MEMO Trader Manual

Version 3.6.8
February 2023

MEMO Trader Manual

3.6.8

Copyright Soops b.v.

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Printed: February 2023 in Amsterdam

Publisher

Soops b.v.

info@soops.nl

Johan van Hasseltweg 43-2

1021 KN Amsterdam

Phone: +31 (0)20 622 2844

www.soops.nl

Table of Contents

Chapter I Disclaimer 5

Chapter II Introduction 7

1 Getting Started with MEMO Fixed Version Client ... 10
- Starting up MEMO Trader Client ... 10
- Starting the First Time ... 11
- Connecting / disconnecting MEMO Trader Client ... 12
- Connecting with Password ... 12
- Failed Login ... 12
- Disconnecting MEMO Trader Client ... 12

2 Getting started with MEMO Upgradable Client ... 16
- Starting up MEMO Upgradable Client ... 16
- Undo Upgrade ... 16
- Starting the First Time ... 17
- Connecting / disconnecting MEMO Trading System ... 18
- Connecting with Password ... 18
- Failed Login ... 18
- Disconnecting MEMO Trading System ... 18

3 Network Settings (Global Settings) ... 22
- Proxy ... 22
- Gateway ... 23

4 The MEMO Trader Client Welcome Screen ... 24

5 Organization of the screens ... 25
- Menu Bar ... 25
- File ... 25
- View ... 25
- Format ... 25
- Settings ... 25
- Window ... 25
- Help ... 25
- Filter Bar ... 27
- Message Bar ... 28
- Navigating with Keyboard ... 29

6 Reset Password ... 29

Chapter III Bid Submission 33

1 The Market Global View ... 34

2 Linear Bids ... 37
- Order Types ... 38
- Manual Entry ... 39
- Buttons ... 39
- Adjust to Price Limit ... 39
- Excel Import ... 44
- Linear Bid Submission for Several Days ... 45
- Linear Bid Submission in several steps ... 46
- Linear Bid Modification ... 47

Copyright Soops b.v.

3 Block Bids ... 49
Order Types ... 50
Manual Entry ... 55
Excel Import ... 58
Curtailable Blocks ... 58
Block Graph ... 59
Block Bid Submission in several steps ... 61
Standard Block Bids (C01) ... 61
Linked Family Bids (C02) ... 61
Exclusive Group Bids (C04) ... 61
Family Loop Bids (C88) ... 61
Spread Family Bids (C89) ... 61
4 Scalable Complex Bids ... 63
Order Types ... 64
Manual Entry ... 65
Buttons ... 65
Entry fields ... 65
Adjust to Price Limit ... 65
Excel Import ... 70
Scalable Complex Bid Submission for Several Days ... 71
Scalable Complex Bid Submission in several steps ... 72
Scalable Complex Bid Modification ... 73
5 Physical Delivery Bids ... 74
6 Bid Suspension ... 75
Market Global View ... 76
Order Entry Screens ... 77
Client Message Book ... 78

Chapter IV Market Results 79

1 Overall ... 81
2 Block ... 83
3 Scalable Complex ... 85
4 Trade ... 86
5 Market Result Notification ... 88
6 Market Result for Daylight Saving Days ... 90
7 Indexes ... 90

Chapter V Message Book 91

1 Curtailment ... 94
2 Breaking Message ... 95
3 Block Bid Exceed Limit ... 95

Chapter VI Trading Limits 97

Chapter VII MEMO Trading System Configuration 101

1 Navigate the Settings ... 103
2 Network Settings ... 104
3 Create View Settings ... 105
Set a Default View ... 106

Copyright Soops b.v.

Delete a View ... 106
4 Set Columns ... 107
5 Global Settings ... 108
General Client Settings ... 108
Time-Date-Number Notation ... 108
Time Zone ... 108
Play Sound when Message arrives ... 108
Confirm Logout ... 108
Excel Options ... 108
Window Icon Blend ... 108
Forced Logoff ... 108
6 Modules Settings ... 112
Visual ... 113
General ... 114
Market Results Notification ... 116
7 Block Definitions ... 116
8 Reasonable Control Parameters ... 118
9 Empty Portfolio Alert ... 121
10 Super User Permissions ... 123
11 Financial Module Settings ... 125

Chapter VIII Password Settings 127

Chapter IX Support 129

Chapter X Appendix B, Technical Requirements 131

Chapter XI Appendix C, Password Rules 135

Chapter XII Appendix D, Glossary 137

Chapter XIII Appendix E, Helpdesk 141

Chapter XIV Appendix F, Excel Paste supported 143

1 Linear Bids (Step- and Piecewise) ... 144
2 Block Bids ... 147
3 Block Definitions ... 148
4 Scalable Complex Bids ... 149
5 Reasonable Control Parameters ... 153

Chapter XV Appendix G, Daylight Saving Time 155

1 March Short Day (Summer) ... 157
Linear / Scalable Complex ... 157
Block ... 159
Market Results ... 160
2 October Long Day (Winter) ... 161
Linear / Scalable Complex ... 161
Block ... 163

Copyright Soops b.v.

Market Results 164

Chapter XVI Appendix H, Trade Reports Export Files (.xml) 165

Chapter XVII Appendix I, Market Results Export File (.csv) 167

Chapter XVIII Appendix J, Upgrade Schematic 169

Chapter XIX Appendix K, Average MCP for Block 171

Chapter XX Appendix L, Keyboard usage 173

Index 0

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 1

Disclaimer

Copyright Soops b.v.

Chapter 1 Disclaimer

MEMO Client offers a great deal of flexibility to exchanges to configure new products. Considering the generic nature of the MEMO Client, and thus this manual, some products and functionality described in this document may not be available to you.

The screenshots used in this manual are of non-existent configurations. Products displayed in the various screens may not apply to your exchange and use imaginary values.

Please consult your exchange to see what products are available and refer to your market rules regarding availability of described functions.

Copyright Soops b.v.

Chapter 2

Introduction

Copyright Soops b.v.

Chapter 2 Introduction

This guide is intended for MEMO Traders.

Please refer to your market rules regarding availability of described functions.

Assumption throughout this guide is made that the reader has full authority and permission to perform the actions required.

There are two different MEMO Clients available.

The MEMO Fixed Version Client is the full client, containing all program logic needed to perform trader actions. The MEMO Fixed Version Client however is not able to update to the latest program logic, making a new manual installation necessary when such code becomes available.

Default installation directory:
C:\Program Files (x86)\ETS Client for MEMO (version)

The MEMO Upgradable Client is the full client, containing all program logic needed to perform trader actions. The MEMO Upgradable Client is able to update to the latest program logic, and will automatically update itself to the latest version when such code becomes available. The server it is connected to, dictates the version that is needed.
This ensures the client software is always up to par without the need to manually collect and install a newer version.

If the server connected to requires a different version than locally available for the upgradable client, it checks on the local computer if the correct version is there. If that is the case, it starts up that version. If not, it downloads and installs the correct version from the connected server. This version can be higher or lower than the installed version. Every downloaded version is stored on the local computer.

The executable (.exe) collected from the exchange via the Upgradable mechanism, will be saved by default in:

C:\ProgramData\EPEXTradingSystem\MEMO\<version>

Older versions of the Upgradable client will not be removed automatically. This ensures downgrades stay possible. If an upgradable client version is removed manually, but a connection to an ETS server expects this version, it is automatically re-installed. This can be a newer or older version.

Both the MEMO Fixed Version Client and the MEMO Upgradable Client will perform identically once the login procedure is completed, given the version of both the clients is the same.

ClientSettings.xml is a local file that contains the basic connection settings needed to connect to the exchange. Each version of MEMO Client has its own file. The settings file for Windows is situated in:

C:\Users\<User>\AppData\Roaming\EPEXTradingSystem\MEMO\<version>

In case of a downgrade (older version), the ClientSettings.xml is newly created and will not contain any previous customer preferences. In case of an upgrade (newer version) it copies the existing preferences from an older file.

The **MEMO Trader Client** consists of all functionality needed to perform trading related actions on the MEMO Trading Systems installed on your local machine. In order to get up-to-date functionality, manual installation of the latest version is required.

Copyright Soops b.v.

Important:
Using an Upgradable client on a Citrix platform is not supported.

Copyright Soops b.v.

2.1 Getting Started with MEMO Fixed Version Client

In this chapter we will describe how to start up **MEMO Client**, how to connect to the **MEMO** servers and how to disconnect from them.

Also, we will explain the process of authenticating users when establishing a connection.

The **MEMO Fixed Version Client** consists of all functionality needed to perform trading related actions on the MEMO Trading Systems installed on your local machine. In order to get up-to-date functionality, manual installation of the latest version is required.

2.1.1 Starting up MEMO Trader Client

Select **ETS Client for MEMO** from the **Windows Start** menu to start **MEMO Trader Client**.

Copyright Soops b.v.

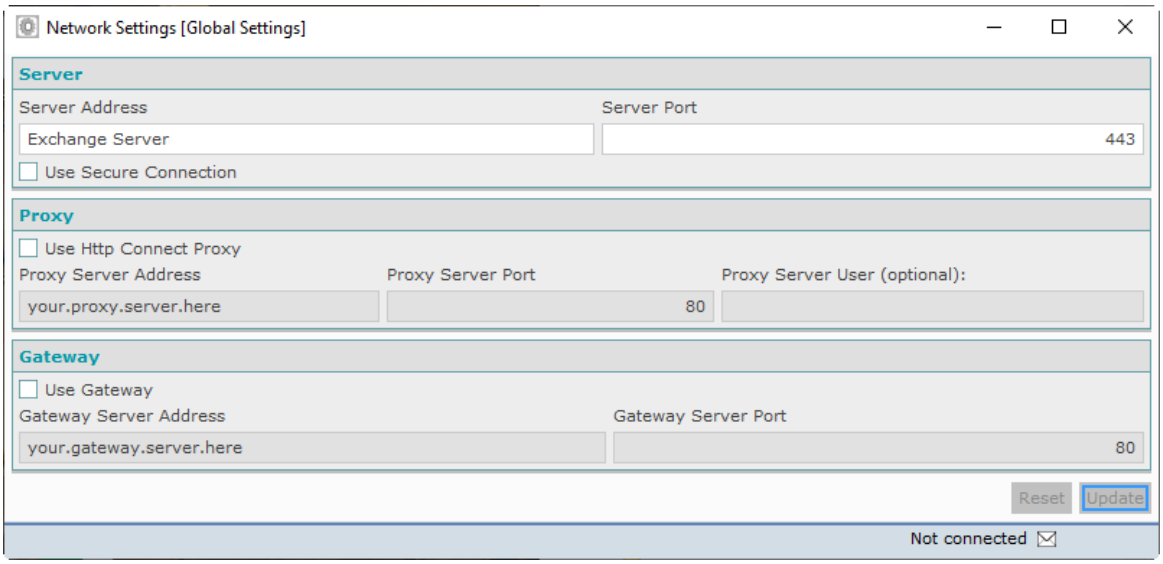
2.1.2 Starting the First Time

Before a connection can be made to the **MEMO** servers, the **Network Settings** need to be defined. After installation the default **Server Address** and **Server Port** require modification into the settings provided by the exchange.

To access the **Global Network Settings**, click the icon on the **MEMO Trader Client**.

Please note that modifying these settings incorrectly can result in the inability to connect to the **MEMO** servers. We strongly suggest to only modify these settings on request from the exchange operator.

Please note that the network settings are only accessible when no connection is established with the exchange servers.



The settings in this screenshot are intentionally left incorrect because they are different per exchange.

Copyright Soops b.v.

2.1.3 Connecting / disconnecting MEMO Trader Client

The **Connect** option is replaced by the **Disconnect** option upon login.

Disconnect

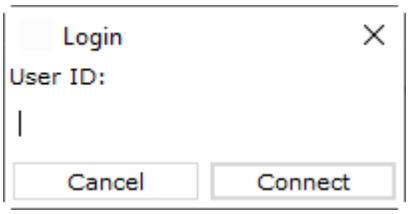
Connect

Upon logout, the **Disconnect** option is replaced by the **Connect** option again.

Copyright Soops b.v.

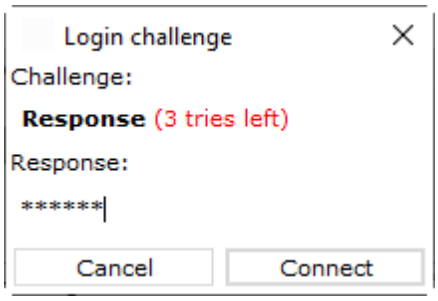
2.1.3.1 Connecting with Password

In order to create a connection to the **MEMO** servers either click the icon in the screen bar, select the option **Connect** from the **screen** menu, or use **[ALT-T]** & **[ALT-C]** respectively.



A dialog will open requesting your User ID. This User ID will be checked in the database for validity. Enter your User ID and either click the **Connect** button or press ENTER.

MEMO now asks for a password. Enter the password provided for this User ID by the exchange.



Be aware that you have a maximum of three attempts to enter a correct password. After the third invalid attempt your User ID will be blocked from access until the MEMO system operator resets your User ID.
In any entry screen, when you click Cancel, it will not be counted as an attempt. It is therefore 'safe' to click Cancel.

After the password has been entered into the **Response** field of the **Login challenge** dialog of **MEMO,** and the **Connect** button is clicked, an authentication check is performed.

Icons for modules for which permission is granted will appear in the **MEMO Trader Client**. Depending on the required traffic over the internet, this can take a few moments.

The connection state bar at the bottom of the console indicates you are logged in accompanied by the appropriate server time, converted to your local time zone as per your settings.

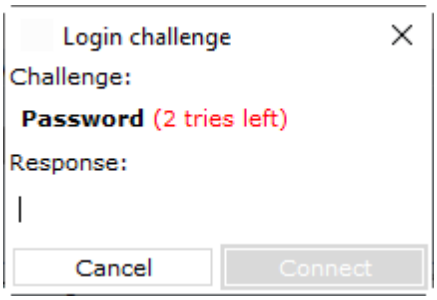
Please note it is possible for a user to change the password. For further details, please see Password Settings chapter.

Copyright Soops b.v.

2.1.3.2 Failed Login

If, during the submission of a password a wrong response is used to connect, MEMO Trading System will deny access.
A warning will be displayed, informing about the failure.

The Login challenge dialog will be offered again, and the passcode can be entered again.



Assuming the password is correct this time, you are logged in as usual. The 'tries left' counter will be reset to the default 3 attempts after a successful response.
If the password is incorrect again, the warning will be displayed again, and the process above repeats itself. Each failed response will lower the 'tries left' counter. If there are no tries left, contact MEMO market operations for assistance.

Copyright Soops b.v.

2.1.3.3 Disconnecting MEMO Trader Client

To terminate the connection with the **MEMO Trading System** servers either click the icon in the Welcome Screen, select the option **Disconnect** from the **screen** menu, or use **[ALT-T]** & **[ALT-D]** respectively. Please note that the **Disconnect** option replaces the **Connect** option upon login.

Alternatively you can click on the *Windows X* in the upper right corner of the **MEMO Trader Client** to terminate the **MEMO** connection.

Please note that closing any other window does not disconnect you from the **MEMO** servers. Only disconnecting in the **MEMO Trader Client** screen will terminate the connection.

Please note that the exchange operator can also disconnect you. This is handled in the same way as if you were disconnecting yourself. With default settings you will not get a warning dialog with an Operator triggered disconnect.

A defect network connection will be detected by **MEMO Trading System** after a maximum of 120 seconds or as soon as any message is sent to the **MEMO** servers and fails to get a response.

Copyright Soops b.v.

2.2 Getting started with MEMO Upgradable Client

In this chapter we will describe how to start up **MEMO Upgradable Client**, how to connect to the **MEMO** servers and how to disconnect from them.

Also, we will explain the process of authenticating users when establishing a connection.

In order to get up-to-date functionality only a successful login is required. The **MEMO Upgradable Client** will automatically update to the latest versions if required, ensuring **MEMO Upgradable Client** is always up-to-date. Functionality is furthermore identical to the **MEMO Fixed Version Client**, given the versions are the same.

2.2.1 Starting up MEMO Upgradable Client

Select **MEMO Upgradable Client** from the **Windows Start** menu to start **MEMO Upgradable Client**.

MEMO Upgradable Client will initially start with loading the installed version. This local version will automatically be superseded if a newer version is available from the exchange.

2.2.1.1 Undo Upgrade

In certain circumstances, the exchange can decide to enforce a downgrade to a previous version.

In order to downgrade an Upgradable Client, select the **Tool** menu in the Welcome Screen.

In the **Tool** menu, select **Undo Upgrades**.

The installed upgrade(s) will be removed from your local installation and the originally installed version will be reactivated.

Important:

Only perform this action on explicit request of the exchange.

Copyright Soops b.v.

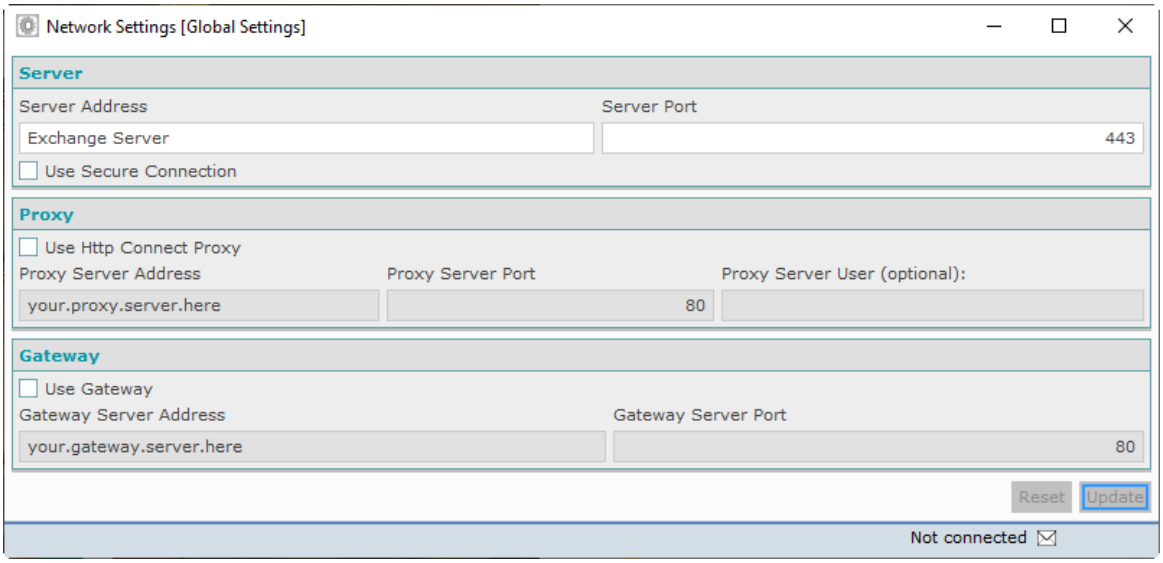
2.2.2 Starting the First Time

Before a connection can be made to the **MEMO** servers, the **Network Settings** need to be defined. After installation the default **Server Address** and **Server Port** require modification into the settings provided by the exchange.

To access the **Global Network Settings**, click the icon on the **MEMO Client**.

Please note that modifying these settings incorrectly can result in the inability to connect to the **MEMO** servers. We strongly suggest to only modify these settings on request from the exchange operator.

Please note that the network settings are only accessible when no connection is established with the exchange servers.



The settings in this screenshot are intentionally left incorrect because they are different per exchange.

Copyright Soops b.v.

2.2.3 Connecting / disconnecting MEMO Trading System

The **Connect** option is replaced by the **Disconnect** option upon login.

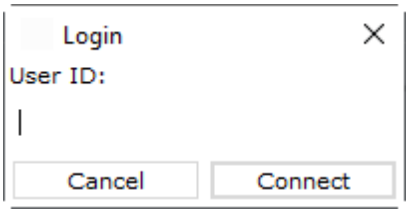
Disconnect

Connect

Upon logout, the **Disconnect** option is replaced by the **Connect** option again.

2.2.3.1 Connecting with Password

In order to create a connection to the **MEMO** servers either click the icon in the Welcome Screen, select the option **Connect** from the menu, or use **[ALT-T]** & **[ALT-C]** respectively.



A dialog will open requesting your User ID. This User ID will be checked in the database for validity. Enter your User ID and either click the **Connect** button or press ENTER.

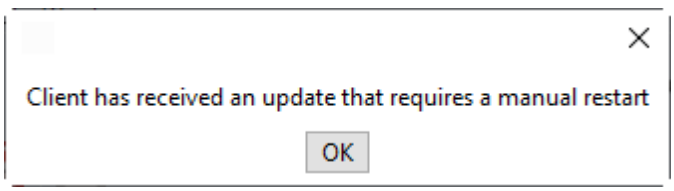
The **MEMO Upgradable Client** will perform a version check. Now one of two things can happen, depending on the availability of newer versions.

Option 1:
If no newer version is detected, the login sequence will proceed after which **MEMO Main Tool** will be presented.

Option 2:
If a newer version is detected, the newer version is automatically fetched from the exchange server. This is indicated with the 'Fetching update for' message.

The newer version will be downloaded automatically, and installed. Depending on the internet speed and size of the download, this process can take a short while.

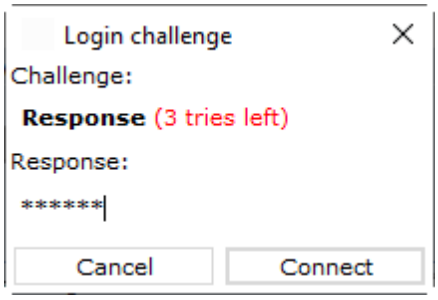
This procedure requires a restart of the MEMO Upgradable Client once to execute the update, for which you will be prompted in a dialog.



Copyright Soops b.v.

The Login sequence will start anew, using the just updated version information. Note that further starts of MEMO Upgradable Client will automatically use the just updated version information, until a newer version becomes available again.

MEMO now asks for a password. Enter the password provided for this User ID by **MEMO SE**.



Be aware that you have a maximum of three attempts to enter a correct password. After the third invalid attempt your User ID will be blocked from access until the MEMO system operator resets your User ID.
In any entry screen, when you click Cancel, it will not be counted as an attempt. It is therefore 'safe' to click Cancel.

After the password has been entered into the **Response** field of the **Login challenge** dialog of **MEMO,** and the **Connect** button is clicked, an authentication check is performed.

Once authentication was successful, Icons for modules for which permission is granted will appear in the **MEMO Upgradable Client**. Depending on the required traffic over the internet, this can take a few moments. Note that further behavior of **MEMO Upgradable Client** is identical to the corresponding version of **MEMO Fixed Client**.

The connection state bar at the bottom of the console indicates you are logged in accompanied by the appropriate server time, converted to your local time zone as per your settings.

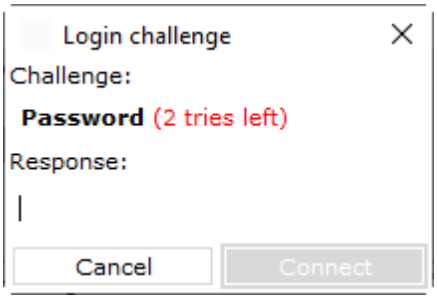
Please note it is possible for a user to change the password. For further details, please see The Settings Book chapter.

