

Deutsche Börse Group's T7 - Cash Markets

T7 Trader, Admin and Clearer GUI

Manual

Release 5.0

Version 5.0.1_02

Date 01. Jun 2017

© 2017 Copyright by Deutsche Börse AG ("DBAG"). All rights reserved. All intellectual property, proprietary and other rights and interests in this publication and the subject matter of this publication are owned by DBAG or other entities of Deutsche Börse Group. This includes, but is not limited to, registered designs and copyrights as well as trademark and service mark rights. Specifically, the following trademarks and service marks are owned by entities of Deutsche Börse Group: Buxl®, DAX®, DivDAX®, eb.rexx®, Eurex®, Eurex Bonds®, Eurex Repo®, Eurex Strategy WizardSM, Euro GC Pooling®, F7®, FDAX®, FWB®, GC Pooling®, GCPI®, M7®, MDAX®, N7®, ODAX®, SDAX®, T7®, TecDAX®, USD GC Pooling®, VDAX®, VDAX-NEW® and Xetra® are registered trademarks of DBAG.

The following trademarks and service marks are used by Deutsche Börse Group under license and are property of their respective owners: All MSCI indexes are service marks and the exclusive property of MSCI Barra.

ATX®, ATX® five, CECE® and RDX® are registered trademarks of Vienna Stock Exchange AG.

IPD® UK Annual All Property Index is a registered trademark of Investment Property Databank Ltd. IPD and has been licensed for the use by Eurex for derivatives.

SLI®, SMI® and SMIM® are registered trademarks of SIX Swiss Exchange AG.

The STOXX® indexes, the data included therein and the trademarks used in the index names are the intellectual property of STOXX Limited and/or its licensors Eurex derivatives based on the STOXX® indexes are in no way sponsored, endorsed, sold or promoted by STOXX and its licensors and neither STOXX nor its licensors shall have any liability with respect thereto.

Bloomberg Commodity IndexSM and any related sub-indexes are service marks of Bloomberg L.P. PCS® and Property Claim Services® are registered trademarks of ISO Services, Inc. Korea Exchange, KRX, KOSPI and KOSPI 200 are registered trademarks of Korea Exchange Inc.

Taiwan Futures Exchange and TAIFEX are registered trademarks of Taiwan Futures Exchange Corporation. Taiwan Stock Exchange, TWSE and TAIEX are the registered trademarks of Taiwan Stock Exchange Corporation.

BSE and SENSEX are trademarks/service marks of Bombay Stock Exchange (BSE) and all rights accruing from the same, statutory or otherwise, wholly vest with BSE. Any violation of the above would constitute an offence under the laws of India and international treaties governing the same.

Methods and devices described in this publication may be subject to patents or patent applications by entities of Deutsche Börse Group. Information contained in this publication may be erroneous and/or untimely. Neither DBAG nor any entity of Deutsche Börse Group makes any express or implied representations or warranties regarding the information contained herein. This includes any implied warranty of the information's merchantability or fitness for any particular purpose and any warranty with respect to the accuracy, correctness, quality, completeness or timeliness of the information. Neither DBAG nor any entity of Deutsche Börse Group shall be responsible or liable for any errors or omissions contained in this publication, except for DBAG's or the respective Deutsche Börse Group entity's wilful misconduct or gross negligence. Neither DBAG nor any entity of Deutsche Börse Group shall be responsible or liable for any third party's use of any information contained in this publication under any circumstances. All descriptions, examples and calculations contained in this publication are for illustrative purposes only, and may be changed without further notice.

Table of Contents

1	Introduction	5
1.1	Introduction	5
1.2	Overview	5
1.3	Mapping of Fundamental Entities	6
1.4	List of terms and Abbreviation	7
2	General GUI Concepts and Functions	10
2.1	General Description of the T7 GUIs	10
2.1.1	Menu Items and Actions	12
2.1.2	Buttons and Icons	14
2.1.3	Status Bar and Message Log	15
2.2	Trading Desktop	15
2.3	Forms and Fields	18
2.3.1	Text Input	18
2.3.2	Number Input	20
2.3.3	Date Chooser	20
2.3.4	Colour Chooser	21
2.3.5	Font Chooser	21
2.4	Tables	22
2.4.1	View Filter and Generic Filter	22
2.4.2	Adding and removing a Generic Filter Field	22
2.4.3	Using Generic Filters	23
2.4.4	User group and trader filter	24
2.4.5	Quick Find	24
2.4.6	Tables: Sort	24
2.4.7	Tables: Find	25
2.4.8	Tables: Print	25
2.4.9	Tables: Import	26
2.4.10	Tables: Export	27
2.4.11	Tables: Hide/Show Columns	27
2.5	Profiles	28
2.6	Preferences	29
2.7	Master Login	29
2.8	Configuration Menu	31
2.8.1	Exchange Accounts	31
2.8.2	Alert Configuration	32
2.8.3	Profiles	32
2.8.4	Text Configuration	32
3	Xetra Trader GUI	33
3.1	Overview	33
3.2	View by View Comparison: JTrader and T7 Xetra Trader	34
3.3	View Descriptions: Market	36
3.3.1	Market	36
3.3.2	Market Depth	39
3.3.3	Market Book	39
3.3.4	Time & Sales	40

3.4	Quote Request	41
3.4.1	Cross Request	42
3.5	View Descriptions: Trading	42
3.5.1	Order Entry	42
3.5.2	TotQty and Close on Submit preset	46
3.5.3	Order Modify	47
3.5.4	Suspend/Resume of Orders	47
3.5.5	Self-Match Prevention (SMP)	48
3.5.6	Quote Activation	48
3.6	View Descriptions: Own (Orders and Trades)	50
3.6.1	Orders	50
3.6.2	Order History	51
3.6.3	Trades	52
3.6.4	Related Trades	55
3.6.5	Trade Summary	56
3.7	View Descriptions: Info & Support	58
3.7.1	Product Statistics	58
3.7.2	Instrument Statistics	59
3.7.3	News Board	59
3.7.4	Risk Controls	60
4	Xetra Admin GUI	62
4.1	View Descriptions: Info & Support	62
4.1.1	News Board	62
4.1.2	Sessions	62
4.1.3	Bandwidth Monitor	62
4.2	View Descriptions: Risk & Security	63
4.2.1	Trade Enrichment Rules	63
4.2.2	Risk Controls	63
4.2.3	User Maintenance	63
4.2.4	User Maintenance - General Attributes	65
4.2.5	User Maintenance - On-Exchange Attributes and Roles	67
4.2.6	User Maintenance - Password	70
5	Xetra Clearer GUI	71
5.1	View Descriptions: Info & Support	71
5.1.1	Stop / Release Business Unit	71
5.1.2	User Maintenance	72
5.1.3	Backoffice Trades	72
6	Change Log	73

1 Introduction

1.1 Introduction

The present document describes the new GUI applications for the T7 Cash Markets.

The applications provided and specified herein are: *Xetra Trader*, the application provided to traders, *Xetra Admin* which is tailored to the service administrator and *Xetra Clearer* provides risk control functions for the backoffice and risk staff.

Any screenshots and field descriptions in this document are preliminary.

1.2 Overview

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

This section gives a short introduction to these applications.

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

Roles and Applications

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

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

- Clearing Member Stop

Ability of a clearing member to stop an NCM via the Stop Trading view.

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

GUI Application	Role	Functionality
Xetra Trader GUI	Used by participant users: traders, market makers and trading view users.	Market and market depth view, Orders, Trades, Time & Sales, Order Entry, Statistics, Risk Controls
Xetra Admin GUI	Used by the service administrators and user data view users.	User Maintenance and Entitlements, Trade Enrichment Rules, Risk Controls
Xetra 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.

Please refer to the following chapters for an overview of the functions provided by the applications *Xetra Trader* (chapter 4), *Xetra Admin* (chapter 5) and *Xetra Clearer* (chapter 6).

1.3 Mapping of Fundamental Entities

In order to ease the understanding of the current document for both, readers understanding the current Xetra system as well as for readers familiar with the T7 trading system, the following comparison chart tries to translate the fundamental terms used in both worlds.

Xetra Classic	Xetra T7
-	Product Used by T7 to group instruments that share the same underlying. With the porting of Xetra to T7 most instruments will be ported in a 1:1 relation between Mnemonic and Product. For some ETPs the Product will be used to group several instruments (e.g. ETPs based on the same index).
Instrument	Instrument

Instrument Group A functional grouping of instruments which belong to a certain index or where the issuing company is located in a certain region. The grouping is available for Market Operations and participants.	Product Group / Market Group The product groups are special market groups which are used for the entitlement assignment. Traders may use these groups to filter for products using a generated or user defined profile.
-	Market Group Grouping of products which is used for Entitlement Grouping and PSM Groups
Xetra System Instance (Back End)	Market Place
Subgroup The 6th to 8th character of the trader login ID forms the trader subgroup a trader belongs to.	User Group In T7 the user group is a separate user attribute which is used in a similar manner as the Xetra Classic trader subgroup. In order to control the visibility of trades and orders, the traders' user level is evaluated.
Inquire Subgroup List RAL	User Level An attribute of a user which together with the user group controls the visibility and ability to see orders and trades or to modify them, of other users within the same business unit. User levels are: Trader, Head Trader and Supervisor.
Senior Trader	Head Trader
-	Supervisor

1.4 List of terms and Abbreviation

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

Business Unit A new participant structure that offers a Business Unit (BU) concept for separating lines of business.

Context menu The context menu appears right next to the mouse pointer when clicking the defined mouse button. Allowing a fast selection out of a distinct set of choices (e.g. quantity, limit).

Entitlement Role Sets of resources (e.g. authorizations for mass quote, delete all quotes) are combined into logical user roles (e.g. market maker). A set of pre-defined user roles is available to participants for user administration purposes.

ETP Exchange Traded Products (e.g. ETFs).

Filter	The filter allows the user to display information in an overview view according to pre-defined criteria.
GMC	GUI Middleware Cluster.
GUI	Graphical user interface. Also called <i>application</i> .
Head trader	A head trader is part of a user group and may see and maintain standard orders of all traders in the same user group in <i>Xetra Trader</i> - granted, that the required entitlements are assigned.
ID	Identification
Inside Market	Identical to Top of Book
Instrument	Refers to the object which is traded at Xetra.
ISIN	12 digits international security identification number.
Lean order	Lean orders are supported on high and low frequency session, not supported on <i>Xetra Trader</i> GUI. Lean orders are only visible to the current session. Lean orders are always non-persistent.
Limit Order	Bid/ask orders which are to be executed at their specified limit or better.
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 Xetra system during the online day.
MDI	Market Data Interface
Order Book	Identical to Market Depth
Persistent/Non-Persistent Orders	In various situations as e.g. a trade interruption (e.g. during technical order book processing, session disconnect, volatility interrupt) all quotes and all orders marked as non-persistent will be deleted.
PSM	Product State Monitor, a tool that shows an overview of the number of products and instruments for each product and instrument state, and per "control segment".
RAL	Resource Access Level
RDS	Reference Data System
Standard order	Standard orders provide access to their complete history.
Supervisor	The supervisor user level may see and maintain orders of all users of the same business unit - granted, that the required entitlements are assigned.
ToB	Trading on-Behalf (by Market 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	<p>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.</p> <p>If displayed in views, Trader refers to the <i>User Name</i> of the <i>Exchange Account</i> for the respective system.</p>
Trading capacity	The trading capacity is a property of orders and trades, and is used to inform clearing about the order capacity: <i>Agent</i> , <i>Proprietary</i> or <i>Market Maker</i> . This field is not visible in <i>Xetra Trader</i> , but the <i>Order Entry</i> uses the value of the <i>Account</i> 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 XetraExchange's T7 GUI applications, namely *Xetra Trader*, *Xetra Admin* and *Xetra Clearer* share common elements. All of them will open a *Login* window when started and will show a *Main* window once the login is successful. The *Main* window features a menu, a toolbar above the central desktop and a status bar below. The central desktop provides access to the most important views, which are opened inside of the central desktop.

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

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

Note: Descriptions of GUI functions are subject to change.

