, usually a result of *price* × *quantity* |
| Publish | *TES TradePublishIndicator*. If ticked, executed TES trade will be published. |
| Instrument | Instrument short name (symbol), or WKN / ISIN, for multi currency instruments `<ISIN.CUR>`.<br>The context menu offers the following columns of information: Instrument short name, WKN, ISIN, CURR 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, e.g. for multi currency instruments the ISIN is only unique with the currency. |
| Settlementdate | Settlement date (optional) |
| TES Type | Type of the TES Trade - OTC or LIS |
| 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*. The day and time an Off-Book trade has been prearranged outside the T7 System.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 | 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 *Preferences* and can be filled with an up to 12 characters user defined text. |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

### 3.3.7 OTC Trade Upload Service – Bilateral and Broker Mode

This view that is only visible to entitled users supports the handling of pre-approved OTC Trade Uploads in the context of cross exchange OTC trading of German Stock Exchanges within the trading venue Börse Frankfurt. The OTC trades will remain bilateral, but the counterparties may belong to the same or different markets (the latter referred to as “PUEV trades”) within the same OTC trade. A pre-approved bilateral OTC Uploaded Trade will be visible in *TES View* and *Trade* view. Please note that is possible to upload pre-approved OTC Trades also in the TES state `END`.

If needed, a pre-approved bilateral OTC Uploaded Trade can be reversed. A click on the button `Request TES Reversal` reverses a pre-approved bilateral OTC Uploaded Trade.

The *OTC Trade Upload* view is split into two sections, the upper denoting the kind of tradeable, individual trade details and supportive information and the lower section describing the involved counterparties of the trade - either in *Simple* or *Broker* format.

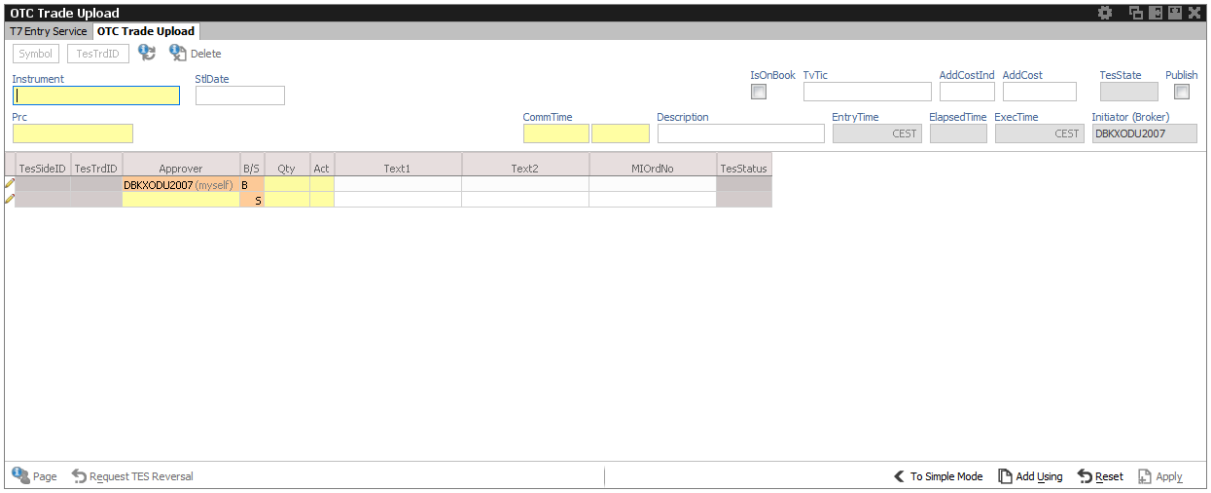



Fig. 71: Screenshot of the *OTC Trade Upload* view in *Broker mode*

Available actions, specific to the *OTC Trade Upload* view:

| Field | Description |
|---|---|
| Page | Opens the page broker (message tool) in a separate window |
| Request TES Rerversal | Start the reversal process of an executed, pre-approved bilateral OTC Uploaded Trade |

Description of the available fields on the *OTC Trade Upload* view:

| Field | Description |
|---|---|
| Symbol<br>TESTrdID | The *Symbol* in combination with the TESTrdID is used to identify a TES trade. The TESTrdID is assigned by the system after the trade has been entered.<br>After the TES Trade has been entered, the trade can be retrieved using these fields. |
| Instrument | Instrument short name (symbol), or WKN / ISIN, for multi currency instruments `<ISIN.CUR>`.<br>The context menu offers the following columns of information: Instrument short name, WKN, ISIN, CURR 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, e.g. for multi currency instruments the ISIN is only unique with the currency. |
| StlDate | Settlement date (optional). |
| IsOnBook | Marks an OTC trade as on-exchange trade. |
| TvTic | Trading Venue Transaction Code. |
| AddCostInd | Indicates the type of additional cost. Valid Values (right-click):<br>• BLANK - No additional cost<br>• FC - Franco Courtage<br>• FR - Franco Rechnung<br>• AC - Abweichendes Cortage<br>• SP - Spesen<br>• PR - Provision |
| AddCost | Denotes the additional cost for OTC upload trades. |
| Publish | *TES TradePublishIndicator*. If ticked, executed TES trade will be published. |
| Prc | The price of the TES trade. Only multiples of the tick size of the product are allowed. |

| | |
|---|---|
| TesState | The TES activity state:<br>• On<br>Enable all TES activities (TES trading, TES deal cancellation)<br>• Halted<br>Disable TES trading activities (TES entry and side approval).<br>TES deal cancellation is still possible.<br>This state will be used in exceptional situations. It is used to indicate that the TES trading is stopped temporarily.<br>• Ended<br>Disable TES trading activities (TES entry and side approval).<br>TES deal cancellation is still possible.<br>This state will be used at the end of the day. It is used to indicate the end of the current trading day.<br>• Off<br>Disable all TES activities (TES trading, TES deal cancellation). |
| CommTime | *Time of commencement*. The day and time an Off-Book trade has been prearranged outside the T7 System. |
| Description | Share additional 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 | The person entering the TES trade. |

### 3.3.8 Xetra EnLight the selective RFQ Service

Xetra EnLight is the *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 Cash Trader 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.

Cash Trader GUI supports entering Xetra EnLight RfQ below the Large-in-Scale (LIS) value, down to an instrument-specific, exchange-defined threshold. This threshold is denoted as *RfQMinValue* in Xetra EnLight views. Accordingly, the respondent's quotes may be below LIS but not below the *RfQMinValue*. Xetra EnLight quotes below LIS will be published to ensure pre-trade transparency in accordance with the MiFID II regulation.

For the general Xetra EnLight RfQ handling the starting point differs, depending on the perspective of the user:

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 requester, 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 Request for Quote (RfQ) is sent by the requester to get quotes from respondents. |
| Xetra EnLight Negotiation Event | This is the name of the lifecycle of an Xetra EnLight Request. |
| Xetra EnLight Requester | The user who starts the Negotiation 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 target a specific Xetra EnLight Quote using an 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.

### 3.3.9 Xetra EnLight Responder

The *Xetra EnLight Responder* view 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:

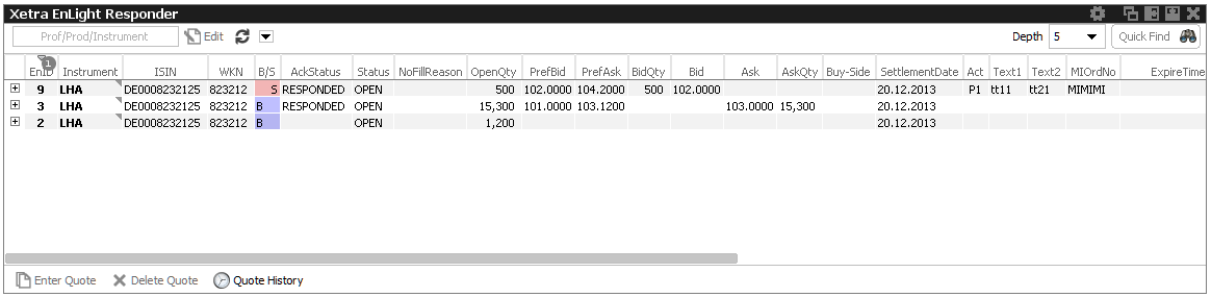



Fig. 72: Screenshot of the Xetra EnLight Responder

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 (→ 3.3.17 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 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. This is also the case for pending Xetra EnLight deals which require to be confirmed by the Xetra EnLight respondent in order to become final.

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, or wants to a see an updated quote from the respondent (or both). 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 for the selected Xetra EnLight RfQ. |
| 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 Negotiation Event is still 'Open', the respondent can enter a new quote again. |
| History | Opens the Xetra EnLight Response 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 *Display only* |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument |
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| QuoteID | ID of the Xetra EnLight Quote |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |

| | |
|---|---|
| NegStatus | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| AckStatus | *Acknowledgment status* of the respondent. e.g. RESPONDED, DECLINED. |
| Firm/Indic | *Negotiationtype. Firm:* no deal approval required; *Indicative:* deal approval required. |
| MySellLimit | Requesters sell limit |
| MyBuyLimit | The preferred price of the Xetra EnLight Request. Half ticks are supported. Requesters buy limit |
| 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 | A free text message which can be used by the requester to provide additional information to the respondent. |
| SettlementDate | Settlement date of instrument. |
| Act | Position Account |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| ExpireTime | Expiry duration of negotiation event |

| | |
|---|---|
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| Requester | The user name of the requester *Display only* |
| 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 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 *SmartRfQ* is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra<br>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. |
| LastUpdateTime | Timestamp of the last change by the responder. |
| Pull-InTime | *Quote Expiry time*. Displays the time(stamp) when quote did expire or was hit. |
| Pull-InCntDown | *Quote Expiry countdown*. *display only* |
| Buy-Side | A free text message which can be used by the requester to provide additional information to the respondent. |

Available fields of the Xetra EnLight Responder table level 2:

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument |
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| QuoteID | ID of the Xetra EnLight Quote |
| B/S | The side of the Xetra EnLight request as specified by the requester |
| NoFillReason | Reason why quote was not chosen. |
| Qty | Quantity of quote |
| MySellLimit | Requesters sell limit |
| MyBuyLimit | Requesters buy limit |
| 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 | A free text message which can be used by the requester to provide additional information to the respondent. |
| SettlementDate | Settlement date of instrument. |
| Act | Position Account |
| Requester | The user name of the requester *Display only* |
| 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 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 *SmartRfQ* 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. |
| LastUpdateTime | Timestamp of the last change by the responder. |

### 3.3.10 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 Requester (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 progress 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. To inquire older historic data ( up to two years) Please use the *Xetra EnLight Historic Data* view, chapter 3.3.16.

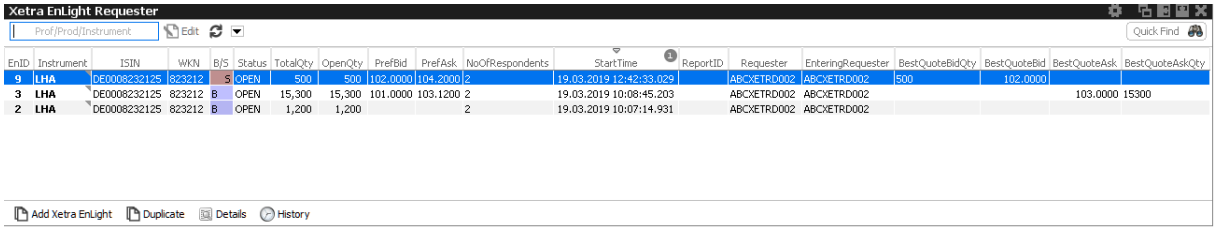



Fig. 73: Screenshot of the Xetra EnLight Requester view

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 profile, product or instrument filter. |

Available fields of the Xetra EnLight Requester table:

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument |
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| SmartRfQ | *Anonymous negotiation request*. Apart from manually selected respondents, request is sent anonymously to respondents unknown to the requester. Respondents quoting is done anonymously as well. |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| NegStatus | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| Firm/Indic | *Negotiationtype. Firm:* no deal approval required; *Indicative:* deal approval required. |
| Qty | Total quantity of Xetra EnLight negotiation |
| MySellLimit | Requesters sell limit |
| MyBuyLimit | Requesters buy limit |
| NegExpIn | Remaining time until expiry of Negotiation |
| ExpireTime | Timestamp of expiration |
| NoOfRespondents | Number of respondents in this Xetra EnLight negotiation |

| | |
|---|---|
| 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 |
| Requester | The user name of the requester *Display only* |
| RequesterBU | Name of Business Unit the requester belongs to. *Display only* |
| RequesterBUID | Numeric ID of the BU the requester belongs to. *Display only* |
| 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. |
| BestQuoteBidQty | Quantity of best bid Quote |
| BestQuoteBid | Best bid Quote |
| BestQuoteAsk | Best ask Quote |
| BestQuoteAskQty | Quantity of best ask Quote |
| AutoExType | Price criterion of AutoExecution, consisting of the reference price and an offset on it. The reference price can be as follows:<br>*MidPointBBO*: the midpoint of the published order book of the corresponding market<br>*BestBid*: BestBid of the published order book of the corresponding market<br>*BestAsk*: BestAsk of the published order book of the corresponding market<br>*LimitPrice*: Requester defined limit price<br>*None*: AutoExecution disabled |
| ShowSide | Reveal side to responders if ticked. Valid for *Auto Execution* only. |
| AutoExExp | Time when AutoExecution period expires. Entered in mm:ss time format. When submitted displays absolute time(stamp). Must be entered by requester, can be saved in properties.<br>*Please also note the tooltip of the entry field*. |
| AutoExIn | Remaining time (mm:ss) until AutoExecution expires. |
| AutoExLimit | Limitprice value for AutoExecution. |
| MinNoOfQuotes | Minium number of quotes for AutoExectution |
| AutoExPrcOffset | Price offset for AutoExecution in product specific ticks (negative value allowed). |
| Act | Position Account |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |

| | |
|---|---|
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| Buy-Side | A free text message which can be used by the requester to provide additional information to the respondent. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| DMA | Direct Market Access |

### 3.3.11 Xetra EnLight Request Details

The *Xetra EnLight Request Details* view serves as basis to start an Xetra EnLight Negotiation Event workflow.

Cash GUI supports entering Xetra EnLight RfQ below the Large-in-Scale (LIS) value, down to an instrument-specific, exchange-defined threshold. This threshold is denoted as *RfQMinValue* in Xetra EnLight views.

To successfully submit an Xetra EnLight negotiation, a "MaxValueCheck" must be successful. It checks that the requested size of the RfQ must not be lower than the *RfQMinValue*. The requested size is calculated as *"quantity times reference price"* for unit quoted instruments (e.g. equities) and quantity alone for percentage quoted instruments (Bonds).

**AutoEx Midpoint BBO**

Using one of the *AutoExType* parameter, the requester can define a price criterion for the quotes, which if fulfilled leads to automatic execution with the corresponding quotes by the system. For details Please refer to the AutoEx Midpoint feature further below.

**Staging of RfQ**

A requester may enter an Xetra EnLight negotiation using an external interface, specifying only few basic data of the RfQ. Such a negotiation is marked by an ticked checkbox *SUSP* and *NegStatus SUSPENDED* in this view. To submit such a negotiation,

- all entered data needs to be validated,
- possibly missing data needs to be added,
- the *SUSP* checkbox must not be ticked.

The *Xetra EnLight Request Details* can be split into two sections. The upper area is dealing with instrument related information and actions while the lower area is focusing on responded related information and interaction.

In the upper area the instrument can be specified and the *Smart RfQ* mode can be activated (cf. *Smart RfQ Mode-anonymous mode* further below). To the upper right additional supportive information is displayed. Examples are the ***Neg**otiation **Stat**us*, the current TES state of the specified instrument and the ***RFQ Min**imum **Val**ue* threshold for negotiations below the LIS value.

This area also features an top-of-book view (CLOB - *C*entral *L*imit *O*rder *B*ook) which gets filled as soon as an instrument has been specified. Furthermore the Buy or Sell side can be selected and the quantity can be specified. For any Xetra EnLight negotiation request an expiry duration time may be set. If it is not provided the product specific maximum duration is used which is defined by the exchange.