2.2.3.2 Failed Login

If, during the submission of a password a wrong response is used to connect, **MEMO** will deny access.
A warning will be displayed, informing about the failure.

The Login challenge dialog will be offered again, and the passcode can be entered again.

Copyright Soops b.v.



Assuming the password is correct this time, you are logged in as usual. The 'tries left' counter will be reset to the default 3 attempts after a successful response.
If the password is incorrect again, the warning will be displayed again, and the process above repeats itself. Each failed response will lower the 'tries left' counter. If there are no tries left, contact MEMO market operations for assistance.

Copyright Soops b.v.

2.2.3.3 Disconnecting MEMO Trading System

To terminate the connection with the **MEMO Trading System** servers either click the icon in the Welcome Screen, select the option **Disconnect** from the menu, or use **[ALT-T]** & **[ALT-D]** respectively. Please note that the **Disconnect** option replaces the **Connect** option upon login.

Alternatively you can click on the *Windows X* in the upper right corner of the **MEMO Client** to terminate the **MEMO** connection.

Please note that closing any other window does not disconnect you from the **MEMO** servers. Only disconnecting in the **MEMO Client** screen will terminate the connection.

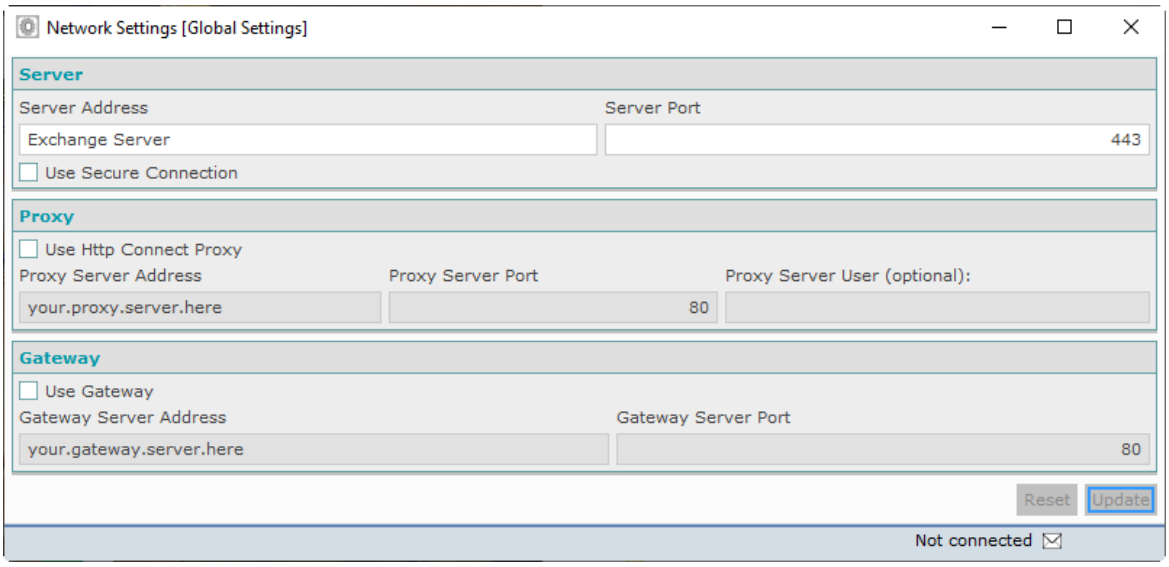
Please note that the exchange operator can also disconnect you. This is handled in the same way as if you were disconnecting yourself.

A defect internet connection will be detected by **MEMO** after a maximum of 120 seconds or as soon as any message is sent to the **MEMO** servers and fails to get a response.

Copyright Soops b.v.

2.3 Network Settings (Global Settings)

MEMO Trader Client connects secure to communicate with the Exchange server. Default this is set enabled.



Server Address	Network name of exchange server. IP Address is NOT supported.
Server Port	Listening port of exchange server, (default 443)
Use Secure Connection	Checkbox, alter only on request of Exchange. Enables or disables use of TLS
Use Http Connect Proxy	Checkbox, enable to use HTTP CONNECT proxy
Proxy Server Address	IP Address or network name of local proxy server
Proxy Server Port	Listening port of local proxy server
Proxy Server User (optional)	Login name for the proxy server user, if needed
Use Gateway	Checkbox, enable connect through a different host
Gateway Server Address	IP Address or network name of local gateway host
Gateway Server Port	Listening port of local gateway server

2.3.1 Proxy

MEMO Trader Client can connect over a proxy server that needs authentication and supports the use of HTTP CONNECT proxy.
Please note that use of the SOCKS Proxy protocol is not supported.

The authentication protocol that is supported is the 'http basic authentication' standard, no other authentication protocols are currently implemented.

When the MEMO Trader Client connects to the proxy server it will pop-up a dialog box that requests the user name and password for proxy server access.

It is possible to fill in the user name in the ETS trade client settings panel, so that the proxy user name does not need to be typed into the dialog every time a trader logs in.

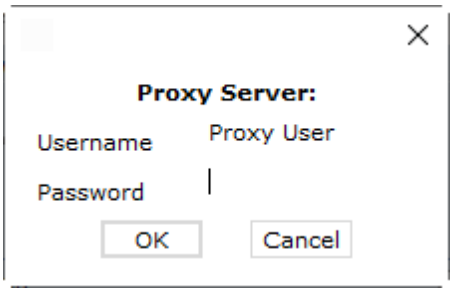
More technically: The proxy protocol used is the 'http CONNECT tunnel' standard.
The proxy authentication protocol ETS supports is 'http basic authentication'.

Copyright Soops b.v.

In order to activate Http Connect Proxy Settings, enable the corresponding checkbox in the Global Settings.

The settings above are dependent of the configuration of the local HTTP CONNECT proxy server. Consult your local network administrator for values.

During the login procedure, if your local HTTP CONNECT Proxy server does require login credentials, the Proxy Server login dialog will prompt to provide the HTTP CONNECT Proxy server login credentials. The dialog will not appear if login to the HTTP CONNECT Proxy server is not required.



If the Proxy Server User (optional) setting was left empty, the Username in the Proxy Server prompt dialog will remain empty as well.

Provide the Password, if required, and click OK to proceed with the MEMO Trader Client login sequence, or click Cancel to abort the login sequence.

2.3.2 Gateway

MEMO Trader Client can connect using a Gateway.

In situations where the local network cannot resolve the Exchange Host Name, the gateway option should be used.

The MEMO Client will connect to the host and port specified in the Gateway server settings, and expects to be forwarded to the Exchange.

For further information, contact your local network administrator.

Copyright Soops b.v.

2.4 The MEMO Trader Client Welcome Screen

The **MEMO Trader Client** is the trading interface screen of the **MEMO environment**. The **MEMO Trader Client** displays the modules that are available to the user that is logged in.

From left to right, the launcher above displays the (**Dis)Connect**, **MEMO Trading System**, **Client Messages, Financial, Global Settings** and **Change Password** icons.

The menu options in the **Tool** [ALT-T] menu above the icons offer the same functionality as the icons. In addition options for **About** and **Exit** are available.

The menu options in the **Window** [ALT-W] menu are essentially a list of any screens that are open and are a quick link to bring the selected screen to the foreground. In addition the options **Collapse All** [ALT-C] and **Restore All** [ALT-R] respectively drop all screens to the Windows Taskbar and open them all to the screen.

The **connection state bar** at the bottom of the launcher indicates you are logged in and to which server-environment.

The **message indicator** (little envelope) indicates if messages are unread in the **Client Message Book**. Double-click will access the message.

The **clock** to the right displays the exchange server time, modified to your local time setting. This clock will not necessarily be identical to the time of your local computer. The clock settings can be configured in the Time Zone settings.

Copyright Soops b.v.

2.5 Organization of the screens

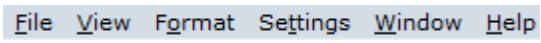
The various screens in MEMO Trader Client share common functionalities.

2.5.1 Menu Bar

The **Menu Bar** is available in all windows of the **Trader Module**. It contains the lists of options that can be used within that window.

All options in the **Menu Bar** are available by simultaneously using the **ALT** key and a **letter** key.
In the menu the corresponding letter key is indicated by underlining.

For instance, to access the **Auto Fit Columns** option in the **Market Global View**, press **[ALT-O]**, followed by **[ALT-A]**.



2.5.1.1 File

The **File** [ALT-F] menu contains the following options:

The **New Window** [ALT-W] option opens an additional screen in the same module. This screen will open with the default screen as set in the settings.

The **Export to Excel** [Alt-E] option expands with further options, depending on the window you select the **File** menu from.

Select one of these options, and a third menu expands, giving access to **All** and **Selection**.

All: This option exports all available data from this window to an *MS Excel* sheet
Selection: This option exports only the selected row of information to an *MS Excel* sheet

In several screens the Export to Excel function is also available as the

buttons, respectively exporting all or only the selected item.

The **Close** [ALT-C] option closes the screen from which the option was selected.

Copyright Soops b.v.

2.5.1.2 View

The **View** [ALT-V] menu contains the following options:

The **Select View** option expands with further options, depending on the views you defined in the settings.
Selecting one of these views will immediately update the screen to the selected view settings.

The Market Global View option opens a new Market Global View.

The Market Results Notification option opens a new Market Results Notification screen.

The Market Results option opens a new Market Results screen.

Please note that the underlined character indicates the ALT-key you can use to access the option.

2.5.1.3 Format

The **Format** [ALT-O] menu contains the **Auto Fit Columns** [ALT-A] option that rearranges the widths of the columns in e current screen, so that any information in those columns is displayed fully.

The **Save Column Widths into <name of current view>** [ALT-S] option will save the current screen display into your selected view settings.

2.5.1.4 Settings

The **Settings** [ALT-T] menu contains the **View Settings** [ALT-V] options.

A detailed description of the **Settings** can be found in the Settings Book Chapter.

2.5.1.5 Window

The menu options in the **Window** [ALT-W] menu essentially form a list of screens that are open and offer quick links to bring a selected screen to the foreground.

2.5.1.6 Help

The **Help** [ALT-H] opens the website of the exchange in your default browser, where further information can be found.

The **About** [ALT-A] option in the **screen** menu of the MEMO screen bar displays the **version number of MEMO**.

Important:
Not every **MEMO Trader Client** version is compatible with every **MEMO Server** version. Always use the newest version of the client as the exchange has determined. Incompatible client versions cannot connect to the server. You will be warned with a message when you try to log in with a **MEMO Trader Client** version that is not compatible with the exchange server environment.

Copyright Soops b.v.

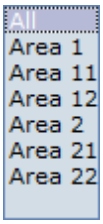
2.5.2 Filter Bar

In the Market Global View you can use the **Column Filter Bar**.

This filter bar allows you to select how you want to filter the columns in the screen below.
By default all values are set to 'All'.

You can filter in 2 ways using the filter bar, and combine results into multiple filters.

1. Click the little arrow of the selection field for the column you wish to filter, to open a list of options. The list is automatically filled with all entries that are present in the column below.
Choose a selection from the list in order to update the display. Only the selected items will be displayed in the Book.



Incremental search, or self-completing text entry, is supported.

2. Clicking on the label of the column accesses a toggle option to switch from A-Z sorting to Z-A sorting and vice verse.

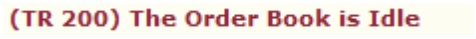
Multiple filters in several columns can be applied to further customize the View.
Please note that these filters are not saved when closing the screen.

Copyright Soops b.v.

2.5.3 Message Bar

The **Message Bar**, visible from most screens in **MEMO Trader Client**, offers insight into what is wrong or expected at key moments during entry of data.

The descriptions following the message should give a good idea of the source of the message.



By default only the most urgent message is displayed in the message bar, but by hovering the mouse cursor over the message bar, a full list of all messages will pop-up.

Note that in order entry screens the message bar is located just above the order entry grid.

Copyright Soops b.v.

2.5.4 Navigating with Keyboard

To navigate the various interface widgets with the keyboard, please use the TAB / SHIFT+TAB to navigate between widgets, and use the arrow keys to navigate between cells within a single dataset.

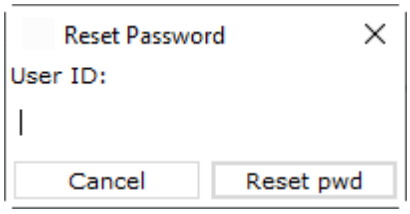
Also note the various ALT-Key combinations to access menu items; these are indicated in the interface with a _ below the name of the menu item.

2.6 Reset Password

In order to request a reset of your password for **MEMO Trading System** select the option **Change Password** from the **Tool** menu of the Welcome Screen, or use **[ALT-T]** & **[ALT-P]** respectively.

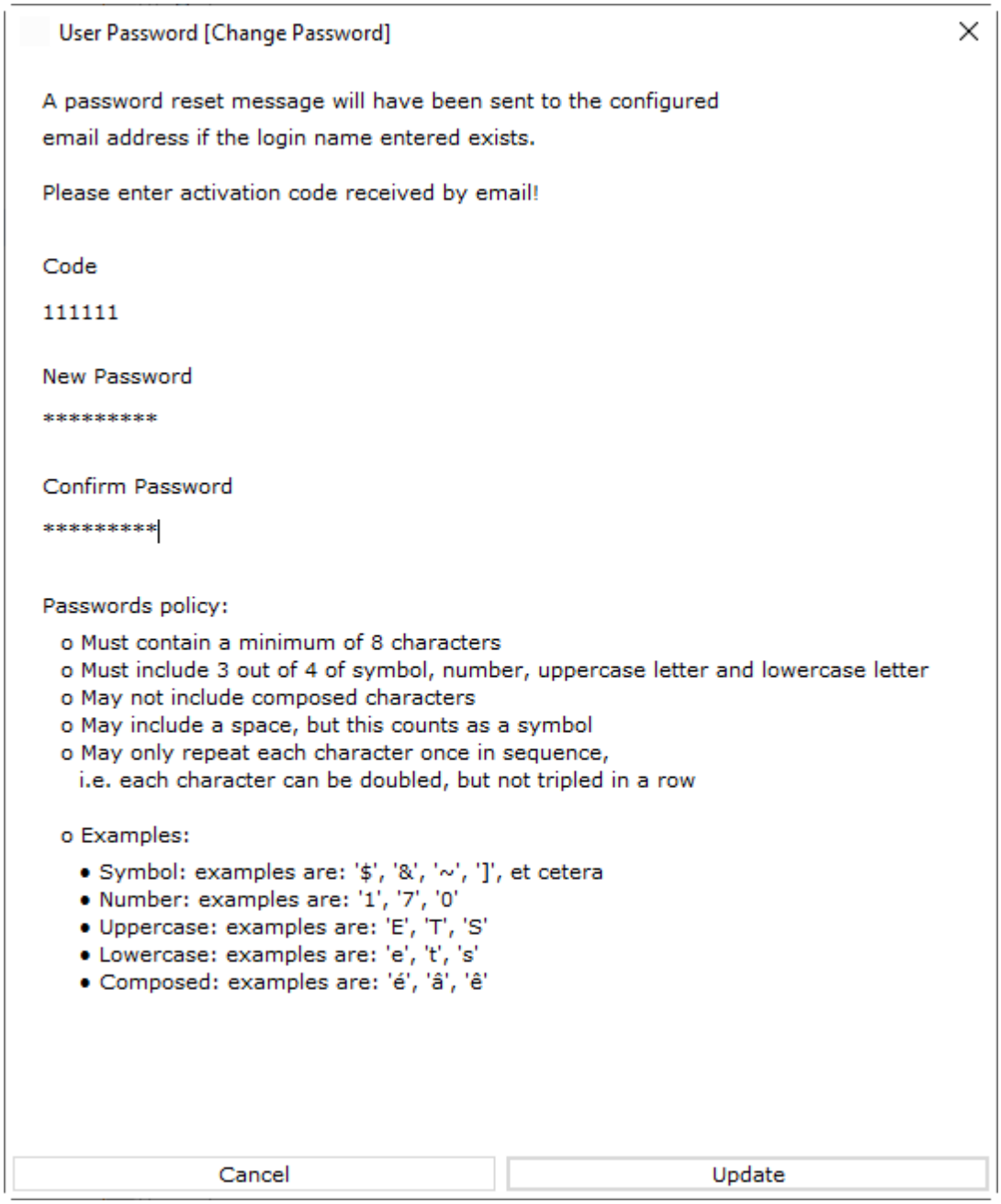
Please note that the Reset Password functionality can only be used when Not logged in, and a password has been associated to your account login.

After selecting the Reset Password option, enter your username as usual.

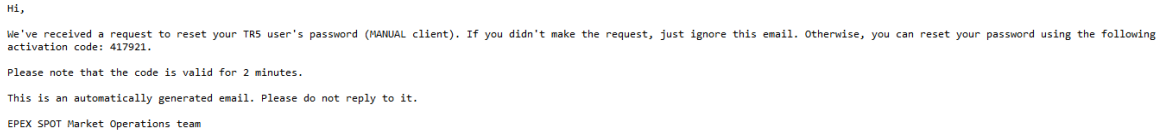


Press the **Reset pwd** button.

Copyright Soops b.v.



An email will be sent to the email account provided to the exchange for such occurrences, containing an Activation Code. Please consult market operations if no email was received.
Please note that the **Activation Code** will only be valid for a limited time.



Hi,

We've received a request to reset your TR5 user's password (MANUAL client). If you didn't make the request, just ignore this email. Otherwise, you can reset your password using the following activation code: 417921.

Please note that the code is valid for 2 minutes.

This is an automatically generated email. Please do not reply to it.

EPEX SPOT Market Operations team

Enter the **Validation Code**, the **New Password** and the **Confirm Password** in the required fields.

Press the **Update** button within the validity period of the request to confirm the change.

A confirmation email will be sent to the same email account as mentioned above.

Copyright Soops b.v.

The new password can immediately be used to log in.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 3

Bid Submission

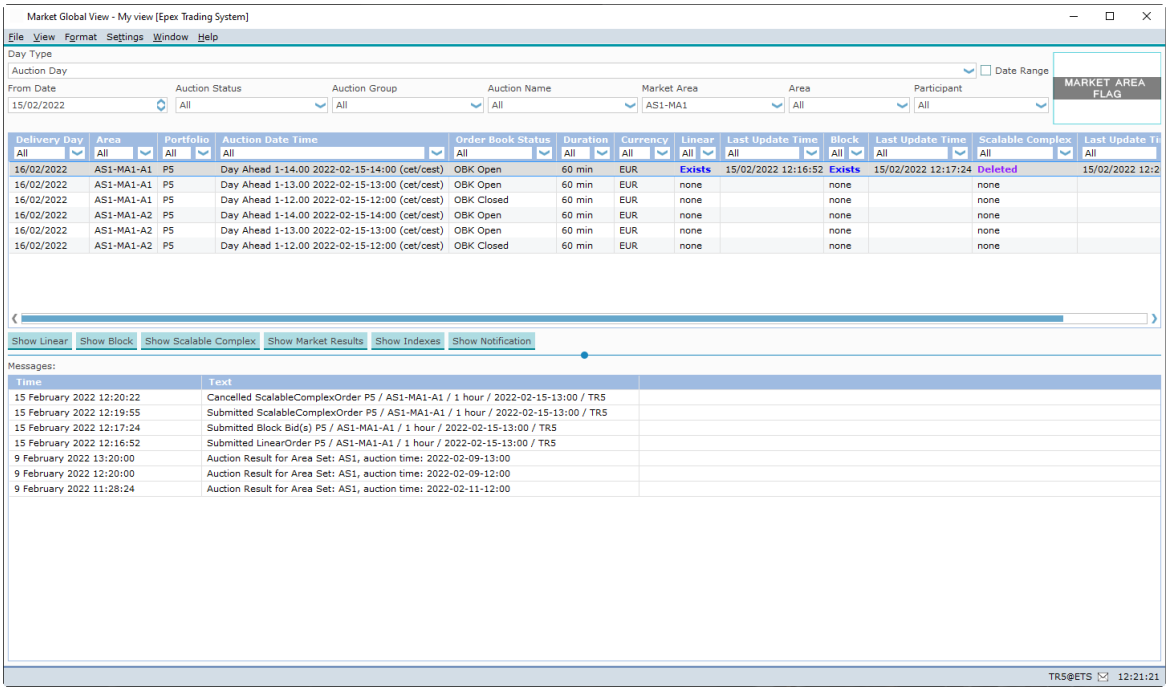
Copyright Soops b.v.

Chapter 3 Bid Submission

3.1 The Market Global View

The **Market Global View** is the main trading interface.

In the upper pane of this screen a user has overview of outstanding bids, and can access bid submission screens as well as the market result screen.



In the lower pane, under **Messages:**, an overview is given of bid submissions and other bid status change messages, as well as the titles of operator messages.

Black colored messages include information about bid submission of portfolios the user has access to, including bids submitted by other users for these portfolios, including operators.

Red colored messages indicate important information, such as Password expiry, Market Result cancellation and receipt of an operator message.

All times displayed are times of receipt by the exchange servers.

The messages pane displays messages up to three days old, i.e today, yesterday and the day before yesterday.

Please note that the messages pane is read only.

Copyright Soops b.v.

Selection Bar

Multiple selections can be made to create a custom view.

Day Type	Selection Box, choose to display Auction Day, or Delivery Day
Date Range	Checkbox, enable to access the **To Date** entry field. By enabling the date range checkbox, it becomes possible to display more than one auction or delivery date in the market global view.
From Date	Start Date Entry field. This date can be altered by clicking the little arrows, to increase the date. This way it is possible to submit bids for delivery further in the future, should the exchange allow this. The date can also be decreased to the past, or today, to give access to market results. Double click the day field to access the calendar screen.
To Date	Only when **Date Range** is enabled. End Date Entry field. This date can be altered by clicking the little arrows, to increase the date. This way it is possible to submit bids for delivery further in the future, should the exchange allow this. The date can also be decreased to the past, or today, to give access to market results. Double click the day field to access the calendar screen.
Auction Status	Selection Box, choose to display either All, or any single auction status
Auction Group	Selection Box, choose to display either All, or any single auction group
Auction Name	Selection Box, choose to display either All, or any single auction name
Market Area	Selection Box, choose to display either All, or any single market area. When a single Market Area is selected, the corresponding Flag is displayed in the upper right corner.
Area	Selection Box, choose to display either All, or any single area
Participant	Selection Box, choose to display either All, or any single participant

Auction Grid (note the filter bar)

Delivery Day	Date display of the product delivery day
Area	Product Area code display
Portfolio	Portfolio account
Auction Date Time	Auction Name and Timestamp the auction will run (exchange timezone)
Order Book Status	Current state of the Order Book of the Auction Date Time. Can be Finished, Idle, OBK Close, OBK Open, Published
Duration	Auction period duration, 15 min, 30 min or 60 min
Currency	Area Settlement Currency
Linear	Indicator Linear Bid presence, can be **Exists**, **Deleted** or none. Physical Delivery Bids are indicated here with **Not Confirmed** or **Confirmed** status
Last Update Time	Timestamp (exchange timezone) of last linear bid modification
Block	Indicator Block Bid presence, can be **Exists** or none
Last Update Time	Timestamp (exchange timezone) of last block bid modification
Scalable Complex	Indicator Scalable Complex Bid presence, can be **Exists**, **Deleted** or none. For 15 and 30 min period durations N/A will be displayed
Last Update Time	Timestamp (exchange timezone) of last complex bid modification
Mkt Results	Indicator Market Result presence, can be **Available** (orange for preliminary), **Available** (green for final), or none

The Market Global View will display any normal state with the Suspended extension added when the bids are affected by the Emergency member stop.