2.1 General Description of the T7 GUIs

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

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

The application window consists of the following elements:

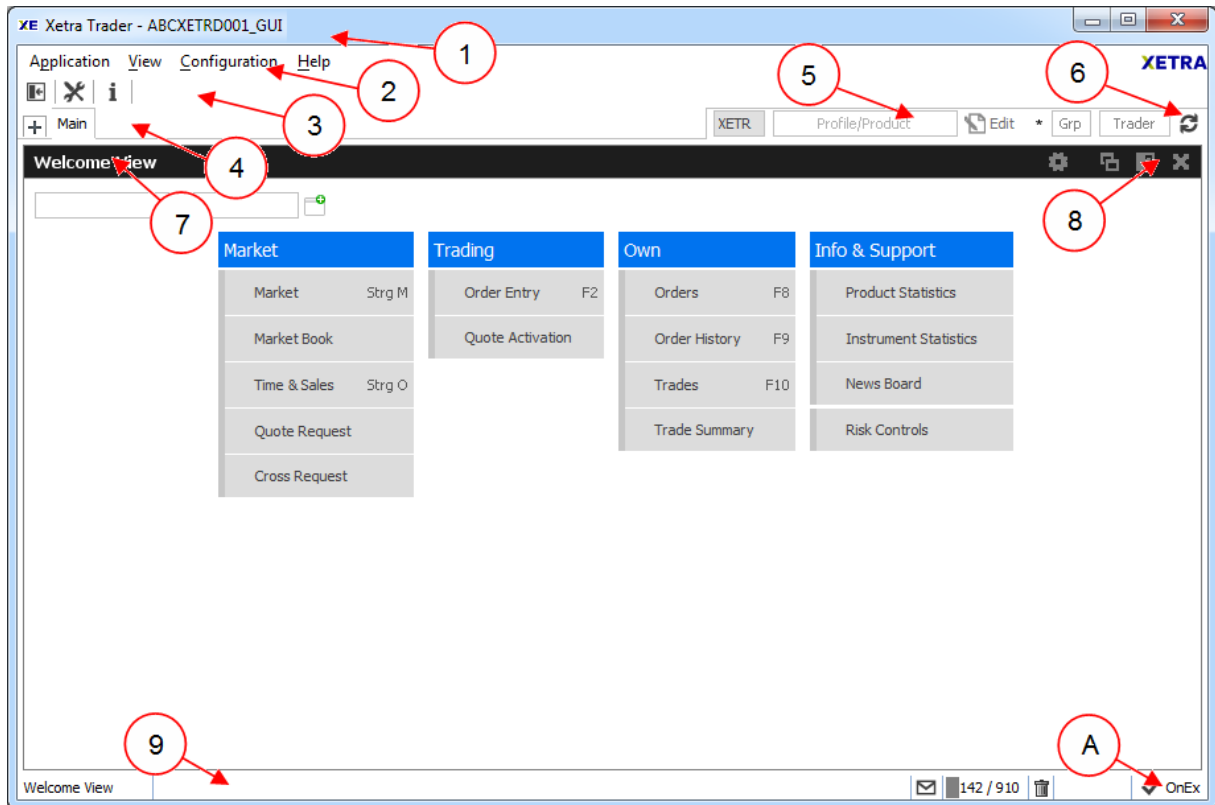


Fig. 1: Screenshot of the XetraTrader *Main* window showing the *Welcome* view.

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

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

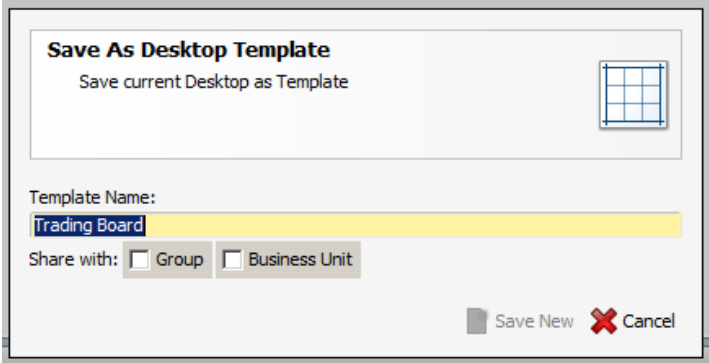
2.1.1 Menu Items and Actions

The menu bar displays the following menus:

- Application
- View
- Action
- Configuration
- Help

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

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

Menu	Menu Item	Description
Application	New Window	Opens a new instance of the application.
	Close Window	Closes the currently open instance of the application.
	Save Settings	Saves the current configuration of the application.
	Preferences	Opens the Application Preferences view.
	Toggle Full Table Mode	Turns the full table mode on or off. Can be used in table view to save some space.
	Login / Logout	Opens the Login/Logout dialog.
	Save Desktop Template	Saves the currently selected desktop tab into a named desktop template. Templates can be shared within the own trader group or business unit (depending on the user level):
		
	Desktop Templates	Selects a predefined desktop configuration. This menu also allows to delete own desktop templates.
	Exit	Closes all windows of the currently running application.
View	New View	Splits the currently active view to open a new empty view.
	Screenshot	Creates a screenshot of the currently active desktop tab or external view. This screenshot is copied into the clipboard.
	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.
Action	Add	Starts the creation of a new element.
	Modify	Starts a modification of the selected element.
	Delete	Deletes the selected elements.
Configuration	Exchange Accounts	Opens the Exchange Accounts view.
	Alerts	Opens the Alert Configuration view.
	Profiles	Opens the Profiles view.
	Text Field	Opens the Text Field Configuration view.
Help	Browse Help	Starts a web browser to display the online help.
	About	Displays the version number of the application.
	On this View	Starts a web browser to display the online help for the currently active view.
	What's New	Opens the What's New view.

2.1.2 Buttons and Icons

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

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

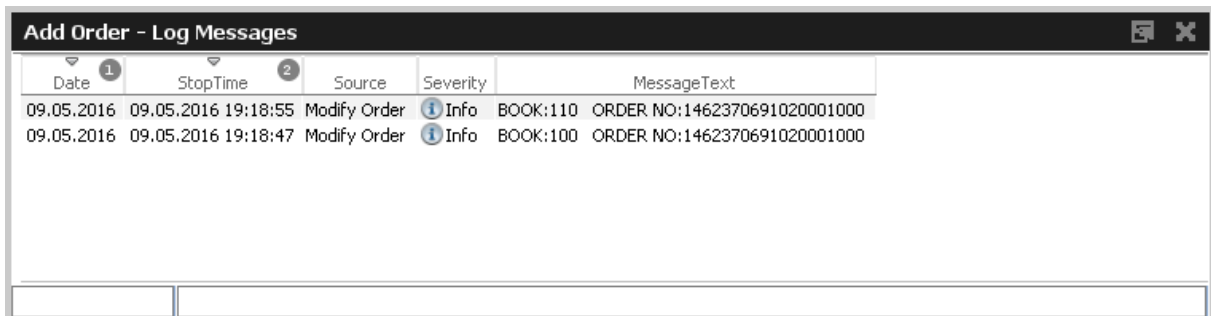
News  Opens the News Board view

2.1.3 Status Bar and Message Log

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

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

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



Date	StopTime	Source	Severity	MessageText
09.05.2016	09.05.2016 19:18:55	Modify Order	Info	BOOK:110 ORDER NO:1462370691020001000
09.05.2016	09.05.2016 19:18:47	Modify Order	Info	BOOK:100 ORDER NO:1462370691020001000

Fig. 2: Screenshot of the Messages Log window.

2.2 Trading Desktop

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

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

Adding a new view to the Desktop

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

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



Fig. 3: Screenshot of the Split icon.

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

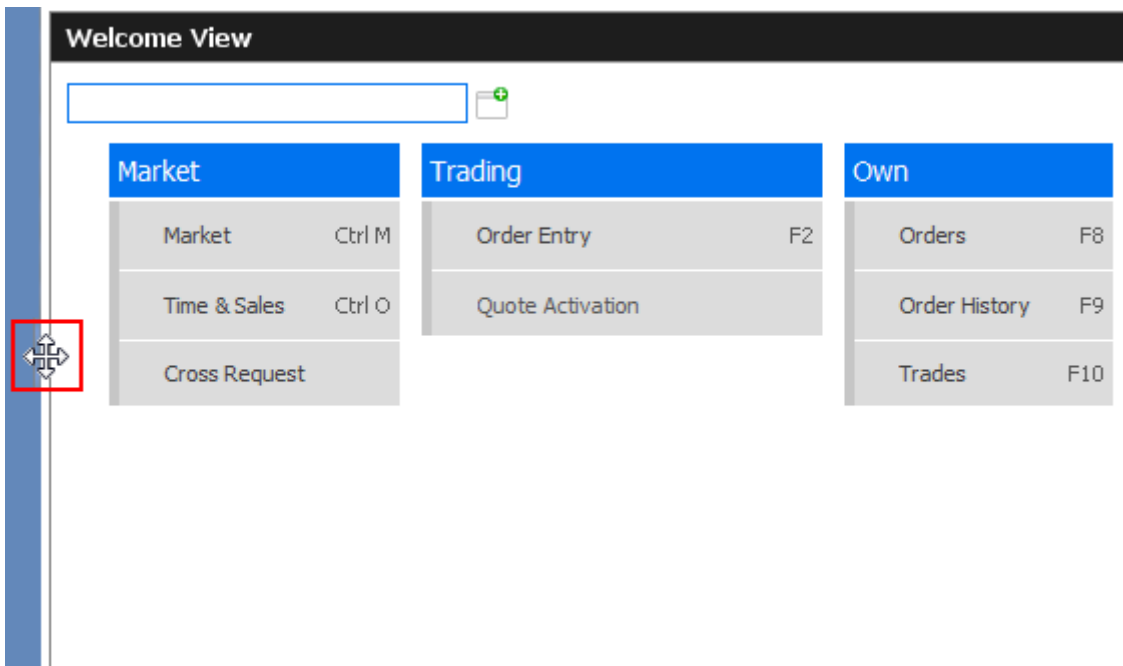


Fig. 4: Screenshot of the *Trading Desktop* illustrating how to add a new view

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

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



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

Resizing

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

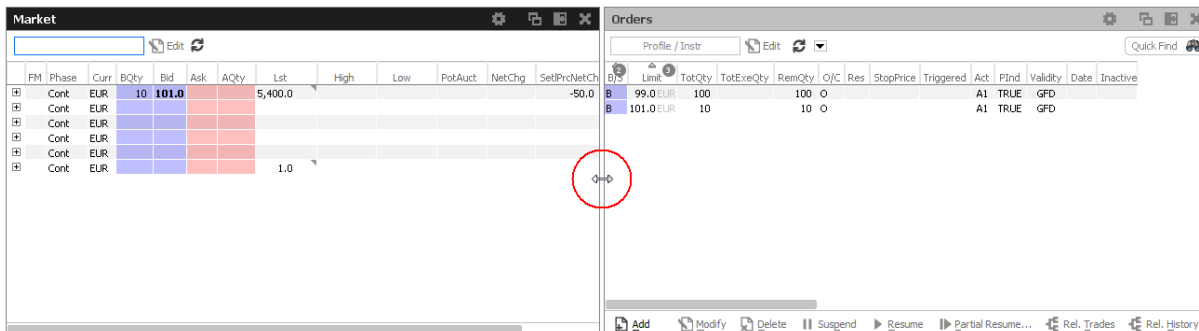


Fig. 6: Screenshot of the *Trading Desktop* showing how to resize views

Moving a view

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

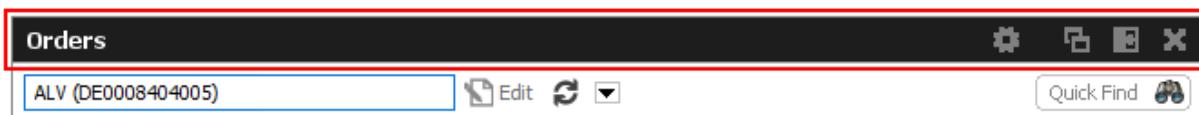


Fig. 7: Screenshot of the *Trading Desktop* illustrating how to move a view to a new target