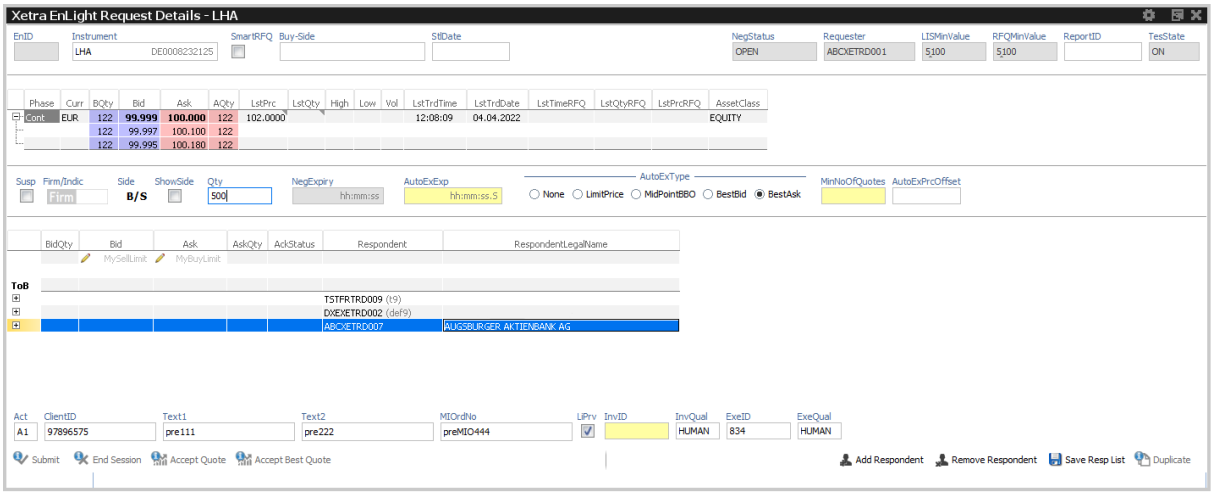



Fig. 74: Screenshot of the Xetra EnLight Request Details view depicting enabled AutoExType

The lower area of the *Xetra EnLight Request Details* features the respondent table, favorites row and the Requester's clearing fields. In the respondent table, current (and historic) quotes ot the participating respondents are displayed. The requester may specify preferred values for bid and ask (clicks on CLOB prices get copied in). To allow for a compact display, initially some fields of the respondents table are hidden, e.g. *RespondentsCount, QuoteID*. These can be displayed by right-clicking on any column header of the table clicking Show/Hide and the desired column name. Respondents can be saved in a favorite list for quick retrieving for upcoming negotiations. The favorites row below the respondent table can hold up to five entries. Start and stop editing this list is done by clicking on the pencil icon right off this list. Below the favorites, the requester may enter the

clearing details which are mandatory for completing a negotiation. Those data can be saved in the respective properties of the view.

Functions provided on the Xetra EnLight Request Details:

- **AutoEX Midpoint:** Support the requester by automatically comparing the available quotes against a specified price criterion. If a quote fulfills the price criterion at the end of the users defined quote collection duration (*AutoExExp* timer) it is matched automatically. If more than one quote would match, one is chosen randomly. For *AutoEX Midpoint* the side must be specified while ticking *ShowSide* (to the respondents) is optional. The requester can specify following criteria:
  - Minimum number of quotes
  - Price criterion – consisting of the reference price and an offset (in product specific ticks) on it, where the reference price can be
    * MidpointBBO - midpoint of the best bid and best ask of the CLOB (*C*entral *L*imit *O*rder *B*ook) of the corresponding market
    * Best Bid or Best Ask of the CLOB
    * Requester defined limit price

  All *AutoEX Midpoint* parameters may be defined in the respective properties of the view.

- **Smart RfQ Mode - *anonymous mode*:** Send an anonymous Negotiation Request 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 negotiation, 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.

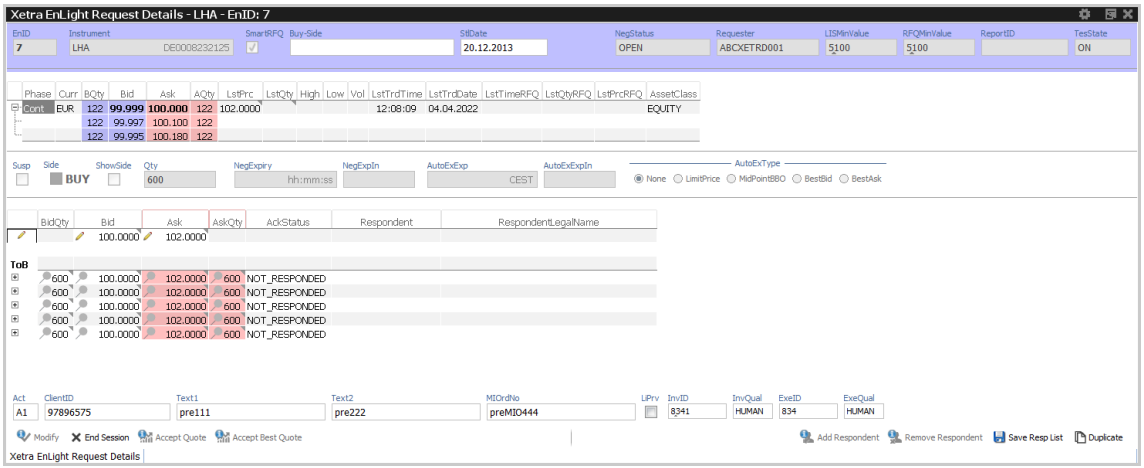



Fig. 75: Screenshot of Xetra EnLight Request Details view of a running negotiation in Smart RfQ (anonymous) mode

- Display and dynamic update of top of book for the chosen instrument.
- Display of buy/sell side to selected respondents. Can be triggered directly from the respondent table via the *Shown Side* command. *Shown Side* can be executed as soon as an Side has been selected and already before the request has been submitted!

- Re-Quote request: Re-quote basically resets the Xetra EnLight Request time from the perspective of a Xetra EnLight respondent, to indicate that the requester wants to receive a new (better) quote from that respondent. Multiple respondents can be selected for this action.
- Pinning: If requester has specified preferred value for Bid or Ask, the *Pinning* feature gets activated. It is a visual help to compare the requester´s preferred values with responder´s 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: Once the first deal was submitted by the requester, the Xetra EnLight deals display opens automatically as part of the Xetra EnLight Request Details view, to show all available deals in the context of the current Xetra EnLight request. Please refer to Xetra EnLight deals (→ 3.3.15 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 *Display only* |
| Instrument | Instrument short name (symbol), or WKN / ISIN, for multi currency instruments `<ISIN.CUR>`.<br>The context menu offers the following columns of information: Instrument short name, WKN, ISIN, CURR 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, e.g. for multi currency instruments the ISIN is only unique with the currency. |
| SmartRfQ | *Anonymous negotiation request*. Apart from manually selected respondents, request is sent anonymously to respondents unknown to the requester. Respondents quoting is done anonymously as well. |
| BuySide | A free text message which can be used by the requester to provide additional information to the respondent. |
| SettlementDate | Settlement date of instrument. |

| | |
|---|---|
| NegStatus | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| Requester | The user name of the requester *Display only* |
| LISMinValue | **L**arge **I**n **S**cale minimum value, usually a result of *price* $\times$ *quantity* |
| RfQMinValue | Exchange defined minimum value of the negotiation |
| ReportID | Report ID |
| TesState | TES State of the product |
| Susp | Negotiation is suspended (staged) and needs yet to be activated. |
| ShowSide | Reveal side to responders if ticked. Valid for *Auto Execution* only. |
| Side | Buy or Sell Side of Xetra EnLight negotiation request. |
| NegExpiry | Expiry duration of negotiation event. If not entered by requester a system default is used. Can be saved in properties. |
| AutoExExp | Time when AutoExecution period expires. Entered in mm:ss time format. When submitted displays absolute time(stamp). Must be entered by requester, can be saved in properties.<br>*Please also note the tooltip of the entry field*. |
| AutoExType | Price criterion of AutoExecution, consisting of the reference price and an offset on it. The reference price can be as follows:<br>*MidPointBBO*: the midpoint of the published order book of the corresponding market<br>*BestBid*: BestBid of the published order book of the corresponding market<br>*BestAsk*: BestAsk of the published order book of the corresponding market<br>*LimitPrice*: Requester defined limit price<br>*None*: AutoExecution disabled |
| MinNoOfQuotes | Minium number of quotes for AutoExectution |
| AutoExPrcOffset | Price offset for AutoExecution in product specific ticks (negative value allowed). |

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 *preferred* 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 a *preferred* Ask price. |
| AskQty | Quote Ask Quantity |
| AckStatus | *Acknowledgment status* 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 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 *SmartRfQ* is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra<br>EnLight Request additional respondents can be added but existing respondents cannot be removed by the requester. |
| RespondentLegal Name | Legal name of respondent. |
| QuoteID | ID of the Xetra EnLight Quote This field is hidden by default. |

Following fields are displayed (filled) after Xetra EnLight request has been submitted:

| Field | Description |
|---|---|
| Act | Position Account |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |

| | |
|---|---|
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

### 3.3.12 Xetra EnLight Request History

The *Xetra EnLight Request History* view shows a history log of all past Xetra EnLight requests of the current business day 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.

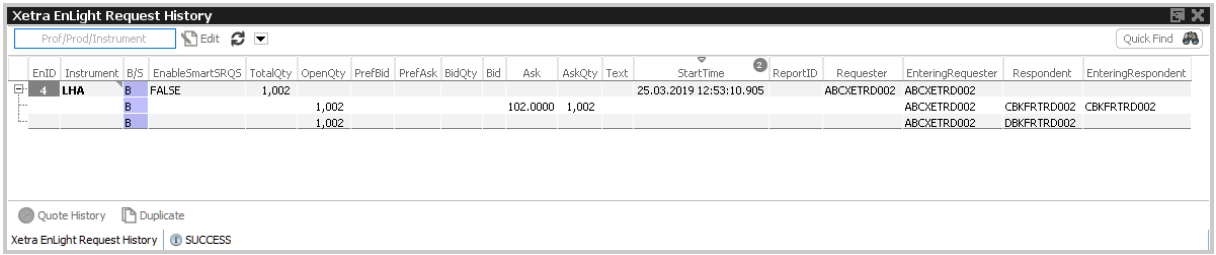



Fig. 76: Screenshot of the Xetra EnLight Request History view

Available actions on the Xetra EnLight Request history view:

| Action | Description |
|---|---|
| History | Opens the Xetra EnLight Response History view to display the quote history for the selected Xetra EnLight request. |
| 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 *Display only* |
| 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. |
| Status | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| SmartRfQ | *Anonymous negotiation request*. Apart from manually selected respondents, request is sent anonymously to respondents unknown to the requester. Respondents quoting is done anonymously as well. |
| TotalQty | Total Quantity of the Xetra EnLight request. Can't be changed anymore once the request has been submitted |
| 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 |
| NoFillReason | Reason why quote was not chosen. |
| Text | A free text message which can be used by the requester to provide additional information to the respondent. |
| 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 |
| Requester | The user name of the requester *Display only* |
| 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 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 *SmartRfQ* is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra<br>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. *Display only* |
| RequesterBU | Name of Business Unit the requester belongs to. *Display only* |
| ShowSide | Reveal side to responders if ticked. Valid for *Auto Execution* only. |
| AutoExExp | Time when AutoExecution period expires. Entered in mm:ss time format. When submitted displays absolute time(stamp). Must be entered by requester, can be saved in properties.<br>*Please also note the tooltip of the entry field*. |
| AutoExLimit | Limitprice value for AutoExecution. |
| MinNoOfQuotes | Minium number of quotes for AutoExectution |

| | |
|---|---|
| AutoExPrcOffset | Price offset for AutoExecution in product specific ticks (negative value allowed). |
| ClosureReason | Reason why a negotiation didn't create a deal for AutoExecution scenarios. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| ExpireTime | Expiry duration of negotiation event |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

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

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| Instrument | (not displayed.) |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |
| EnableSmartSRQs | (not displayed.) |
| TotalQty | (not displayed.) |
| 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 |
| NoFillReason | Reason why quote was not chosen. |
| Text | A free text message which can be used by the requester to provide additional information to the respondent. |
| StartTime | (not displayed.) |
| QuoteID | 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 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 *SmartRfQ* is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra<br>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. *Display only* |
| RequesterBU | Name of Business Unit the requester belongs to. *Display only* |

### 3.3.13 Xetra EnLight Quote Entry

The *Xetra EnLight Quote Entry* view 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. Once the requester sends a (matching) Xetra EnLight deal for the Bid or Ask side of the Xetra EnLight Quote, the other side of the quote (if available) still remains. The screen also supports the deletion of the Xetra EnLight quote.

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. The *Xetra EnLight quote* entered by the respondent is only visible to that respondent, and to the requester. An "auto-pulling" of a sent quote, i.e. an time-based quote expiry may be enabled by entering a duration into the *Pull-InTimer* field, whose value must not be smaller than the value of the related property.

Cash GUI supports entering Xetra EnLight RfQ below the Large-in-Scale (LIS) value down to an instrument-specific, exchange-defined threshold. This threshold is denoted as *RfQMinValue* in Xetra EnLight views. Xetra EnLight quotes below LIS value will be published to ensure pre-trade transparency in accordance with the MiFID II regulation. To successfully submit an Xetra EnLight quote in a running negotiation, the size of the quote must not be lower than the *RfQMinValue*. The quote size is calculated as "quantity * quote price" for unit quoted instruments (e.g. equities) and quantity alone for percentage quoted instruments (Bonds).

In addition to the *RfQMinValue* the *Notional* (quantity * reference price) is displayed on the Quote Entry view.

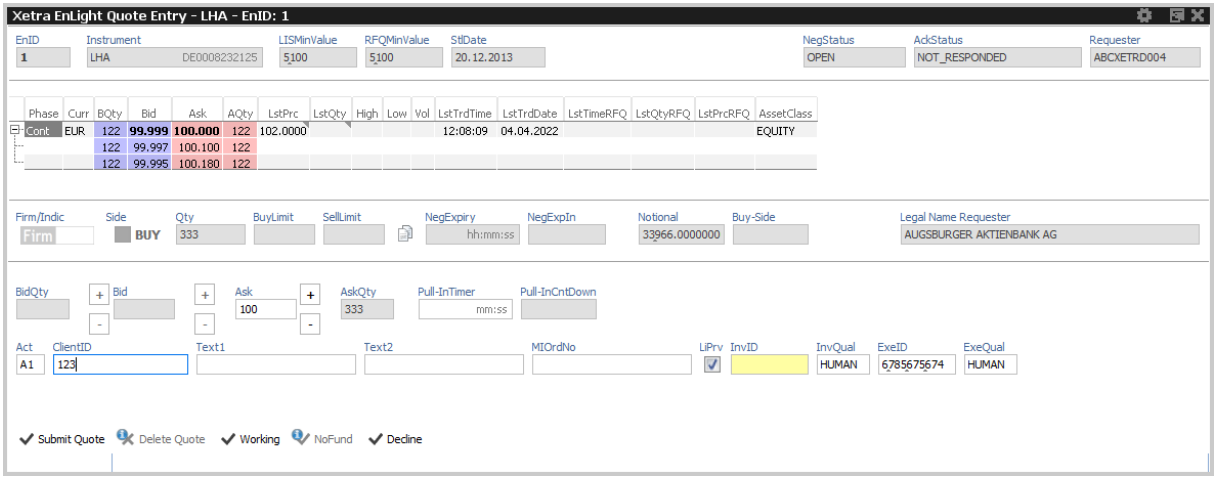



Fig. 77: Screenshot of the Xetra EnLight Quote Entry view

Functions provided on the Xetra EnLight Quote Entry:

- Copy Requester's negotiation data: Clicking copies requested prices and quantities into the respective bid/ask quote fields.
- 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 block trade minimum size of the TES profile, 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 (→ 3.3.15 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 negotiation request to the requester. |
| Decline | Declines any quoting for the current negotiation event. |

Available fields of the *Xetra EnLight Quote Entry*:

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| Instrument | Instrument mnemonic and ISIN as specified by the requester. *Display only* |
| LISMinValue | **L**arge **I**n **S**cale minimum value, usually a result of *price* × *quantity* |
| RfQMinValue | Exchange defined minimum value of the negotiation |
| SettlementDate | Settlement date. |
| NegStatus | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| AckStatus | *Acknowledgment status* of the respondent. e.g. RESPONDED, DECLINED. |
| Requester | The user name of the requester *Display only* |
| Side | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |

| | |
|---|---|
| Qty | (open) Quantity of the negotiation request as specified by requester. |
| PrefBid | Preferred Bid price as specified by the requester. |
| PrefAsk | Preferred Ask price as specified by the requester. |
| NegExpiry | Expiry duration of negotiation event. |
| NegExpIn | Remaining expiry duration of negotiation event. |
| Notional | Notional value (quantity * reference price) of the request. |
| BuySide | A free text message which can be used by the requester to provide additional information to the respondent. |
| 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 |
| Pull-InTimer | *Quote Expiry timer*. Entered as a duration which must not be smaller than the value of its property. Submitting a new quote restarts the timer. |
| T Pull-InCntDown | *Quote Expiry countdown*. *display only* |
| Act | Position Account |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| OrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |

| | |
|---|---|
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

### 3.3.14 Xetra EnLight Response History

The *Xetra EnLight Response History* view allows to review all past quotes in the context of a distinct Xetra EnLight requester and respondent. Additionally, negotiation events are displayed for which the Responder did not enter any quote. This allows for a complete overview of the daily RfQs for the Responder. 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 view is aggregated by the Enlight ID *EnID*. A click on the plus sign displays all quotes for the expanded negotiation event.