The data in the auction grid is interactive.

Copyright Soops b.v.

Double-click on Linear, Block or Scalable Complex field to immediately access the bid entry for the selected bid format on the selected auction.

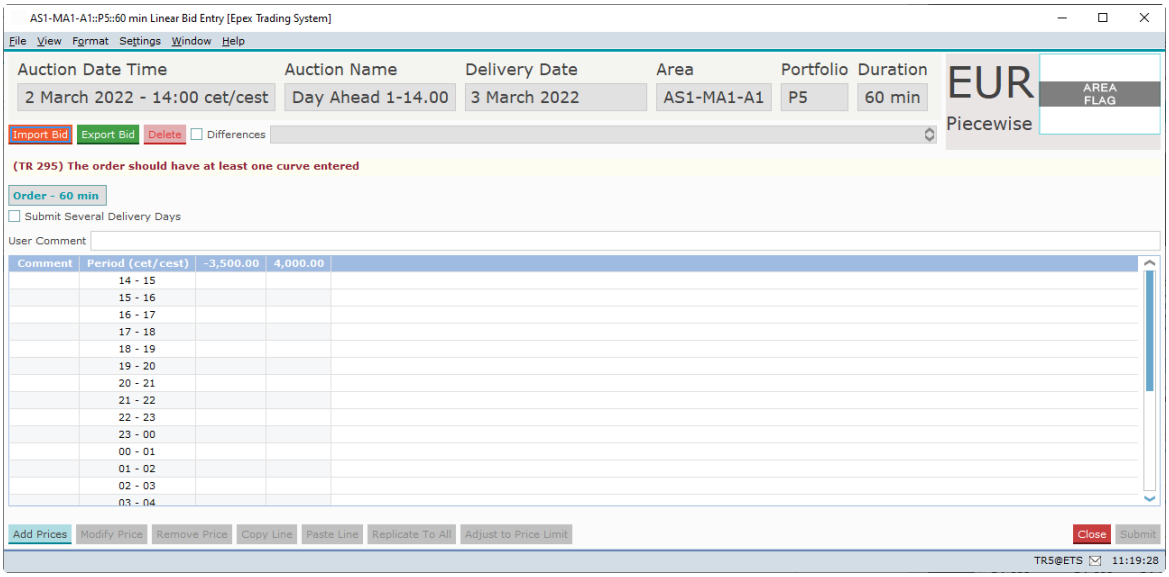
Buttons

Show Linear	Click to open the Linear Bid Entry screen for the selected Auction. When a bid already exists, it will open that bid.
Show Block	Click to open the Block Bid Entry screen for the selected Auction. When a bid already exists, it will open that bid.
Show Scalable Complex	Click to open the Scalable Complex Bid Entry screen for the selected Auction. When a bid already exists, it will open that bid.
Show Market Results	Click to open the Market Results screen for the selected Auction.
Show Indexes	Click to open the Indexes screen for the selected Auction. If no index exists yet, the default Index screen will open.

Copyright Soops b.v.

3.2 Linear Bids

The **Linear Bid Entry** screen can be accessed via the Show Linear button of the Market Global View screen.
Alternatively, double-click the Linear field you wish to open a Linear Bid screen for.



As depicted in the example above, the Linear Bid Entry screen is opened with the delivery date, area and portfolio set.

Click the Submit Several Delivery Days option to create bids for a range of days.
Click the option again to revert to single day entry.

The Import Bid button pastes information from the windows clipboard into the Linear Bid Entry screen.
Note that the Submit button must be pressed to submit the imported volumes to the exchange.
For valid Excel information, please consult Appendix F.

The Export Bid button exports the information in the Linear Bid Entry screen to a *.csv* file.
For an example of the exported result, please consult Appendix F.

The Delete button sets all volumes for each price column to 0.0. A confirmation dialog will be presented to verify the action.
Note that the **Submit** button must be pressed to submit the zeroed volumes to the exchange.

The **Differences** checkbox, if enabled, highlights volumes that are different from the active version of the Linear Bid. Use the selection box placed on the right side of the checkbox to move through the versions of the Linear Bid.

A **Flag**, depicting the Area it belongs to is displayed as a visual aid. The flag is read only and offers no functionality.
Next to the Flag, the **Order Type** and the **Portfolio-Area Currency** is displayed. These are also read only.

Copyright Soops b.v.

Click the Submit button to send the bid to the exchange. A confirmation dialog can optionally be set in the settings.

Click the Close button to close the Linear Bid entry screen. This action will loose all modifications. A confirmation dialog can optionally be set in the settings.

3.2.1 Order Types

Currently, two different order types can be offered as linear orders, either Piecewise or Stepwise. The supported order type for a Market Area is displayed next to the flag in the order submission screens.

Both Piecewise and Stepwise can be offered for 15 minute, 30 minute and 60 minute period durations.

Please refer to your market rules regarding availability of described functions.

For a definition of the order types, please see Appendix D, Glossary.

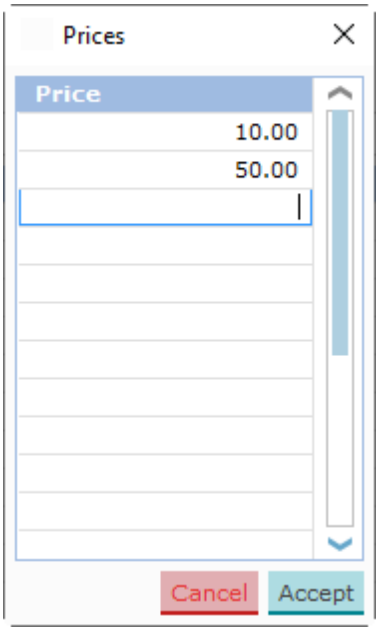
Copyright Soops b.v.

3.2.2 Manual Entry

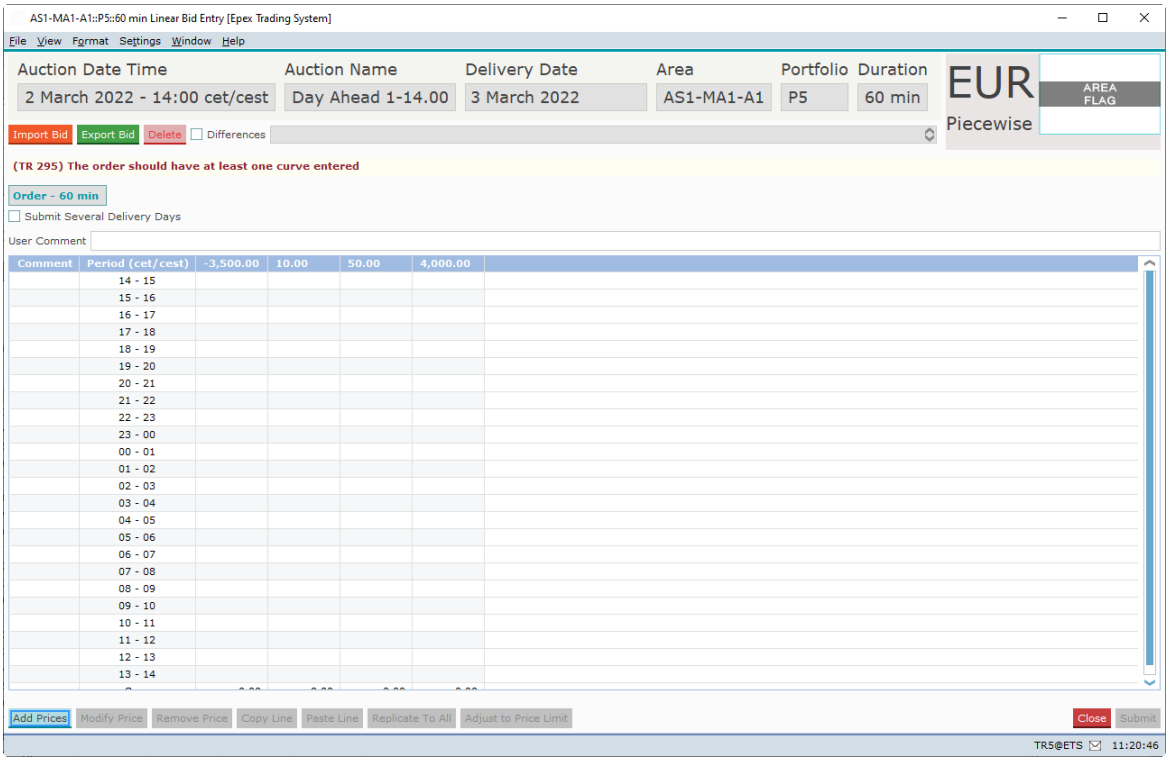
Enter values in the comment fields, for each period. This is optional.

The minimum and maximum price columns are displayed by default. The volumes for these prices are mandatory if volumes for other prices are entered.

To add additional price columns, click the **Add Prices** button to access the price entry dialog.



Enter prices in the dialog you wish to include in the bid.



Copyright Soops b.v.

In each field in the data grid now volumes can be entered, subject to the exchange validation rules.

The Adjust to Price Limit button will modify the entries in the Linear Bid Entry screen in such a way that the order complies with the Trading Limits, if possible.
Please see the Adjust to Price limit chapter for details about the button.

In the **User Comment:** field a comment can be entered.
Allowed characters are: space, A-Z, a-z, 0-9 and ! # $ % & ' ( ) * + , - . ; = ? @ [ ] ^ _ ` { } ~

Please note:

On **Daylight Saving Days** the Linear Bid entry screen will behave slightly different, in that there will be grayed out period(s) in March for the 23 hour day and extra period(s) in October for the 25 hour day.

Click the Submit button to send the bid to the exchange. A confirmation dialog can optionally be set in the settings.
Click the Close button to close the Linear Bid entry screen. This action will loose all modifications. A confirmation dialog can optionally be set in the settings.

3.2.2.1 Buttons

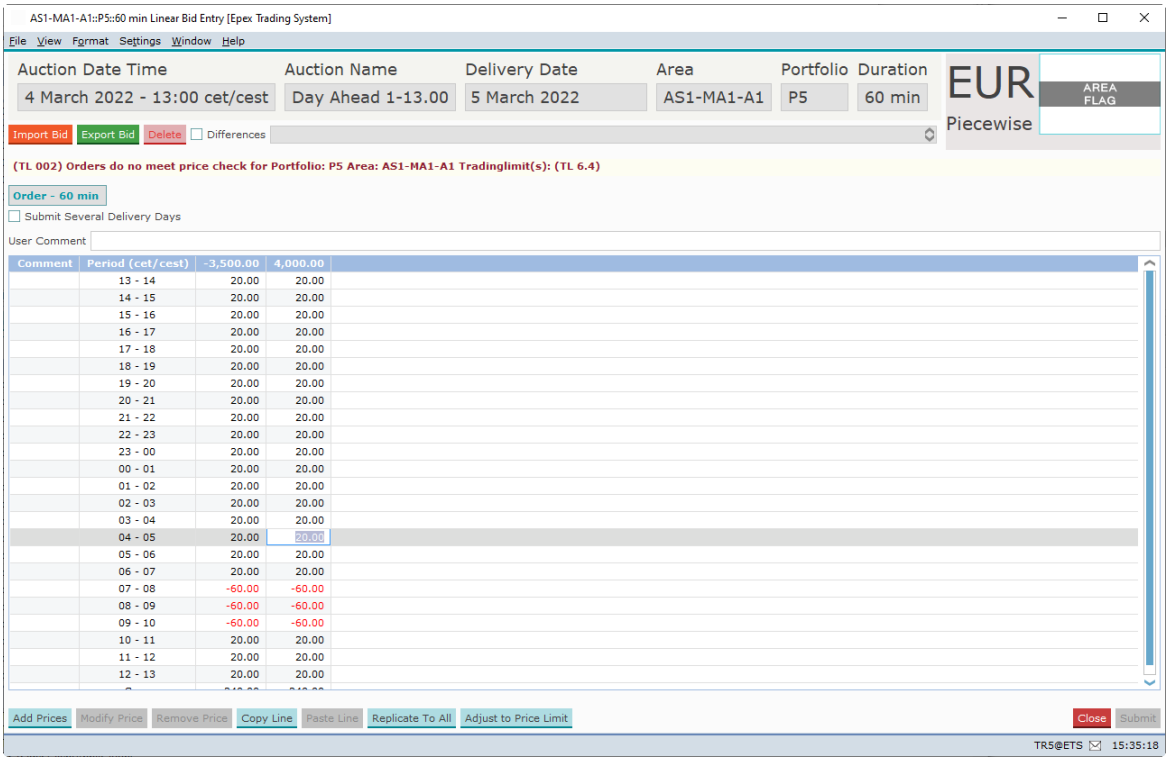
In the Linear Bid Entry screen, several buttons offer additional functionality.

Add Prices	Gives access to the **Add Prices** dialog
Modify Price	Select the **Price** column header to be modified and click the **Modify Price** button. Gives access to the Modify Price dialog
Remove Price	Select the **Price** column header to be removed and click the **Remove Price** button. Instantly removes the selected price
Copy Line	Select a **Volume** row and click the **Copy** button.
Paste Line	Select a **Volume** row and click the **Paste** button. Pastes the Copied values in the selected row.
Replicate To All	Select a **Volume** field and click the **Replicate to All** button. The quantities contained in the row are replicated to all other periods of the auction.

Copyright Soops b.v.

3.2.2.2 Adjust to Price Limit

In the Linear Bid Entry screen the Adjust to Price Limit button will become enabled when a bid is created that violates one or more price limits which are defined with Trading Limits.



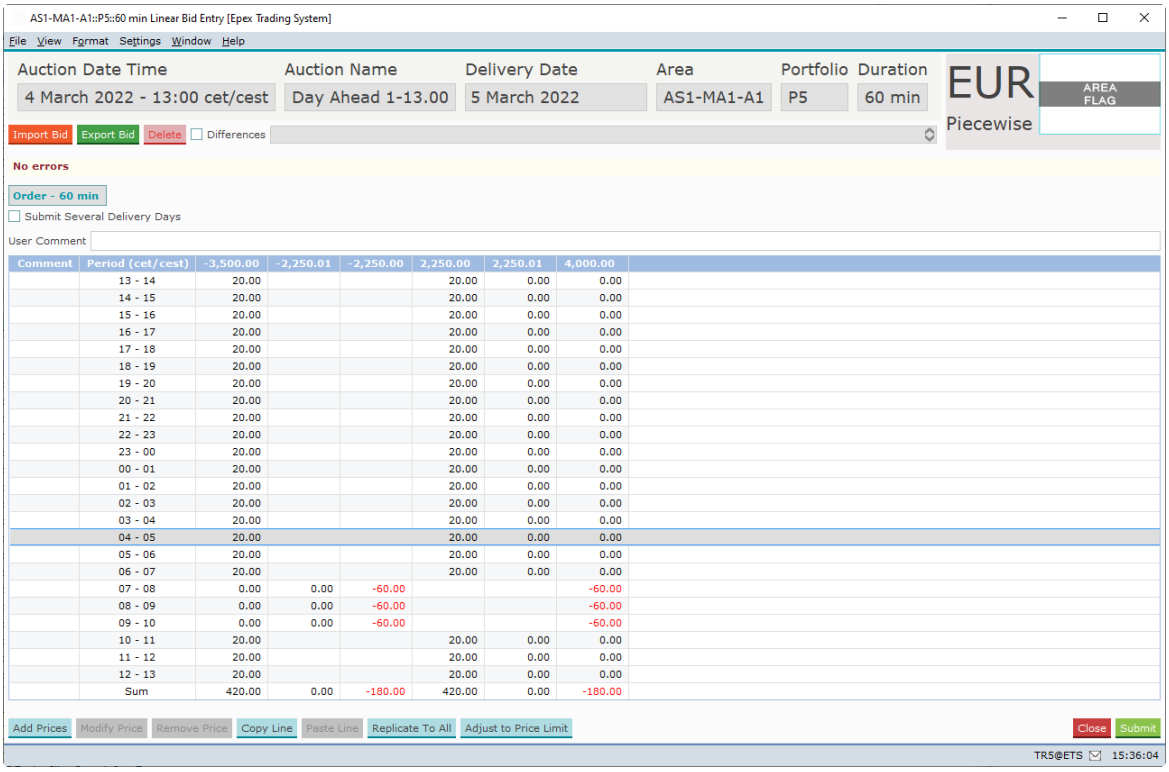
Note the red message below the **Import B**id button, and the enabled button.

When the Adjust to Price Limit button is clicked then the order displayed in the screen is adjusted to fit the hard price cap of the most restricting active trading limit.

Copyright Soops b.v.

Piecewise:

The same bid as above could result in the bid below if a Trading Limit exists for this participant. Let us assume that for Area AS1-MA1-A1, P_{min} = -3500€ and P_{max} = 4000€, and that Portfolio P5 has P_{min_TL} = -2250€ and P_{max_TL} = 2250€:



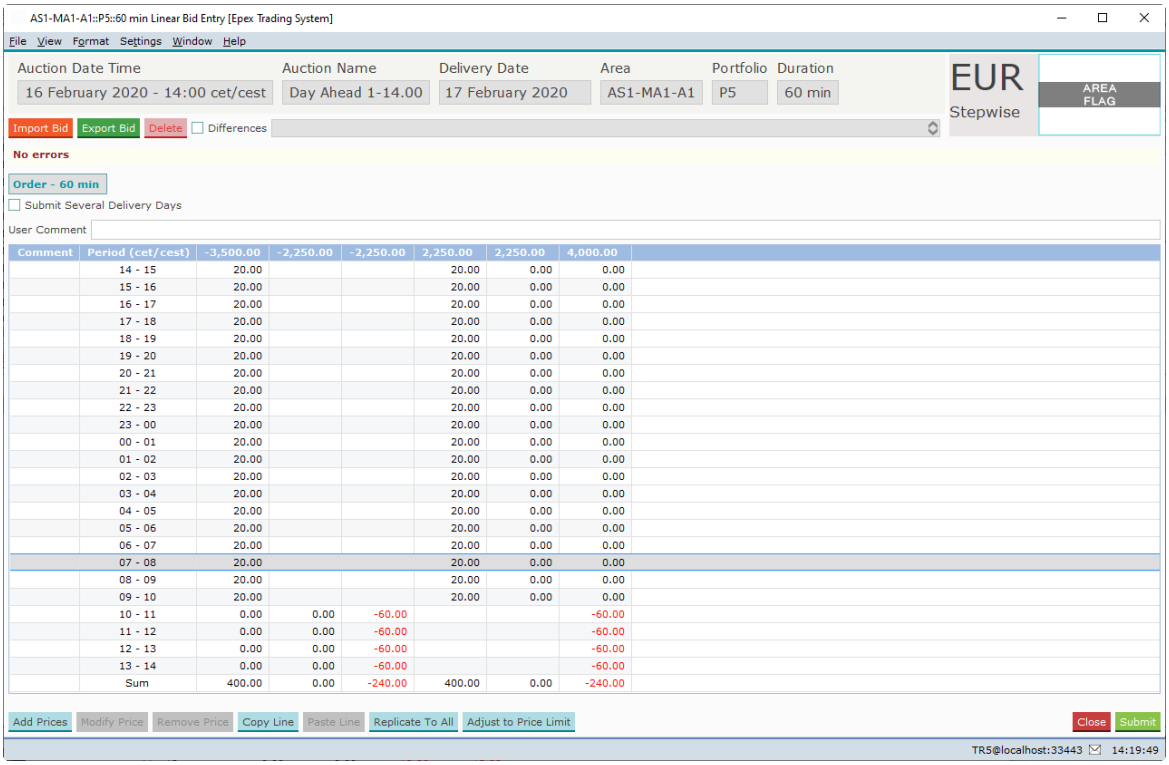
Comment	Period (cet/cest)	-3,500.00	-2,250.01	-2,250.00	2,250.00	2,250.01	4,000.00
	13 - 14	20.00			20.00	0.00	0.00
	14 - 15	20.00			20.00	0.00	0.00
	15 - 16	20.00			20.00	0.00	0.00
	16 - 17	20.00			20.00	0.00	0.00
	17 - 18	20.00			20.00	0.00	0.00
	18 - 19	20.00			20.00	0.00	0.00
	19 - 20	20.00			20.00	0.00	0.00
	20 - 21	20.00			20.00	0.00	0.00
	21 - 22	20.00			20.00	0.00	0.00
	22 - 23	20.00			20.00	0.00	0.00
	23 - 00	20.00			20.00	0.00	0.00
	00 - 01	20.00			20.00	0.00	0.00
	01 - 02	20.00			20.00	0.00	0.00
	02 - 03	20.00			20.00	0.00	0.00
	03 - 04	20.00			20.00	0.00	0.00
	04 - 05	20.00			20.00	0.00	0.00
	05 - 06	20.00			20.00	0.00	0.00
	06 - 07	20.00			20.00	0.00	0.00
	07 - 08	0.00	0.00	-60.00			-60.00
	08 - 09	0.00	0.00	-60.00			-60.00
	09 - 10	0.00	0.00	-60.00			-60.00
	10 - 11	20.00			20.00	0.00	0.00
	11 - 12	20.00			20.00	0.00	0.00
	12 - 13	20.00			20.00	0.00	0.00
	Sum	420.00	0.00	-180.00	420.00	0.00	-180.00

Copyright Soops b.v.

Stepwise:

The same bid as above could result in the bid below if a Trading Limit exists for this participant.

Let assume that for Area AS1-MA1-A1, P_{min} = -3500€ and P_{max} = 4000€, and that Portfolio P5 has P_{min_TL} = -2250€ and P_{max_TL} = 2250€:



Comment	Period (cet/cest)	-3,500.00	-2,250.00	-2,250.00	2,250.00	2,250.00	4,000.00
	14 - 15	20.00			20.00	0.00	0.00
	15 - 16	20.00			20.00	0.00	0.00
	16 - 17	20.00			20.00	0.00	0.00
	17 - 18	20.00			20.00	0.00	0.00
	18 - 19	20.00			20.00	0.00	0.00
	19 - 20	20.00			20.00	0.00	0.00
	20 - 21	20.00			20.00	0.00	0.00
	21 - 22	20.00			20.00	0.00	0.00
	22 - 23	20.00			20.00	0.00	0.00
	23 - 00	20.00			20.00	0.00	0.00
	00 - 01	20.00			20.00	0.00	0.00
	01 - 02	20.00			20.00	0.00	0.00
	02 - 03	20.00			20.00	0.00	0.00
	03 - 04	20.00			20.00	0.00	0.00
	04 - 05	20.00			20.00	0.00	0.00
	05 - 06	20.00			20.00	0.00	0.00
	06 - 07	20.00			20.00	0.00	0.00
	07 - 08	20.00			20.00	0.00	0.00
	08 - 09	20.00			20.00	0.00	0.00
	09 - 10	20.00			20.00	0.00	0.00
	10 - 11	0.00	0.00	-60.00			-60.00
	11 - 12	0.00	0.00	-60.00			-60.00
	12 - 13	0.00	0.00	-60.00			-60.00
	13 - 14	0.00	0.00	-60.00			-60.00
	Sum	400.00	0.00	-240.00	400.00	0.00	-240.00

Copyright Soops b.v.