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

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

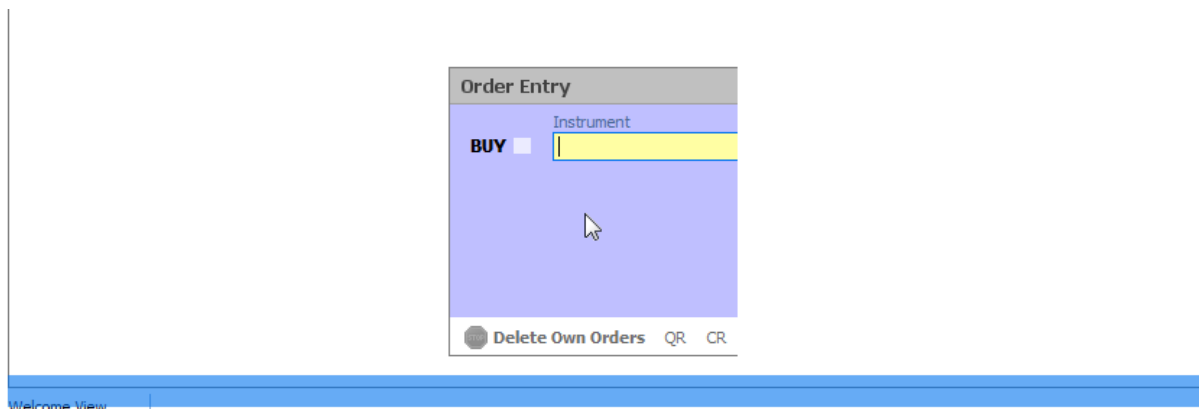


Fig. 8: Screenshot of the *Trading Desktop* illustrating how to drop a view to a new target

Externalizing a view

As described in the previous section about moving a view, a view can be externalized if the view title

has been dragged outside the boundaries of the current desktop, and the mouse button pressed.

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



Fig. 9: Screenshot illustrating how to externalize a view

Creating a new Desktop

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

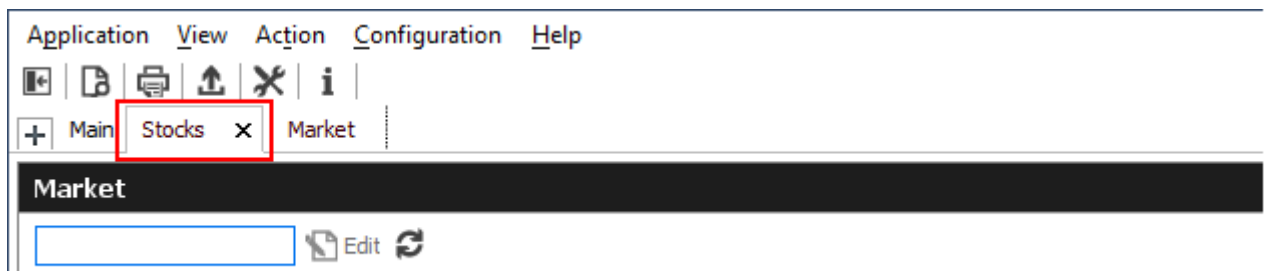


Fig. 10: Screenshot of the *Trading Desktop* showing the desktop tab bar

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

Desktop tab placement

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



2.3 Forms and Fields

2.3.1 Text Input

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

clicking the mouse button:



Fig. 11: Text Field Chooser

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

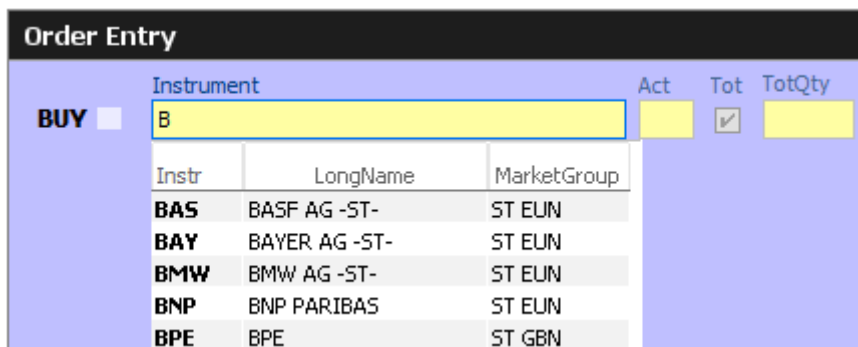


Fig. 12: Text Field Chooser providing a list of values matching the typed string.

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

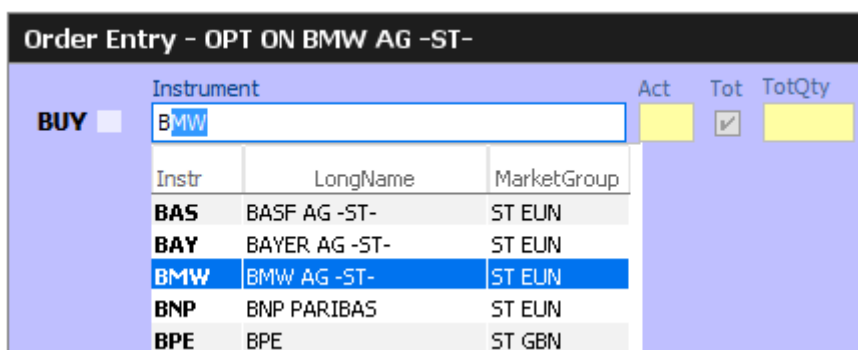


Fig. 13: Text Field Chooser providing a list of matching values, the current value is selected.

Text fields that provide completion also allow the list of available values to be scrolled through using the cursor up/down keys. The cursor up key selects the previous value and the cursor down key selects the next value from the list.

2.3.2 Number Input

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

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

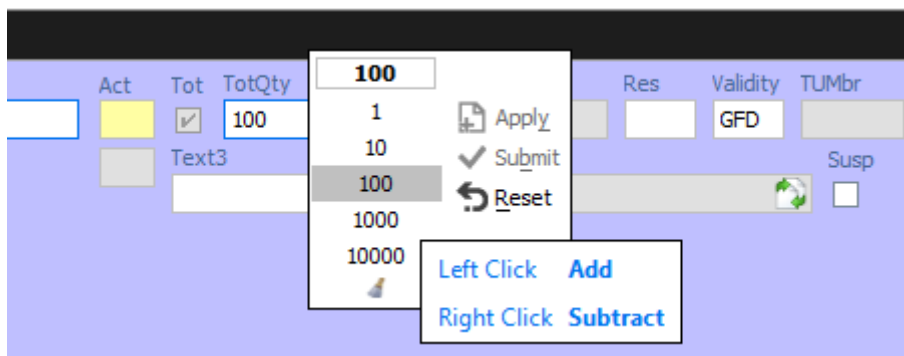


Fig. 14: Number Chooser

2.3.3 Date Chooser

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



Fig. 15: Date Chooser

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

2.3.4 Colour Chooser

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

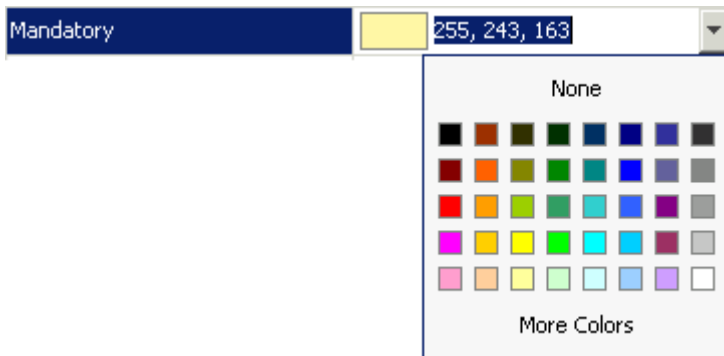


Fig. 16: Color Chooser

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

2.3.5 Font Chooser

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

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

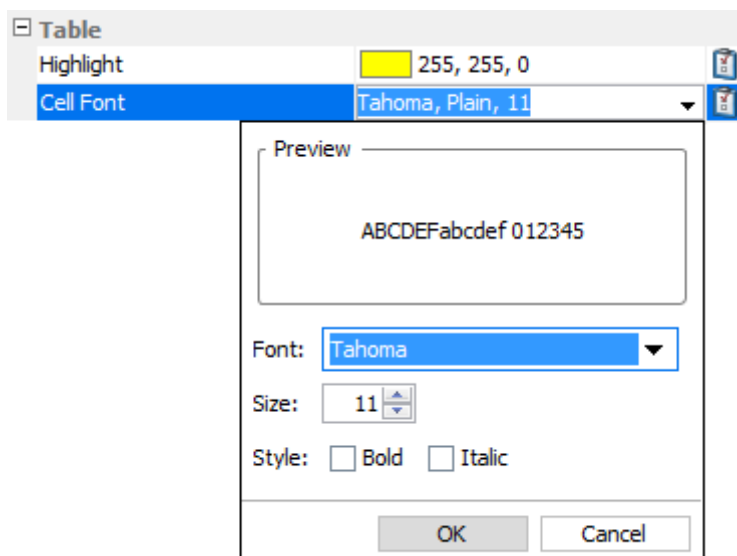


Fig. 17: Font Chooser

2.4 Tables

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

Users can control the data displayed in the table:

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

2.4.1 View Filter and Generic Filter


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

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

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

2.4.2 Adding and removing a Generic Filter Field

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

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

2.4.3 Using Generic Filters

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

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

- **Exact:** Only records exactly matching the filter value are displayed.
- **Substring:** Only records partly matching the filter value are displayed.
- **Greater than:** Only records greater than the filter value are displayed.
- **Less than:** Only records lower than the filter value are displayed.

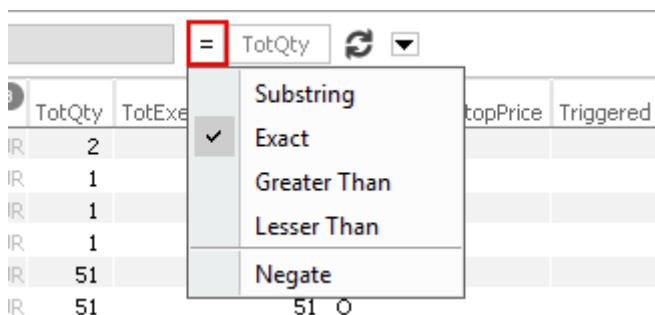


Fig. 18: Filter Restrictions

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

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

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

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

Example:

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



Fig. 19: 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:

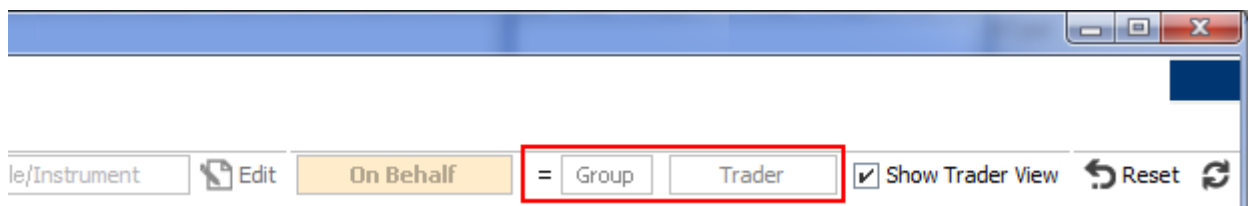


Fig. 20: User group and trader filter of the main view.

2.4.5 Quick Find

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

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

2.4.6 Tables: Sort

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

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

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

Fig. 21: 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.

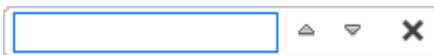


Fig. 22: Find dialogue

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.