The following Screenshot indicates the Xetra EnLight Response History type of view:

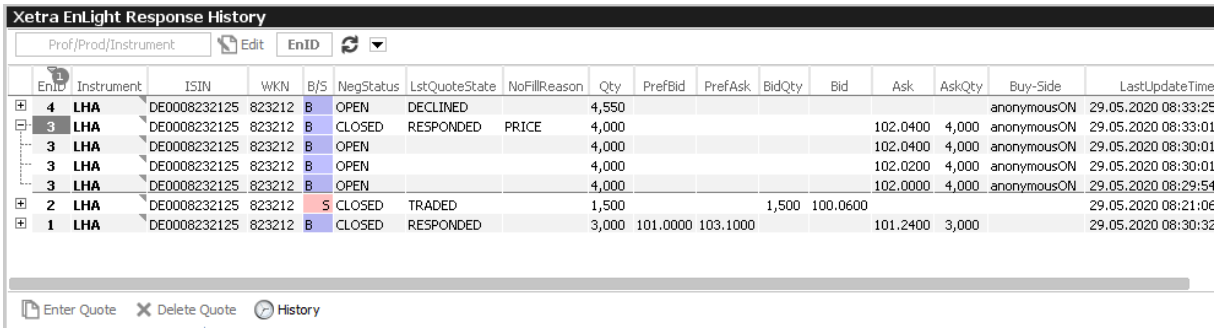



Fig. 78: Screenshot of the *Xetra EnLight Response History* view

Available actions on the Xetra EnLight Response History view:

No actions available - this view is display only.

Available fields of the Xetra EnLight Response History view:

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| Instrument | Instrument mnemonic as specified by the requester. *Display only* |
| B/S | Buy or Sell side of the Xetra EnLight Request as entered by the requester. |

| | |
|---|---|
| LstQuoteState | Last state of quote. Valid values:<br>*Responded*: Quote was sent, but not selected<br>*Traded*: Quote was sent and was selected<br>*Declined*: RFQ was declined by responder<br>*Expired*: Responder didn't sent quote in time |
| NoFillReason | Reason why quote was not chosen. |
| 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 |
| Buy-Side | A free text message which can be used by the requester to provide additional information to the respondent. |
| QuoteID | ID of the Xetra EnLight Quote. *Display only* |
| LastUpdateTime | Timestamp of the last change of quote. |
| Requester | The user name of the requester *Display only* |
| 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. *Display only* |
| 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. |
| RespondentGrp | Name of user group inside the business unit the respondent belongs to. *Display only* |

### 3.3.15 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.

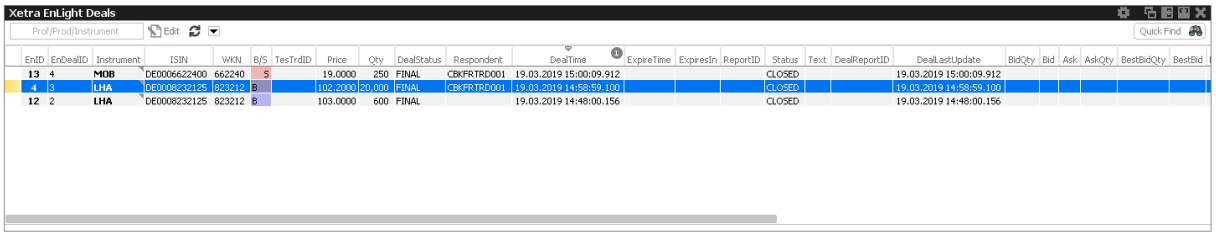



Fig. 79: Screenshot of the Xetra EnLight Deals view

Available fields of the Xetra EnLight Deals view:

| Field | Description |
|---|---|
| EnID | The ID of this Xetra EnLight Request *Display only* |
| EnDealID | Xetra EnLight deal ID. |
| Instrument | Instrument mnemonic. |
| WKN | WKN of the instrument |
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| SmartRfQ | *Anonymous negotiation request*. Apart from manually selected respondents, request is sent anonymously to respondents unknown to the requester. Respondents quoting is done anonymously as well. |
| Buy-Side | A free text message which can be used by the requester to provide additional information to the respondent. |
| 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. Pending, Final. |
| AutoExType | Price criterion of AutoExecution, consisting of the reference price and an offset on it. The reference price can be as follows:<br>*MidPointBBO*: the midpoint of the published order book of the corresponding market<br>*BestBid*: BestBid of the published order book of the corresponding market<br>*BestAsk*: BestAsk of the published order book of the corresponding market<br>*LimitPrice*: Requester defined limit price<br>*None*: AutoExecution disabled |

| | |
|---|---|
| Respondent | The Xetra EnLight request can be targeted to numerous users. The same user cannot be targeted more than once for 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 *SmartRfQ* is active, the request is sent additionally to respondents not known to the requester. During the lifetime of the Xetra<br>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. |
| NegStatus | *Display only*<br>• Open: The initial status of a Xetra EnLight request is Open and implies that it is possible to place quotes and deals.<br>• Expired: Expiry duration (product specific or defined by requester) has been exceeded.<br>• Closed: The Xetra EnLight Request status is changed to Closed in following scenarios: The requester closes the Xetra EnLight Request manually or any pending Xetra EnLight deals have been confirmed.<br>• Suspended: Staged negotiation which is not yet active. |
| Firm/Indic | *Negotiationtype. Firm:* no deal approval required; *Indicative:* deal approval required. |
| BidQty | Quote Bid Quantity |
| Bid | Bid price of the request. |
| Ask | Ask price of the request. |
| AskQty | Quote Ask Quantity |
| BestBidQty | Quantity of the Best bid of the request. |
| BestBid | Best bid price of the request. |
| BestAsk | Best ask price of the request. |
| BestAskQty | Quantity of the Best ask of the request. |
| Bid_VWA | *Volume waged average* of all bid prices for this request. |
| Ask_VWA | *Volume waged average* of all ask prices for this request. |
| OwningGroup | BU Group Name of user who owns the Deal. |
| Requester | The user name of the requester *Display only* |

| | |
|---|---|
| RequesterLegal Name | Legal name of requester. |
| RespondentLegal Name | Legal name of respondent. |
| RequesterGrp | Name of user group inside the business unit the requester belongs to. *Display only* |
| RespondentGrp | Name of user group inside the business unit the respondent belongs to. *Display only* |
| StlDate | Settlement date of instrument. |
| Act | Account |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| LiPrv | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

### 3.3.16 Xetra EnLight Historic Data

The *Xetra EnLight Historic Data* view allows a requester to inquire historic Xetra EnLight negotiations for up to two years. To display data for the current business day Please use the *Xetra EnLight Request History* view, chapter 3.3.12.

A requester has to provide at least a date before any information is shown, but may also filter for deal status and respondent name. Only fully completed transactions, e.g. that have reached the status FINAL are displayed. From the negotiation event only the final record is shown, i.e. only the last quote of each respondent available at the end of the negotiation event. The *Xetra EnLight Historic Data* view lists the hierarchy of requests as root (level1). Expanding the root will bring the participating respondent(s) and deal (of the last quote) of the selected request to display. The displayed data items comprise data from the views Xetra EnLight Request (History), Xetra EnLight Responder and Xetra EnLight Deals.

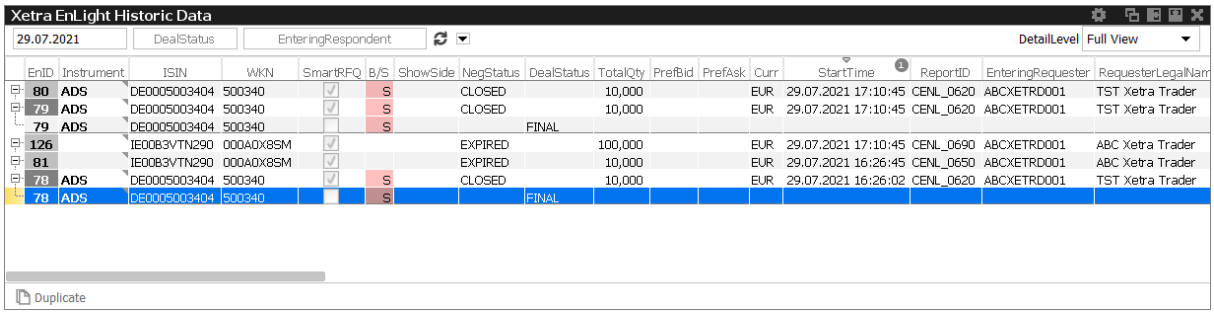



Fig. 80: Illustrative screenshot of *Xetra EnLight Historic Data* view

The *Xetra EnLight Historic Data* view lists the hierarchy of requests as root (level1). Expanding the root will bring the respondent and deal (of the last quote) of the selected request to display.

- Level 1: Historic negotiation request from the requester entry
- Level 2: The list of respondents for the selected request, including the quote details in the same row.

When clicking a requester row twice (or use *Duplicate*), a *Xetra EnLight Request Details* view opens pre-filled with the associated deals display. Please note that this functionality is limited as e.g. instruments and users might not exist anymore, leading to missing fields in the new request.

Available filter fields of the Xetra EnLight Historic data view:

| Field | Description |
|---|---|
| RptDate | Mandatory filter for the creation date of the historic negotiation, at maximum 2 years back in time. |
| DealStatus | Filter according to the status of the deal, e.g. only select fully completed transactions (e.g. FINAL). |
| EnteringRespondent | Allows to filter for negotiations with a specific responder. |

Available actions on the Xetra EnLight Request history view:

| Action | Description |
|---|---|

| | |
|---|---|
| Duplicate | Selected Xetra EnLight Request will be used as template for a new Xetra EnLight negotiation. May function limited only as instruments or respondents may not exist anymore. |

For a description of fields of this view Please refer to the aforementioned views Xetra EnLight Requester, Xetra EnLight Responder, Xetra EnLight Deals.

### 3.3.17 Xetra EnLight Alerts

The *Alert Configuration* is extended by a new pre-configured *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.

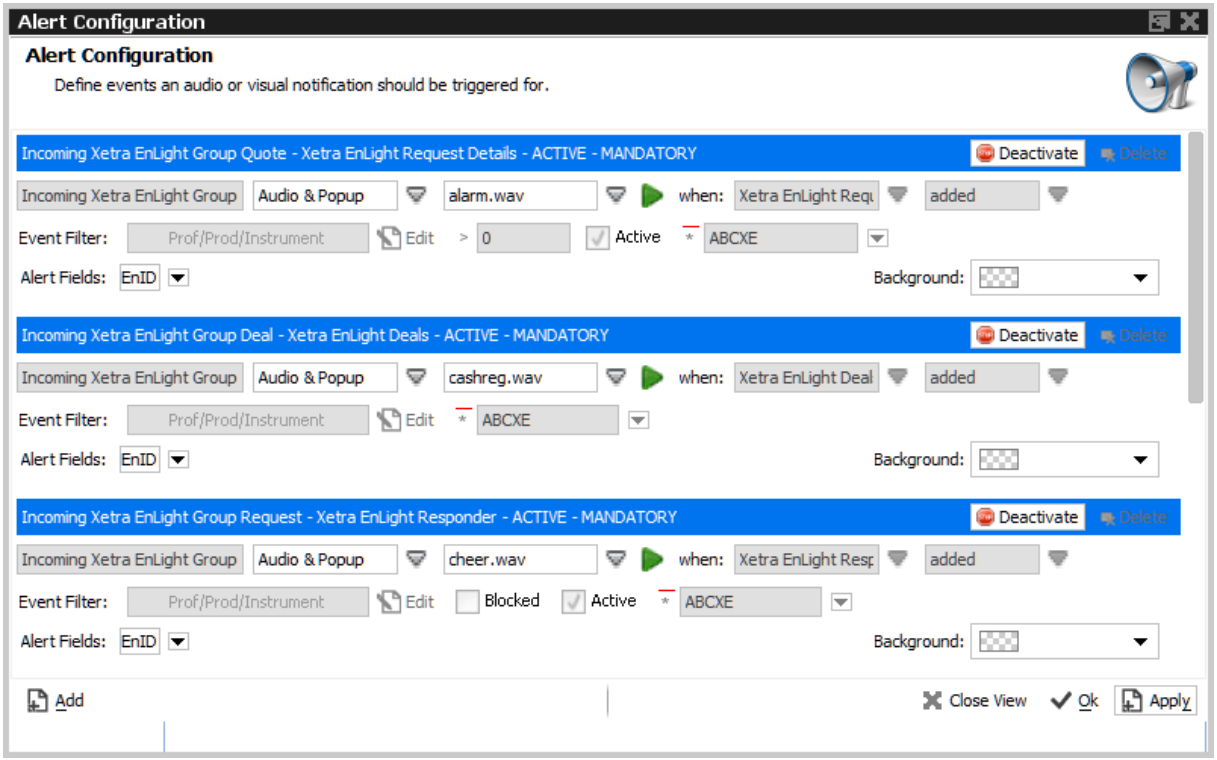



Fig. 81: Screenshot of the Xetra EnLight Alerts view showing pre-configured Xetra EnLight Alerts

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. For multi currency instruments in format `ISIN.CUR` |
| 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. |
| OrdTyp | Order type - valid values include:<br>• ICE - Iceberg Order<br>• MIDP - Midpoint Order<br>• MIDPS - Midpoint Sweep Order<br>• OCO - One Cancels the Other Order<br>• STP - Stop Order |
| MIDPTyp | Type of the Midpoint order:<br>• MIDP - Midpoint<br>• MIDPS - Midpoint Sweep<br>• <blank> - no Midpoint |
| DispQty | Displayed order quantity. |

| | |
|---|---|
| Res | Order restriction - valid values including:<br>• AOO - Auction only<br>• BOC - Book or Cancel<br>• CAO - Closing Auction<br>• IAO - Intraday Auction<br>• MTH - Main Trading Hours only<br>• OAO - Opening Auction<br>• SAO - Special Auction |
| StopPrice | Stop price of a stop limit order |
| Triggered | Indicates whether the current order originates from a triggered OCO or stop order. |
| Act | Account. |
| PInd | Persistency indicator. Orders entered by *Cash Trader* 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 *Cash Trader.* |
| Validity | The validity of the order:<br>FOK - Fill Or Kill<br>GFD - Good For Day<br>GTC - Good Till canceled<br>GTD - Good Till Date<br>IOC - Immediate Or Cancel |
| 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 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| ClientOrdID | Client order number. |
| OrdNo | Order number generated by Cash Markets application. |
| OrdVer | Order version number. |
| BU | Owning business unit. |

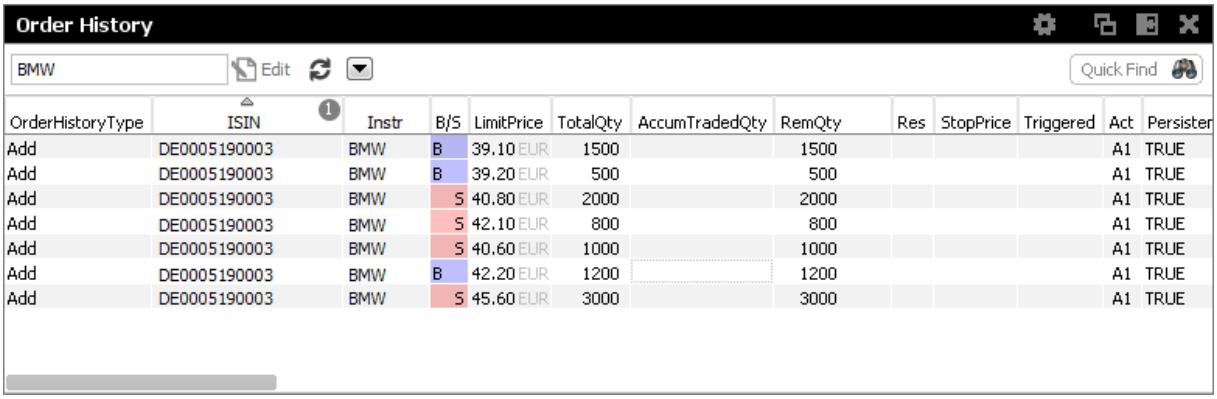
| | |
|---|---|
| BUID | Numerical ID of Owning business unit. |
| Grp | User group of the owning user. |
| Session | Owning SessionID. |
| Trader | Owner of the order (refers to the user name of the exchange account of the respective trading system). |
| EnteringBU | Entering business unit. |
| EnteringUser | 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 both Self-Match Prevention (SMP) and Self-Cross Prevention (SCP). |
| SmpInst | *SMP Instruction* - determines the deletion action in case of an SMP event:<br>• Cancel aggressive - cancel of the incoming order/quote<br>• Cancel passive - cancel the entire book order(s)/quote(s) with the same SMP ID<br>• Cancel aggressive and passive - reduce the quantity of both incoming and book orders/quotes until at least one is completely canceled |
| CapacityGroup | Capacity group. |
| ESMA | European Securities and Markets Authority Action Code. |
| LiPrv | Flag to indicate whether an order is submitted as part of a market making strategy. |
| InvID | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

| | |
|---|---|
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| TaC | if TRUE, order participates in *Trade At Close* phase. |
| BBO | *Best Bid or Offer Price* flag. TRUE, if an order or quote sets a strictly best bid / best ask price in the orderbook. |