3.2.3 Excel Import

Select and copy the data in Excel to be pasted into the Linear Bid Entry screen.

Click the Import Bid button.

Depending on the information in the Excel paste buffer, additional price columns will be created and filled with their volumes.

Please note that the validation framework can prevent the paste if the data contained in the paste buffer is invalid.
In such a case a list of validation messages is displayed.
For examples of legitimate paste formats, please consult Appendix F.

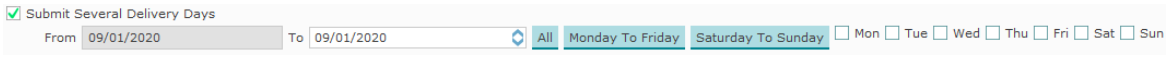
Manual modification of the data pasted is possible as described in the previous chapter, Manual Entry.

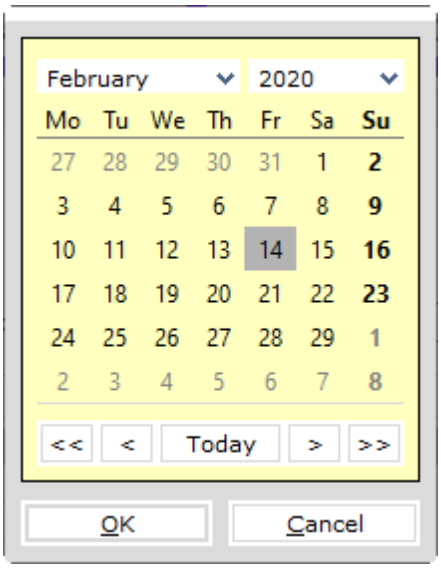
Copyright Soops b.v.

3.2.4 Linear Bid Submission for Several Days

The Submit Several Delivery Days option allows entry of a range of delivery days, for which the Linear Bids can then be submitted in one action.
Clicking the checkbox again will return to the single day entry mode.

The bids will then be identical for each delivery date, but will be further handled as independent bids.





The **To** entry field can be double-clicked to access the **Calendar screen.** Select the date in the calendar screen and click the OK button to set the date in the To field.
The date can also manually be typed into the To field. Note that the little arrows in the To field can be clicked to in- or decrease the date as well.

The All button will, within the range set by the From: and To: fields, enable all days.

The Monday To Friday button will, within the range set by the From and To fields, enable all week days.

The Saturday To Sunday button will, within the range set by the From and To fields, enable all weekend days.

The check boxes for each day of the week allow for manual selection of the corresponding day, within the range set by the From and To fields. Thus for submission entries need to be included in both the date range and the selected days.

Upon submission of a Linear Bid, the bid will be submitted for all selected delivery days, subject to exchange validation rules. It is for instance not possible to submit bids for a date that is not (yet) open for trade.

If the range of days includes a **Daylight Saving Day**, either the obsolete period(s) will be ignored, or the extra period(s) will be copied from the previous hour.

Copyright Soops b.v.

3.2.5 Linear Bid Submission in several steps

Step-by-step guide to create a submitted Linear bid.

1. Open the Market Global View	Menu option View -> Market Global View
2. Open the Linear Bid submission screen	Double-click the Last Update Time field next to the Linear column for date, area and portfolio or Select the Last Update Time field next to the Linear column for date, area and portfolio. Click button Show Linear
3. For Submission for Several Days	Click checkbox Submit Several Days Set Delivery Day Range to include in bid
4. Import data from Excel	Copy data from Excel and click the Import Bid button to paste into Linear Bid screen
5. Manual data entry	Enter comments Click button Add Prices In the Dialog, enter all prices to be included in Linear Bid Press Accept Enter volumes into each desired Price/Volume field
6. Enter Comments if desired	
7. Resolve any validation issues reported	Submission is only possible with a valid Bid
8. Press Submit	The Bid is sent to the market

Copyright Soops b.v.

3.2.6 Linear Bid Modification

It is possible to modify an existing Linear Bid, as long as the auction has not closed yet.

If this modified bid is sent to the market, it will become the active version of the bid, replacing the previous version. This way, only one version of a bid can ever be active and therefore present in the market. A maximum of 200 versions of the same bid can be submitted. If this limit is reached, contact market operations for further assistance if needed.

In order to better distinguish between the various states a bid can have, a background color scheme was introduced, as well as the **Differences** option.

Possible Linear Bid States:

Initial

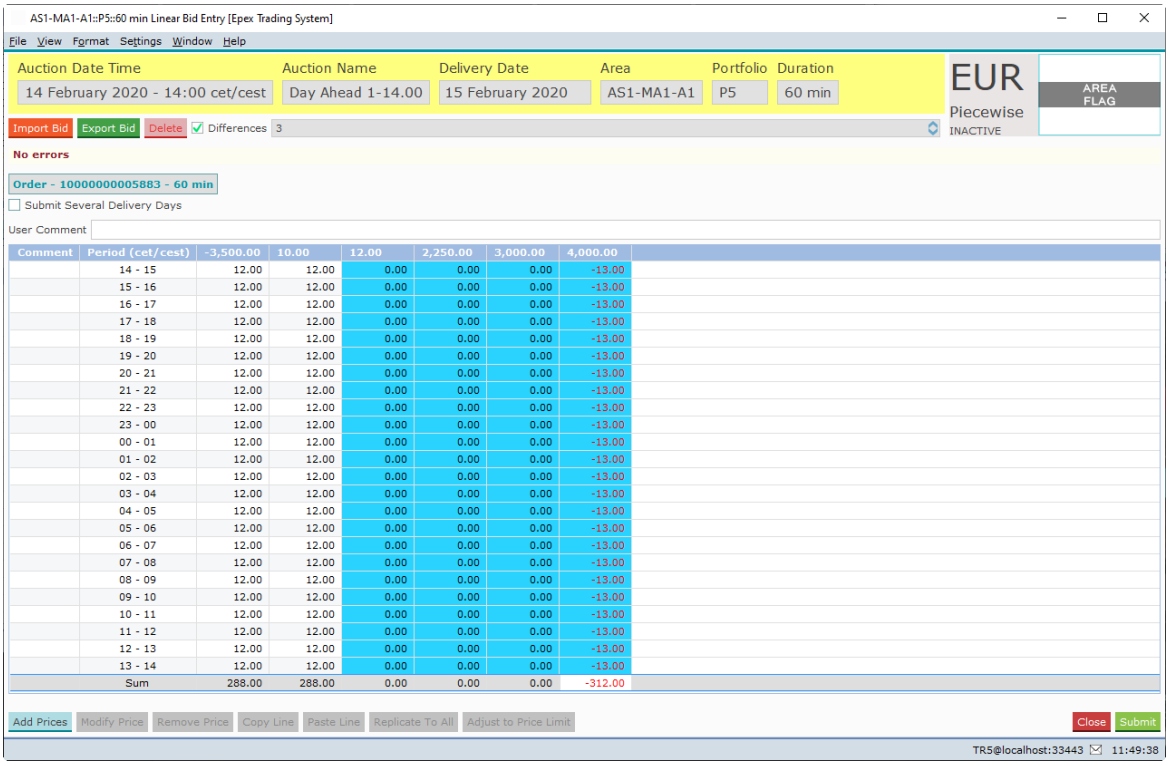
Active

Inactive

Deleted

Suspended

If the **Differences** option is enabled, a blue highlight will indicate differences within the bid grid, in comparison with the Active version of this bid.



In the example above, the blue colored columns apparently contain different volume values as are present in the active version of the bid.

Copyright Soops b.v.

Note that by using the

option, you can scroll through the various versions of the Linear Bid.

Copyright Soops b.v.

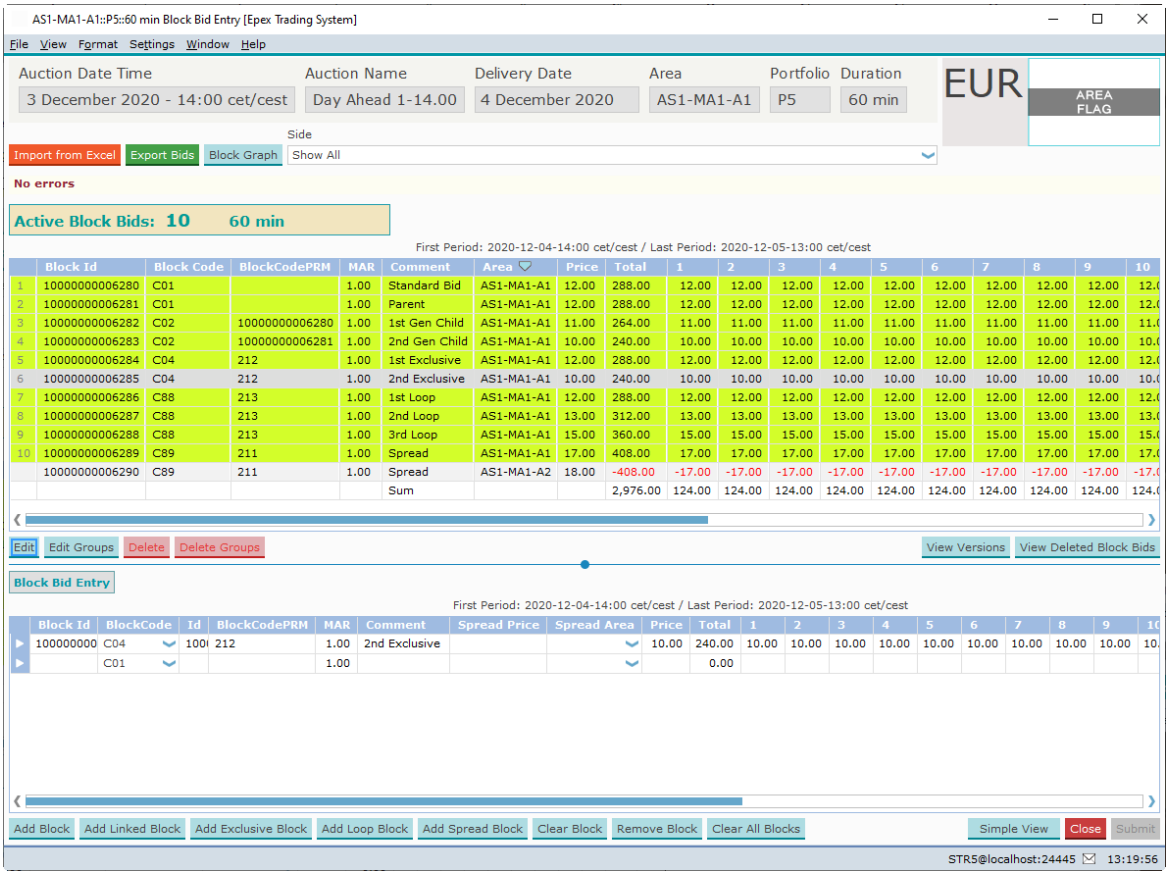
3.3 Block Bids

The **Block Bid Entry** screen can be accessed via the Show Block button of the Market Global View screen.
Alternatively, double-click the Block field you wish to open a Block Bid screen for.

Note that Standard Block Bid (C01), Linked Family Block Bid (C02), Exclusive Group Block Bid (C04), Loop Family Block Bid (C88) and/or Spread Family Block Bid (C89) might not be available for your exchange.
Please refer to your market rules to find the products available to you.

Copyright Soops b.v.

3.3.1 Order Types



As depicted in the example above, the Block Bid Entry screen is opened with the delivery date, area and portfolio.

Copyright Soops b.v.

Click the Submit button to send the bid to the exchange. A confirmation dialog can optionally be set in the settings.

Click the Close button to close the Block Bid entry screen. This action will loose all modifications. A confirmation dialog can optionally be set in the settings.

The Import from Excel button pastes information from the windows clipboard into the Block Bid Entry screen.
For valid Excel information, please consult Appendix F.

The Export Bids button exports the information in the Block Bid Entry screen to Excel.
For an example of the exported result, please consult Appendix F.

The **Show side:** option allows for selection of displaying All Block bids, only Purchase block bids or only Sale block bids.

The **Active Block Bids** pane displays all block bids currently active for the set auction and delivery date, area and portfolio, per duration period.
Please note the First and Last period indication just above the Bid Grid.

First Period: 2017-04-26-14:00 cet / Last Period: 2017-04-27-13:00 cet

Note:
After creating a spread family, the 2 blocks belonging to different areas are visible on the Active Block Bids pane. The one not belonging to this area is grayed out to indicate its non affiliation to this area.

Please note that it is possible to multi-select Active Block Bids by holding the CTRL or SHIFT key while selecting the Bids with the mouse.

	Sequence number in this overview only
Block Id	Actual Identifier Number of the Block Bid
Block Code	Identifies the kind of Block Bid C01 = Standard Block Bid C02 = Linked Family Block Bid C04 = Exclusive Group Block Bid C88 = Loop Family Block Bid C89 = Spread Family Block Bid
BlockCodePRM	Block Code Parameter, must be between 1 and 999.999.999 C01 = Not used C02 = Parent Id(s), underscore separated, used to create family structure C04 = Group Id, each bid with the same BlockCodePRM is part of the same exclusive group C88 = Group Id, each bid with the same BlockCodePRM is part of the same loop family C89 = Group Id. each bid with the same BlockCodePRM is part of the same spread family
MAR	Minimum Acceptance Ratio
Comment	Text comment attached to the Block Bid
Price	Price of the Block Bid
Total	Added Total volume of all periods of a Block Bid
Period number (1-24)	Column containing volume for each period number of the Block Bid
Sum	Added Total volume for each period over all Active Block Bids

Copyright Soops b.v.

Select an Active Block Bid and click on one of the following buttons.

Copyright Soops b.v.

Edit

The Edit option pastes the selected Active Block Bid data into the Block Bid Entry pane, ready to be modified.
Please note that this option constitutes a bid modification, and will retain the same Block Id.

Edit Groups

The Edit Groups option pastes the selected Active Block Bid data, along with all other block bids from the same group, into the Block Bid Entry pane, ready to be modified.
Please note that this option constitutes a bid modification, and will retain the same Block Id. Each member of the group can be modified independently.

Delete

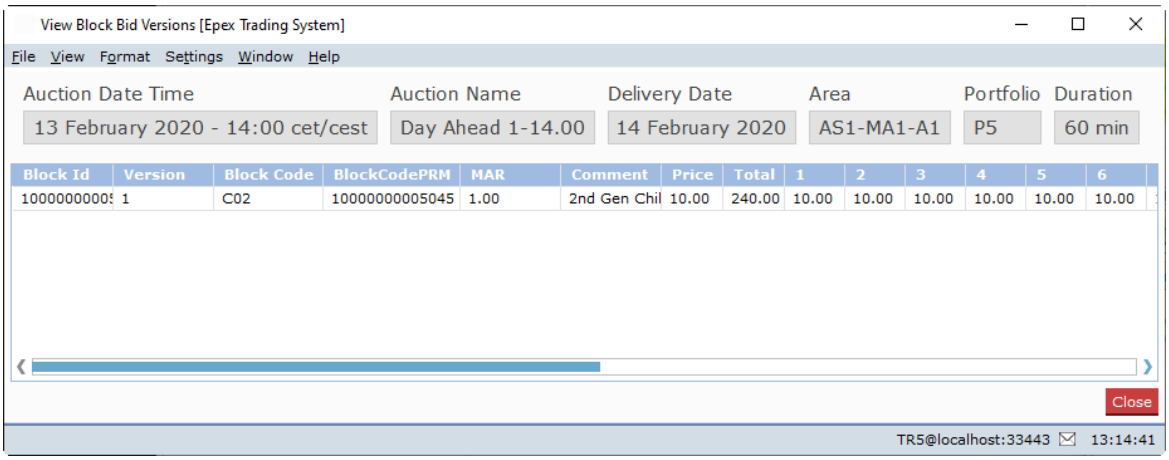
The Delete option allows for withdrawing the selected Active Block Bid from the exchange.
Please note that this action triggers a confirmation dialog, requesting acceptance of the action.
Once confirmed, the withdrawal of the Bid is irrevocable.
Note that it is not possible to delete a Block Bid which has children still.

Delete Groups

The Delete Groups option allows for withdrawing the selected Active Block Bid, along with all other members of its group, from the exchange.
Please note that this action triggers a confirmation dialog, requesting acceptance of the action.
Once confirmed, the withdrawal of the Bid Group is irrevocable.

View Versions

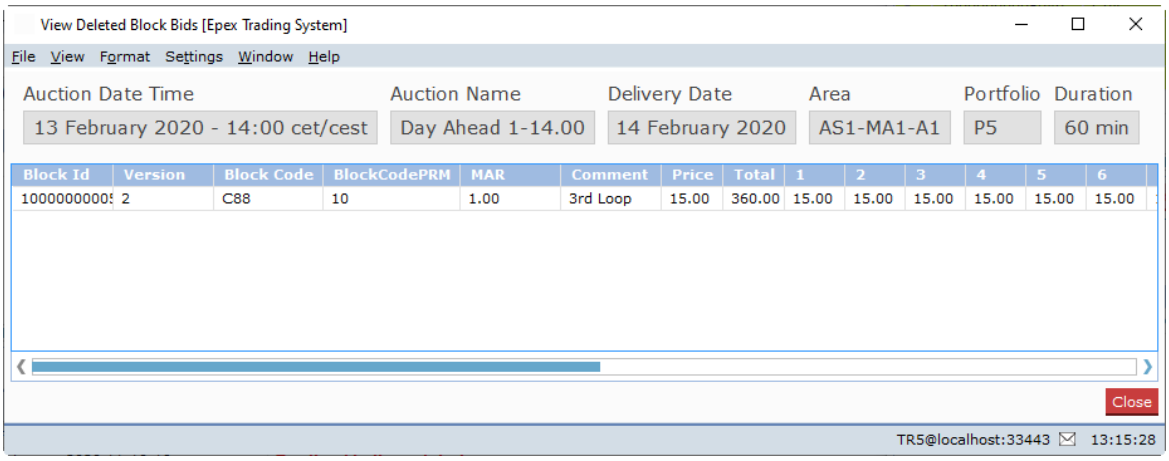
While the last, active version of a Block Bid is always displayed in the Active Block Bid view, the previous versions of these Block Bids are still available for view.
Select an active Block Bid in the upper pane and select View Versions to access the previous versions of the same Block Bid. This view is read only, but has an Export to Excel function.



Copyright Soops b.v.

View Deleted Block Bids

Only active versions of Block Bids are displayed in the Active Block Bid view, but any canceled versions of Block Bids are still available for view.
Select View Deleted Block Bids to view any canceled Block Bids. This view is read only, but has an Export to Excel function.



Copyright Soops b.v.

3.3.2 Manual Entry

In the lower **Block Bid Entry** pane new Block Bids can be created, or existing Block Bids modified.

When Spread Blocks are available for your portfolio-area, the Spread Price and Spread Area columns will become available, also when only any other Block Bid is to be entered.
These two new entry fields are only required to be filled when creating a Spread Block Bid however.
When no Spread Blocks are available for your portfolio-area, the entry rules below apply as normal.

There are two views, which can be toggled by clicking the Simple View **or** Extended View buttons.

The **Extended View without Spread:**

	Block Id	BlockCode	Id	BlockCodePRM	Comment	Price	Total	1	2	3	4	5	6	7	8	9	10	11
▶	73	C01	73		Standard Bid	12.00	288.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

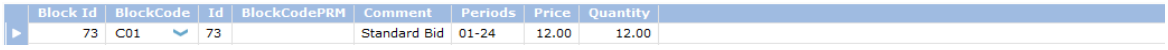
The **Extended View with Spread:**

	Block Id	BlockCode	Id	BlockCodePRM	MAR	Comment	Spread Price	Spread Area	Price	Total	1	2	3	4	5	6	7	8
▶	5	C89	5	1	1.00	Spread	18.00	AS1-MA1-A2	17.00	144.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

	Indicator column for active row
Block Id	Actual Identifier Number, only available for an active bid modification, assigned by system
BlockCode	Identifies kind of Block Bid, select from: C01 = Standard Block Bid C02 = Linked Family Block Bid C04 = Exclusive Group Block Bid C88 = Loop Family Block Bid C89 = Spread Family Block Bid
Id	Temporary Id, only used to connect family and/or linked Block Bids This Id will be re-assigned by the system after submission Must be between 1 and 999.999.999
BlockCodePRM	Block Code Parameter, must be between 1 and 999.999.999 C01 = Not used C02 = Parent Id(s), underscore separated, used to create family structure C04 = Group Id, each bid with the same BlockCodePRM is part of the same exclusive group C88 = Group Id, each bid with the same BlockCodePRM is part of the same loop family C89 = Group Id, not mandatory. Each bid with the same BlockCodePRM is part of the same spread family
MAR	Minimum Acceptance Ratio, percentage. 1.00 = 100%, 0.01 = 1%, etc.
Comment	Enter text comment to be attached to the Block Bid
Spread Price	Only for Spread Bids. Enter the price of the opposing spread block bid Area. Must be left empty for non C89 Bids
Spread Area	Only for Spread Bids. Select the opposing spread block bid Area. Must be left empty for non C89 Bids
Price	Enter Price for the Block Bid
Total	Automatically filled. Total of all period Volumes
Period number (1-24)	Enter Volume for the periods in the corresponding columns

The **Simple View without Spread:**

Copyright Soops b.v.



Block Id	BlockCode	Id	BlockCodePRM	Comment	Periods	Price	Quantity
73	C01	73		Standard Bid	01-24	12.00	12.00

The **Simple View with Spread:**

Block Id	BlockCode	Id	BlockCodePRM	MAR	Comment	Periods	Spread Price	Spread Area	Price	Quantity
5	C89	5	1	1.00	Spread	01-12	18.00	AS1-MA1-A2	17.00	12.00

	Indicator column for active row
Block Id	Actual Identifier Number, only available for an active bid modification, assigned by system
BlockCode	Identifies kind of Block Bid, select from: C01 = Standard Block Bid C02 = Linked Family Block Bid C04 = Exclusive Group Block Bid C88 = Loop Family Block Bid C89 = Spread Family Block Bid
Id	Temporary Id, only used to connect family and/or linked Block Bids This Id will be re-assigned by the system after submission Must be between 1 and 999.999.999
BlockCodePRM	Block Code Parameter, must be between 1 and 999.999.999 C01 = Not used C02 = Parent Id(s), underscore separated, used to create family structure C04 = Group Id, each bid with the same BlockCodePRM is part of the same exclusive group C88 = Group Id, each bid with the same BlockCodePRM is part of the same loop family C89 = Group Id, not mandatory. Each bid with the same BlockCodePRM is part of the same spread family
MAR	Minimum Acceptance Ratio, percentage. 1.00 = 100%, 0.01 = 1%, etc.
Comment	Enter text comment to be attached to the Block Bid
Periods	Sets the range of period numbers, i.e. 14H-13H indicates 60 min periods 14 to 13 next day
Spread Price	Only for Spread Bids. Enter the price of the opposing spread block bid Area. Must be left empty for non C89 Bids
Spread Area	Only for Spread Bids. Select the opposing spread block bid Area. Must be left empty for non C89 Bids
Price	Enter Price for the Block Bid
Quantity	Quantity per period, only displayed if Quantity is identical for each period, otherwise empty

Use any of the following buttons to add, remove or clear bids from the entry pane.