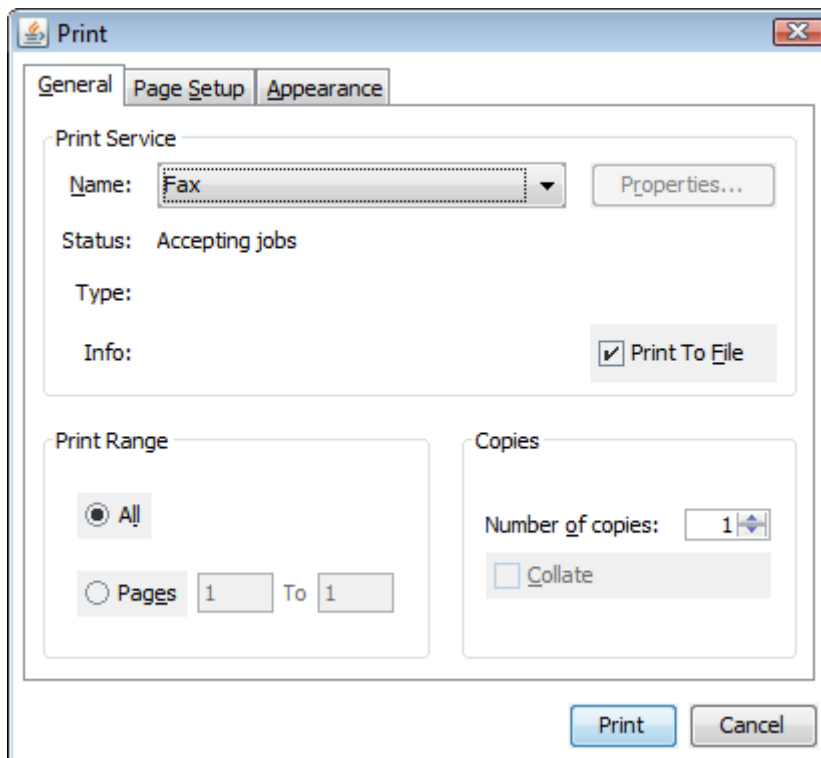


Fig. 23: Print Dialogue

2.4.9 Tables: Import

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

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

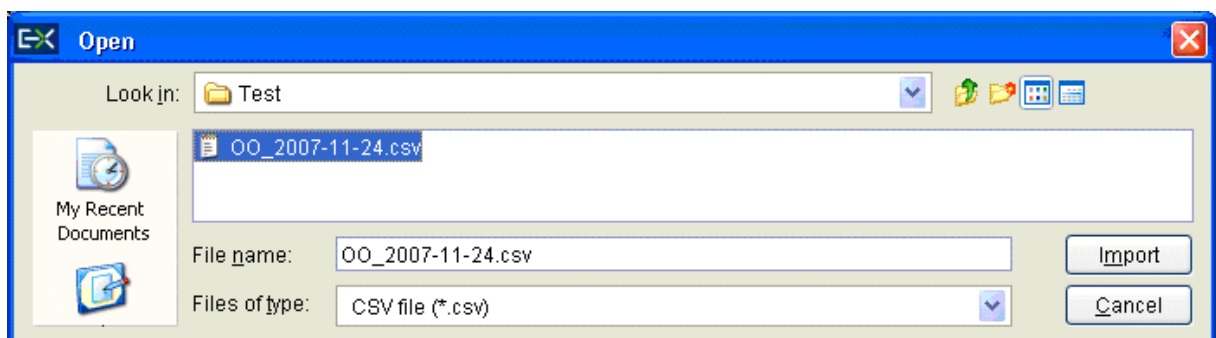


Fig. 24: Import Dialogue

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

2.4.10 Tables: Export

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

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

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

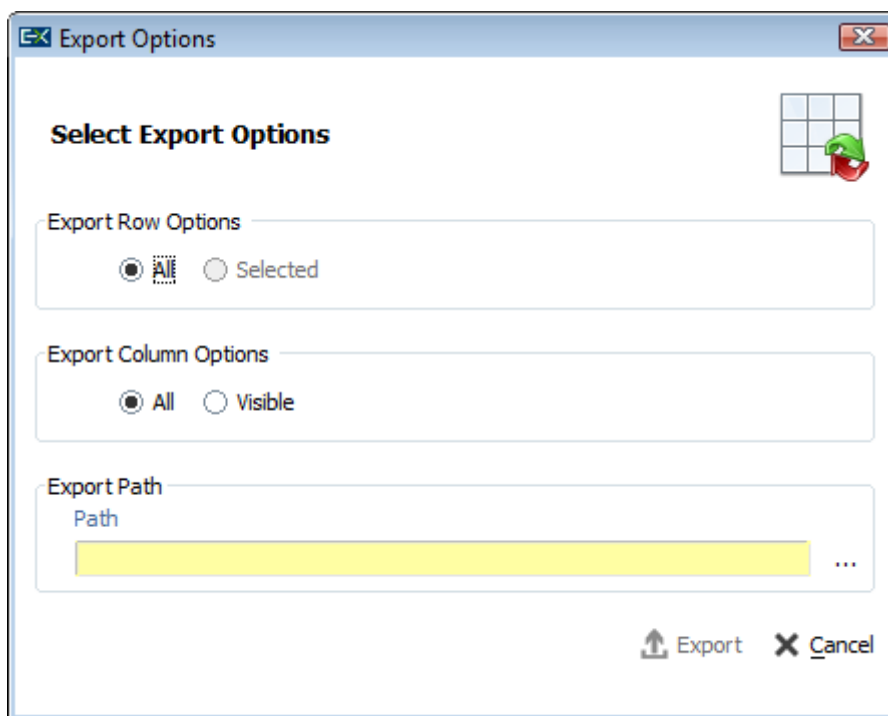


Fig. 25: Export Options

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:

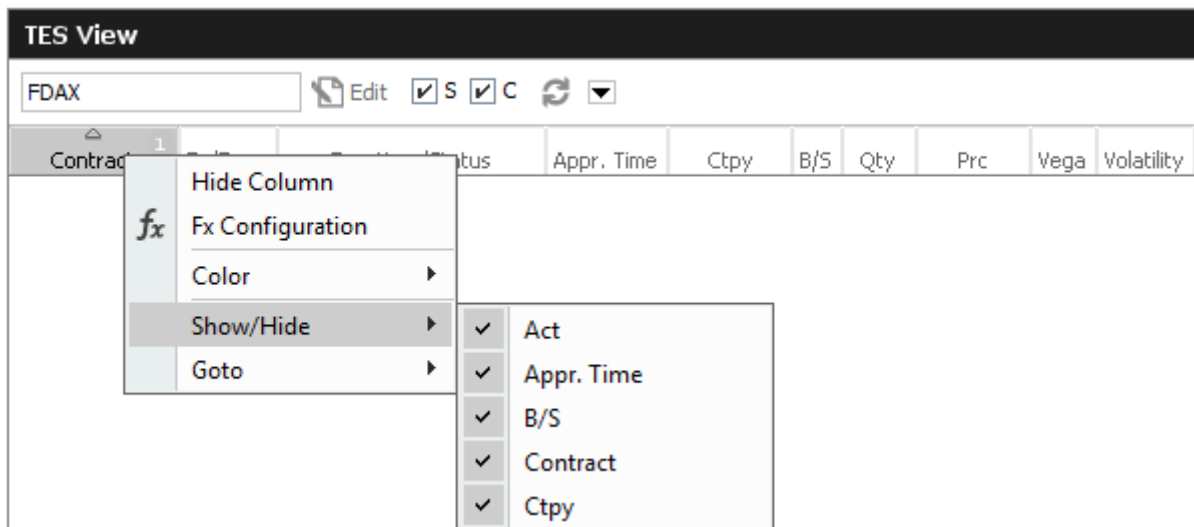


Fig. 26: Column Selection Pop-up

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

2.5 Profiles

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

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

Generated Product Profiles

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

Activity Profile

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

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

User defined Profiles

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

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

Products can also be imported from a file. The products may be separated in the same way as in the clipboard example above, or be separated by new lines:

Layout of profiles

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

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

Sharing of profiles

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

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

2.6 Preferences

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

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

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

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

The *Application Preferences* view allows the user to define general properties that are valid for the whole GUI, where the *View Preferences* follows the currently selected view and provides the settings for that single view instance.

2.7 Master Login

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

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

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

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

GUI Version Check

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

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

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

Window Description		
Field	Tab	Description
MarketPlace		The MarketPlace the Master User is registered for.
Market		The market the Master User is assigned to. This field is only provided in XetraTrader and XetraAdmin.
Master User		Master account login name.
Master Password		Master account login password
Client Key Password		An optional password which can be used to decrypt the client key. The client key is required for internet connections only.
Login		Log in
Login Without Settings		Allows to login without using the settings of the last session. This function provides access to the GUI in the event of problems with the trader profile.
Logout		Log out
Change Master Password		Opens the Change Master Password dialog. Changes the password for the master login in sync with the exchange account password of the XetraExchange's T7.
Network Connection Settings		A click onto this bar collapses/expands the Network Connection Settings pane

Leased Line	Network	Select Leased Line radio button for a leased line type of connection
Internet	Network	Select Internet radio button for the connection via the internet
Next	Network	Switches to the next tab of the Network Connection Settings wizard
No Proxy	Proxy	Select No Proxy for a direct internet connection
Use Proxy	Proxy	Select Use Proxy for a connection through a web proxy
Proxy	Proxy	HTTP proxy machine name
Proxy Port	Proxy	HTTP proxy port
Automatic Proxy Configuration URL	Proxy	URL for automatic proxy configuration
Detect Proxy	Proxy	Press this button to probe for an automatic detection of the web proxy
Client Key	Security	This is the file location of the client SSL public key file

2.8 Configuration Menu

2.8.1 Exchange Accounts

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

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

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

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

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

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

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

2.8.2 Alert Configuration

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

It is possible to specify user defined filter criteria, which works in the same way as the generic filters in table views. Please refer to chapter 2.4.3 for a full description of these generic filters.

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

2.8.3 Profiles

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

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

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

2.8.4 Text Configuration

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

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

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

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

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

3 Xetra Trader GUI

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

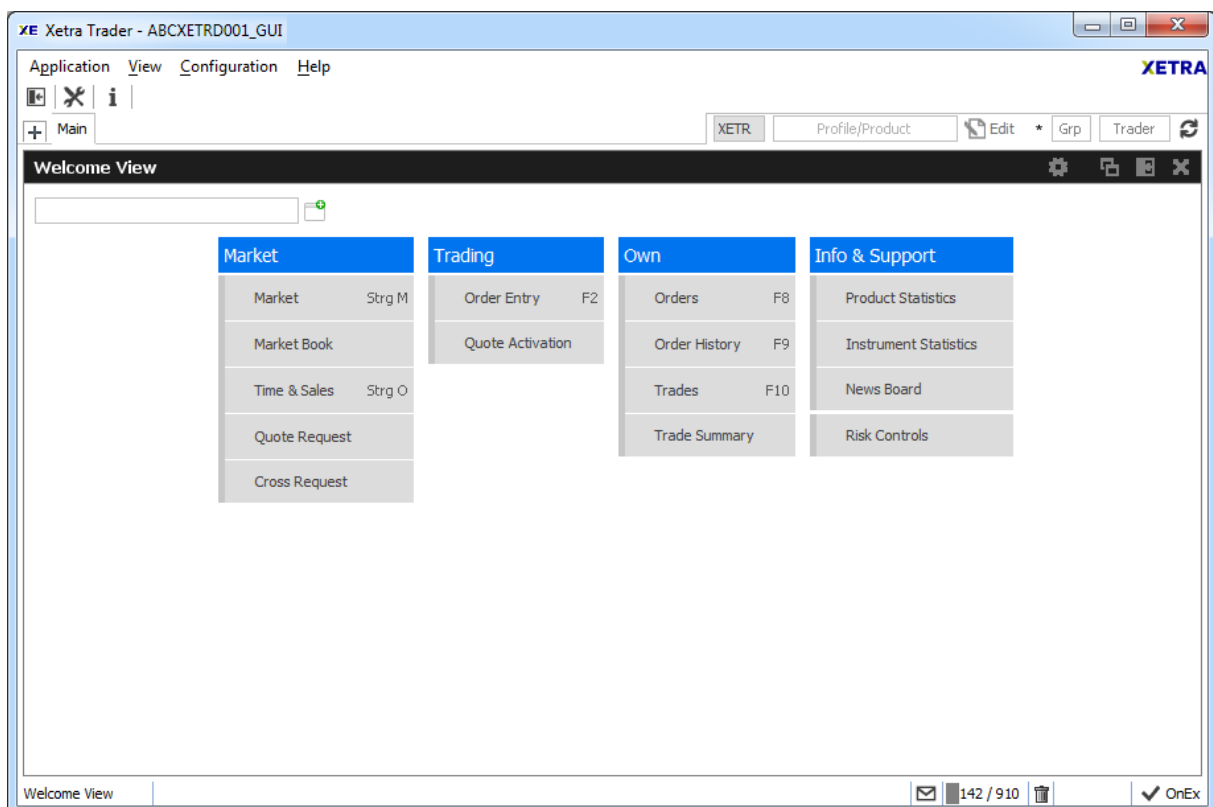


Fig. 27: Screenshot of the *Xetra Trader* main window showing the *Welcome* view.