### 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 Cash Trader) 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 | Persister |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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. 82: 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. e.g. Add, Modify, Delete, MatchPartial, MatchFull, Cancel. |
| HistSeq | Displays the sequence number of order change. |

| | |
|---|---|
| DeleteReason | Reason for deleting orders, e.g. PANIC_CANCEL. |
| MarketSeg | Legal Market segment code. |

### 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.

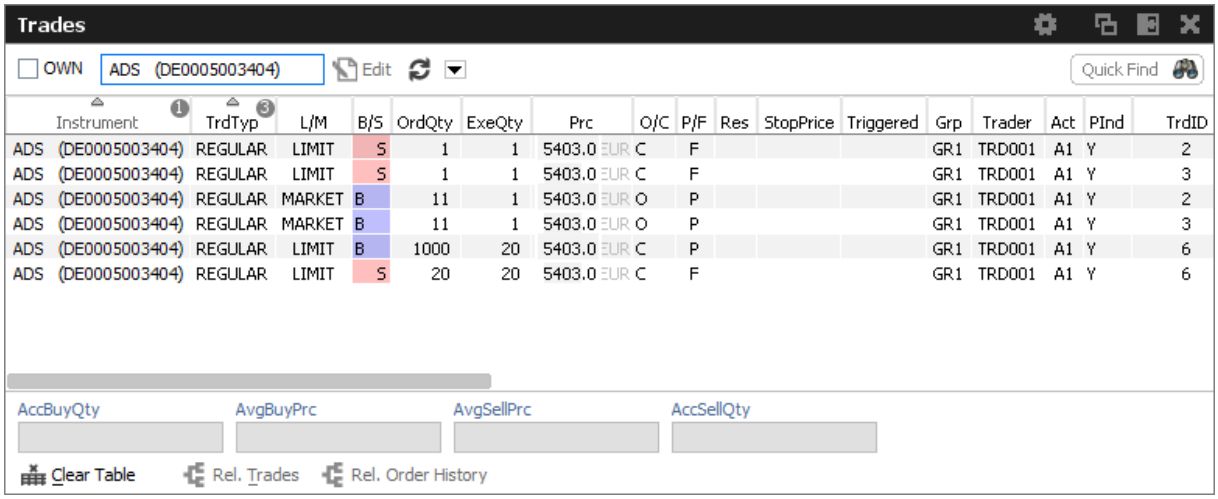



Fig. 83: Screenshot of the *Trades* view

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. For multi currency instruments in format `ISIN.CUR` |
| 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 | Trade type; valid values e.g. REGULAR, ICEBERG and others |
| OrdTyp | Order type - valid values include:<br>• ICE - Iceberg Order<br>• MIDP - Midpoint Order<br>• MIDPS - Midpoint Sweep Order<br>• OCO - One Cancels the Other Order<br>• STP - Stop Order |
| Res | Order restriction - valid values including:<br>• AOO - Auction only<br>• BOC - Book or Cancel<br>• CAO - Closing Auction<br>• IAO - Intraday Auction<br>• MTH - Main Trading Hours only<br>• OAO - Opening Auction<br>• SAO - Special Auction |
| 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 number. Also known as *tradeNumber* when used on e.g. Reports. |
| MatchStepID | Match Step ID. |
| OrdNo | Order number generated by Cash Markets application. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |

| | |
|---|---|
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| 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. |
| 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. |
| CtpyCM | 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.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |

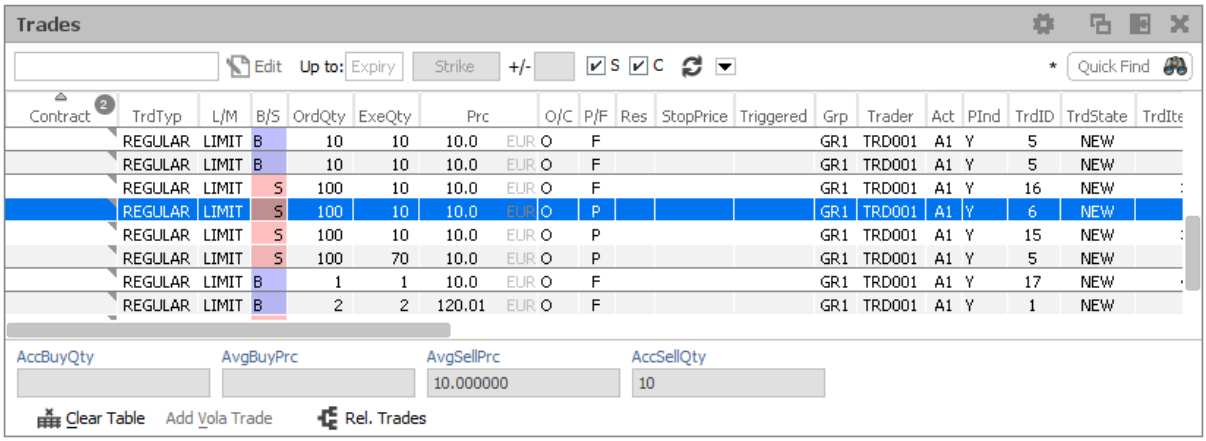
| | |
|---|---|
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| IncOrdInd | *Incoming Order Indicator*. 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 |
| 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 |
| CpnRate | *Coupon Rate* may be empty if there are multiple ones which were used for the accrued interest calculation. |
| SegmMic | Market Identifier Code of the Segment |
| MatDate | Maturity Date |
| FlatInd | Flat Indicator |
| DMA | Direct Market Access |
| ClrInstruct | *Clearing Instruction* indicates whether a non-CCP trade is internalized or aggregated. |

| | |
|---|---|
| FeeIdntCode | T7 Fee Identifier Code. Meaning of the first seven positions:<br>1. Fee Sub Product Qualifier<br>2. Fee Maturity Qualifier<br>3. Fee Beneficial Owner Disclosure Qualifier<br>4. Fee Trade Originator Qualifier<br>5. Fee Trade Type Qualifier<br>6. Fee Trade Publication Qualifier<br>7. Fee Member Specific Qualifier<br><br>Remaining characters filled with 'X' |
| CommTime | *Time of commencement*. The day and time an Off-Book trade has been prearranged outside the T7 System. |
| LastMkt | Dedicated market of the OTC trade. |
| Agrs | Aggressor indicator. |

### 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.



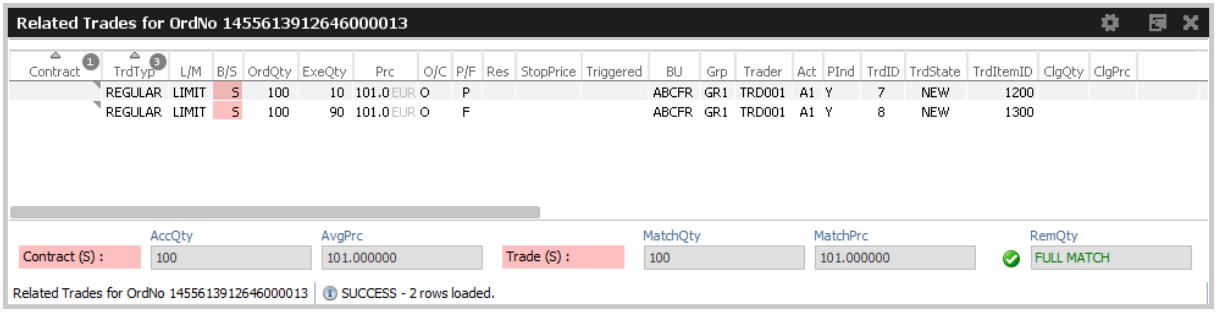



Fig. 84: Screenshots showing how to open the *Related Trades* view from the *Trades* or *Orders* view

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 with an extra feature to aggregate the trades according to the selected aggregation criteria, i.e. *Summary Option*.

Currently one of the following aggregations can be chosen:

- Instrument
- OrderNo
- MIOrdNo
- Text1 / Text2

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 ( ⊞ ) 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 |
| Trades | Total number of trades for the instrument. |
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| 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 - valid values including:<br>• AOO - Auction only<br>• BOC - Book or Cancel<br>• CAO - Closing Auction<br>• IAO - Intraday Auction<br>• MTH - Main Trading Hours only<br>• OAO - Opening Auction<br>• SAO - Special Auction |
| 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 Cash system. |
| TrdState | Indicates whether the trade is new or reversed. |
| TrdID | Trade ID. Also known as deal ID by the Cash system. |
| TrdReportID | Trade number. Also known as *tradeNumber* when used on e.g. Reports. |
| MatchStepID | Match Step ID. |

| | |
|---|---|
| OrdNo | Order number generated by Cash Markets application. |
| Text1 | Free format text field 1 |
| Text2 | Free format text field 2 |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| 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. |
| CtpyCM | Counterparty clearing member. |
| CapacityGroup | Capacity group. |
| Exch | Exchange Identifier. |

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. For multi currency instruments in format `ISIN.CUR` |
| TrdTyp | Type of the TES 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 |
| TesTrdID | Trade ID of the TES Trade |
| Text1,Text2 | Free format text field |
| MIOrdNo | *MemberInternalOrderNo* - text field for special purposes that can be filled up to 16 characters. |
| 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, the *Description* field is provided, which allows the initiator to give a hint to the counterparty about the background of the trade. |

| | |
|---|---|
| TESStatus | The current status of the TES trade:<br>• Pending<br>The TES trade has been entered and is waiting for approval of the counterparty.<br>• Approved<br>The TES trades has been ratified by the counterparty, but approval of other counterparties are still outstanding.<br>• Auto_Approved<br>The TES trades has been auto_approved according to defined auto-approval rule.<br>• Executed<br>The TES trades has been fully ratified.<br>• Deleted<br>The TES trade has been deleted.<br>• Suspended<br>The TES trade has been entered in suspended state, for activation at a future point in time.<br>• Reversed<br>The TES trade has been reversed. |
| 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 day and time an Off-Book trade has been prearranged outside the T7 System. |
| 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 include:<br>Agency<br>Proprietary<br>Market Making<br>Retail Member Organisation<br>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.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvQual | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| ExeID | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExeQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

| | |
|---|---|
| ClientID | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| ESMA | European Securities and Markets Authority Action Code |
| MktVal | Bonds Market Value |
| IntBearDays | Number of Interest bearing Days |
| UserCurrExchRate | Currency Exchange Rate |
| EnrichmentRuleId | Unique Enrichment rule Id for TES approval |
| TradeReportID | User's identifier of a TES trade when entered outside the GUI - *display only* |

## 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 product level is displayed in the *Product Statistics* view.

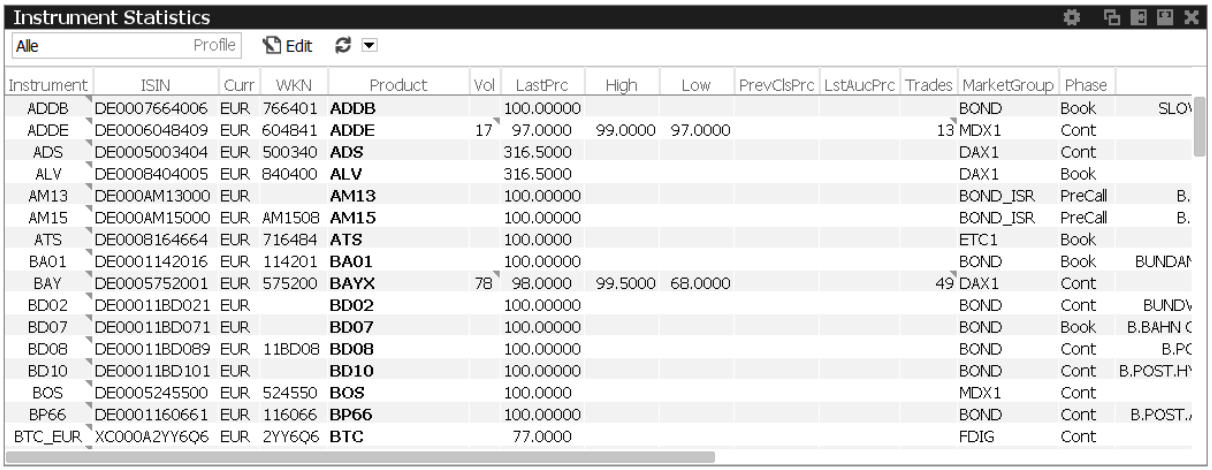
Field description of the *Product Statistics* view:

| Field | Description |
|---|---|
| Product | Product ID. |
| LongName | Product long name. |
| Exch | Exchange code. |
| Curr | Currency of the product. |
| Vol | Total volume of all instruments associated to the product in the course of the day. When hovering over the number figures for on-Exchange and Retail are displayed. |
| Trades | Total number of trades (counted match steps) of all instruments associated to the product. When hovering over the number figures for on-Exchange and Retail are displayed. |
| Exch | Exchange ID of the product. |
| MC | Market conditions indicator for product. |

| | |
|---|---|
| Phase | Trading phase of the product. |
| TESProductState | TES state of the product. |
| Partition | (technical) partition ID the product is hosted on. |
| Capacitygroup | (technical) capacity group ID the product belongs to. |
| CurrentBusDay | Current business day. |

### 3.5.2 Instrument Statistics

Statistical market data on 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.




| Instrument | ISIN | Curr | WKN | Product | Vol | LastPrc | High | Low | PrevClsPrc | LstAucPrc | Trades | MarketGroup | Phase | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADDB | DE0007664006 | EUR | 766401 | **ADDB** | | 100.00000 | | | | | | BOND | Book | SLO |
| ADDE | DE0006048409 | EUR | 604841 | **ADDE** | 17 | 97.0000 | 99.0000 | 97.0000 | | | 13 | MDX1 | Cont | |
| ADS | DE0005003404 | EUR | 500340 | **ADS** | | 316.5000 | | | | | | DAX1 | Cont | |
| ALV | DE0008404005 | EUR | 840400 | **ALV** | | 316.5000 | | | | | | DAX1 | Book | |
| AM13 | DE000AM13000 | EUR | | **AM13** | | 100.00000 | | | | | | BOND_ISR | PreCall | B. |
| AM15 | DE000AM15000 | EUR | AM1508 | **AM15** | | 100.00000 | | | | | | BOND_ISR | PreCall | B. |
| ATS | DE0008164664 | EUR | 716484 | **ATS** | | 100.0000 | | | | | | ETC1 | Book | |
| BA01 | DE0001142016 | EUR | 114201 | **BA01** | | 100.00000 | | | | | | BOND | Book | BUNDA |
| BAY | DE0005752001 | EUR | 575200 | **BAYX** | 78 | 98.0000 | 99.5000 | 68.0000 | | | 49 | DAX1 | Cont | |
| BD02 | DE00011BD021 | EUR | | **BD02** | | 100.00000 | | | | | | BOND | Cont | BUNDV |
| BD07 | DE00011BD071 | EUR | | **BD07** | | 100.00000 | | | | | | BOND | Book | B.BAHN C |
| BD08 | DE00011BD089 | EUR | 11BD08 | **BD08** | | 100.00000 | | | | | | BOND | Cont | B.PC |
| BD10 | DE00011BD101 | EUR | | **BD10** | | 100.00000 | | | | | | BOND | Cont | B.POST.H |
| BOS | DE0005245500 | EUR | 524550 | **BOS** | | 100.0000 | | | | | | MDX1 | Cont | |
| BP66 | DE0001160661 | EUR | 116066 | **BP66** | | 100.00000 | | | | | | BOND | Cont | B.POST./ |
| BTC_EUR | XC000A2YY6Q6 | EUR | 2YY6Q6 | **BTC** | | 77.0000 | | | | | | FDIG | Cont | |

Fig. 85: Screenshot of the *Isntrument Statistics* view

Field description of the *Instrument Statistics* view:

| Field | Description |
|---|---|
| ISIN | ISIN of the instrument. For multi currency instruments in format `ISIN.CUR` |
| WKN | WKN of the instrument (if available) |
| Instrument | Instrument short name |
| Curr | Currency of the instrument |
| Product | Product name |
| InstrLongName | Long name of the instrument |
| TickSize | Tick size |

| | |
|---|---|
| Vol | Total volume in the instrument traded in the course of the day. When hovering over the number figures for on-Exchange and Retail are displayed. |
| Trades | Total number of trades (counted match steps) of the instrument. When hovering over the number figures for on-Exchange and Retail are displayed. |
| LastPrc | 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 |
| MarketGroup | Associated market group of the instrument |
| Phase | Trading phase of the product |
| MC | Market Condition codes for the instrument - possible values:<br>• F - Fast market<br>• SA - Stressed Auto<br>• SF - Stressed Auto+Fast |
| MinTradeUnit | Minimum tradeable unit |
| Quotation Unit | Quotation Unit - points, percent or shares |
| MatDate | Maturity Date |
| FlatInd | Flat Indicator |
| LstRetailPrc | Last Retail trade price |
| LstMidpointPrc | Last midpoint trade price |

### 3.5.3 Risk Controls

The *Risk Controls* functionality in the Cash Markets T7 GUIs available to participants provides *Panic Cancel* actions. Those actions enable users with active 'Emergency Trading Stop' entitlement and user level 'Supervisor' to mass-delete orders and/or quotes in a particular market.