The Add Block button adds an additional Standard Block Bid (C01) entry row to the pane.

The Add Linked Block button adds an additional Linked Block Bid (C02) entry row to the pane.

The Add Exclusive Block button adds an additional Exclusive Block Bid (C04) entry row to the pane.

The Add Loop Block button adds an additional Loop Family Block Bid (C88) entry row to the pane.

The Add Spread Block button adds an additional Spread Family Block Bid (C89) entry row to the pane.

The Clear Block button clears the selected Block Bid entry row from non-submitted data, resetting the Bid to the last submitted state.

Copyright Soops b.v.

The Remove Block button removes the selected Block Bid entry row from the pane, this does not cancel the Block Bid.
The Clear All Blocks button removes all Block Bid entry rows from the pane, except the default empty one. This does not cancel the Block Bid.

Important:
Volumes of 0 are not possible due to business logic restrictions.

Right-click the mouse with the cursor inside the Block Bid Entry pane to access a pop-up menu. This pop-up menu contains the a number of pre-defined **Block Definitions,** both those defined by the exchange, and those defined by yourself in the user settings under Block Definitions. Both can be used as templates for Block Bids.
First select the Block Bid row you wish to use the Block definition template on, then right-click to access the pop-up menu. Select the desired Block Definition to create the Block Bid template, ready to be filled with actual bid volumes and price.

On **Daylight Saving Days** the Block Bid entry screen will behave slightly different, in that there will be grayed out period(s) in March for the 23 hour day and extra period(s) in October for the 25 hour day.

Copyright Soops b.v.

3.3.3 Excel Import

Select and copy the data in Excel to be pasted into the Block Bid Entry screen.

Click the Import Bid button.

Depending on the information in the Excel paste buffer, additional price columns will be created and filled with their volumes.

Please note that the validation framework can prevent the paste if the data contained in the paste buffer is invalid.
In such a case a list of validation messages is displayed.
For examples of legitimate paste formats, please consult Appendix F.

Manual modification of the data pasted is possible as described in the previous chapter, Manual Entry.

3.3.4 Curtailable Blocks

With curtailable block orders, trading participants will be able to submit block orders for which the execution can be total, equal or greater than a minimum acceptance ratio.
By relaxing the execution constraint for a block order, it is more likely that a block order will be executed.

The default value for the MAR (Minimum Acceptance Ratio) of 1.00 is identical to the previous All Or Nothing execution constraint.

A minimum value for the MAR is defined at the Area level by the Exchange.

Note that the MAR has no impact on Trade Limit exposure formulas, i.e. for the Trade Limits a Block Bid is always either fully executed, or fully rejected.

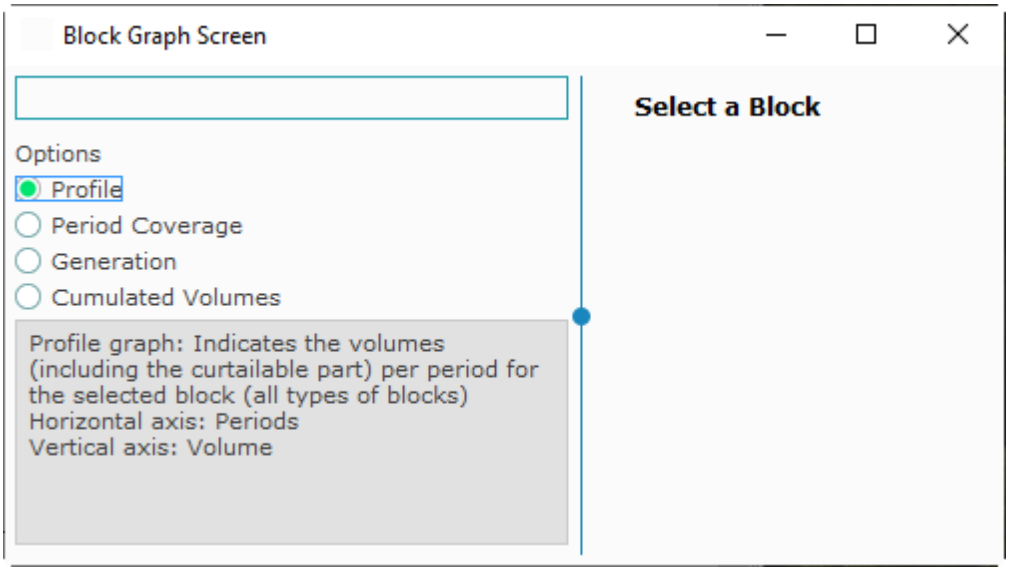
Copyright Soops b.v.

3.3.5 Block Graph

In order to assist in confirming the profile of a block, the Block Graph is available.

Depending on the user settings, the Block Graph will be opened automatically or manually.

Open the Block Graph manually by clicking the Block Graph button in the Block Bid Entry screen. The Block Graph window will open in a separate screen.



When a Block Bid is selected in its parent Block Bid Entry screen, the Block Graph screen will display the Block Graph for the selected Block Bid.
The selected Block Bid, and its group members where applicable, are each displayed in a unique color per block, with the actually selected block being indicated with an extra border.

4 display options can be selected.

Profile:
Indicates the volumes (including the curtailable part) per period for the selected block (all types of blocks).
Horizontal axis: Periods
Vertical axis: Volume

Period Coverage:
Indicates the periods with volume for a group of blocks (all types of blocks).
Horizontal axis: Periods
Vertical axis: Blocks

Generation:
Indicates the parent-children relations (C01/C02).
Horizontal axis: Blocks
Vertical axis: Generation

Cumulated Volume:
Indicates the cumulative volumes per period in a group (C01/C02/C88/C89).
Horizontal axis: Periods
Vertical axis: Volume

Copyright Soops b.v.

Where possible the Block Id is used as an indicator for the separate blocks when submitted, or the Id when a block is selected in the Block Bid Entry pane.

Copyright Soops b.v.

3.3.6 Block Bid Submission in several steps

Step-by-step guide to create a submitted block bid.

1. Open the Market Global View	Menu option View -> Market Global View
2. Open the Block Bid submission screen	Double-click the Last Update Time field following the Block column for date, area and portfolio or Select the Last Update Time field following the Block column for date, area and portfolio. Right-click and select menu option Show Block
3. Import data from Excel	Copy data from Excel and click the Import from Excel button to paste into Block Bid screen
4. In the lower pane, Block Bid Entry	Select the Add Block button to create an additional Standard Block Bid Select the Remove Block button to remove without saving the selected Block Bid
5. Set the Block Bid type	Select the Block Code desired. Please consult here for C01, C02, C04, C88 or C89.
6. Select Extended View or Simple View	Toggle the Simple View / Extended View button to switch between these two views. Any Block Bid data already entered will remain available
7. Create Blocks using Block definitions	Right Click to open menu Manually enter a volume anywhere in the Block Bid Select the desired Block definition. Only the periods within the chosen Block Definition are filled with the just entered volume Enter a Price Enter a Comment, if desired
8. Create Blocks using manual entry	Manually enter a volume in the periods to be included in the Block Bid
9. Resolve any validation issues reported	Submission is only possible with a valid Block Bid
10. Press Submit	The Block Bid is sent to the market

Important:
There is a limit on the number of Block Bids that can be active in the Market Area per Portfolio set by the exchange. If this limit is exceeded, all Block Bids included in the batch that contains the limit exceeding Bid will be rejected by the system. The submitter, as well as the market operators, are informed of the rejection by a Breaking Message, and a message in the lower message pane of the Market Global View.

Copyright Soops b.v.

3.3.6.1 Standard Block Bids (C01)

Standard Block Bids are identified in the Block Code column with code C01.

These Block Bids require no further parameters and are the default selection.

A C01 Block Bid can function as a root parent for linked family block bids.

3.3.6.2 Linked Family Bids (C02)

Linked Family Block Bids are identified in the Block Code column with code C02.

These Block Bids can have multiple parents, as well have multiple children. The maximum number of these relatives are set per Market Area by the exchange.

To identify the relation between the family block bids, the Block Id and BlockCodePRM are used.
Note: The Id has nothing to do with building a family tree.

To make a Block Bid a child of a parent Block Bid (a C01 or a C02 Bid), enter the Block Id of the parent in the BlockCodePRM field of the child.

If more than one parent needs to be set, use '_' (underscore) as separators: i.e. 176_88_1501. This will indicate Block Bids 176, 88 and 1501 all as parents.

A C01 Block Bid can function as a root parent for linked family block bids.
A C02 Block Bid is a child by default, but can also be set as a parent for one or more further C02 Block Bids, up to the maximum set by the exchange.

3.3.6.3 Exclusive Group Bids (C04)

Exclusive Group Block Bids are identified in the Block Code column with code C04.

These Block Bids are grouped together, and only one will be matched. The maximum number of these relatives are set per Market Area by the exchange.

To identify the grouping of these block bids, the BlockCodePRM are used. All C04 Block Bids with the same BlockCodePRM are considered to be part of the same Group.

3.3.6.4 Family Loop Bids (C88)

Family Loop Bids are identified in the Block Code column with code C88.

These Block Bids are grouped together, and either all block orders included in the loop family are executed or all block orders included in the loop family are rejected.
The maximum number of these relatives are set per Market Area by the exchange.

To identify the grouping of these block bids, the BlockCodePRM are used. All C88 Block Bids with the same BlockCodePRM are considered to be part of the same Family Loop.

Note: The Block Id has nothing to do with building a family tree.

Copyright Soops b.v.

3.3.6.5 Spread Family Bids (C89)

Spread Family Block Bids are identified in the Block Code column with code C89.

These Block Bids are grouped together in pairs, but these blocks belong to the same family but are from different areas. Either both block orders included in the spread family are executed or both block orders included in the loop family are rejected, with the same AAR.
Spread Blocks always come in pairs. If one of the pair is created, ETS will automatically create the opposing part of the Spread pair. In the ETS interface the Spread Bid which does not belong to the viewed Area is presented with a grayed out background.

The maximum number of these relatives are set per Market Area by the exchange.

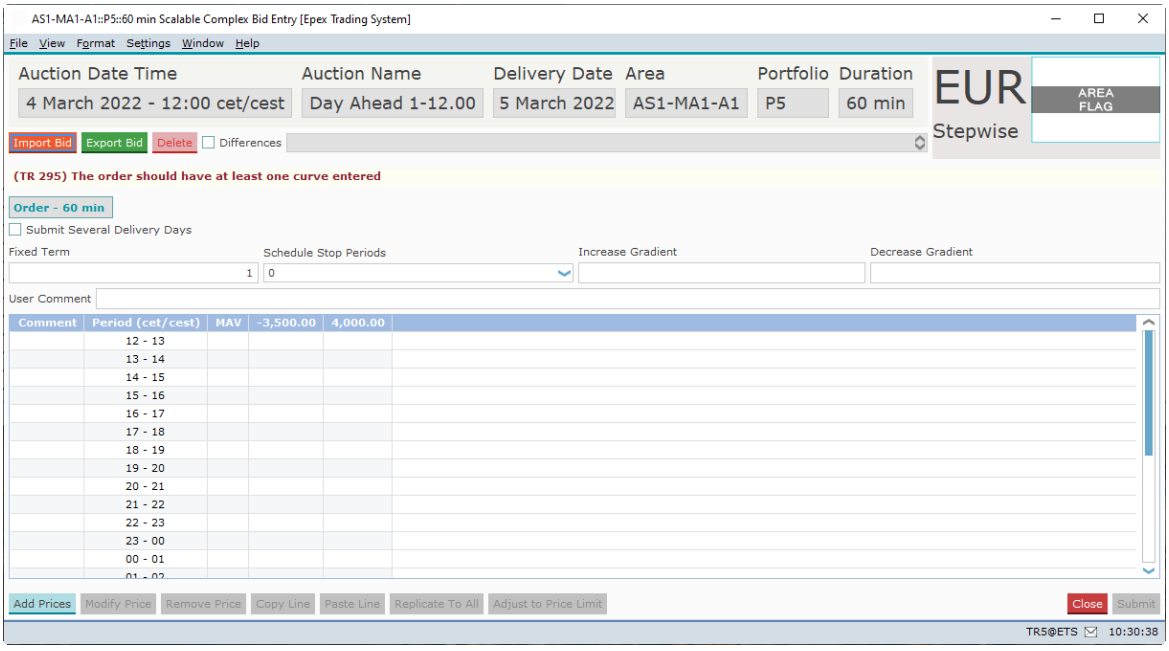
To identify the grouping of these block bids, the BlockCodePRM can be used. Both C89 Block Bids with the same BlockCodePRM are considered to be part of the same Spread Family.

Note: The Block Id has nothing to do with building a family tree.

3.4 Scalable Complex Bids

The **Scalable Complex Bid Entry** screen can be accessed via the Show Scalable Complex button of the Market Global View screen.
Alternatively, double-click the Scalable Complex field you wish to open a Scalable Complex Bid screen for.

Please note that Scalable Complex Bids can only be created for markets with a 15, 30 or 60 minute duration.



As depicted in the example above, the Scalable Complex Bid Entry screen is opened with the delivery date, area and portfolio set.

Copyright Soops b.v.

Click the Submit Several Delivery Days option to create bids for a range of days.
Click the option again to revert to single day entry.

The Import Bid button pastes information from the windows clipboard into the Scalable Complex Bid Entry screen.
Note that the Submit button must be pressed to submit the imported volumes to the exchange.
For valid Excel information, please consult Appendix F.

The Export Bid button exports the information in the Scalable Complex Bid Entry screen to a *.csv* file.
For an example of the exported result, please consult Appendix F.

The Delete button sets all volumes for each price column to 0.0. A confirmation dialog will be presented to verify the action.
Note that the **Submit** button must be pressed to submit the zeroed volumes to the exchange.

The **Differences** checkbox, if enabled, highlights volumes that are different from the active version of the Scalable Complex Bid. Use the selection box placed on the right side of the checkbox to move through the versions of the Scalable Complex Bid.

A **Flag**, depicting the Area it belongs to is displayed as a visual aid. The flag is read only and offers no functionality.
Next to the Flag, the **Order Type** and the **Portfolio-Area Currency** is displayed. These are also read only.

Click the Submit button to send the bid to the exchange. A confirmation dialog can optionally be set in the settings.
Click the Close button to close the bid entry screen. This action will loose all modifications. A confirmation dialog can optionally be set in the settings.

3.4.1 Order Types

Currently, only Stepwise Scalable Complex bids are supported for 15, 30 and 60 minute periods.

Each period must have the same side, either all Buy or all Sell.

Currently only Sell is supported.

Please refer to your market rules regarding availability of described functions.

For a definition of the order types, please see Appendix D, Glossary.

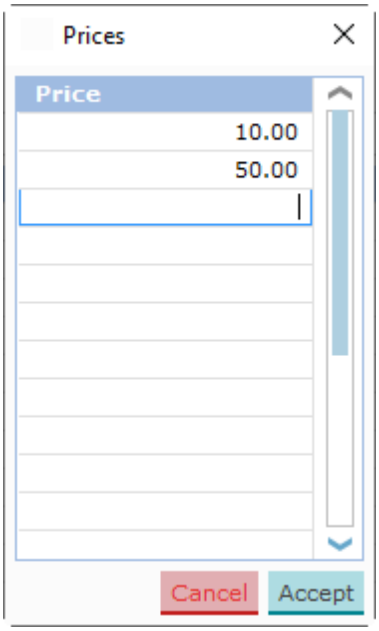
Copyright Soops b.v.

3.4.2 Manual Entry

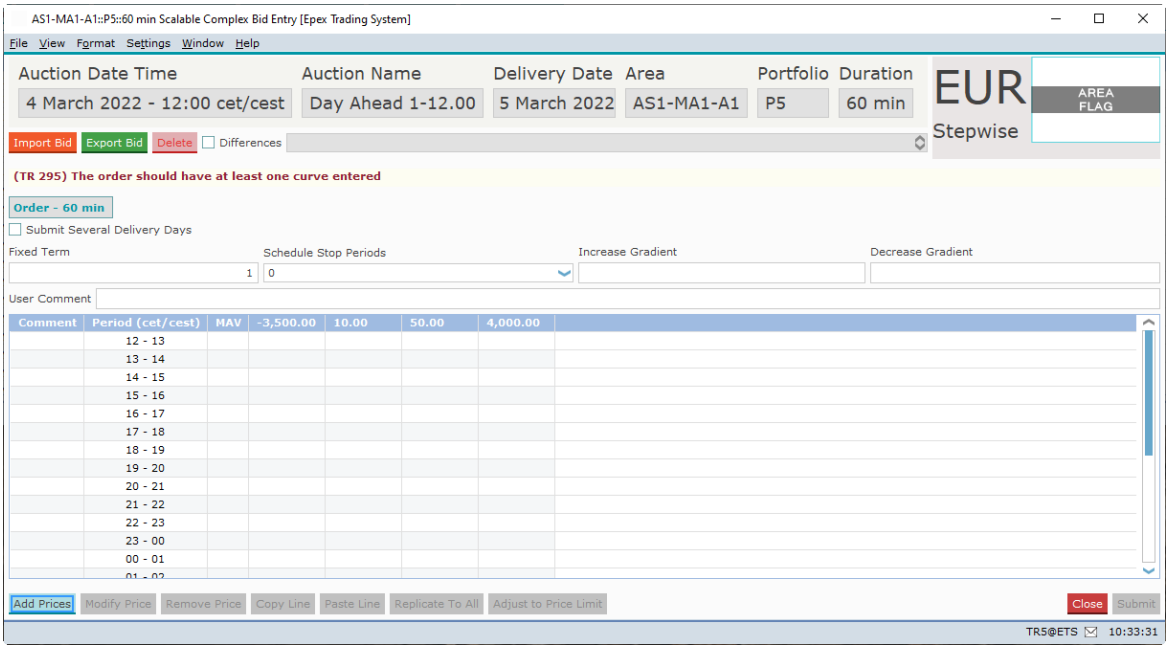
Enter values in the comment fields, for each period. This is optional.

The minimum and maximum price columns are displayed by default. The volumes for these prices are mandatory if volumes for other prices are entered.

To add additional price columns, click the **Add Prices** button to access the price entry dialog.



Enter prices in the dialog you wish to include in the bid.



In each field in the data grid now volumes can be entered, subject to the exchange validation rules.

Copyright Soops b.v.

The Adjust to Price Limit button will modify the entries in the bid entry screen in such a way that the order complies with the Trading Limits, if possible.
Please see the Adjust to Price limit chapter for details about the button.

In the **User Comment:** field a comment can be entered.
Allowed characters are: space, A-Z, a-z, 0-9 and ! # $ % & ' ( ) * + , - . ; = ? @ [ ] ^ _ ` { } ~

Please note:

On **Daylight Saving Days** the Linear Bid entry screen will behave slightly different, in that there will be grayed out period(s) in March for the 23 hour day and extra period(s) in October for the 25 hour day.

Click the Submit button to send the bid to the exchange. A confirmation dialog can optionally be set in the settings.
Click the Close button to close the bid entry screen. This action will loose all modifications. A confirmation dialog can optionally be set in the settings.

3.4.2.1 Buttons

In the Scalable Complex Bid Entry screen, several buttons offer additional functionality.

Add Prices	Gives access to the **Add Prices** dialog
Modify Price	Select the **Price** column header to be modified and click the **Modify Price** button. Gives access to the Modify Price dialog
Remove Price	Select the **Price** column header to be removed and click the **Remove Price** button. Instantly removes the selected price
Copy Line	Select a **Volume** row and click the **Copy** button.
Paste Line	Select a **Volume** row and click the **Paste** button. Pastes the Copied values in the selected row.
Replicate To All	Select a **Volume** field and click the **Replicate to All** button. The quantities contained in the row are replicated to all other periods of the auction.

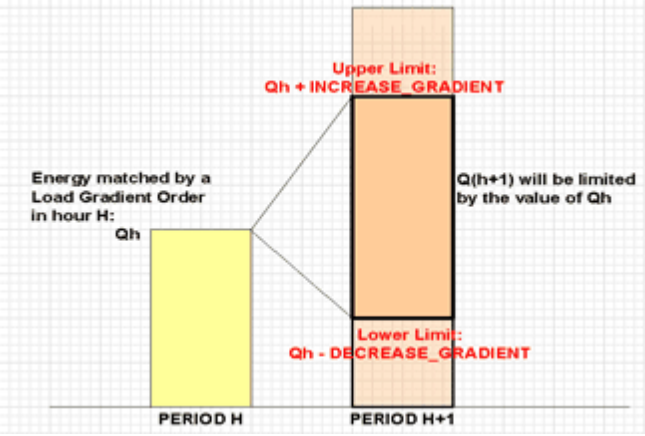
Copyright Soops b.v.

3.4.2.2 Entry fields

Fixed Term	Mandatory entry field, first economic condition parameter in Settlement Currency, must be 0 or higher. 0 means no value is defined. Defines the 'absolute minimum income' economic constraint.
Scheduled Stop Periods	Mandatory selection box, select 0,1,2 or 3. Defines the period of the scalable complex bid that remains accepted independent of rejection of the rest of the complex bid. A 0 defines no period.
Increase Gradient	Optional entry field, load gradient defining the maximum volume increase per period. Only allowable for Sell bids. The value must be strictly positive.
Decrease Gradient	Optional entry field, load gradient defining the maximum volume decrease per period. Only allowable for Sell bids. The value must be strictly positive.