These functions are further described in chapter 3.3 Market, 3.5 Trading, 3.6 Own and 3.7 Info & Support.

The functions provided in *Xetra Trader*:

- **Ported functions:** these were already provided by the JTrader GUI. Ported means: the functional sense of the former JTrader window is provided in a new and very likely changed format by a new view in *Xetra Trader*. Please check the next sub chapter 3.2 for a comparison chart on these.
- **Adoption of functions from T7 Eurex Trader GUI:** Since *Eurex Trader* and the T7 trading system were already in place, some standard views which have been provided for the Eurex trading system have been ported to *Xetra Trader*. Just to mention some views in this category: the

Bandwidth Monitor and *Sessions* view. Please check the remaining part of this chapter 3 for description on these.

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

3.2 View by View Comparison: JTrader and T7 Xetra Trader

The following view by view comparison helps to find the which functions have been ported to the new *T7 Xetra Trader*, and where to find them:

Xetra JTrader	T7 Xetra Trader
Order Instrument Overview	Market View + Market Book
Order Instrument Full Overview	Market Book
Order Market Overview	Market View
Quote Request Overview	Quote Request
Cross Request Overview	Cross Request
Ticker	Not supported
Trading Board Ticker	Not supported
Online Time and Sales Sheet	Time & Sales
Order Entry	Order Entry
Order Maintenance	Order Entry
Fast Order Entry	Order Entry
Mass Order Entry	Order View (import orders in suspended state)
Mass Order Maintenance	Not supported
Quote Entry	Not supported
Mass Quote Entry	Not supported
Market Maker Protection	Not supported
Trading Risk Limits	Not supported
Quote Request Entry	Not supported
Cross Request Entry	Order Entry -> Cross Request
Open OTC Trading	Not supported
OTC Trade On Behalf	Not supported
OTC Reporting	Not supported

Trading Board	(Docking desktop tab)
Own Order Overview	Orders
Own Quote Overview	Not supported
Back Office Information	Trades (display only the netted top row with trade matches aggregated on order level)
Trade Information	Trades (display all partial matches of a trade)
News	News Board (Type: System-News and MS-News)
Instrument Watch	Alert Configuration
Risk Monitoring Maintenance	News Board (Type: Risk) Trader GUI: Risk Controls (No support for Stop BU, just order deletion) Admin GUI: Risk Controls - Stop Release tab (Stop NCM)
Profile Overview	Profiles
Login / Logout	Login / Logout
Change Password	Login / Logout -> Change Master Password
Save Window Configuration	Save Settings
Clear Window Configuration	Not supported
Report Selection	Not supported
User Overview	User Maintenance (This is part of Xetra Admin and Xetra Clearer)
Subgroup License Maintenance	User Maintenance (assignment of Market Maker role to the user, this is part of <i>Xetra Admin</i>)
Subgroup Assignment Maintenance	Product group entitlement assignment for a selection of users in Xetra Admin's User Maintenance
Default BEST Executor Assignment	Not supported
OTC Auto Approval Authorization	Not supported
Preferences	Preferences
Help on this window	Help on this View
About	About
What's New	What's New

3.3 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.

3.3.1 Market

The *Market* view is one of the core trading views and displays the best bid and ask limit for single instruments of the selected product, instrument or profile. At least one product, instrument or profile must be specified, by the user, before the view will display any information.

The last traded price, last traded quantity, overall traded quantity and daily high and daily low prices are also displayed and updated in real time. Market Orders are displayed.

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

FM	Phase	Curr	BQty	Bid	Ask	AQty	Lst	LstQty	PotAuct	SetlPrc	Open	High	Low	Vol
Cont	ALV (DE0008404005)	EUR												

Fig. 28: Screenshot of the Market view (not all columns visible)

Market depth display as part of Market view

The market depth display is provided in the *Market* view as detailed information for a selected instrument. The display shows the best bid/ask limits with accumulated volumes per single instrument up to a predefined number of limits per product (configured by the system). The display of an instrument can be expanded or collapsed to show or hide the order book.

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.

Columns Presets

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

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

Description of Columns:

Column	Description
FM	Fast Market indicator
Phase	Instrument trading state
Instrument	Instrument ID
PrevClsPrc	Previous day closing price
Vol	Total volume in the instrument traded in the course of the day.
Low	Daily low price
High	Daily high price
BidAvg	Average bid price of the price level
BidAcc	Accumulated bid quantity of the price level
BQty	Bid quantity
Bid	Bid price
Ask	Ask price
AQty	Ask quantity
AskAcc	Accumulated bid quantity of the price level
AskAvg	Average bid price of the price level
LstPrc	Last price
LstTime	Last trade time
LstQty	Last trade quantity
QRI	Quote request indicator
XRI	Cross request indicator
Curr	Currency
Exch	Exchange ID of the instrument
C/E	Cum/Ex indicator
AuctPrc	Indicative auction price. Only displayed during an auction phase. In case of yield traded instruments the yield value is displayed.
AuctQty	Quantity which can be executed at the indicative price - Entries appear only during an auction with an open order book or during an auction with a closed order book with market imbalance indicator set to 'ON'. The order book must be crossed.

Surplus	Remaining auction quantity, which can be accepted at the auction price and side of the surplus.
Surplus Side	Buy/sell side of the surplus
LstAucPrc	Last auction price
LstAucQty	Last auction quantity
LstAucTim	Last auction time
Trades	Total number of trades of the day.
Ind	Interruption indicator specifies whether a volatility interruption ('V'), an extended volatility interruption ('X') takes place.
PotInd	Potential interruption indicator. Indicates that the current auction price would lead to a volatility interruption at the end of the auction. This column is only filled in case of a scheduled auction (opening-, intraday- or closing auction).
BidCnt	Number of orders in the accumulated bid order volume.
AskCnt	Number of orders in the accumulated ask order volume.

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 triggers the display of the market depth. The market depth display is described in full detail in the next chapter 3.3.2.

Actions supported by Market view

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

Preselection of Order Entry

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

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

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

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



Quote and Cross Request

A right click on any of the other cells of the *Market* view opens a context menu that provides functions

for triggering of quote and cross requests.

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

3.3.2 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. 29: 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 3.3.1 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.

3.3.3 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).

This view replaces the former *Order Instrument Overview*.

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.

Market Book	
Column	Description
BidCnt	Number of Orders
BidQty	Bid quantity
Bid	Bid price
Ask	Ask price
AskQty	Ask quantity
AskCnt	Number of Orders
OwnBidQty / OwnAskQty	Accumulated quantity of all own standard orders with a limit displayed in the Limit column. For iceberg orders the overall quantity is displayed. Quotes and orders of other traders within the same subgroup are not displayed.

The following fields are only displayed during an auction:

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

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

3.3.4 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

WKN	WKN of the instrument (if available)
Instrument	Instrument ID
ISIN	ISIN of the instrument
LongName	Instrument long name
TrdDate	Date of the match
TrdTime	Time of the match
Prc	Matched trade limit
Qty	Matched trade quantity
Curr	Currency
Aggr	Aggressor indicator (B, S or empty)
Buy	Number of Buy orders involved in the match
Sell	Number of Sell orders involved in the match
MatchStepID	Match Step ID of the trade
Exch	Exchange ID

3.4 Quote Request

Quote requests are supported via the QR (Quote Request) button of the *Order Entry* and via the context menu in the Market view. The entry of the (buy or sell) side and of a quantity is currently not supported.

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

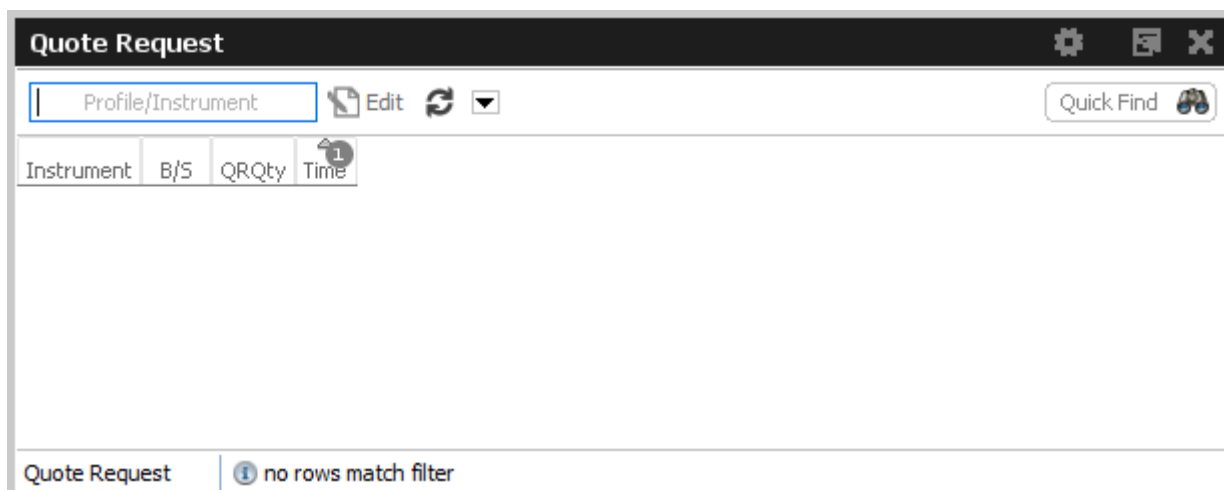


Fig. 30: Screenshot of the *Quote Request* view

3.4.1 Cross Request

The entry 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.

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

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

3.5 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.

3.5.1 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 also includes the *Hit*, *Bid*, *Take* and *Ask* functions. Also integrated is the display of the inside market.

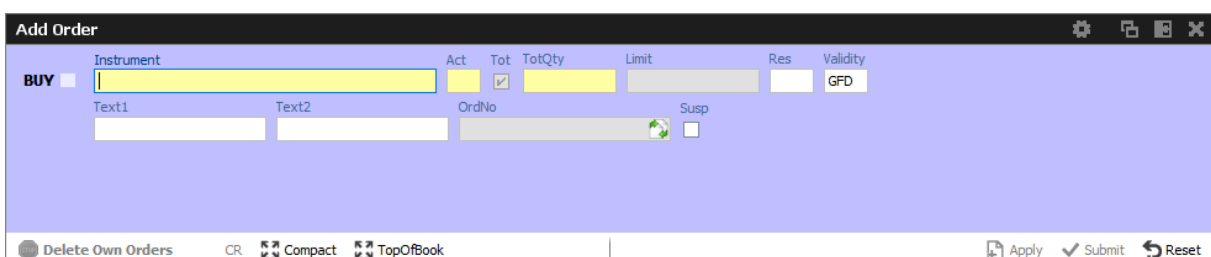


Fig. 31: Screenshot of the *Order Entry* view in compact mode and TopOfBook pane hidden

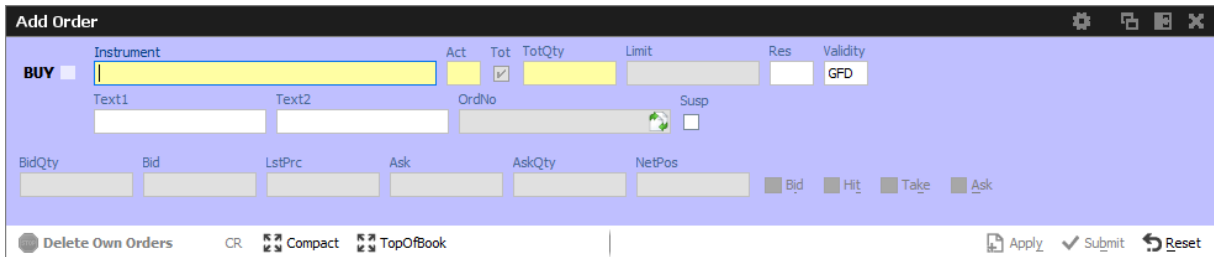


Fig. 32: Screenshot of the *Order Entry* view in compact mode showing the TopOfBook pane

Functions provided:

- Order Entry/Modify/Delete
- Bid/Hit/Take/Ask actions and price information.
- Quote Request Entry
- 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 for modification of the last submitted 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. If the Order Entry was opened externally, the view will be closed, if the entry of the order was successful.