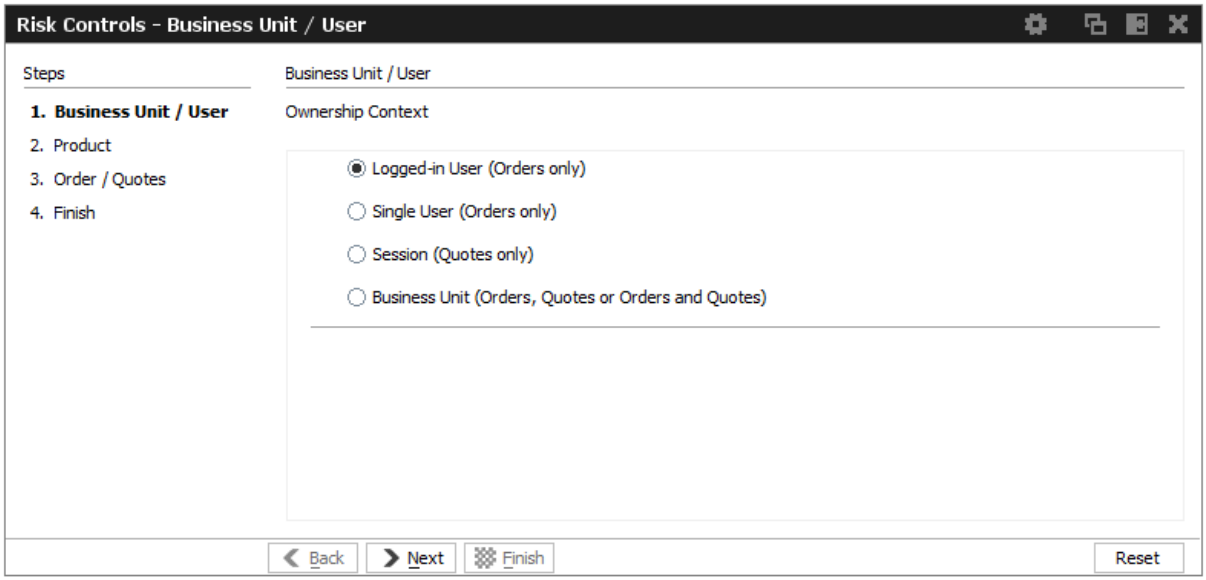



Fig. 86: Screenshot of the *Risk Controls* view

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 double click onto the status bar to open the *Risk Controls - Log Messages*.

### 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 supervision, e.g. information about delay in trading start, suspension of a product). Whenever an instrument is suspended, a system news is published at the same time.

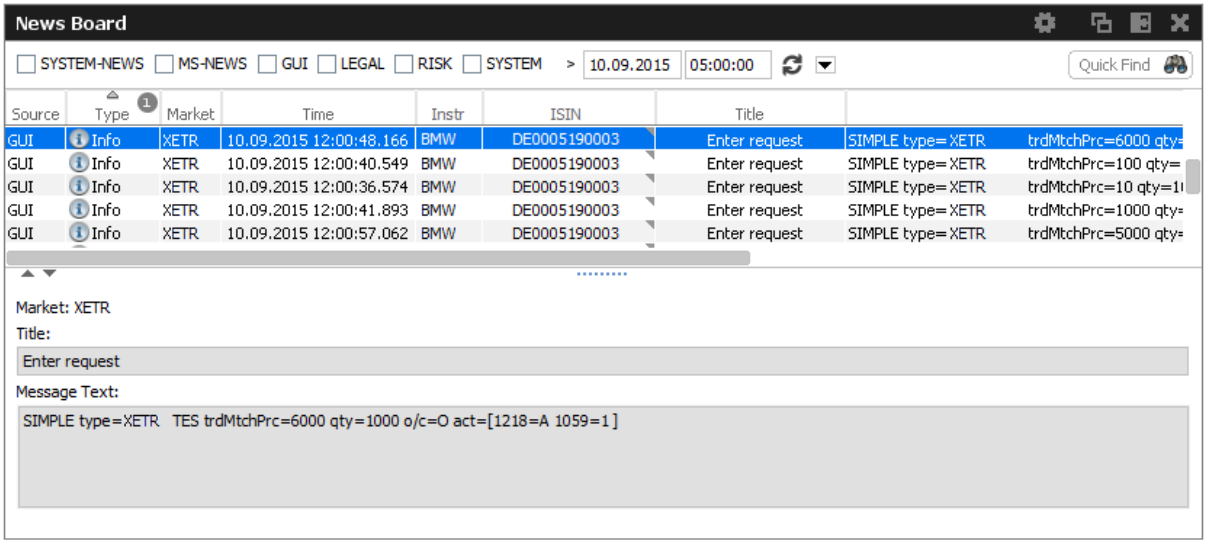



Fig. 87: Screenshot of the *News Board* view

The *News Board* view displays the following information:

- System-News: system generated news like e.g. Fast_Market or Instrument_Suspension scenarios. For the latter Please note that ISINs are released in case an instrument is suspended from trading.
- MS-News: Market Operation 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 Cash Admin GUI

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

Fig. 88: Screenshot of the *Cash Admin* main window showing the *Welcome* view

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.

## 4.1 View Descriptions: Info & Support

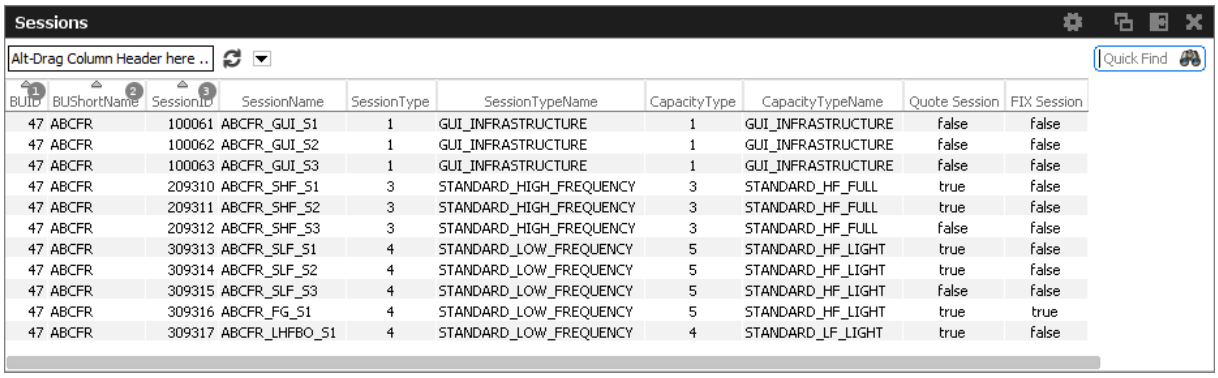
### 4.1.1 News Board

The *News Board* window displays important public and private trading relevant messages. The messages can be filtered according to their privacy type, source and category. The view is updated automatically. Messages are sorted descending by date and time.

This view is identical to Cash Trader, for more details Please refer to section 3.5.4 News Board.

### 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. 89: 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 *Cash Trader*, *Cash Admin* and *Cash Clearer*. 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.

Following actions are available on *Bandwidth Monitor* view:

| Action | Description |
|---|---|
| Force GUI Shutdown | Send a freetext warning message and shutdown this session. A time interval for shutdown can be specified in the message. |
| Send Admin Message | Send a freetext message to the selected GUI session. |
| Reset | Displayed maximum figures for bandwidth and latency can be set to 0 for the selected rows. |

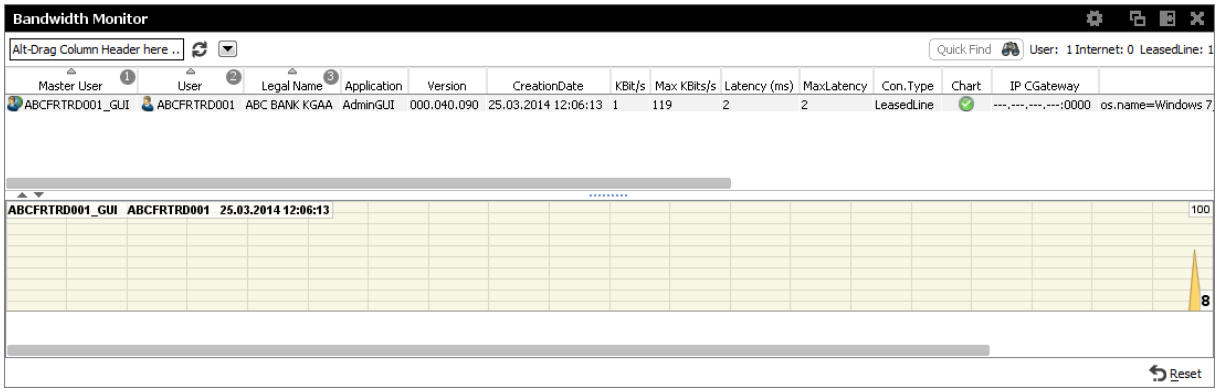
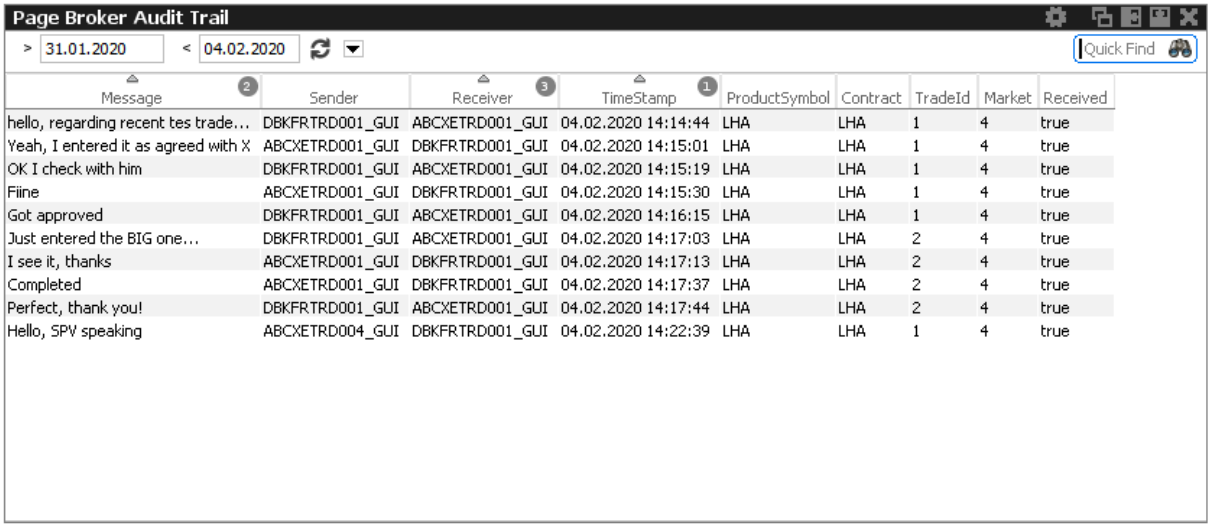



Fig. 90: Screenshot of the *Bandwidth Monitor* view

### 4.1.4 Page Broker Audit Trail

The *Page Broker Audit Trail* view provides an overview of all messages which have been sent using *Page* feature when using T7 Entry Services. In order to get existing messages displayed, a start date and an end date must be entered or selected from the calendar pop-up.




| Message | Sender | Receiver | TimeStamp | ProductSymbol | Contract | TradeId | Market | Received |
|---|---|---|---|---|---|---|---|---|
| hello, regarding recent tes trade... | DBKFRTRD001_GUI | ABCXETRD001_GUI | 04.02.2020 14:14:44 | LHA | LHA | 1 | 4 | true |
| Yeah, I entered it as agreed with X | ABCXETRD001_GUI | DBKFRTRD001_GUI | 04.02.2020 14:15:01 | LHA | LHA | 1 | 4 | true |
| OK I check with him | DBKFRTRD001_GUI | ABCXETRD001_GUI | 04.02.2020 14:15:19 | LHA | LHA | 1 | 4 | true |
| Fiine | ABCXETRD001_GUI | DBKFRTRD001_GUI | 04.02.2020 14:15:30 | LHA | LHA | 1 | 4 | true |
| Got approved | DBKFRTRD001_GUI | ABCXETRD001_GUI | 04.02.2020 14:16:15 | LHA | LHA | 1 | 4 | true |
| Just entered the BIG one... | DBKFRTRD001_GUI | ABCXETRD001_GUI | 04.02.2020 14:17:03 | LHA | LHA | 2 | 4 | true |
| I see it, thanks | ABCXETRD001_GUI | DBKFRTRD001_GUI | 04.02.2020 14:17:13 | LHA | LHA | 2 | 4 | true |
| Completed | ABCXETRD001_GUI | DBKFRTRD001_GUI | 04.02.2020 14:17:37 | LHA | LHA | 2 | 4 | true |
| Perfect, thank you! | DBKFRTRD001_GUI | ABCXETRD001_GUI | 04.02.2020 14:17:44 | LHA | LHA | 2 | 4 | true |
| Hello, SPV speaking | ABCXETRD004_GUI | DBKFRTRD001_GUI | 04.02.2020 14:22:39 | LHA | LHA | 1 | 4 | true |

Fig. 91: Screenshot of the *Page Broker Audit Trail* view showing TES messages

## 4.2 View Descriptions: Risk & Security

### 4.2.1 Pre-trade Risk Limits

The *Pre-trade Risk Limits* view allows entitled participants to define and maintain limits for the daily maximum notional value of all entries, modifications and executions of orders and quotes per product and trading side.

Only products that have been defined to be eligible for the Pre-Trade Risk Limit check can be viewed and maintained. Viewing and adding action for this view are controlled by two different entitlements.

This view is not updated automatically.

In general, Pre-trade risk limits can be set for three risk limit types (-levels), separately for the buy and sell side:

1. Exchange level (EXCH_FOR_BU): Cash Market Supervision defines PTRLs for any Business Unit (BU) using the Cash Controller GUI.
2. Clearer level (CM_FOR_BU): Clearing members define PTRLs for their related non-clearing member using the Cash Clearer GUI. *Kindly note,* a Settlement Institute (SI) member will not be able to define PTRLs for its non-clearing members.

3. BU level (BU_RISK_GROUP): Properly entitled (admin) participant defining risk limits for its User Risk groups using the Cash Admin GUI.

The newly entered Pre-trade risk limits will be enabled on the date specified in the field *Activation-Date*, i.e activating limits intraday is not permitted. If *ActivationDate* is empty, the limits are active. To then have the limit figures take effect, any positive number greater '0' needs to be entered. If no value is set, trader can enter transactions without any limit. Contrary, a value of '0' restricts the trader completely.

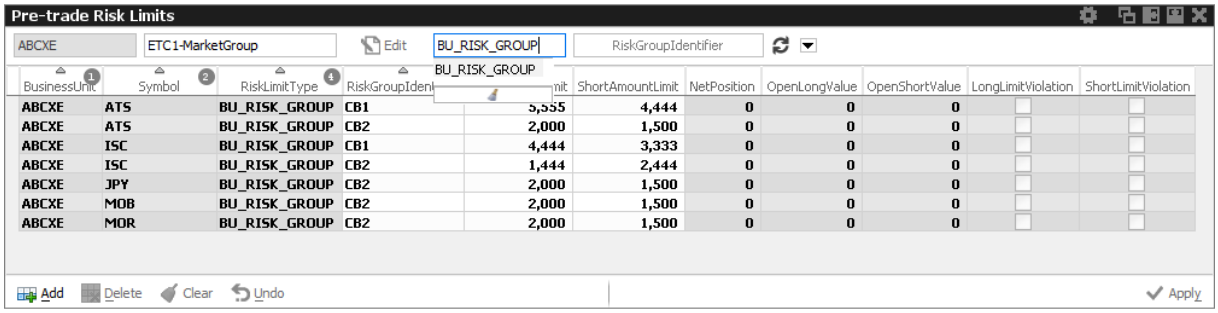



Fig. 92: Screenshot of the *Pre-trade Risk Limit* view, showing on-book limits filtered for a specific PAG and risk limit type

The entitled Admin member can maintain pre-trade risk limit on different risk group levels - denoted here as *RiskGroupIdentifier* - and define values for them.

The *User Maintenance* view is used to assign the fitting risk group level (denoted there as *User-RiskGroup*) to an individual user.

New limits can be created by adding them manually or by importing them. When adding manually, Cash GUI provides a convenience feature **by duplicating all data entered for the first record** to all displayed records below. To achieve this, the view will display "empty" records, ie. records of PTRL eligible products without defined limit values. To quickly add PTRL values for another *RiskGroupIdentifier*, it is recommended to filter for that *RiskGroupIdentifier* and use the duplicate feature when entering the actual values.