A complex order can be submitted only if at least one of following condition is verified:

- Fixed Term > 0
- Increase Gradient not null
- Decrease Gradient not null

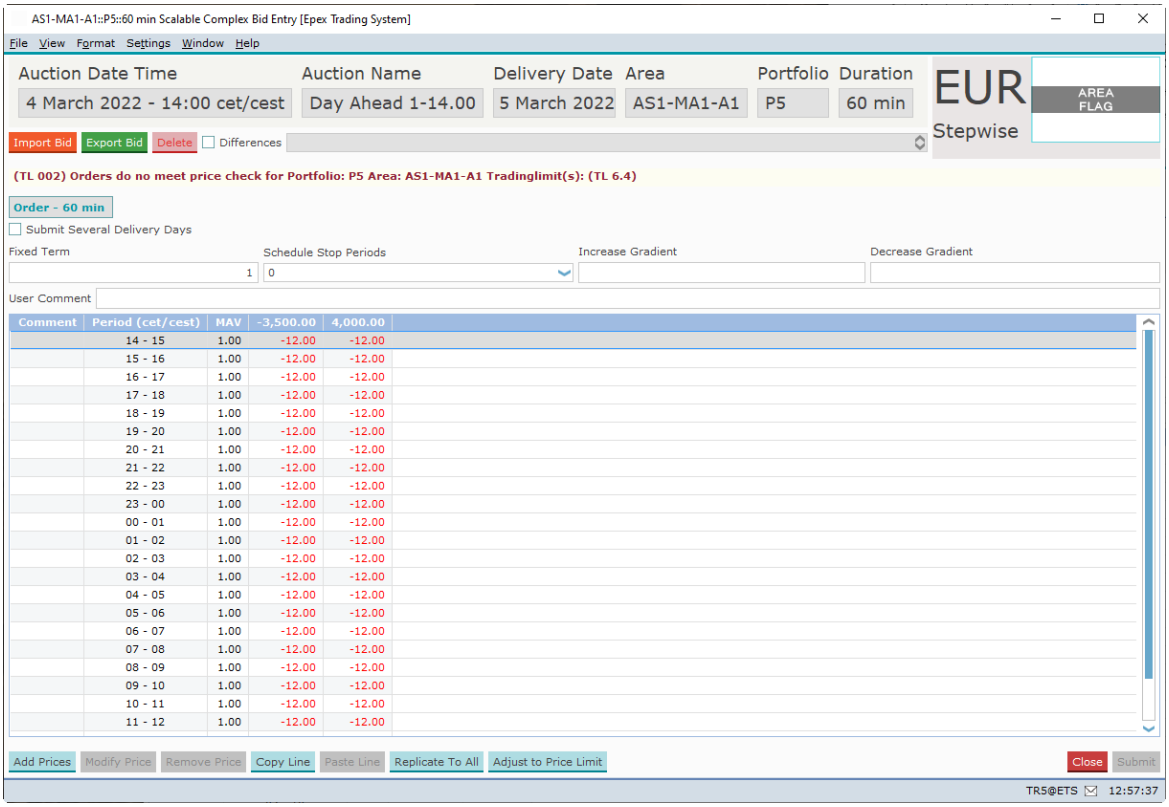


Qh is the Volume per Hour.

Copyright Soops b.v.

3.4.2.3 Adjust to Price Limit

In the Scalable Complex Bid Entry screen the Adjust to Price Limit button will become enabled when a bid is created that violates one or more price limits which are defined with Trading Limits.



Note the red message below the **Import Bid** button, and the enabled button.

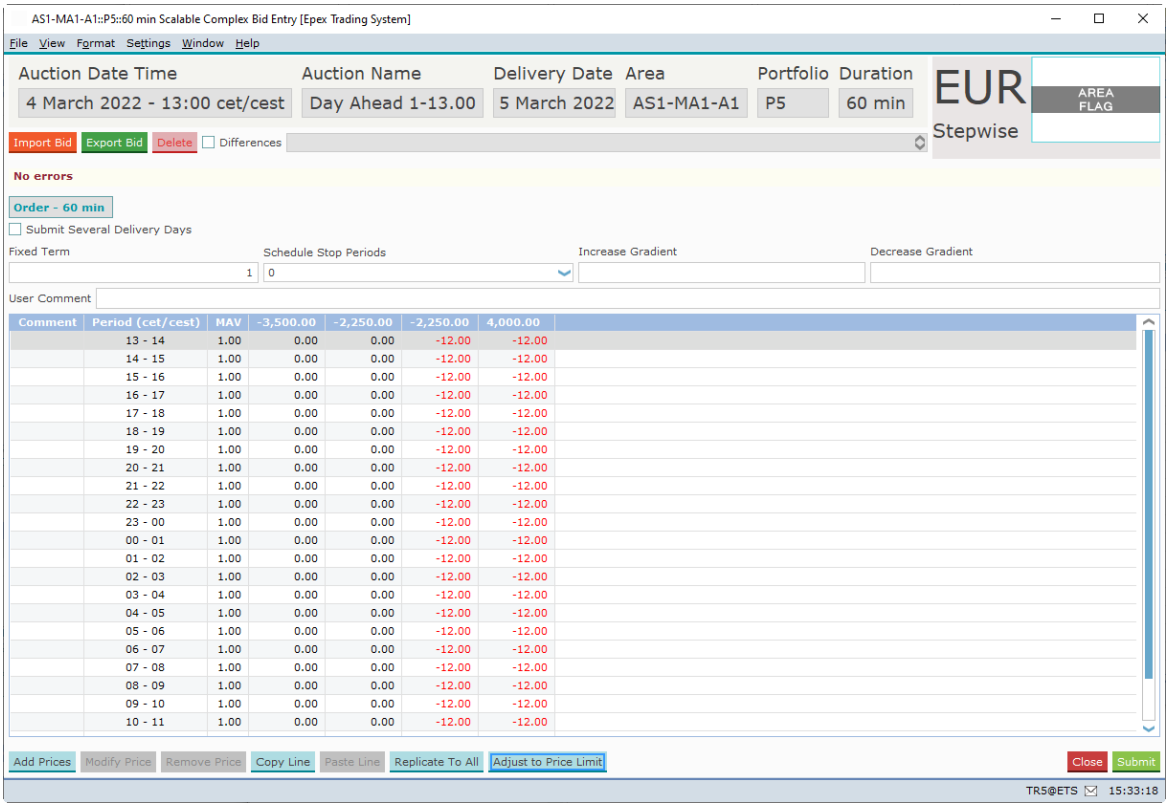
When the Adjust to Price Limit button is clicked then the order displayed in the screen is adjusted to fit the hard price cap of the most restricting active trading limit.

Copyright Soops b.v.

Stepwise:

The same bid as above could result in the bid below if a Trading Limit exists for this participant.

Let assume that for Area AS1-MA1-A1, P_{min} = -3500€ and P_{max} = 4000€, and that Portfolio P5 has P_{min_TL} = -2250€ and P_{max_TL} = 2250€:



Comment	Period (cet/cest)	MAV	-3,500.00	-2,250.00	-2,250.00	4,000.00
	13 - 14	1.00	0.00	0.00	-12.00	-12.00
	14 - 15	1.00	0.00	0.00	-12.00	-12.00
	15 - 16	1.00	0.00	0.00	-12.00	-12.00
	16 - 17	1.00	0.00	0.00	-12.00	-12.00
	17 - 18	1.00	0.00	0.00	-12.00	-12.00
	18 - 19	1.00	0.00	0.00	-12.00	-12.00
	19 - 20	1.00	0.00	0.00	-12.00	-12.00
	20 - 21	1.00	0.00	0.00	-12.00	-12.00
	21 - 22	1.00	0.00	0.00	-12.00	-12.00
	22 - 23	1.00	0.00	0.00	-12.00	-12.00
	23 - 00	1.00	0.00	0.00	-12.00	-12.00
	00 - 01	1.00	0.00	0.00	-12.00	-12.00
	01 - 02	1.00	0.00	0.00	-12.00	-12.00
	02 - 03	1.00	0.00	0.00	-12.00	-12.00
	03 - 04	1.00	0.00	0.00	-12.00	-12.00
	04 - 05	1.00	0.00	0.00	-12.00	-12.00
	05 - 06	1.00	0.00	0.00	-12.00	-12.00
	06 - 07	1.00	0.00	0.00	-12.00	-12.00
	07 - 08	1.00	0.00	0.00	-12.00	-12.00
	08 - 09	1.00	0.00	0.00	-12.00	-12.00
	09 - 10	1.00	0.00	0.00	-12.00	-12.00
	10 - 11	1.00	0.00	0.00	-12.00	-12.00

Copyright Soops b.v.

3.4.3 Excel Import

Select and copy the data in Excel to be pasted into the Scalable Complex Bid Entry screen.

Click the Import Bid button.

Depending on the information in the Excel paste buffer, additional price columns will be created and filled with their volumes.

Please note that the validation framework can prevent the paste if the data contained in the paste buffer is invalid.
In such a case a list of validation messages is displayed.
For examples of legitimate paste formats, please consult Appendix F.

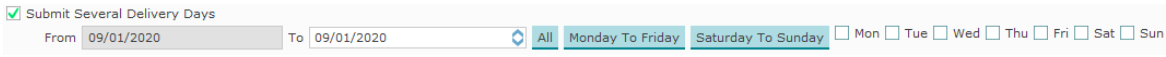
Manual modification of the data pasted is possible as described in the previous chapter, Manual Entry.

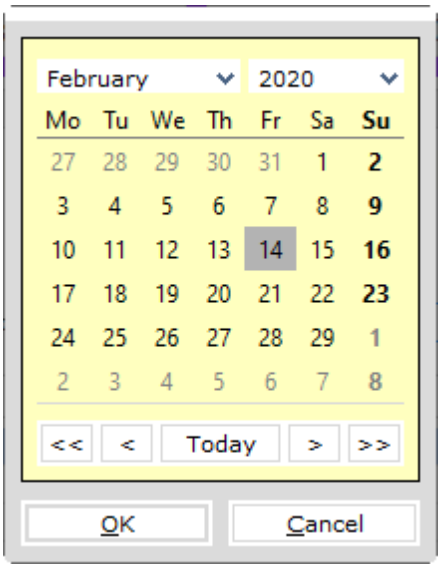
Copyright Soops b.v.

3.4.4 Scalable Complex Bid Submission for Several Days

The Submit Several Delivery Days option allows entry of a range of delivery days, for which the Scalable Complex Bids can then be submitted in one action.
Clicking the checkbox again will return to the single day entry mode.

The bids will then be identical for each delivery date, but will be further handled as independent bids.





The **From** and **To** entry fields can be double-clicked to access the **Calendar screen.** Select the date in the calendar screen and click the OK button to set the date in the From or To field.
The date can also manually be typed into the From and To fields. Note that the little arrows in the From and To fields can be clicked to in- or decrease the date as well.

The All button will, within the range set by the From: and To: fields, enable all days.

The Monday To Friday button will, within the range set by the From and To fields, enable all week days.

The Saturday To Sunday button will, within the range set by the From and To fields, enable all weekend days.

The check boxes for each day of the week allow for manual selection of the corresponding day, within the range set by the From and To fields. Thus for submission entries need to be included in both the date range and the selected days.

Upon submission of a Scalable Complex Bid, the bid will be submitted for all selected delivery days, subject to exchange validation rules. It is for instance not possible to submit bids for a date that is not (yet) open for trade.

If the range of days includes a **Daylight Saving Day**, either the obsolete period(s) will be ignored, or the extra period(s) will be copied from the previous hour.

Copyright Soops b.v.

3.4.5 Scalable Complex Bid Submission in several steps

Step-by-step guide to create a submitted Scalable Complex bid.

1. Open the Market Global View	Menu option View -> Market Global View
2. Open the Scalable Complex Bid submission screen	Double-click the Last Update Time field next to the Scalable Complex column for date, area and portfolio or Select the Last Update Time field next to the Scalable Complex column for date, area and portfolio. Click button Show Scalable Complex
3. For Submission for Several Days	Click checkbox Submit Several Days Set Delivery Day Range to include in bid
4. Import data from Excel	Copy data from Excel and click the Import Bid button to paste into Scalable Complex Bid screen
5. Manual data entry	Enter comments Click button Add Prices In the Dialog, enter all prices to be included in Scalable Complex Bid Press Accept Enter volumes into each desired Price/Volume field Set the Fixed Term and Scheduled Stop Periods. Optionally, set the In- and Decrease Gradients Set MAV
6. Enter Comments if desired	
7. Resolve any validation issues reported	Submission is only possible with a valid Bid
8. Press Submit	The Bid is sent to the market

Copyright Soops b.v.

3.4.6 Scalable Complex Bid Modification

It is possible to modify an existing Scalable Complex Bid, as long as the market has not closed yet for the related delivery date.

If this modified bid is sent to the market, it will become the active version of the bid, replacing the previous version. This way, only one version of a bid can ever be active and therefore present in the market. A maximum of 200 versions of the same bid can be submitted. If this limit is reached, contact market operations for further assistance if needed.

In order to better distinguish between the various states a bid can have, a background color scheme was introduced, as well as the **Differences** option.

Possible Complex Bid States:

Initial

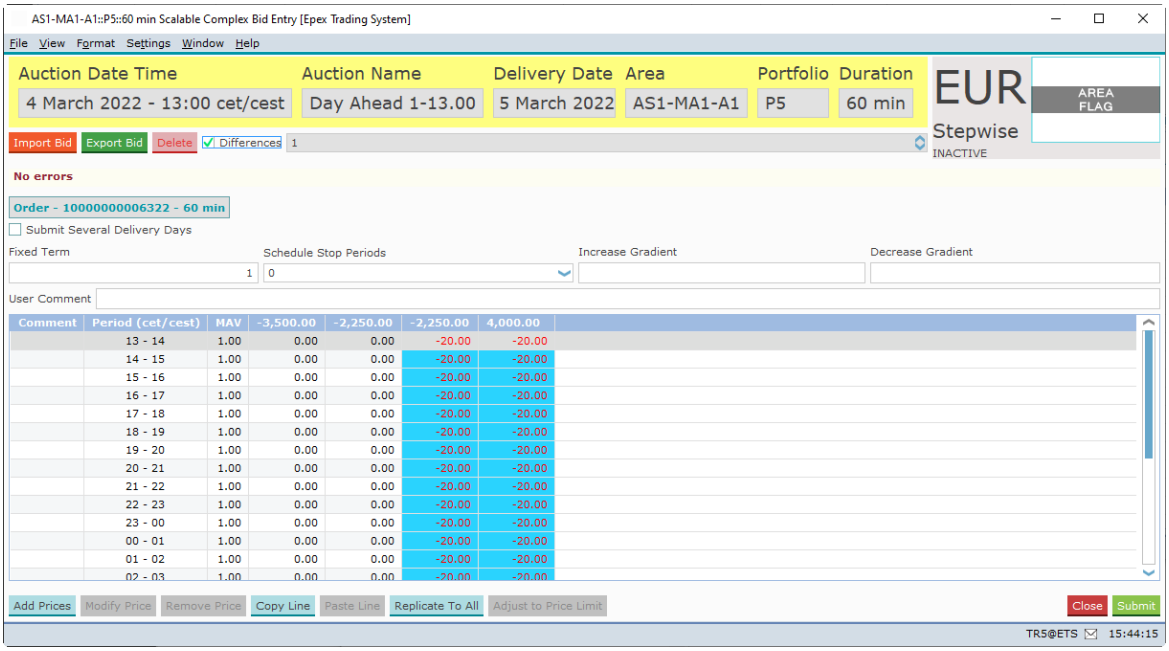
Active

Inactive

Deleted

Suspended

If the **Differences** option is enabled, a blue highlight will indicate differences within the bid grid, in comparison with the Active version of this bid.



In the example above, both price columns apparently contain different volume values as are present in the active version of the bid.

Note that by using the

option, you can scroll through the various versions of the Scalable Complex Bid.

Copyright Soops b.v.

3.5 Physical Delivery Bids

MEMO offers all participants registered on the MEMO Market the possibility to send a bid for the closed Linear auction intended for physical fulfillment.

Please refer to your market rules regarding availability of described functions.

The trading Participant informs MEMO about the price-independent Linear bid for each delivery period of the futures position in the order book. Please contact the helpdesk for further information regarding the manner to communicate the price-independent Linear bids to MEMO.

With the help of this information, MEMO market operations will select the corresponding contracts and prepare the required Linear bids. Once these Physical Delivery Bids are entered by MEMO market operations; the bids are displayed in the **Market Global View** screen as a Linear bid with a 'Not Confirmed' status.

The Physical Delivery Bids need to be confirmed by an eligible Participant, before they become active in the market.

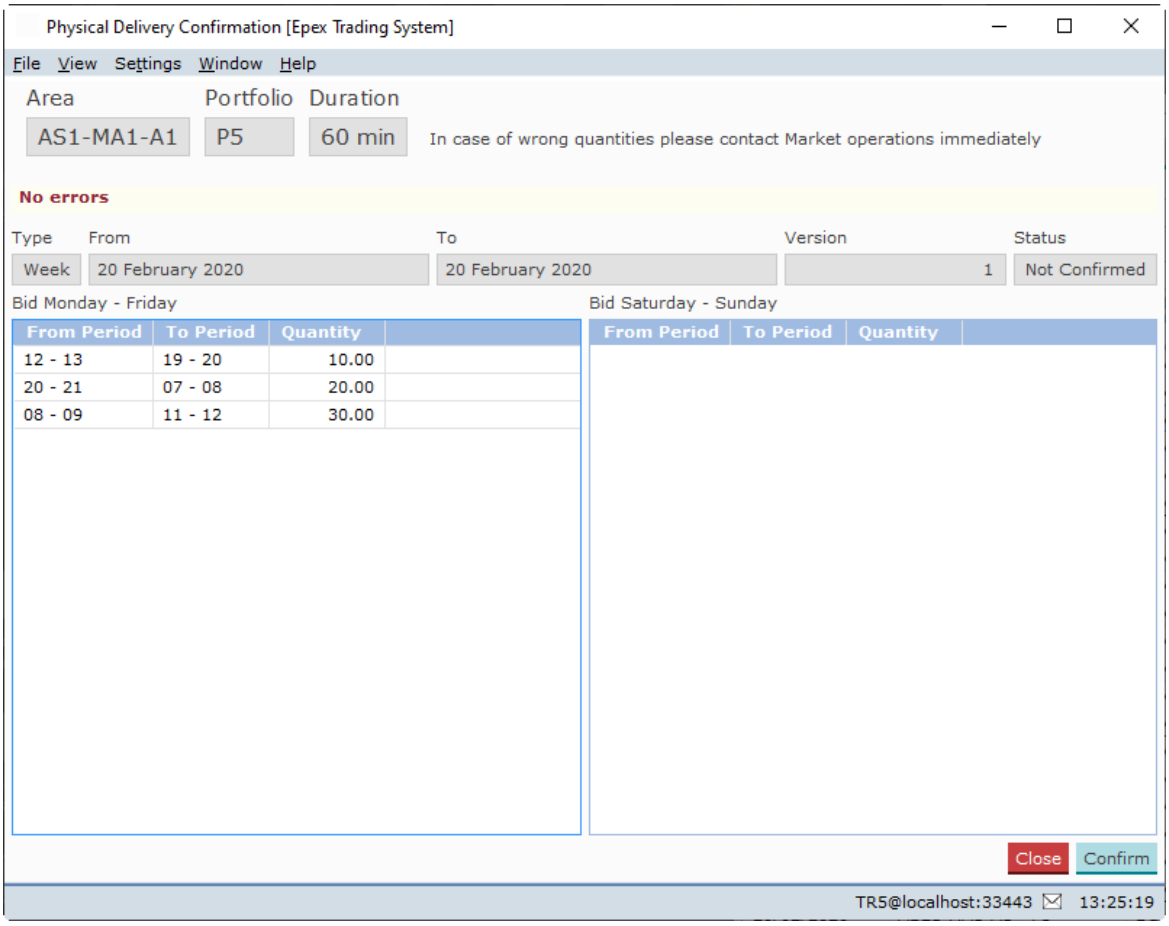
19/02/2020	AS1-MA1-A1	P5	Day Ahead 1-14.00 2020-02-18-14:00 (cet/cest)	OBK Open	60 min	EUR	none	
19/02/2020	AS1-MA1-A1	P5	Day Ahead 1-13.00 2020-02-18-13:00 (cet/cest)	OBK Closed	60 min	EUR	Not Confirmed	18/02/2020 11:28:42
19/02/2020	AS1-MA1-A1	P5	Day Ahead 1-12.00 2020-02-18-12:00 (cet/cest)	OBK Open	60 min	EUR	none	

20/02/2020	AS1-MA1-A1	P5	Day Ahead 1-14.00 2020-02-19-14:00 (cet/cest)	OBK Open	60 min	EUR	none	
20/02/2020	AS1-MA1-A1	P5	Day Ahead 1-13.00 2020-02-19-13:00 (cet/cest)	OBK Open	60 min	EUR	none	
20/02/2020	AS1-MA1-A1	P5	Day Ahead 1-12.00 2020-02-19-12:00 (cet/cest)	OBK Open	60 min	EUR	Confirmed	18/02/2020 13:25:32

In order to confirm the Physical Delivery Bid, double-click the Bid in either the Linear or the Last Update Time column. Alternatively, use the **Show Linear** button.
A confirmation screen is displayed, and the orders with Physical Delivery can be confirmed for the range of days indicated in the confirmation screen.
The indicated range of dates is a whole week or month, unless bids with Physical Delivery are inserted or modified for part of the week or month. In this case the range of days indicated in the confirmation screen will be only this part of the week or month.

The Market Global View will display any normal state with the Suspended extension added when the bids are affected by the Emergency member stop.
Please note that not confirmed orders will not be taken into account in the Auction.

Copyright Soops b.v.



Click the **Confirm** button to confirm the Physical Delivery Bid.
Click the **Close** button to close the Physical Delivery Confirmation screen, without confirmation.

3.6 Bid Suspension

During a member stop procedure, all active bids for the users concerned are not taken into account for auctions and will be ignored. The bids themselves are not effected, and remain unchanged.

Once a suspension is lifted, the bids will be immediately taken into account again for each auction from that moment onwards, as normal.

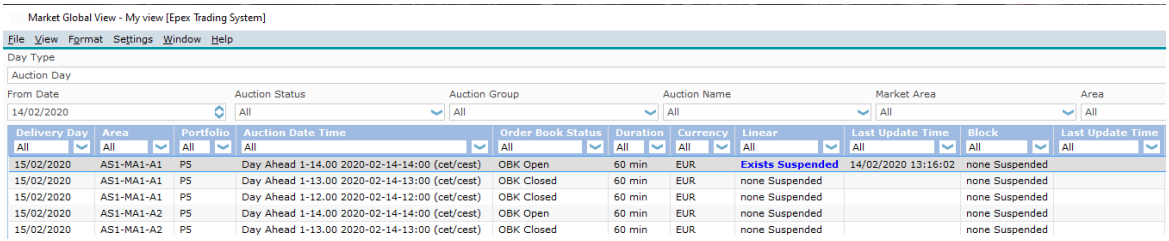
Whenever a Portfolio is suspended for an Area via the Emergency member stop procedure, the following screens are visually impacted to increase the member awareness.

For Spread Blocks, if one block order of a spread family is not taken into account due to exclusion (CCP member ID), the other block of the spread family will also not be taken into account.
The related line in the interfaces will be highlighted in brown to indicate its non inclusion in the auction.

Copyright Soops b.v.

3.6.1 Market Global View

The Market Global View will display any normal state with the Suspended extension added when the bids are affected by the Emergency member stop.