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

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

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



- Delete will delete the selected order.
- Modify will update the order which has been entered last on this view.
- Add New will enter a new order with the current values.

- Reset will clear all fields and will then apply the saved view properties.

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

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

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

Order Entry - Standard Fields:

Field	Description
Buy/Sell	Buy/Sell code button.
Instr	Instrument short name, or WKN, or ISIN. The context menu offers the following columns of information: Instrument short name, ISIN, WKN and Instrument long name. The entry field allows the entry of any one of these items, as long as the selected value refers to exactly one single instrument.
Act	Account.
Tot	Checkbox to indicate that the Qty field will represent the order total quantity, disregarding any partial matches.
Qty/TotQty	Quantity of the order. If the "Tot" field is checked, this is the total quantity of the order.
Limit	Limit and Currency of the Order. Market orders are indicated by a blank limit field.
Res	Order restriction.
StopPrice	Trigger price for OCO and Stop orders. Only visible for stop order (please refer to the <i>Res</i> field to select a stop order).
TrailStopPct	Trailing stop order, trailing distance in percentage of last price.
TrailStopAbs	Trailing stop order, trailing distance price value.
RndLowQty	Iceberg order lowest random quantity value.
RndHighQty	Iceberg order highest random quantity value.
InitQty	Initial iceberg display quantity.

Validity	The validity of the order: FOK - Fill Or Kill GFD - Good For Day GTC - Good Till Cancelled GTD - Good Till Date IOC - Immediate Or Cancel
Date	Date of the validity in case of GTD.
Text	Free format text field 1.
MIOrdNo	Free format text field 4.
OrdNo	Order number.

Order Entry - Extended Fields:

Field	Description
CrossID	The CrossID used for Self-Match Prevention (SMP). Both orders and/or quotes, that origin from the same business unit, must contain the same CrossID value for a SMP action to take place. Orders and quotes actively participating in the order book are verified for SMP during the instrument state "Continuous" only.
PeakQty	Peak quantity for iceberg orders

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.
QR	Button: Opens the Quote Request Dialog to specify the quote request quantity and side.
CR	Button: Trigger cross request for the selected contract and Qty of the Order Entry.

Bid	Enter a Buy order at the best bid limit.
Hit	Enter a Sell order at the best bid limit.
Take	Enter a Buy order at the best ask limit.
Ask	Enter a Sell order at the best ask limit.
Compact	Toggle the display of the hidden fields and the extended fields.
TopOfBook	Toggle the display of the TopOfBook field group.
Reset	The <i>Reset</i> action completely clears the <i>Order Entry</i> , and applies default settings, if available.

3.5.2 TotQty and Close on Submit preset

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

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

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

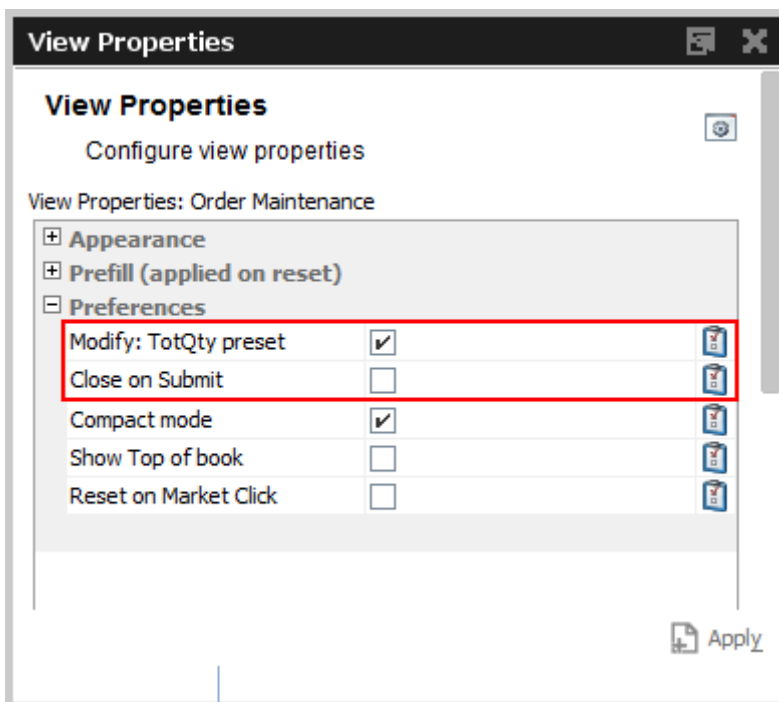


Fig. 33: Screenshot of the *View Properties* view

3.5.3 Order Modify

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

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

3.5.4 Suspend/Resume of Orders

Suspend/resume of orders is supported in *Xetra Trader*:

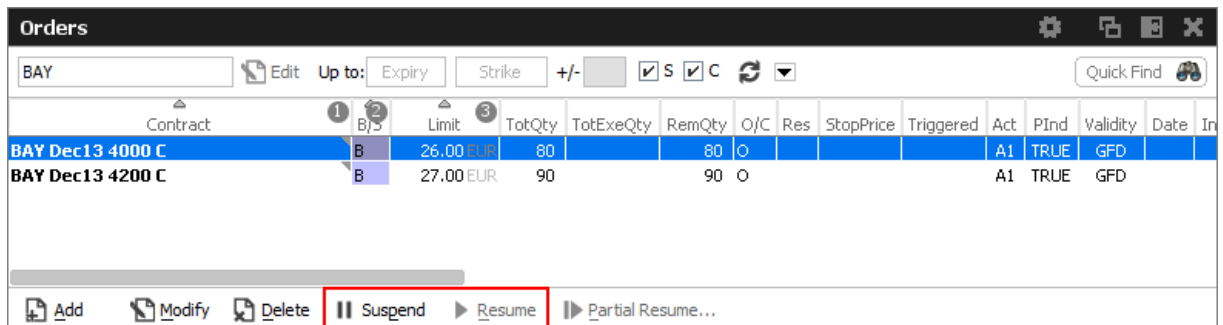


Fig. 34: Screenshot of the *Orders* view showing the *Suspend* and *Resume* actions

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

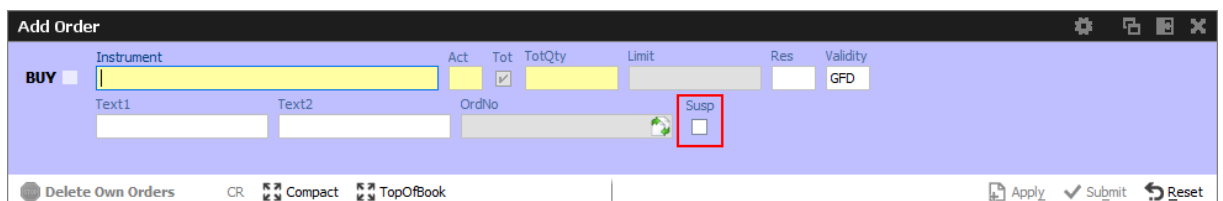


Fig. 35: Screenshot of the *Order Entry* showing the *Susp* checkbox

3.5.5 Self-Match Prevention (SMP)

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

For intended crossing, cross request functionality is offered by Xetra T7. With the cross request functionality, an exchange participant is allowed to enter relating orders and quotes which could immediately match against each other. The precondition is that the participant enters a cross request prior to entering orders or quotes which could match immediately signalling its intention to the market.

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

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

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

3.5.6 Quote Activation

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

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

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

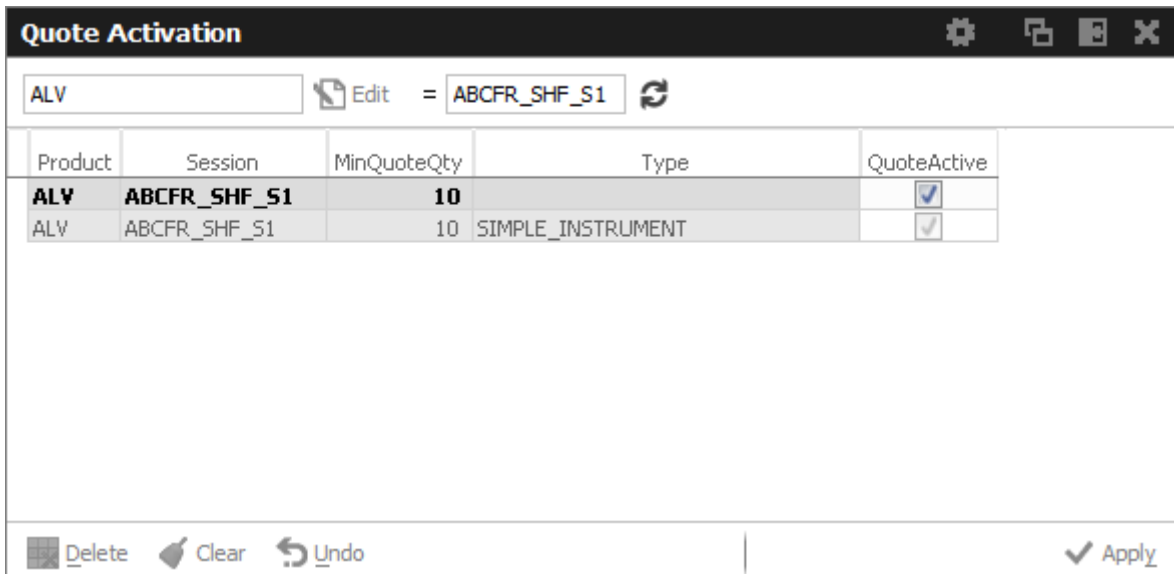


Fig. 36: Screenshot of the *Quote Activation* view

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

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

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

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

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

The *Quote Activation* scope parameters:

Field	Description
Product	Product.
Session	A session identifier.
MinQuoteQty	Minimum quote quantity
Type	Single Instrument, or empty for wildcard. (The effect of wildcard is identical to the single instrument level with Xetra migration step 1)
QuoteActive	Displays the current activation state of the quote, if the <i>instrument type</i> is set: Active or Inactive. This view is not updated by broadcast, the display can be refreshed using the refresh button.

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.

3.6 View Descriptions: Own (Orders and Trades)

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

3.6.1 Orders

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

Display Name	Description
ISIN	ISIN of the instrument
WKN	WKN of the instrument (if available)
Instr	Instrument short name
InstrLongName	Instrument long name
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.
PeakQty	Quantity of the overall peak of an iceberg order. This field is only filled for iceberg orders.
Res	Order restriction.
StopPrice	Stop price of a stop limit order
Triggered	Indicates whether the current order originates from a triggered OCO or stop order.
Act	Account.
Validity	The validity of the order: FOK - Fill Or Kill GFD - Good For Day GTC - Good Till Cancelled GTD - Good Till Date IOC - Immediate Or Cancel

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.
Text	Free format text field 1.
MIOrdNo	Free format text field 4.
ClientOrdID	Client order number.
OrdNo	Order number.
OrdNoClearing	Order number used in Xetra Clearing
BU	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.
EnteringUsr	Entering 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.
Persist	Persistency indicator. Orders entered by <i>Xetra Trader</i> will always be entered as persistent orders. However, orders that have been entered using a third party application will retain their persistency state, when modified by <i>Xetra Trader</i> .
Exch	Exchange Identifier.