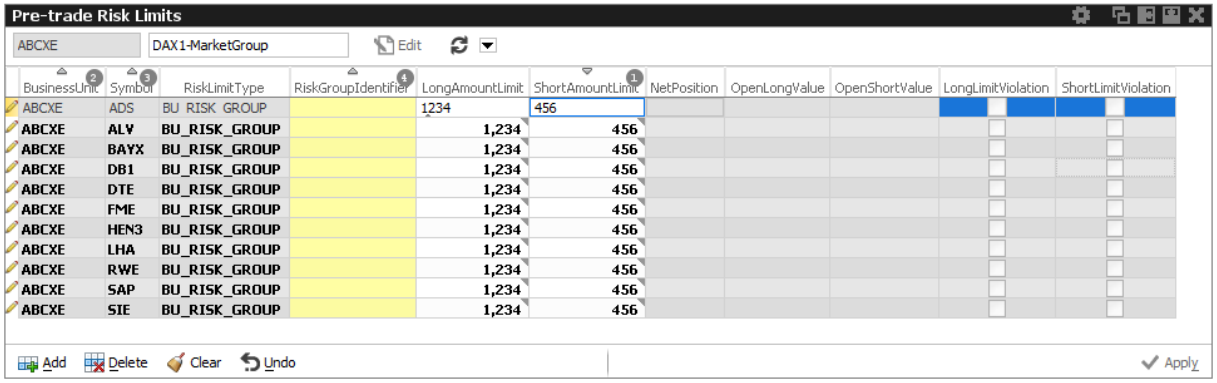



Fig. 93: Screenshot of the *Pre-trade Risk Limit* view, depicting how GUI duplicates data entry on first record

The view supports incremental updates, i.e. new limits can be added or existing limits can be amended without affecting existing records which are supposed to remain unchanged. One example would be to set limits on Product Assignment Group (PAG) level by

1. using the *Prof/Prod/Instrument* filter to display records for a specific PAG,
2. export this subset,
3. import the amended subset without affecting other records.

After an import the view needs to be refreshed to display all limits records again. Deleting limits has to be done manually in the view itself which is eased again by filtering the limits accordingly.

Columns of the *Pre-trade Risk limits* view:

| Field | Description |
|---|---|
| BusinessUnit | Business unit name of the user. |
| Symbol | Product name. |
| RiskLimitType | Risk group level, e.g.<br>EXCH_FOR_BU<br>CM_FOR_BU<br>BU_RISK_GROUP |
| LongAmountLimit | Maximum long amount allowed. '0' means trader is restricted; no value means no limits are set at all. |
| ShortAmountLimit | Maximum short amount allowed. '0' means trader is restricted; no value means no limits are set at all. |
| NetPosition | Current market position for this limit. *Display only*. |
| OpenLongValue | Current open long value. *Display only*. |
| OpenShortValue | Current open short value. *Display only*. |
| ActivationDate | Newly entered PTRL will become valid at *ActivationDate.* If the field is empty, the limits are active. |
| LongLimitViolation | Flag indicating long limit violated. *Display only*. |
| ShortLimitViolation | Flag indicating short limit violated. *Display only*. |
| DisableMember | If ticked, all order/quotes for the selected member and product will be deleted and entry of new transactions will be blocked.<br>Only Clearing Member may change this flag. |

### 4.2.2 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. This view is identical to Cash Trader, please refer for more details to chapter 3.3.5 Quote Activation.

### 4.2.3 Risk Controls

The *Risk Controls* functionality in the Cash Markets T7 GUIs available to participants provides *Panic Cancel* actions. *Panic Cancel* actions enable users of Cash Markets T7 with active 'Emergency Trading Stop' entitlement and user level 'Supervisor' to mass delete orders and/or quotes in a particular market.

This view is identical to Cash Trader, for a description please refer to 3.5.3 Risk Controls.

### 4.2.4 Stop Release

The *Stop Release* functionality in the Cash Markets T7 GUIs includes *Stop Trading* and *Release Trading* actions. Those actions are effective for an entire Business Unit or selected users in a particular market and can be performed by a user of Cash Markets T7 with active 'Emergency Trading Stop' entitlement and user level 'Supervisor' assigned.

The *Stop Trading* effectively prevents a user or business unit from the further entry of orders and quotes. To also prevent any existing orders or quotes from matching, a approved `Stop Trading` action triggers the *Risk Controls* (or *Panic Cancel*) function that most importantly deletes

- all orders for individual users and
- all orders and quotes for a whole Business Unit

For more information on Risk Controls please refer to 3.5.3 Risk Controls.

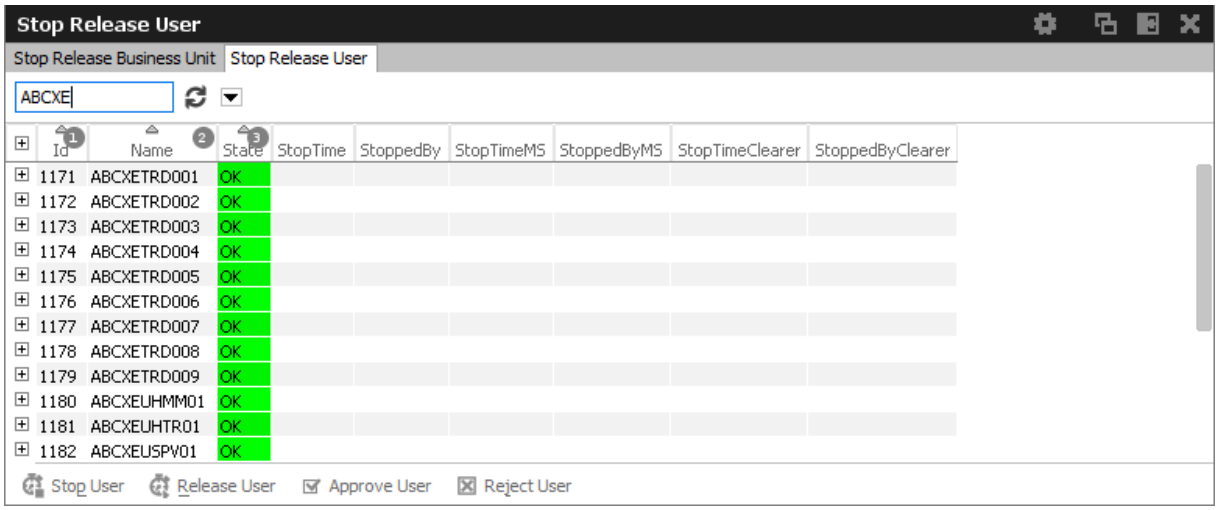



Fig. 94: Screenshot of the *Stop Release* view showing the *Stop Release User* tab

If a user or business unit was stopped using the *Stop* button, the stop request needs to be approved. These stop requests can be reviewed on this view at the place of the approver. In order to approve a stop request, the plus sign for the respective user needs to be clicked to display the stop requests. The request can then be selected and either approved or rejected using the respective buttons.

### 4.2.5 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. Each enrichment rule is identified by a participant-defined number, ranging from 1 to 10,000.

The view is split into two different tabs - the *Trade Enrichment Rules Rules Current* tab showing the currently active rules, and the *Trade Enrichment Rules Preview* tab which allows adding and deleting rules. Both actions become active on the next trading day only.

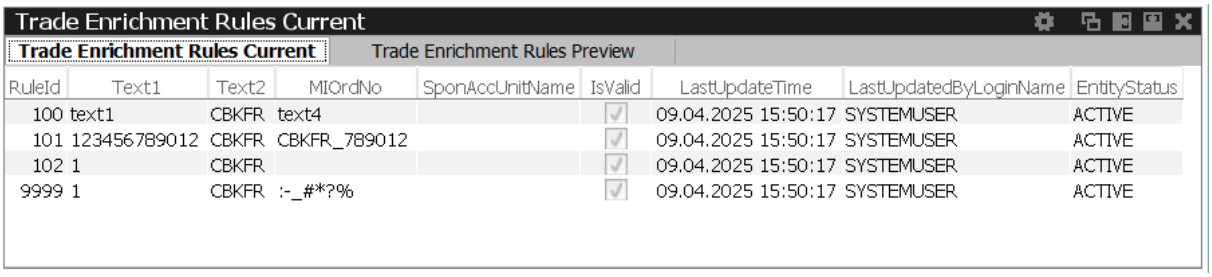



Fig. 95: Screenshot of the *Trade Enrichment Rules* view showing the **`Current`** tab

When the order/quote is executed, Cash Exchange's T7 will use the Trade Enrichment Rule ID supplied by the participant to look up the rule and then apply the corresponding clearing fields to the trade information sent to the clearing system and returned to the participant. Trade enrichment will be done by Cash Exchange's T7 trade manager and will be supplied on the trade confirmation to participants (not on the execution information from the matching engine).

For each trade enrichment rule, participants must define a Trade Enrichment `RuleId` and the following clearing fields:

- Free Text 1 (`Text1`)
- Free Text 2 (`Text2`)
- MemberInternalOrderNo (`MIOrdNo`)

Changes of trade enrichment rules can be done on the *Preview* tab of the *Trade Enrichment* view. Updates take effect only on the next business day.

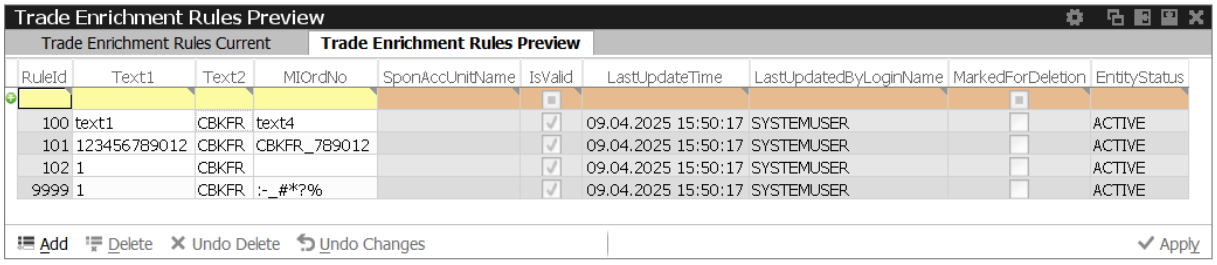



Fig. 96: Screenshot of the *Trade Enrichment Rules* view showing an **`Add`** action on the preview tab

Users of the Cash ETI will specify the exact trade enrichment rule to be used at the time of execution of the quote or order entered using the short layout.

If the trade enrichment rule is missing or not valid, the clearing system will assign defaults, according to pre-defined logic. The default rules for the clearing account are described in the document “Cash Functional and Interface Overview”.

### 4.2.6 TES Auto Approval Rule

The *TES Auto Approval Rule* functionality allows participants to approve TES trades automatically according to pre-defined data. This view has been enhanced to reflect that the selection key for an auto approval rule has been enhanced with more attributes.

A TES Auto Approval Rule functionally consists of three parts:

- Unique name of the rule,
- Selection key,
- Prefilled approval fields.

The **selection key** consists of mandatory and optional attributes for specifying the rule. If an *optional* attribute is specified, the approval rule has an higher priority to be matched than the same rule without this attribute being specified. The *optional* attributes are listed here **in order of matching priority** from high to low, e.g. the Enrichment Rule ID has the lowest priority among other specified attributes.

- User ID (Mandatory): The approving user for which the record is present
- Initiating User Name (Mandatory): Login name of the initiating user
- Product Assignment Group ID (Mandatory): ID of the product assignment group or the market wide group
- Product ID (Optional) - if a product is provided then it has higher priority than a rule without a product for the same market and product assignment group.
- TES Type (Optional)
- Instrument Type (Optional)
- Enrichment Rule ID (Optional) - approver side can specify it in its rules and initiator can provide an enrichment key in TES Trade Entry (unique in context of approving user).

The **approval fields** consisting of Clearing and MiFID fields and *additional criteria* fields. Thus the initiator is able to define clearing and MiFID data which gets automatically applied if the Auto Approval Rule is matching during TES entry. On setting up a approval rule, conditional validations on optional approval fields are done e.g. when the Trading Capacity is set to Agency, the Client Identifier must be provided as well. An *additional criteria* is e.g. field MaxTradeValue, as its value is evaluated before applying a possibly matching rule. Please refer to below table for a full list of optional fields and their validation rules.

*TES Auto Approval Rule* view, columns that are displayed:

| Field | Description |
|---|---|
| AutoApprovalRuleId | Auto approval Rule Id. *Display only*. |
| EnrichmentRuleId | Unique Enrichment rule Id for TES approval. |
| AutoApproval RuleName | Unique Name of auto approval rule Id. |
| TESType | Type of TES Trade, e.g. BLOCK. |
| Product | Product name. |
| InitiatingUserName | LoginName of the initiating user (of a possibly different BU). |
| ExecQual | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| TradingCapacity | Trading Capacity. Example for valid values:<br>Agency<br>Proprietary<br>Market Making<br>Riskless Principle |
| MarketGroup | MarketGroup Symbol, Category and OwnedBy data set. |
| User | User name of the approving user for which the record is present. |
| ClientIdentifier | Numeric code used to identify the client of the member of the Trading Venue. Serves as a reference to the 35 characters long ESMA Client Identification Code. Usually mandatory for account type A/B/R, must be empty for P/M/Broker-Dealer. |
| ExecIdentifier | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| Text1,Text2, Text4 | Free format text field. |
| InvestIdentifier | *Investment Identifier.* Identifies person or algorithm responsible for investment decision within a company. Can be defined in *Application Preferences*. |
| InvestQualifier | *Investment Qualifier.* Determines the business logic of investment decision: *ALGO* if InvQual represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |
| LiqProvActivity | Tick(ed) to indicate whether an order is submitted as part of a market making strategy. |
| 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. |
| DMAIndicator | Direct Market Access flag. |
| ExecIdentifier | *Execution Identifier*. Identifies person or algorithm responsible for executing transaction within the company. Can be defined in *Application Preferences*. |
| ExecQualifier | *Executing Trader Qualifier*. Determines business logic of execution decision: *ALGO* if ExeID represents an algorithmic identifier or *HUMAN* otherwise. Can be defined in *Application Preferences*. |

### 4.2.7 Settlement Account

The view *Settlement Account* lists the associated settlement accounts of the business unit to provide an quick overview about the associated trading venue and the trading entitlement for PUEV (Cross Market OTC trade).

### 4.2.8 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.

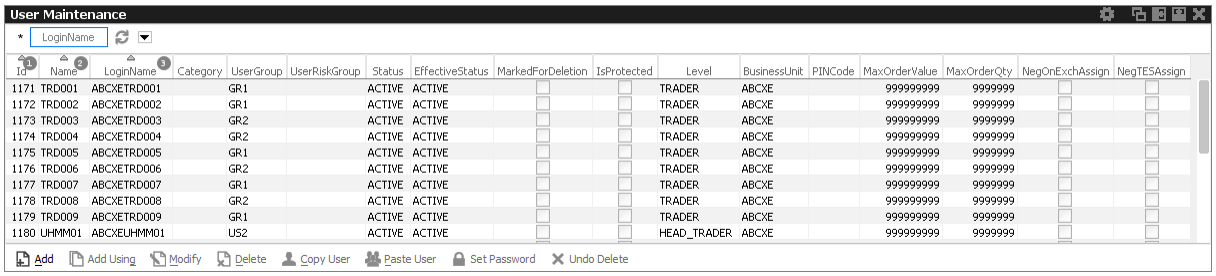



Fig. 97: Screenshot of the *User Maintenance* view

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 Business Unit name. |
| LoginName | Login Name, this is the ID of the exchange account to Cash Markets Exchange'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. |
| UserRiskGroup | The name of the User Risk Group the user belongs to inside the business unit. Every user can only belong to one group. |
| Status | 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:<br>• Active – if the user is not suspended from trading.<br>• Suspended – the user is temporarily suspended from trading. |
| EffectiveStatus | 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.<br>The status can be:<br>• Active – if the user is not suspended from trading.<br>• 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 | The level determines if the user may see orders and trades of other users of the same user group or business unit:<br>The trader level may not see orders and trades of other traders of the same trader group.<br>The head trader can see orders and trades of all users within the same user group.<br>The supervisor can see orders and trades of all users within the same business unit. |
| BusinessUnit | Business unit of the user. Identical to the BU of the logged in service administrator |
| PINCode | Encrypted four character code needed when contacting Cash Market Supervision to authorize a "Mass Deletion" of orders/quotes. |
| MaxOrderValue | Maximum order value for user.<br>Based on calculation *Qty* $\times$ *Orderlimit* |
| MaxOrderQty | Maximum order quantity for user. Conditional mandatory based on market parameter OrderQtyValidationRule. |
| 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 |
| NonCCP | Indicates whether trading a non-CCP instrument is allowed |

**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 Derivative Markets, the user group of a Cash Markets user is a mandatory field (in the GUI).

**Entitlement View, Roles and GUIs**

During the *User Maintenance Wizard* process entitlement roles and attributes are granted or revoked. For a better understanding some helpful details on entitlement are provided prior to explaining the individual setup steps .

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 Cash Markets Exchange. 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** |
|---|---|---|
| **Cash Admin** | View only at a user level | Maintenance access on user level |

Fig. 98: 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 (TRADING VIEW, CASH TRADER 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.