Market Global View - My view [Epex Trading System]

File View Format Settings Window Help

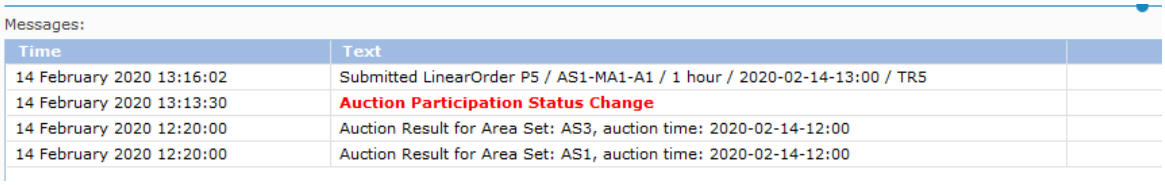
Day Type

Auction Day

From Date	Auction Status	Auction Group	Auction Name	Market Area	Area
14/02/2020	All	All	All	All	All

Delivery Day	Area	Portfolio	Auction Date Time	Order Book Status	Duration	Currency	Linear	Last Update Time	Block	Last Update Time
15/02/2020	AS1-MA1-A1	P5	Day Ahead 1-14.00 2020-02-14-14:00 (cet/cest)	OBK Open	60 min	EUR	Exists Suspended	14/02/2020 13:16:02	none Suspended	
15/02/2020	AS1-MA1-A1	P5	Day Ahead 1-13.00 2020-02-14-13:00 (cet/cest)	OBK Closed	60 min	EUR	none Suspended		none Suspended	
15/02/2020	AS1-MA1-A1	P5	Day Ahead 1-12.00 2020-02-14-12:00 (cet/cest)	OBK Closed	60 min	EUR	none Suspended		none Suspended	
15/02/2020	AS1-MA1-A2	P5	Day Ahead 1-14.00 2020-02-14-14:00 (cet/cest)	OBK Open	60 min	EUR	none Suspended		none Suspended	
15/02/2020	AS1-MA1-A2	P5	Day Ahead 1-13.00 2020-02-14-13:00 (cet/cest)	OBK Closed	60 min	EUR	none Suspended		none Suspended	

A message will be displayed in the Messages pane indicating the status change.

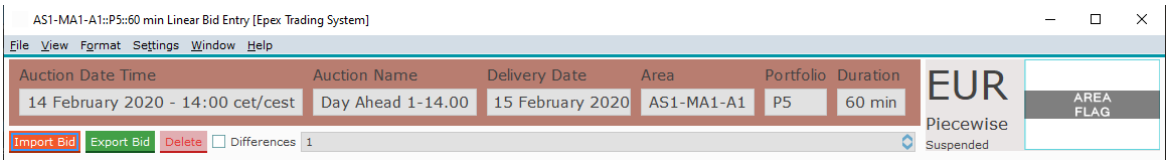

Messages:

Time	Text
14 February 2020 13:16:02	Submitted LinearOrder P5 / AS1-MA1-A1 / 1 hour / 2020-02-14-13:00 / TR5
14 February 2020 13:13:30	**Auction Participation Status Change**
14 February 2020 12:20:00	Auction Result for Area Set: AS3, auction time: 2020-02-14-12:00
14 February 2020 12:20:00	Auction Result for Area Set: AS1, auction time: 2020-02-14-12:00

Copyright Soops b.v.

3.6.2 Order Entry Screens

Order entry screens will display a light brown background color to indicate the Suspended state.

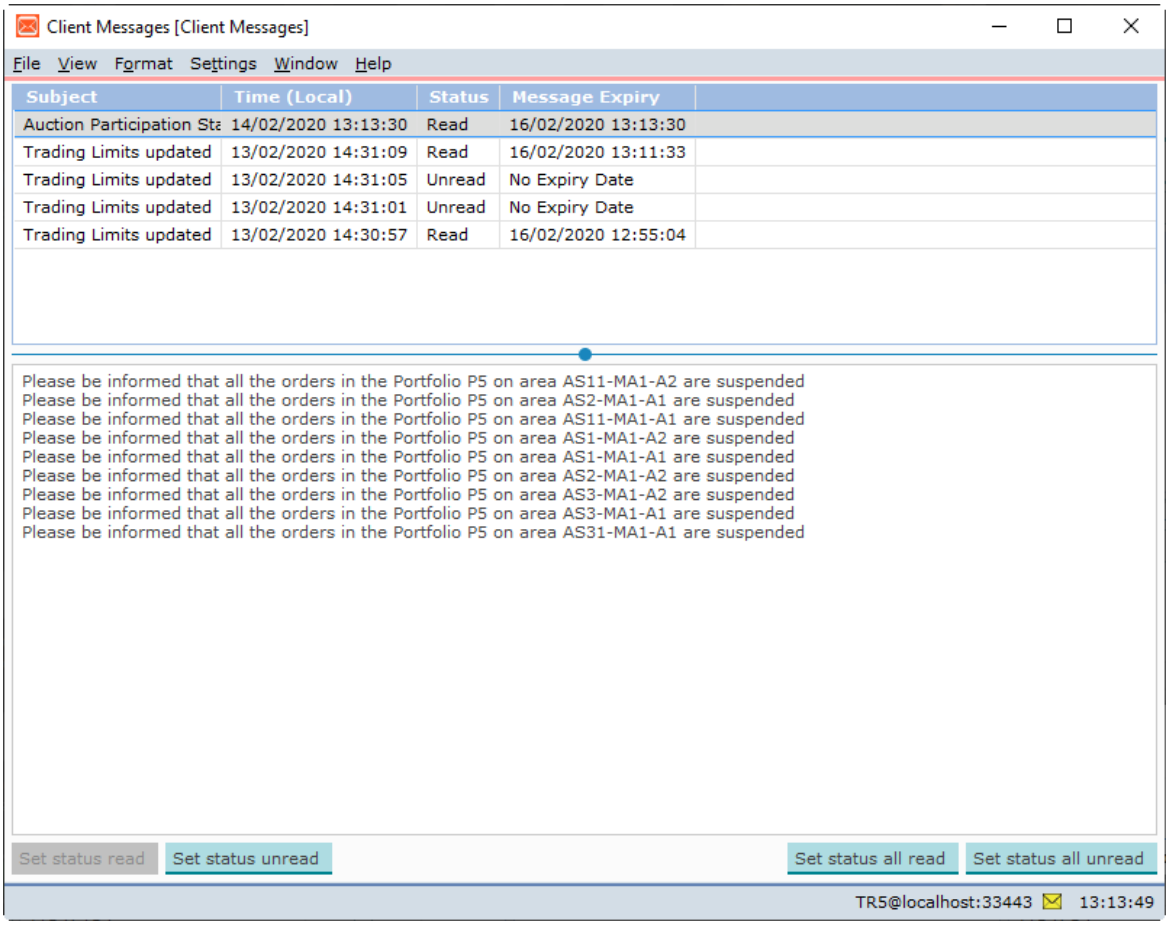


Note that it is still possible to submit and manipulate bids as normal.

Copyright Soops b.v.

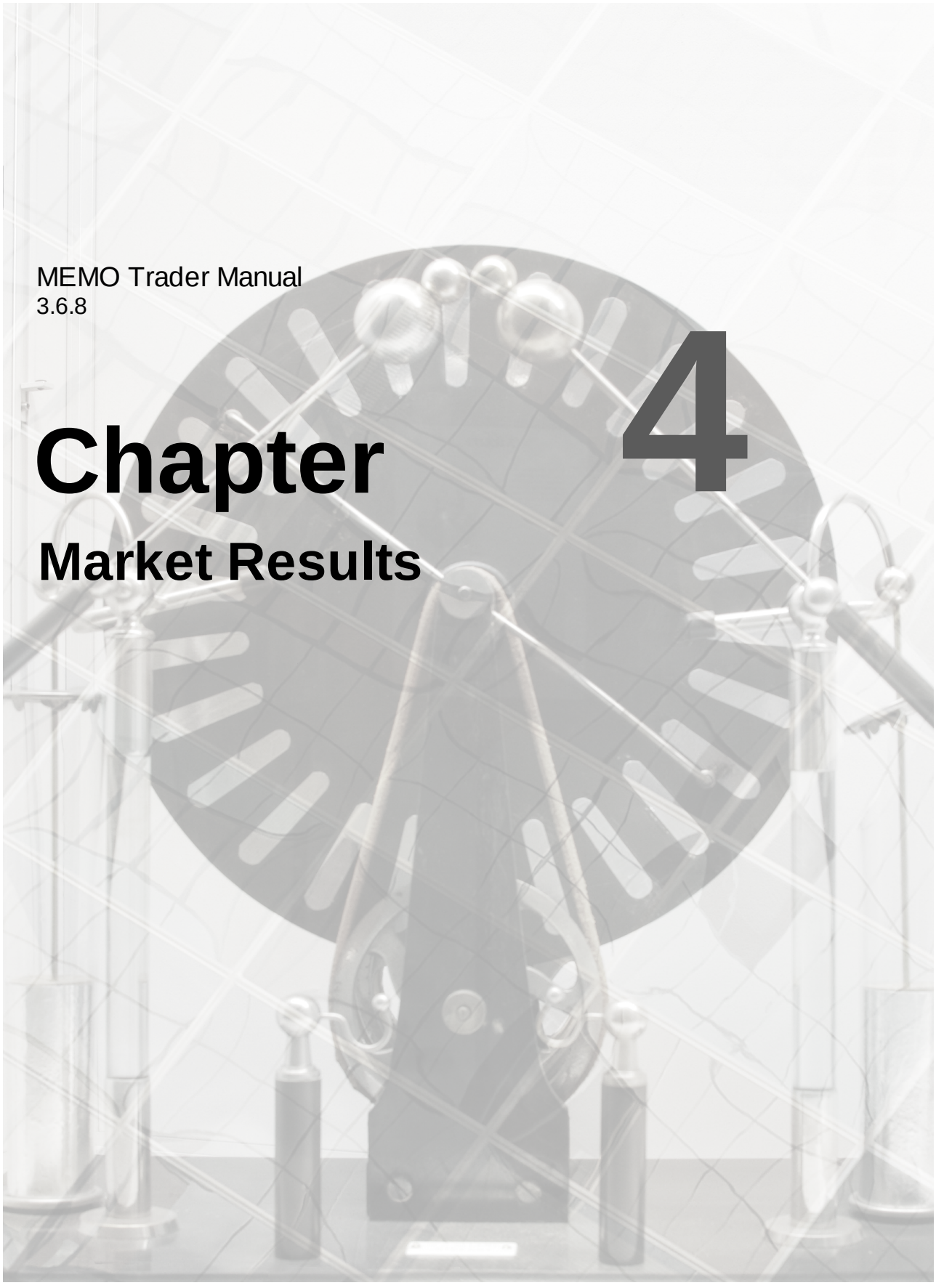
3.6.3 Client Message Book

Whenever a Portfolio is suspended for an Area via the Emergency member stop process, each user associated with this Portfolio/Area combination will receive a breaking message in the Client Message Book.



Note that there is no message when Suspension is lifted.

Copyright Soops b.v.



MEMO Trader Manual
3.6.8

Chapter 4

Market Results

Copyright Soops b.v.

Chapter 4 Market Results

The **Market Results** screen offers an overview of previously published Market Results.
The **Market Results** screen can be accessed via the **View** menu menu under option **Market Results** of the Market Global View screen.

Alternatively, double-click the **Mkt results** field you wish to open a Market Results screen for.

Availability of Market Results is indicated in the Market Global View by the display 'Available' in the **Mkt results** column.

The Market Results screen is divided in four tabs, **Overall**, **Block**, **Scalable Complex** and **Trade**.

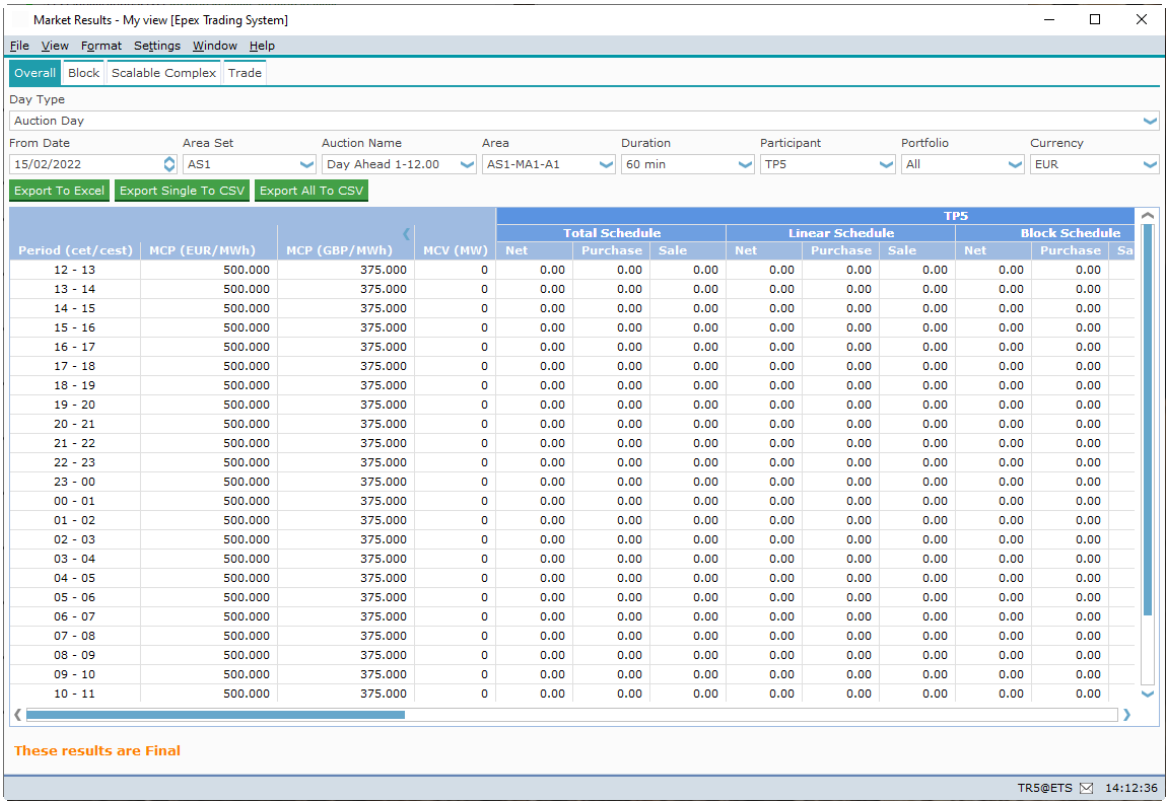
The Export To Excel button exports the information currently displayed in the Market Results screen to Excel.
For an example of the exported result, please consult Appendix F.

Click the **Close** button to close the Market Results screen.

Copyright Soops b.v.

4.1 Overall

The Overall tab display offers an overview of the Published Market Results per participant, and all its portfolios.
Note that using the filter bar options can limit the displayed selection.



Day Type Select either Auction Day or Delivery Day for which Market Results are to be displayed
From Date If selected Day Type is Auction Day, the date the auction was performed.
If selected Day Type is Delivery Day, the date the delivery starts.
Double-click to access the **Calendar screen.** The date can also manually be typed or the arrows can be used to in/decrease the date.
Area Set Select the Area Set for which Market Results are to be displayed
Auction Name Select the Auction Name for which Market Results are to be displayed
Area Select the Area for which Market Results are to be displayed
Duration Select the Period Duration for which Market Results are to be displayed
Participant Select the Participant for which Market Results are to be displayed
Portfolio Select the Portfolio for which Market Results are to be displayed. Note that selecting All will display all accessible Portfolios for the Participant, in column blocks next to each other
Currency Select the Currency in which Market Results are to be displayed

Period (Timezone) Period number.
Also at the bottom the Sum/Avg and all Block Definitions are available separately
MCP Market Clearing Price in selected Currency
MCV Market Clearing Volume
If no Portfolio is selected: Participant totaled Schedules per Order Type + all its separate Portfolio Schedules per order Type

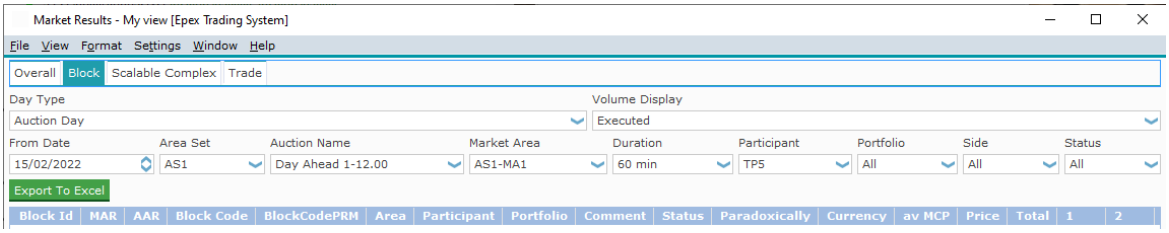
Copyright Soops b.v.

If Portfolio is selected:	Only selected Portfolio Schedules per order Type	
Total Schedule	**Net**	Total volume of Purchase and Sale for all Bids
	Purchase	Total bought volume for all Bids
	Sale	Total sold volume for all Bids
Linear Schedule	**Net**	Total volume of Purchase and Sale for all Linear Bids
	Purchase	Total bought volume for all Linear Bids
	Sale	Total sold volume for all Linear Bids
Block Schedule	**Net**	Total volume of Purchase and Sale for all Block Bids
	Purchase	Total bought volume for all Block Bids
	Sale	Total sold volume for all Block Bids
Scalable Complex Schedule	**Net**	Total volume of Purchase and Sale for all Scalable Complex Bids
	Purchase	obsolete, Scalable Complex Bids are always Sale
	Sale	Total sold volume for all Scalable Complex Bids

Copyright Soops b.v.

4.2 Block

The Block tab display offers an overview of the Published Market Results per participant, and all its portfolios, for the Block Bids only.
Note that using the filter bar options can limit the displayed selection.



Day Type Select either Auction Day or Delivery Day for which Market Results are to be displayed
Volume Display Select either Submitted or Executed for which Market Results are to be displayed
From Date If selected Day Type is Auction Day, the date the auction was performed.
If selected Day Type is Delivery Day, the date the delivery starts.
Double-click to access the **Calendar screen.** The date can also manually be typed or the arrows can be used to in/decrease the date.
Area Set Select the Area Set for which Market Results are to be displayed
Auction Name Select the Auction Name for which Market Results are to be displayed
Market Area Select the Market Area for which Market Results are to be displayed
Duration Select the Period Duration for which Market Results are to be displayed
Participant Select the Participant for which Market Results are to be displayed
Portfolio Select the Portfolio for which Market Results are to be displayed. Note that selecting All will display all accessible Portfolios for the Participant, in column blocks next to each other
Side Select the Side in which Market Results are to be displayed, All, Purchase or Sale
Status Select the Status in which Market Results are to be displayed, All Accepted or Rejected

Grid contents:
Block Id Actual Identifier Number, assigned by system
MAR Minimum Acceptance Ratio
AAR Actual Acceptance Ratio
Block Code Identifies kind of Block Bid:
C01 = Standard Block Bid
C02 = Linked Family Block Bid
C04 = Exclusive Group Block Bid
C88 = Loop Family Block Bid
C89 = Spread Family Block Bid
BlockCodePRM Block Code Parameter,
C01 = Not used
C02 = Parent Id(s), underscore separated, used to create family structure
C04 = Group Id, each bid with the same BlockCodePRM is part of the same exclusive group
C88 = Group Id, each bid with the same BlockCodePRM is part of the same loop family
C89 = Group Id. each bid with the same BlockCodePRM is part of the same spread family
Area Name of the Area

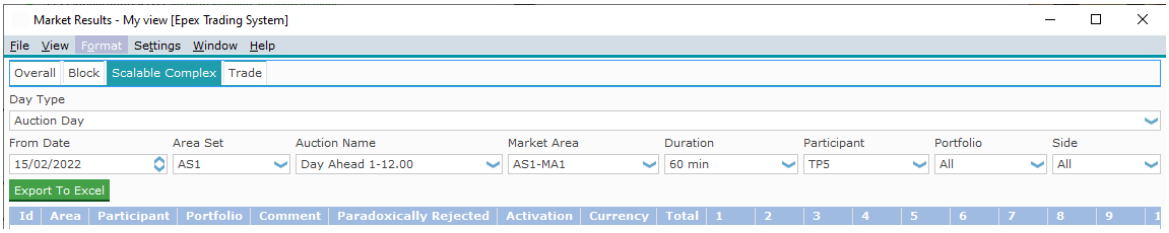
Copyright Soops b.v.

Participant	Name of the Submitter Participant
Portfolio	Name of the Submitter Portfolio
Comment	Block Bid comment
Status	Bid can be either Rejected or Executed
Paradoxically	Text, can be Yes, No or PAB with Child (Blockorders are checked against being a Paradoxically Accepted Block; only Linked Blockorders can be Paradoxically Accepted)
Currency	Settlement Currency the Bid was submitted with
av MCP	Average Market Clearing Price in Settlement Currency
Price	Price in Settlement Currency
Total	Added total volume for all periods
Period Numbers	Volume per period

Copyright Soops b.v.

4.3 Scalable Complex

The Scalable Complex tab display offers an overview of the Published Market Results per participant, and all its portfolios, for the Scalable Complex Bids only.
Note that using the filter bar options can limit the displayed selection.



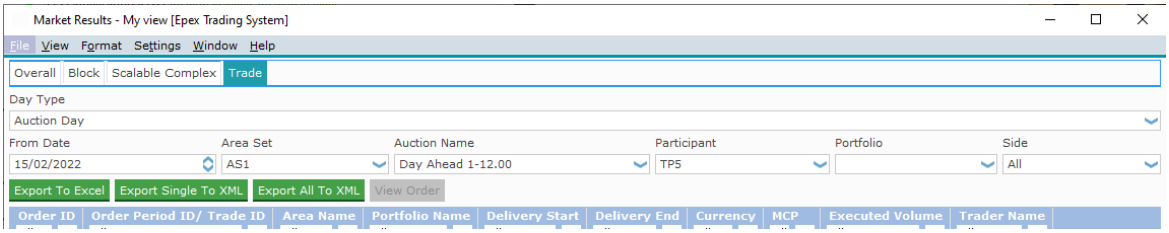
Day Type Select either Auction Day or Delivery Day for which Market Results are to be displayed
From Date If selected Day Type is Auction Day, the date the auction was performed.
If selected Day Type is Delivery Day, the date the delivery starts.
Double-click to access the **Calendar screen.** The date can also manually be typed or the arrows can be used to in/decrease the date.
Area Set Select the Area Set for which Market Results are to be displayed
Auction Name Select the Auction Name for which Market Results are to be displayed
Market Area Select the Market Area for which Market Results are to be displayed
Duration Select the Period Duration for which Market Results are to be displayed
Participant Select the Participant for which Market Results are to be displayed
Portfolio Select the Portfolio for which Market Results are to be displayed. Note that selecting All will display all accessible Portfolios for the Participant, in column blocks next to each other
Side Select the Side in which Market Results are to be displayed, All, Purchase or Sale. Note Scalable Complex Bids only support Sale side

Grid contents:
Scalable Complex Id Actual Identifier Number, assigned by system
Area Name of the Area
Participant Name of the Submitter Participant
Portfolio Name of the Submitter Portfolio
Comment Scalable Complex Bid comment
Paradoxically Rejected Checkbox, is checked if this is a Paradoxically Rejected Scalable Complex Bid
Activation Checkbox, is checked if this Scalable Complex Bid was accepted
Currency Settlement Currency the Bid was submitted with
Total Added total volume for all periods
Period Numbers Volume per period

Copyright Soops b.v.

4.4 Trade

The Trade tab display offers an overview of the Published Market Results per Trade, and all its portfolios, for all Bids.
Note that using the filter bar options can limit the displayed selection.