3.6.2 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 Xetra 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	Persisted
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. 37: 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 for the selected order. This opens an Order History which is filtered to the selected order.

Please refer to chapter 3.6.1 for a description of the table fields, except for the following:

Display Name	Description
OrderHistoryType	Displays the type of order change: Add, Modify, Delete, MatchPartial, MatchFull and Cancelled.

3.6.3 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.

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

Fig. 38: Screenshot of the *Trades* view

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

Table description:

Field	Description
Instrument	Instrument short name
ISIN	ISIN of the instrument
WKN	WKN of the instrument (if available)
B/S	Buy/Sell identifier.
ExeQty	Executed quantity of this order ID.
OrdQty	Order quantity of this order ID.
Price	Order Limit
P/F	Partial or Filled.
Res	Order restriction.
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. Also known as deal ID by the Xetra system.
TrdReportID	Trade Report ID.

Persist	Persistency indicator. Orders entered by <i>Xetra Trader</i> will always be entered as persistent orders. However, orders that have been entered using a third party application will retain their persistency state, when modified by <i>Xetra Trader</i> .
MatchStepID	Match Step ID.
OrdNo	Order Number.
OrdNoClearing	Order number used in Xetra Clearing.
Text	Free format text field 1.
MIOrdNo	Free format text field 4.
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	Counterpartty settlement account.

CtpyCM	Counterparty clearing member.
CapacityGroup	Capacity group.
Exch	Exchange Identifier.

3.6.4 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. 39: 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.

3.6.5 Trade Summary

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

Current one of the following aggregations can be chosen:


- Instrument
- OrderNo
- MIOrdNo
- Text

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

Display of trade executions and trade summary

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

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

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

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

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

Trade summary columns:

Field	Description
Instrument	Instrument short name
ISIN	ISIN of the instrument
WKN	WKN of the instrument (if available)
B/S	Buy/Sell identifier.
AvgPrc	Average price of underlying executions (Volume Weighted Average).
AccQty	Accumulated order quantity

P/F	Partial or Filled of the last execution.
Res	Order restriction.
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 Xetra system.
TrdState	Indicates whether the trade is new or reversed.
TrdID	Trade ID. Also known as deal ID by the Xetra system.
TrdReportID	Trade Report ID.
Persist	Persistency indicator. Orders entered by <i>Xetra Trader</i> will always be entered as persistent orders. However, orders that have been entered using a third party application will retain their persistency state, when modified by <i>Xetra Trader</i> .
MatchStepID	Match Step ID.
OrdNo	Order Number.
OrdNoClearing	Order number used in Xetra Clearing.
Text	Free format text field 1.
MIOrdNo	Free format text field 4.
ClientOrdID	Client order number.
BU	Owning Business Unit.
Grp	User group of the owning user.
Trader	Owner of the trade (refers to the user name of the exchange account of the respective trading system).
Session	Owning SessionID.
OrdEntryTime	OnExchange: Date and time of the order entry.
OrdPrioTime	OnExchange: Date and time of the order priority.
TrdTime	OnExchange: Date and time of the order match.
StlCurr	Settlement currency.
StlAmnt	Settlement amount.
StlDate	Settlement date.

ExchRat	Exchange Rate.
CM	Clearing member.
CCPCM	CCP clearing member.
KVNo	Kassenvereins-Nummer.
StlLoc	Settlement location.
StlAct	Settlement account.
Cpty	Counterparty member.
CptyKVNo	Counterparty Kassenvereins-Nummer.
CptyStlLoc	Counterparty settlement location.
CptyStlAct	Counterparty settlement account.
CptyCM	Counterparty clearing member.
CapacityGroup	Capacity group.
Exch	Exchange Identifier.

Trade executions columns:

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

3.7 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.

3.7.1 Product Statistics

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

Field description of the *Product Statistics* view:

Field	Description
Product	Product ID.
LongName	Product long name.
Vol	Total volume of all instruments associated to the product in the course of the day.
TradeCount	Total number of trades (counted match steps) of all instruments associated to the product.

Exch	Exchange ID of the product.
Fast	Fast market indicator
Phase	Trading phase of the product.
Partition	Partition Id
CurrentBusDay	Current business day
CapacityGroup	Capacity group
TickSize	Tick size.

3.7.2 Instrument Statistics

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

Field description of the *Instrument Statistics* view:

Field	Description
ISIN	ISIN of the instrument
WKN	WKN of the instrument (if available)
Instr	Instrument short name
InstrLongName	Instrument long name
TickSize	Tick size.
Vol	Total volume in the instrument traded in the course of the day.
TradeCount	Total number of trades (counted match steps) of the instrument.
Last	Last traded price in the instrument.
High	Day's highest price in the instrument.
Low	Day's lowest price in the instrument.
PrevClsPrc	Previous day's closing price.
LastAuctPrice	Last Auction Price

3.7.3 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 Operations, e.g., information about delay in trading start, suspension of a product).

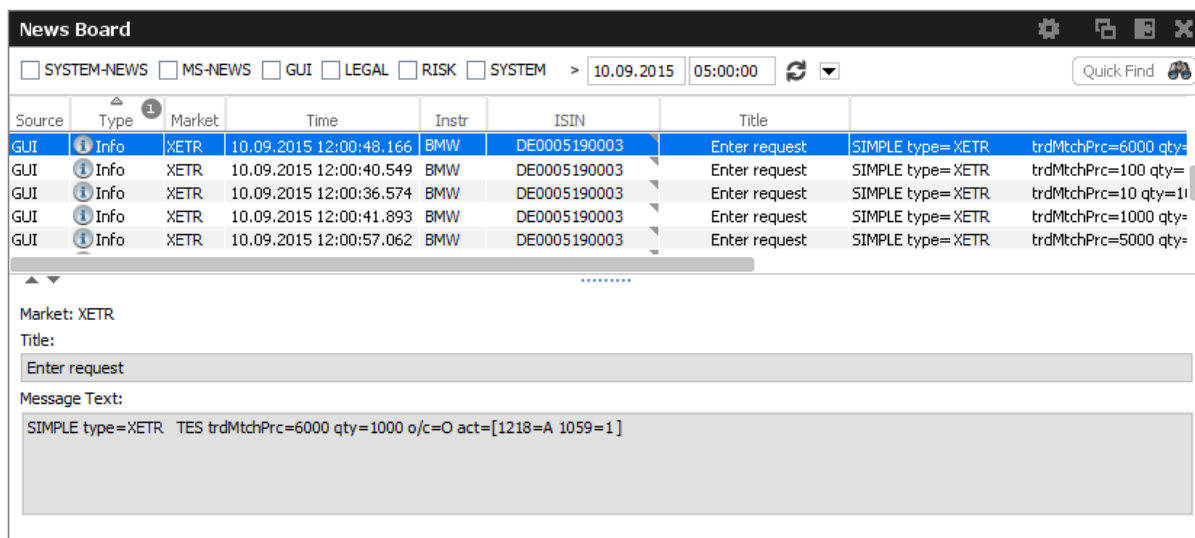


Fig. 40: Screenshot of the *News Board* view

The *News Board* view displays the following information:

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

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

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

3.7.4 Risk Controls

The *Risk Controls* functionality in the new Xetra GUIs available to participants includes *Stop Trading* and *Release Trading* as well as *Panic Cancel* actions.

Stop Trading and *Release Trading* actions are effective for an entire Business Unit or selected users in a particular market and can be performed by a user of Xetra T7 with the Emergency Trading Stop Role and user level Supervisor. The *Stop Trading* and *Release Trading* functionality is included in *Xetra Admin* - it is not part of *Xetra Trader*.

Panic Cancel actions enable users of Xetra T7 to mass delete orders and/or quotes.

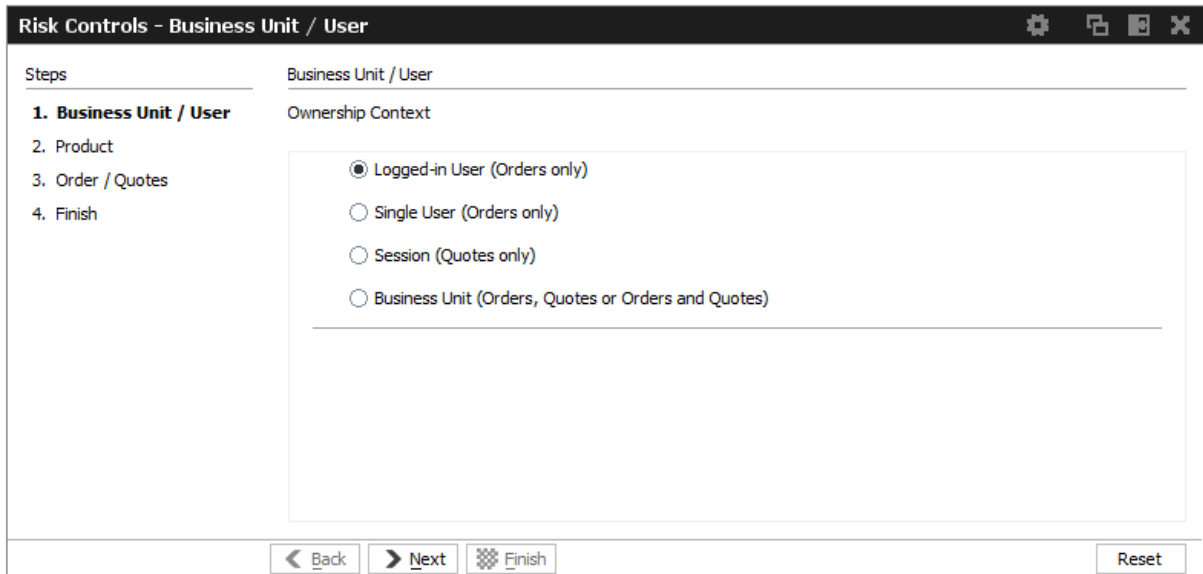


Fig. 41: Screenshot of the *Risk Controls* view

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

4 Xetra Admin GUI

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

Please refer to section 8 for a general description on how to use the application and how to access these functions using the *Welcome* view.

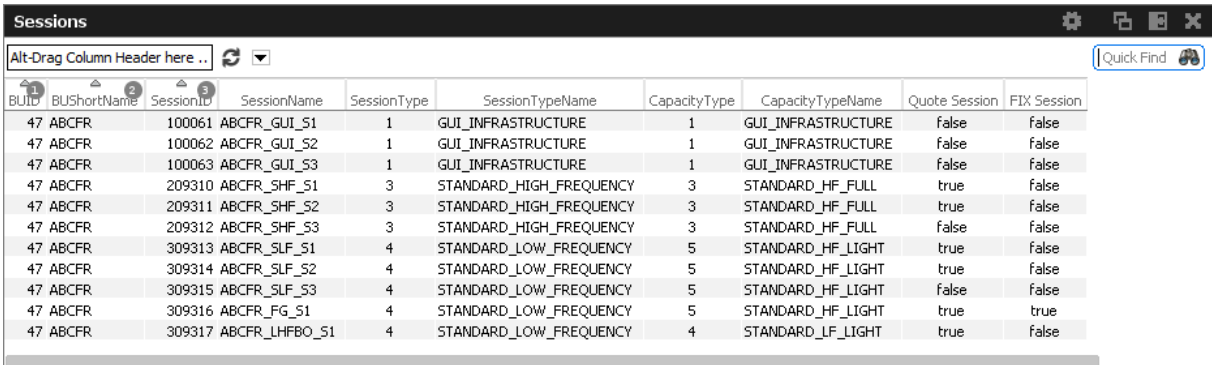
4.1 View Descriptions: Info & Support

4.1.1 News Board

Please refer to chapter 3.7.3 *News Board* for a description of this view.

4.1.2 Sessions

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



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

Fig. 42: 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 *Xetra Trader*, *Xetra Admin* and *Xetra 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.