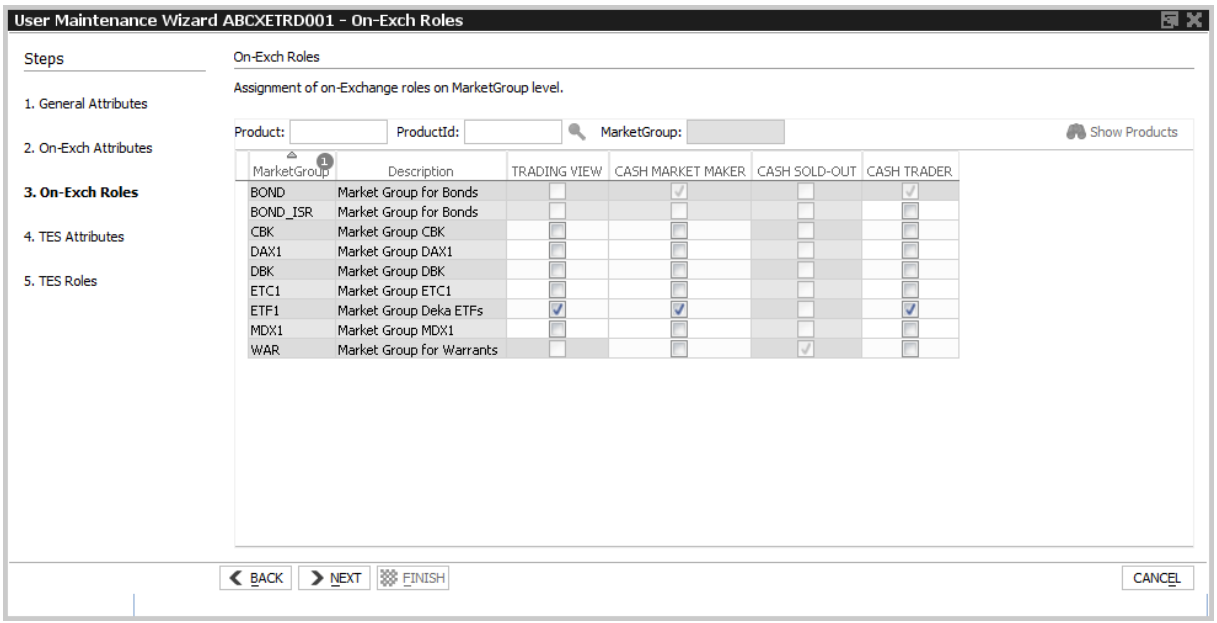



Fig. 99: Screenshot of the *User Maintenance Wizard* showing the entitlement roles on the *On-Exch Roles* tab

In this example the roles “Cash Market Maker” and “Cash Trader” are assigned to the respective market group(s), often also referred to as product assignment group(s). 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 Cash Trader 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. |

### 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.

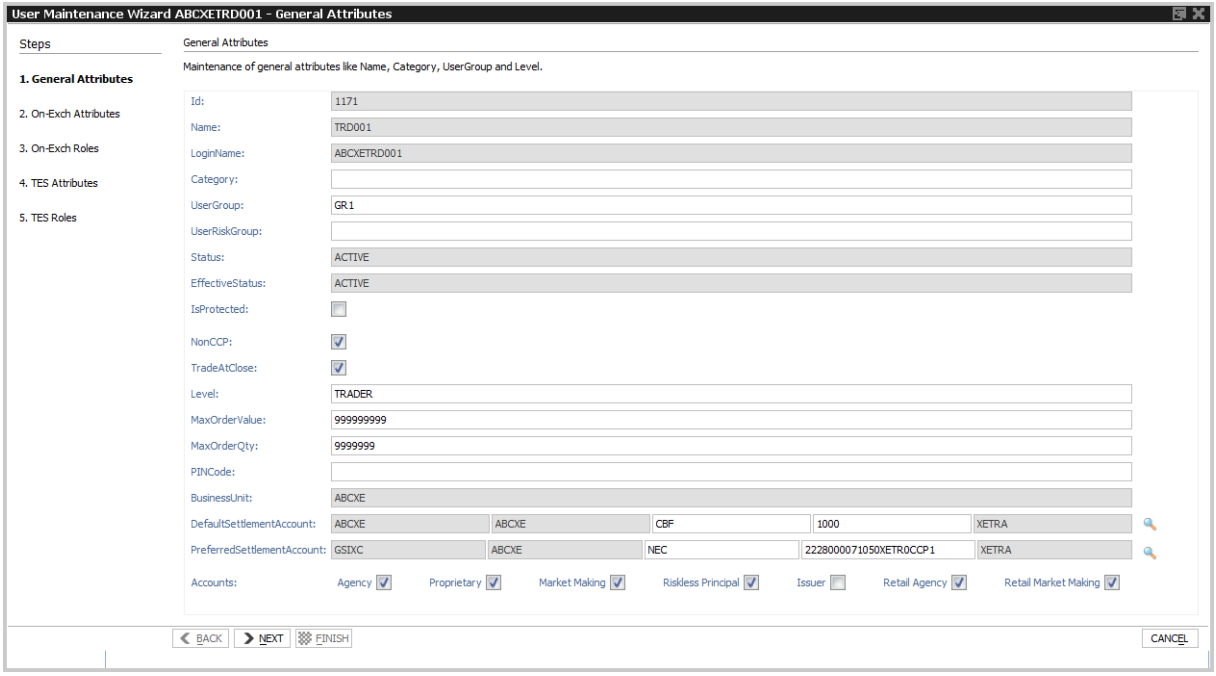



Fig. 100: Screenshot of the *User Maintenance Wizard* showing the *General Attributes* tab

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 Cash Markets Exchange'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.<br>This field is mandatory. |
| UserRiskGroup | The name of the User Risk Group the user belongs to inside the business unit. Every user can only belong to one group. |
| Status | 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:<br>• Active – if the user is not suspended from trading.<br>• Suspended – the user is temporarily suspended from trading. |
| EffectiveStatus | 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.<br>The status can be:<br>• Active – if the user is not suspended from trading.<br>• Suspended – either the user or the business unit is suspended from trading. |
| IsProtected | Marks the user as to be protected from deletion. Via this flag it is prevented that the last service administrator deletes the own account. |
| NonCCP | *Allow Non-CCP trading*. If ticked, user is allowed to trade non-CCP instruments. Flag can be changed intraday but changes take effect on next business day only. |

| | |
|---|---|
| TradeAtClose | Defines the default value for order entry if the individual flag per order is neither true nor false. If ticked, all regular orders that fulfill the opt-in constraints will participate in TaC phase. Changeable intraday with immediate effect. |
| Level | The level determines if the user may see orders and trades of other users of the same user group or business unit:<br>The trader level may not see orders and trades of other traders of the same trader group.<br>The head trader can see orders and trades of all users in their own user group.<br>The supervisor can see orders and trades of all users in their own business unit. |
| MaxOrderValue | Maximum order value for user.<br>Based on calculation *Qty* $\times$ *Orderlimit* |
| MaxOrderQty | Maximum order quantity for user. Conditional mandatory based on market parameter OrderQtyValidationRule. |
| PINCode | Encrypted four character code needed when contacting Cash Market Supervision to authorize a "Mass Deletion" of orders/quotes. |
| BusinessUnit | Business Unit. |
| Default Settlement Account | Default & mandatory settlement account information for multiple CCP: *MemberID SettlementInstitute - MemberID Trading Participant - Settlement Location - Settlement Account*<br><br>By clicking the icon, associated settlement accounts are listed in a seperate view. |
| Preferred Settlement Account | Preferred & optional settlement account information for multiple CCP: *MemberID SettlementInstitute - MemberID Trading Participant - Settlement Location - Settlement Account*<br><br>By clicking the icon, associated settlement accounts are listed in a seperate view. |
| Agency | Allow the entry of orders for the trading capacity A. |
| MarketMaking | Allow the entry of orders for the trading capacity M. |
| Proprietary | Allow the entry of orders for the trading capacity P. |
| RisklessPrincipal | Enables usage of Riskless Principal account. |
| Issuer | Enables usage of Issuer account, i.e. specific actions for Cash Specialist. |
| RetailAgency | Entitles the participant to submit Retail orders (B1) as Retail Member Organization (RMO). |

| | |
|---|---|
| RetailMarketMaking | Entitles the participant to submit Retail Liquidity Quotes/Orders as Retail Liquidity Provider (RLP). |

### 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 *Cash Admin* and *Cash Clearer* 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.

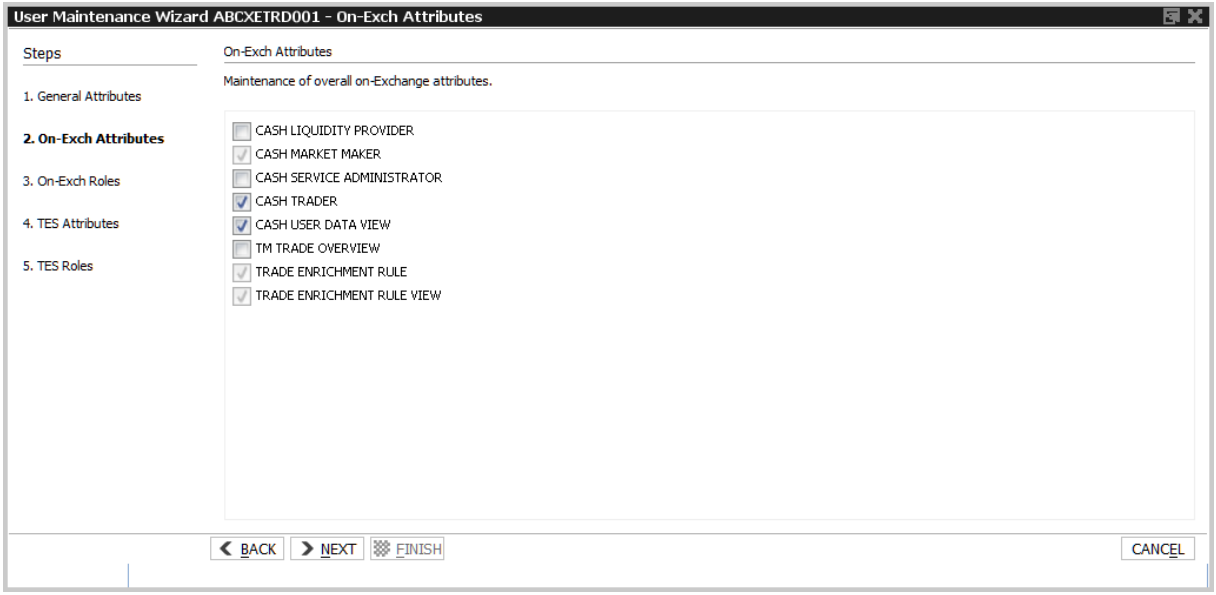



Fig. 101: Screenshot of the *User Maintenance Wizard* showing the *Attributes* tab

### User Maintenance - TES Attributes

The *TES Attributes* and *TES Roles* tabs support the maintenance (assignment & deassignment) of TES specific entitlement attributes and roles to a user.

The TES Attributes tab allows to maintain the T7 Entry Service eligibility per TES type free of market context.

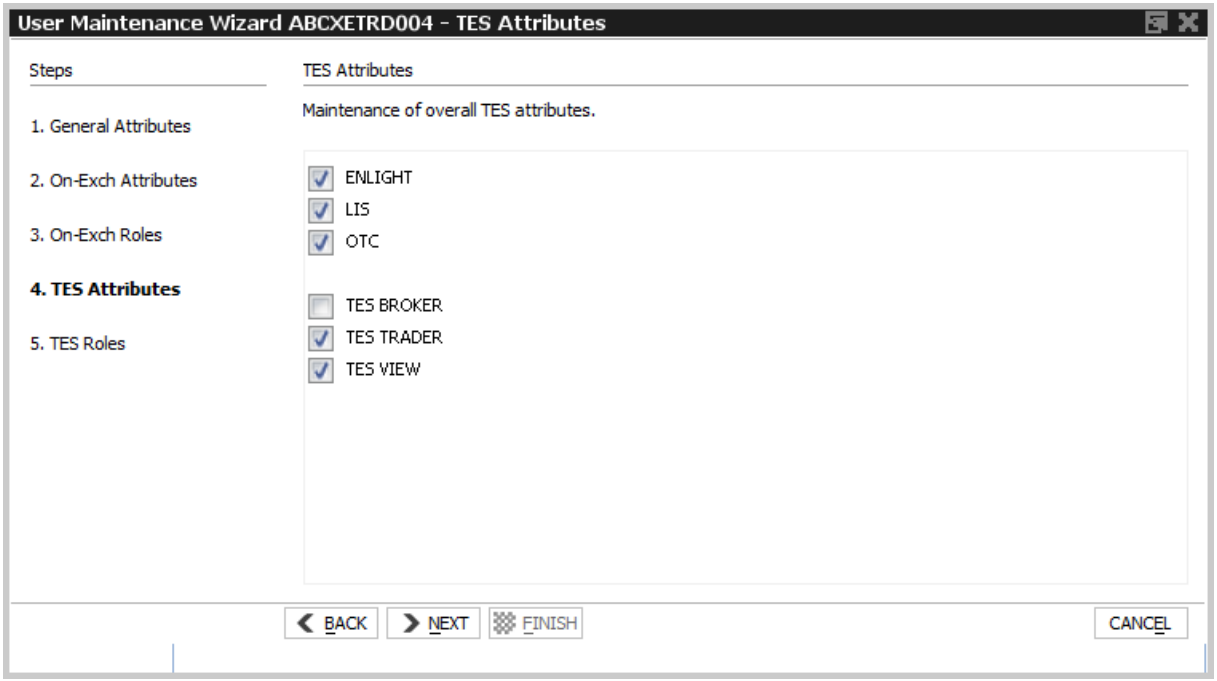



Fig. 102: Screenshot of the *User Maintenance Wizard* showing the *TES attributes* tab

### User Maintenance - TES Roles

The *TES Roles* tab supports assigning TES specific roles to a user in a market group specific context. A Product or Product ID can be searched for to reveal the Market group which contains the product.

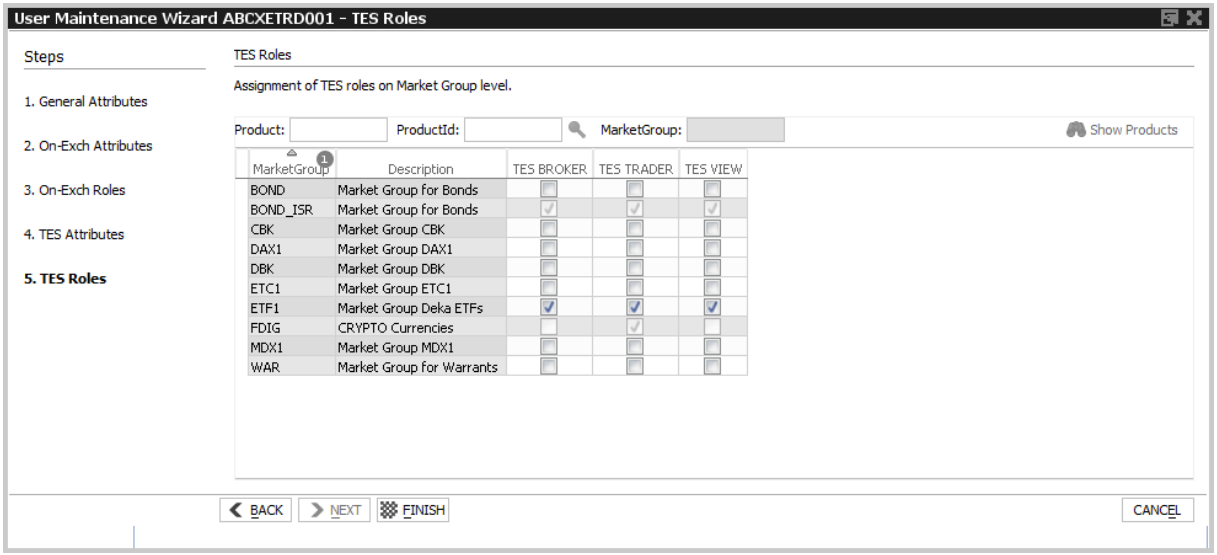



Fig. 103: Screenshot of the *User Maintenance Wizard* showing the *TES roles* tab

### 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 Cash Markets Exchange. 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** |
|---|---|---|
| **Cash Admin** | View only at a user level | Maintenance access on user level |

Fig. 104: 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.