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

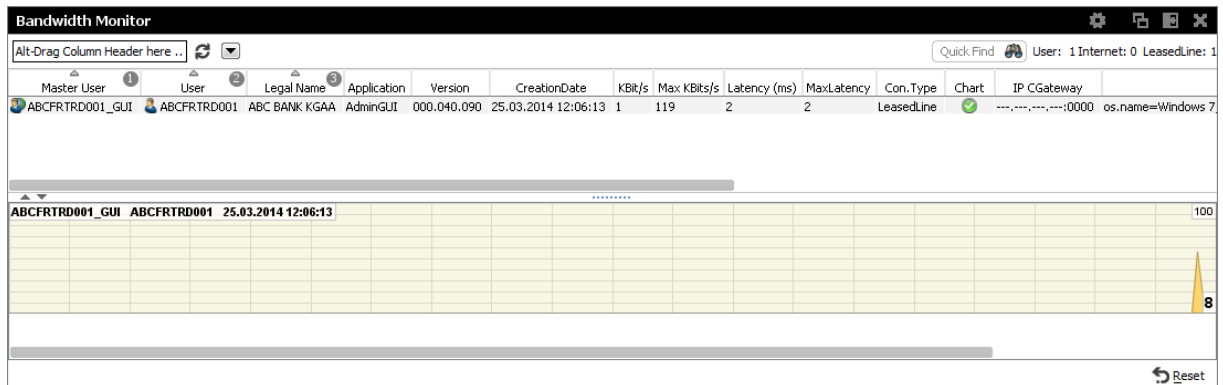


Fig. 43: Screenshot of the *Bandwidth Monitor* view

4.2 View Descriptions: Risk & Security

4.2.1 Trade Enrichment Rules

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

4.2.2 Risk Controls

The *Risk Controls* functionality in the Xetra T7 GUIs available to participants includes *Panic Cancel* as well as *Stop Trading* and *Release Trading* actions.

Panic Cancel actions enable users of Xetra T7 with assigned 'Emergency Role', to mass delete orders and/or quotes in a particular market.

Stop Trading and *Release Trading Own BU* actions are effective for an entire Business Unit or selected users in a particular market and can be performed by a user of Xetra T7 with 'Emergency Trading Stop Role' and user level 'Supervisor' assigned. The *Stop Trading* effectively prevents a user or business unit from the further entry of orders and quotes. In order to prevent any existing orders and quotes of the affected user or Business Unit from matching, *Stop Trading* also triggers the *Panic Cancel* function.

The *Stop Trading* and *Release Trading* functionality is not part of *Xetra Trader*.

4.2.3 User Maintenance

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

Id	Name	LoginName	Category	UserGroup	UserStatus	EffectiveStatus	MkdDeletion	Level	BusinessUnit
732	SEC001	ABCFRSEC001		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
723	TRD001	ABCFRTRD001		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
724	TRD002	ABCFRTRD002		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
725	TRD003	ABCFRTRD003		GR2	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
726	TRD004	ABCFRTRD004		GR2	ACTIVE	ACTIVE	<input type="checkbox"/>	SUPERVISOR	ABCFR
727	TRD005	ABCFRTRD005		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
728	TRD006	ABCFRTRD006		GR2	ACTIVE	ACTIVE	<input type="checkbox"/>	TRADER	ABCFR
729	TRD007	ABCFRTRD007		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	HEAD_TRADER	ABCFR
730	TRD008	ABCFRTRD008		GR2	ACTIVE	ACTIVE	<input type="checkbox"/>	HEAD_TRADER	ABCFR
731	TRD009	ABCFRTRD009		GR1	ACTIVE	ACTIVE	<input type="checkbox"/>	SUPERVISOR	ABCFR

Fig. 44: Screenshot of the *User Maintenance* view

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

User Maintenance view, columns that are displayed:

Field	Description
Id	Id number of the user, provided by the system.
Name	The Name is the LoginName minus the BusinessUnit name.
LoginName	Login Name, this is the ID of the exchange account to Xetra Exchange's T7.
Category	If applicable this field should be set by the service administrator when setting up a user. It is verified by BaFin/Market Surveillance.
UserGroup	The name of the user group the user belongs to inside the business unit. Every group can define their own name. Each user is assigned to maximum one user group. Also referred to as user group.
Status	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: <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • 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. The status can be: <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – either the user or the business unit is suspended from trading.
MkdDeletion	Indicates whether the user is marked for deletion.
Level	The level determines if the user may see orders and trades of other users of the same user group or business unit: The trader level may not see orders and trades of other traders of the same trader group. The head trader can see orders and trades of all users within the same user group. The supervisor can see orders and trades of all users within the same business unit.
BusinessUnit	Business unit of the user. Identical to the BU of the logged in service administrator

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. Password tab

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

4.2.4 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. 45: Screenshot of the *User Maintenance Wizard* showing the *Attributes* tab

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 Xetra 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. It is verified by BaFin/Market Surveillance.
UserGroup	The name of the user group the user belongs to inside the business unit. Every group can define their own name. Each user is assigned to maximum one user group. Also referred to as user group. This field is mandatory.
Status	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: <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • 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. The status can be: <ul style="list-style-type: none"> • Active – if the user is not suspended from trading. • Suspended – either the user or the business unit is suspended from trading.
IsProtected	Marks the user as to be 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: The trader level may not see orders and trades of other traders of the same trader group. The head trader can see orders and trades of all users in their own user group. The supervisor can see orders and trades of all users in their own business unit.
MaxOrderValue	Maximum allowed order value for a single order.
PINCode	User PIN. Used by the exchange to identify a calling person.
BusinessUnit	Business Unit.
Settlement Account	The settlement account.
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.

4.2.5 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 *Xetra Admin* and *Xetra 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.

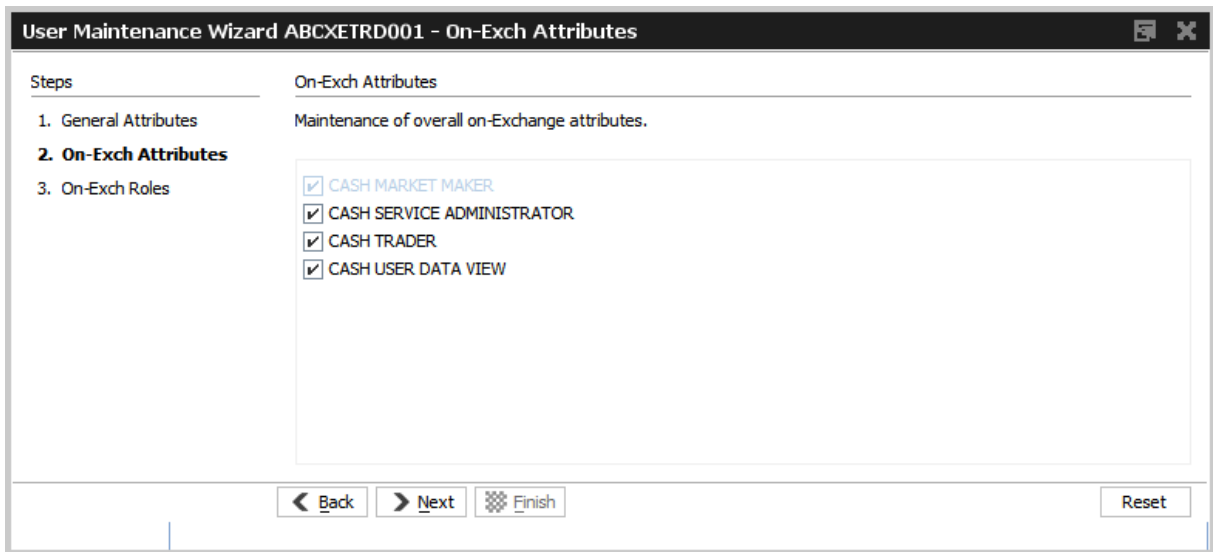


Fig. 46: Screenshot of the *User Maintenance Wizard* showing the *Attributes* tab

Entitlement View, Roles and GUIs

A user which is set up using the setup process is automatically assigned with a role containing negative entitlements which effectively prevents the user from trading until this role has been removed by Xetra 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
Xetra Admin	View only at a user level	Maintenance access on user level

Fig.17: 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.

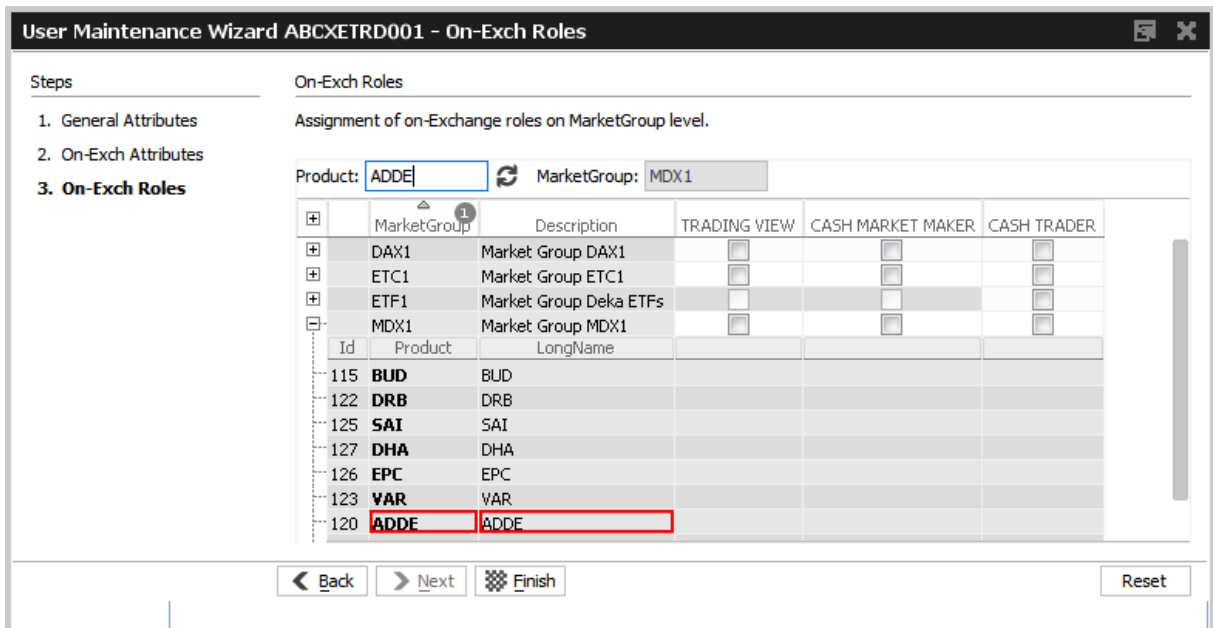


Fig. 47: Screenshot of the *User Maintenance Wizard* showing the entitlement roles on the *On-Exch Roles* tab

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

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

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

4.2.6 User Maintenance - Password

The password tab allows you to set or change the password of a user.

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

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

User Maintenance Wizard - ABCFRTRD001 - Password

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

On Behalf: **ABCFRTRD001**

Generated Password:

Master User:

Master Password:

New Password:

Confirm Password:

Navigation:

Fig. 48: Screenshot of the *User Setup Wizard* showing the *Password* tab

5 Xetra Clearer GUI

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

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

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

5.1 View Descriptions: Info & Support

5.1.1 Stop / Release Business Unit

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

Id	BusinessUnit	State	StopTime	StoppedBy	OnBehalfOf	StopTimeClearer	StoppedByClearer	StopTimeM5	StoppedByM5
259	ABCXE	✔							
260	DEFXE	✔							

Fig. 49: 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 Xetra 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	Stopped by Clearer time
StoppedByClearer	Stopped by Clearer user Id
StopTimeMS	Stopped by MS time
StoppedByMS	Stopped by MS user Id

5.1.2 User Maintenance

This view is identical to Xetra Admin, for a description of this view please refer to chapter 4.2.3.

5.1.3 Backoffice Trades

The *Backoffice Trades* view is almost identical to the Trades view of Xetra 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 3.6.3.

6 Change Log

No	Chapter, page	Date	Change
5.0.0	General	21-Mar-2017	First public version for Release 5.0
5.0.1	General	20-Apr-2017	Incorporate L1 review comments