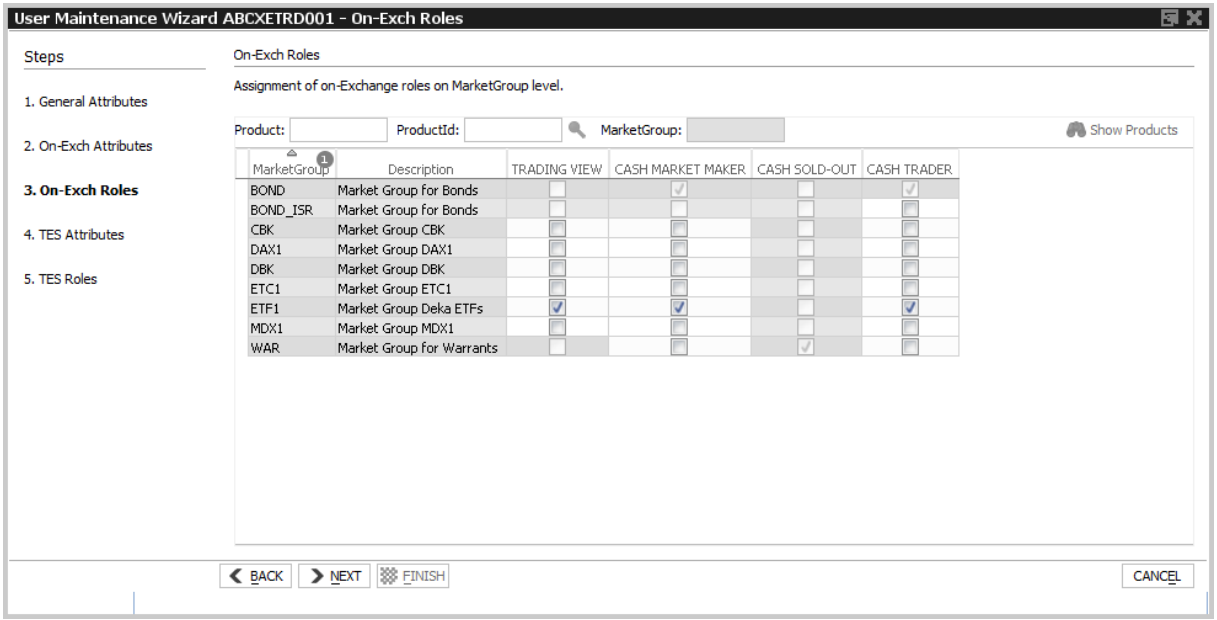



Fig. 105: Screenshot of the *User Maintenance Wizard* showing the entitlement roles on the *On-Exch Roles* tab

In this example the roles “Cash Market Maker” and “Cash Trader” are assigned to the respective market group(s), often also referred to as product assignment group(s).

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 Cash Trader 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. |

**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 populated in the *New Password* and *Confirm Password* fields.

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

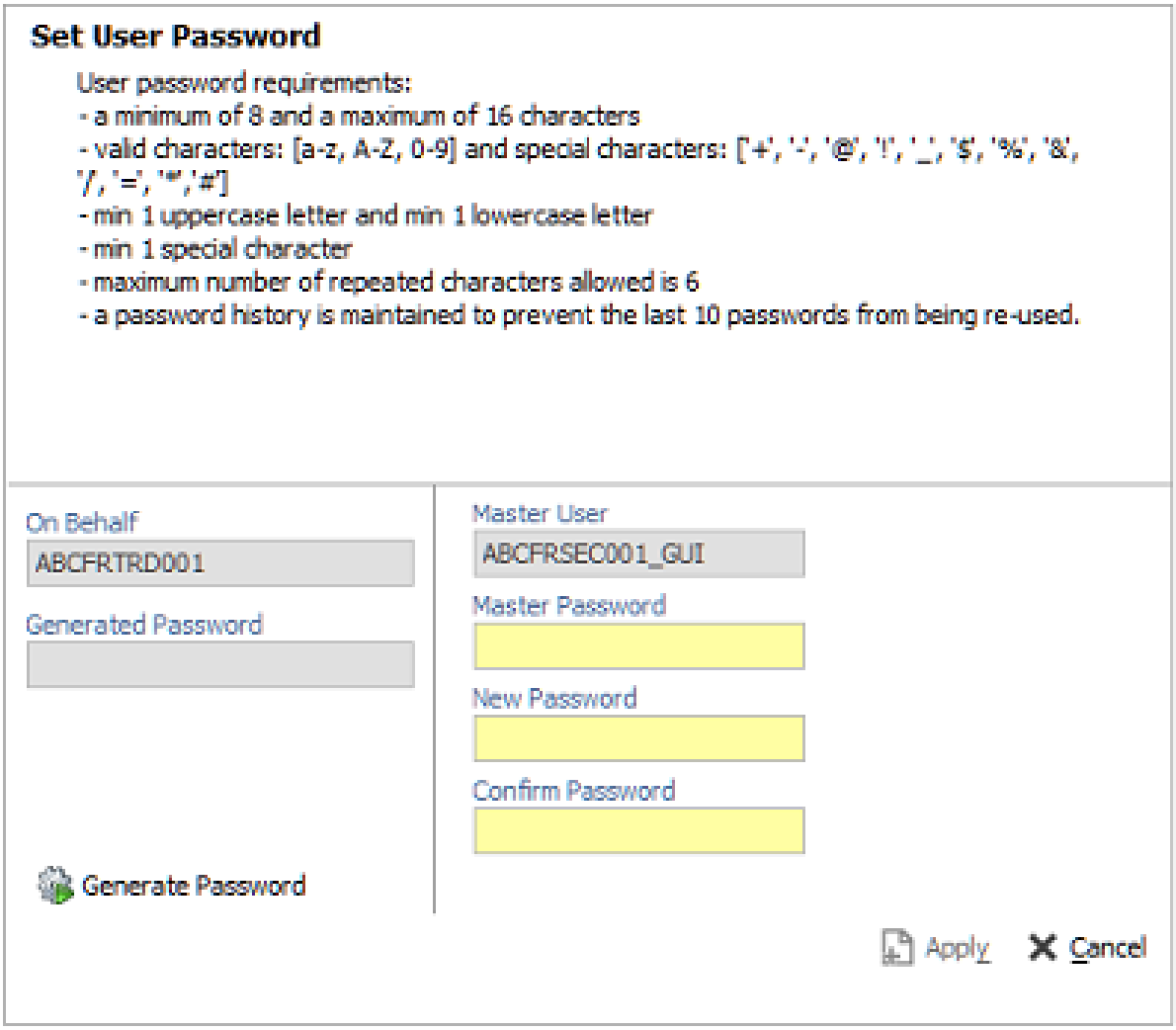



Fig. 106: Screenshot of the *User Setup Dialog*

# 5 Cash Clearer GUI

The *Cash Clearer* application is provided to clearing participants for the use by the back office and risk staff and user data view users.

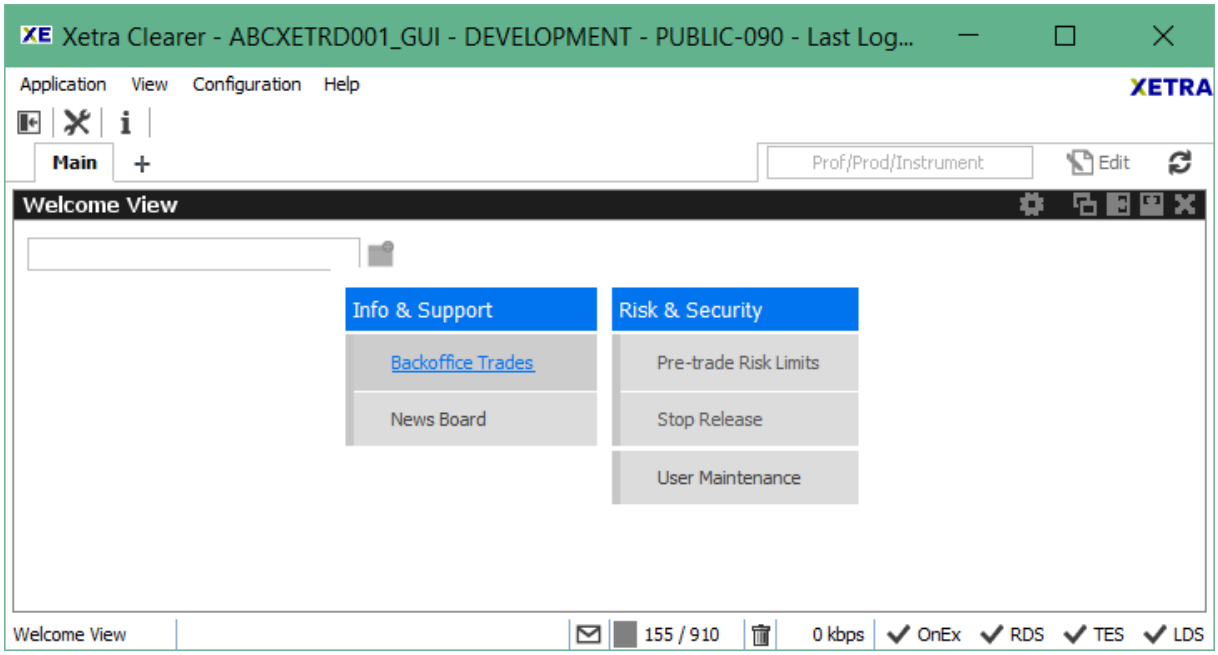



Fig. 107: Screenshot of the *Cash Clearer* main window showing the *Welcome* view

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 properly 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 Cash Trader, 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.

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

This view is identical to Cash Trader, for more details Please refer to section 3.5.4 News Board.

## 5.2 View Descriptions: Risk & Security

### 5.2.1 Pre-trade Risk Limits

The *Pre-trade Risk Limits* view allows entitled participants to define and maintain limits for the daily maximum notional value of all entries, modifications and executions of orders and quotes per product and trading side.

Only products that have been defined to be eligible for the Pre-Trade Risk Limit check can be viewed and maintained. Viewing and adding action for this view are controlled by two different entitlements.

This view is not updated automatically.

In general, Pre-trade risk limits can be set for three risk limit types (-levels), separately for the buy and sell side:

1. Exchange level (EXCH_FOR_BU): Cash Market Supervision defines PTRLs for any Business Unit (BU) using the Cash Controller GUI.
2. Clearer level (CM_FOR_BU): Clearing members define PTRLs for their related non-clearing member using the Cash Clearer GUI. *Kindly note,* a Settlement Institute (SI) member will not be able to define PTRLs for its non-clearing members.
3. BU level (BU_RISK_GROUP): Properly entitled (admin) participant defining risk limits for its User Risk groups using the Cash Admin GUI.

The newly entered Pre-trade risk limits will be enabled on the date specified in the field *Activation-Date*, i.e activating limits intraday is not permitted. If *ActivationDate* is empty, the limits are active. To then have the limit figures take effect, any positive number greater '0' needs to be entered. If no value is set, trader can enter transactions without any limit. Contrary, a value of '0' restricts the trader completely.

The *Pre-trade Risk Limits* view allows entitled Clearing members to maintain Pre-Trade risk limits on product level for the traded notional value of on-book transactions. Properly entitled Clearing Members can maintain risk limits for their NCMs and own BU NCMs.

New limits can be created by adding them manually or by importing them. When adding manually, Cash GUI provides a convenience feature **by duplicating all data entered for the first record** to all displayed records below. To achieve this the view will display "empty" records, ie. records of PTRL eligible products without defined limit values.

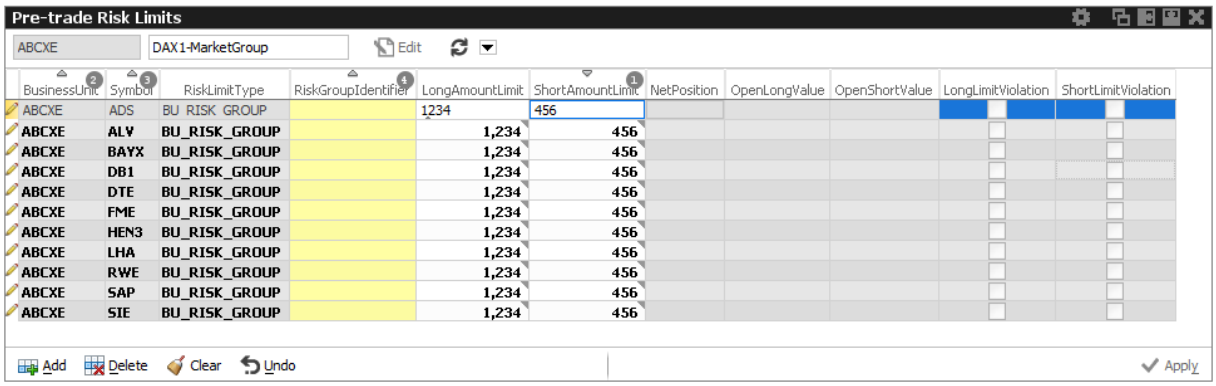



Fig. 108: Screenshot of the *Pre-trade Risk Limit* view, depicting how GUI duplicates data entry on first record

The view supports incremental updates, i.e. new limits can be added or existing limits can be amended without affecting existing records which are supposed to remain unchanged. One example would be to set limits on Product Assignment Group (PAG) level by

1. using the *Prof/Prod/Instrument* filter to display records for a specific PAG,
2. export this subset,
3. import the amended subset without affecting other records.

After an import the view needs to be refreshed to display all limits records again. Deleting limits has to be done manually in the view which is eased again by using the filtering on top of the view. Besides deleting individual limits, the Clearing Member may stop a dedicated member in a specific product by ticking the *DisableMember* flag. This disables entering orders/quotes and deletes existing ones.

Columns of the *Pre-trade Risk limits* view:

| Field | Description |
|---|---|
| BusinessUnit | Business unit name of the user. |
| Symbol | Product name. |
| RiskLimitType | Risk group level, e.g.<br>EXCH_FOR_BU<br>CM_FOR_BU<br>BU_RISK_GROUP |
| LongAmountLimit | Maximum long amount allowed. '0' means trader is restricted; no value means no limits are set at all. |
| ShortAmountLimit | Maximum short amount allowed. '0' means trader is restricted; no value means no limits are set at all. |
| NetPosition | Current market position for this limit. *Display only*. |
| OpenLongValue | Current open long value. *Display only*. |
| OpenShortValue | Current open short value. *Display only*. |
| ActivationDate | Newly entered PTRL will become valid at *ActivationDate.* If the field is empty, the limits are active. |
| LongLimitViolation | Flag indicating long limit violated. *Display only*. |
| ShortLimitViolation | Flag indicating short limit violated. *Display only*. |
| DisableMember | If ticked, all order/quotes for the selected member and product will be deleted and entry of new transactions will be blocked.<br>Only Clearing Member may change this flag. |

### 5.2.2 Stop Release

The *Stop Release* functionality in the Cash Markets Clearer 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.

Fig. 109: 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 Cash Markets T7 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 | Time when stopped by Clearer |
| StoppedByClearer | Stopped by Clearer user Id |
| StopTimeMS | Time when stopped by Market Supervision |
| StoppedByMS | Stopped by MOps user Id |

### 5.2.3 User Maintenance

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

This view is identical to Cash Admin, for a description of this view Please refer to chapter 4.2.8 User Maintenance.

### 5.2.4 Backoffice Trades

The *Backoffice Trades* view is almost identical to the Trades view of Cash Trader, 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

| Rel. | Chapter | Date | Change |
|---|---|---|---|
| 11.0 | 3.3.2,4.2.7,5.2.3 | 10-JAN-2022 | New Pre-trade risk limits view |
| 11.0 | 4.2.7,5.2.3 | 11-JUL-2022 | PTRL view: new GUI features |
| 11.0 | 2.8.4 | 16-SEP-2022 | Text Field Config: search function enhanced |
| 11.0 | 4.2.7,5.2.3 | 21-OCT-2022 | PTRL view: *Disable Member* feature |
| 11.0 | 4.2.7,5.2.3 | 14-11-2022 | PTRL view: details on limit values |
| 11.1 | 4.2.7,5.2.3 | 10-FEB-2023 | New field *ActivationDate* for PTRL |
| 12.0 | 3.4.1 | 13-MAR-2023 | BBO flag for orders |
| 12.0 | 3.2.x, 3.4.1/3, 3.5.1 | 21-APR-2023 | Decommision of Volume Discovery Orders |
| 12.0 | (Whole document) | 21-APR-2023 | Changes due to MIFID 2 regime |
| 12.0 | 3.2.1, 3.5.1/2,4.2.7 | 16-JUN-2023 | Xetra Retail Execution |
| 12.0 | 3.3.4, 3.4.6 | 30-JUN-2023 | TES TradePublishIndicator added |
| 12.0 | 2.6 | 06-OCT-2023 | Exe* and Inv* fields added |
| 12.0 | 2.8.4 | 01-DEC-2023 | Textfield Config: *Delete All* & *Save Path* added |
| 13.0 | 3.2.1, 3.3.1, 3.4.x | 07-JUN-2024 | Midpoint matching |
| 13.0 | 1.3, 3.3.1, 3.4.x | 03-SEP-2024 | New field for Midpoint order type |
| 13.0 | 3.3.1, 3.4.1 | 09-SEP-2024 | Midpoint Self-Cross Prevention (SCP) |
| 13.0 | 3.3.3 | 07-OCT-2024 | Quote Activation State enhanced |
| 13.1 | 4.2.7, 4.2.8 | 22-NOV-2024 | Display Settlement Accounts |
| 13.1. | 3.4.6 | 07-APR-2024 | TES View: *TradeReportID* added |
| 14.0 | 3.3.1, 3.4.1 | 16-APR-2025 | Retail: Extension of Trading Hours |
| 14.0 | 2.x | 13-JUN-2025 | Update *General GUI Concepts* screenshots |
| 14.0 | 3.3.1, 3.4.1 | 09-JUL-2025 | SMP enhancements |
| 14.0 | 1.3, 3.3.6, 3.3.7 | 20-AUG-2025 | *OTC Trade Upload* enhancements |