Day Type Select either Auction Day or Delivery Day for which Market Results are to be displayed
From Date If selected Day Type is Auction Day, the date the auction was performed.
If selected Day Type is Delivery Day, the date the delivery starts.
Double-click to access the **Calendar screen.** The date can also manually be typed or the arrows can be used to in/decrease the date.
Area Set Select the Area Set for which Market Results are to be displayed
Auction Name Select the Auction Name for which Market Results are to be displayed
Participant Select the Participant for which Market Results are to be displayed
Portfolio Select the Portfolio for which Market Results are to be displayed. Note that selecting All will display all accessible Portfolios for the Participant, in column blocks next to each other
Side Select the Side in which Market Results are to be displayed, All, Purchase or Sale. Note Scalable Complex Bids only support Sale side

Grid contents:
Order ID Actual Identifier Number, assigned by system
Order Period ID / Trade ID Actual Identifier Number, assigned by system
Area Name Name of the Area
Portfolio Name Name of the Submitter Portfolio
Delivery Start Delivery Start of the period
Delivery End Delivery End of the period
Currency Value of the Settlement currency
MCP Rounded MCP in settlement currency
Executed Executed quantity
Trader Name Name of Submitter User associated with the order

Export Single To XML Generate Trade Report for the selected (area set, auction name, auction date time, participant) in the filter section.
If any of the above information is missing in the filter section, the button cannot be pressed.
See Appendix H. Trade Reports Export Files (.xml) for further details

Export All To XML Generate Trade Report for the selected (area set, auction name, auction date time) in the filter section.
If any of the above information is missing in the filter section, then the button cannot be pressed.
See Appendix H. Trade Reports Export Files (.xml) for further details

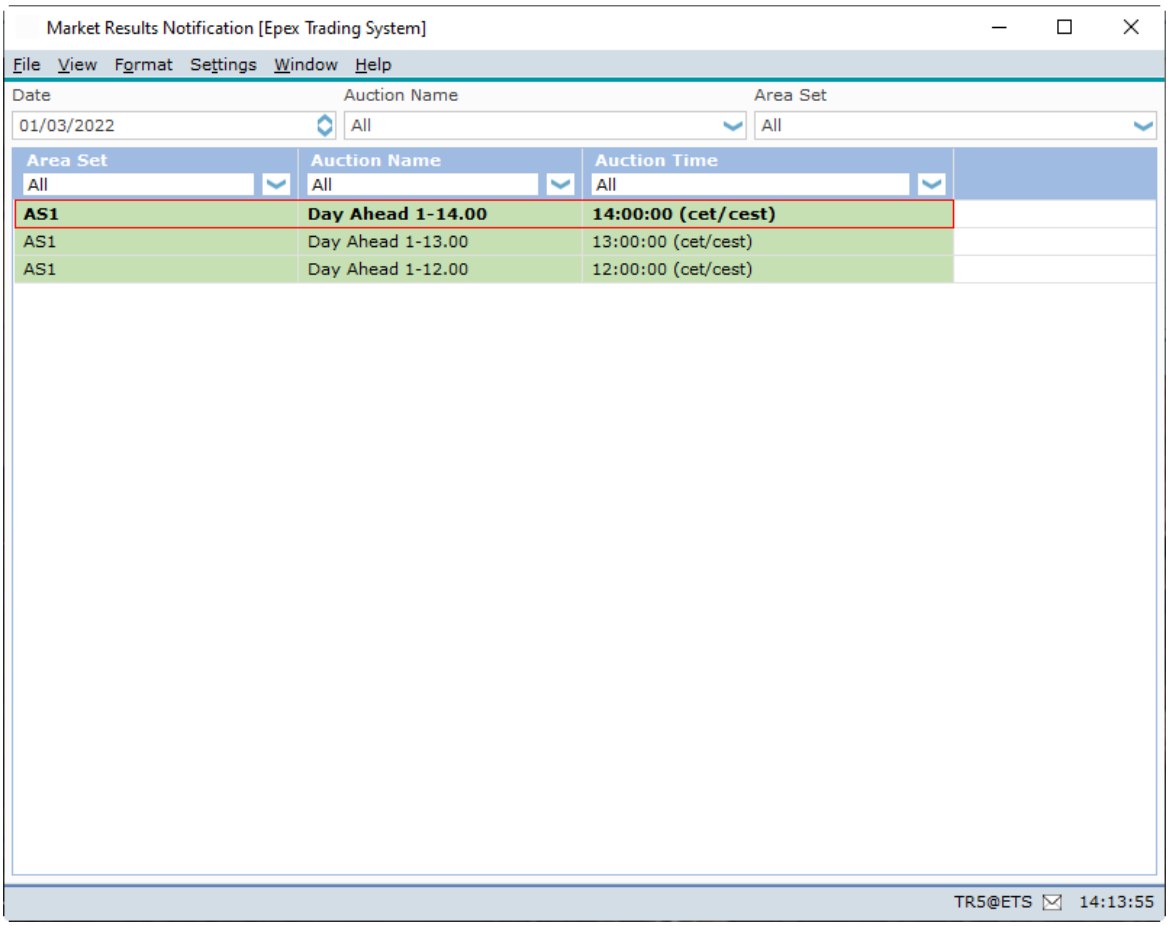
View Order Open the bid submission screen which contains the selected order ID

Copyright Soops b.v.

Copyright Soops b.v.

4.5 Market Result Notification

Upon first publication of market results by the exchange, each logged in user will receive Market Result Notification.

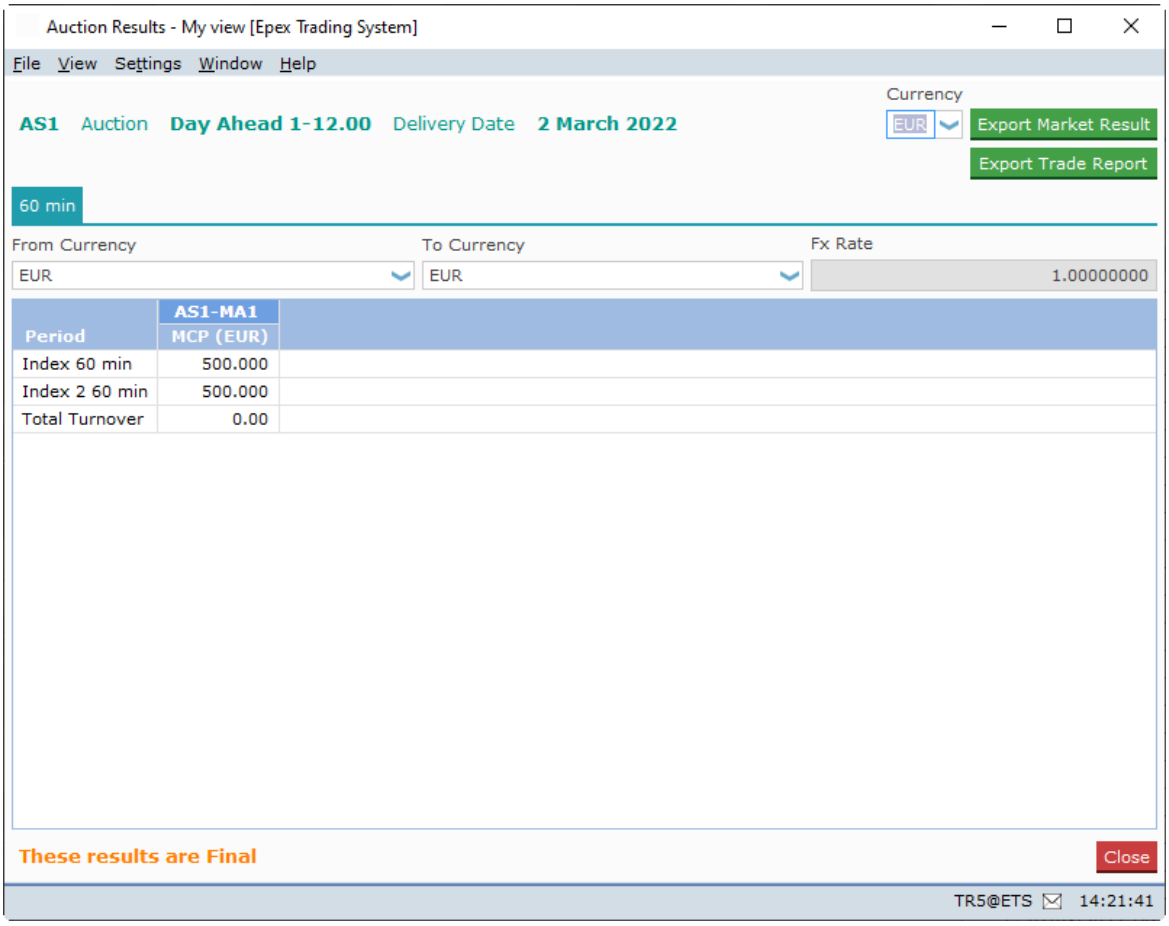


The Market Result Notification screen will pop-up to the front, and display the just sent notification in **Bold** text.

Background color of Preliminary Market Results
Background color of Final Market Results

Double-click on a Market Result row will open the details of the Market Results.

Copyright Soops b.v.



Please note that the user can choose the areas for which the pop-up will be displayed, as well as the blocks to be visualized in the pop-up, by enabling the option in the settings.

The Export All To CSV button exports the information for all Portfolios according to the users view permissions to a *.csv* file.
For an example of the exported result, please consult Appendix F.

Click the **Close** button to close the Market Results screen.

Once closed, this screen cannot be accessed again by the user.

Copyright Soops b.v.

4.6 Market Result for Daylight Saving Days

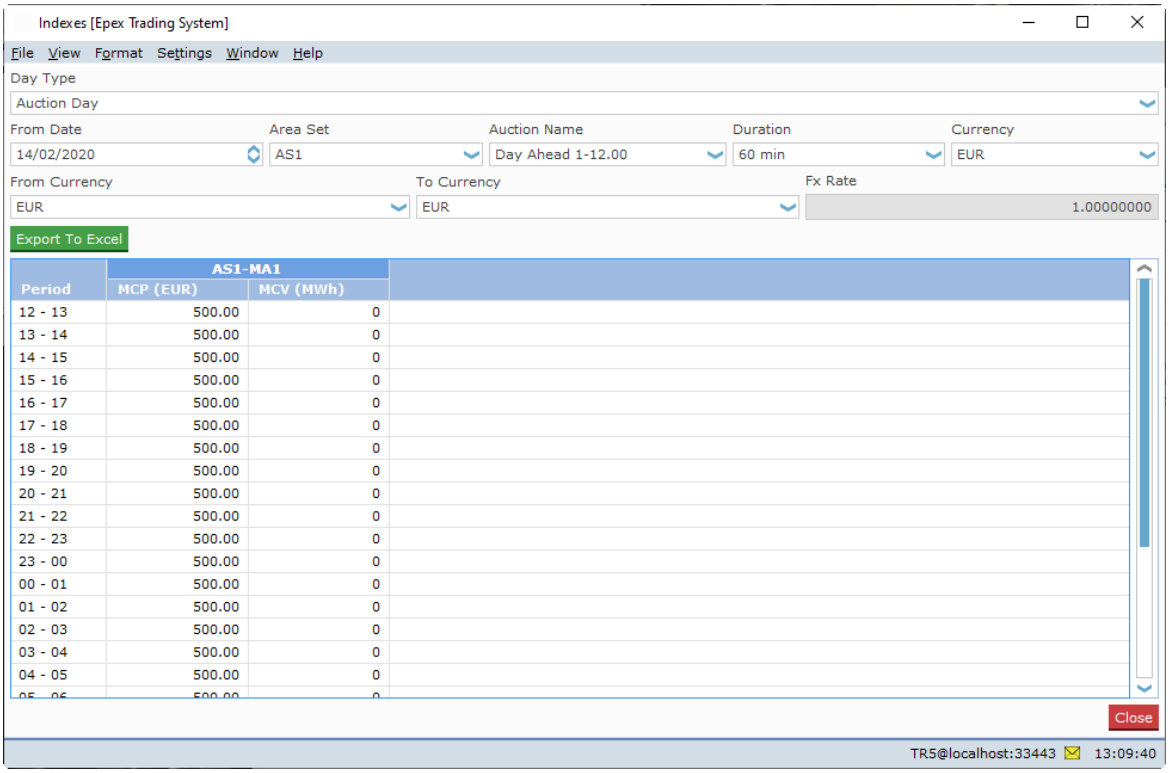
Market Results for **Daylight Saving Days** are displayed slightly different.

Please see Appendix G, Daylight Saving Time for further information.

4.7 Indexes

The **Indexes** screen can be accessed via the Show Indexes button of the Market Global View screen.
Indexes will be available after the Auction has run.

The indexes consists of a reference price and a volume, but do not correspond necessarily to the prices and volumes calculated for an Area.



Please note that the user can choose the blocks to be visualized in the **Indexes** screen, by enabling the option in the settings.

The Export To Excel button exports the information in the Indexes screen to Excel.
For an example of the exported result, please consult Appendix F.

The **From Date** field can be double-clicked to access the **Calendar screen.** Select the date in the calendar screen and click the OK button to set the date in the From Date: field. The date can also manually be typed into the From Date: field. Note that the little arrows in the From Date: field can be clicked to in- or decrease the date as well.

Click the **Close** button to close the Indexes screen, without saving information.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 5

Message Book

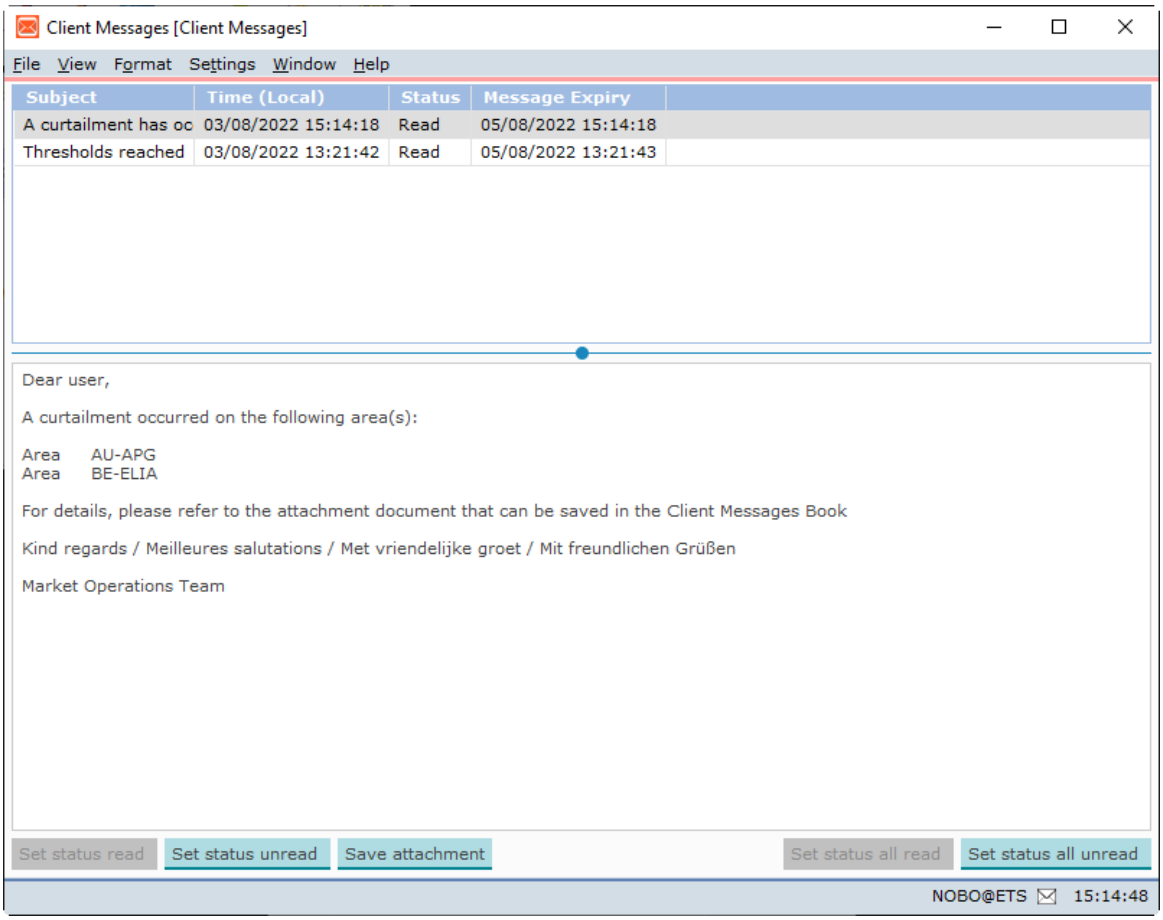
Copyright Soops b.v.

Chapter 5 Message Book

The **MEMO Trader Client Message Book** is the screen where text messages from MEMO Market Operations are received. There is no functionality for a user to send messages to operators or to send messages between traders.

In the **MEMO Trader Client** main screen, click the icon, select the **Client Message Book** option from the **screen** menu.

The **Client Message Book** will open with all messages from the exchange showing.
Please note that messages are only received if you are logged in.



Copyright Soops b.v.

The small field between the message bar and the clock display is an indicator for received messages from the exchange operator. Double-click on this field to quickly open the **MEMO Client Message Book**.

There are 4 different indicators:

	White envelope icon:	No messages unread
	Green envelope icon:	1 unread message waiting
	Yellow envelope icon:	2 – 4 unread messages waiting
	Red envelope icon:	5 or more unread messages waiting

Copyright Soops b.v.

5.1 Curtailment

When during an auction a curtailment occurs in one or more Area(s), the system prepares a curtailment message to the Client Messages Book.
This message is presented once the Market results are published to those who had both active orders on the Area(s) concerned, and have permission to see these Area(s).

If desired, the attachment of this message can be saved locally as a .csv file.

Click the Save attachment button in the Client Message Book.
Note that this button only enables when appropriate.

1	A curtailment occurred on the following area(s):		
2			
3	Area	AU-APG	
4	Period duration	60	
5	Period (cet/cest)	Price (EUR)	Curtailment ratio
6	00 - 01	3000	0,729411765
7	01 - 02	3000	0,729411765
8	02 - 03	3000	0,729411765
9	03 - 04	3000	0,729411765
10	04 - 05	3000	0,729411765
11	05 - 06	3000	0,729411765
12	06 - 07	3000	0,729411765
13	07 - 08	3000	0,729411765
14	08 - 09	3000	0,729411765
15	09 - 10	3000	0,729411765
16	10 - 11	3000	0,729411765
17	11 - 12	3000	0,729411765
18	12 - 13	3000	0,729411765
19	13 - 14	3000	0,729411765
20	14 - 15	3000	0,729411765
21	15 - 16	3000	0,729411765
22	16 - 17	3000	0,729411765
23	17 - 18	3000	0,729411765
24	18 - 19	3000	0,729411765
25	19 - 20	3000	0,729411765
26	20 - 21	3000	0,729411765
27	21 - 22	3000	0,729411765
28	22 - 23	3000	0,729411765
29	23 - 00	3000	0,729411765
30	Area	BE-ELIA	
31	Period duration	60	
32	Period (cet/cest)	Price (EUR)	Curtailment ratio
33	00 - 01	-500	1
34	01 - 02	-500	1

Copyright Soops b.v.

5.2 Breaking Message

An operator can also send a **Breaking Message** to a logged in User.

This is a normal message, appearing in the **Client Message Book**, but with one important difference.

A **Breaking Message** will upon receipt force open the **Client Message Book** of the addressed user, displaying the sent message in a foreground display.

The **Client Message Book** can be handled as normal after receiving such a message.

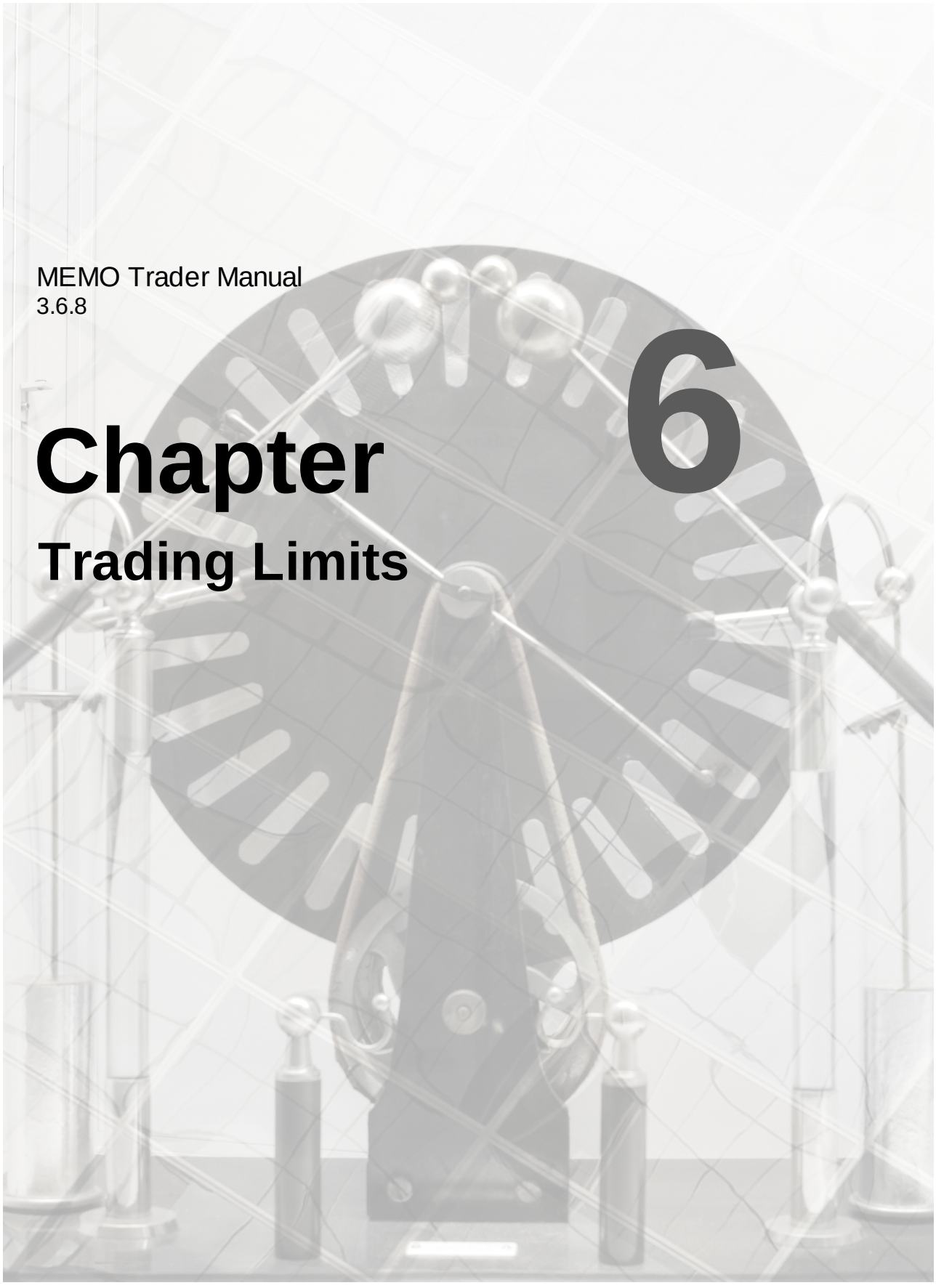
5.3 Block Bid Exceed Limit

If for a Market Area the maximum number of allowed Block Bids per portfolio is reached, the Trading System sends a **Breaking Message** to the submitting User.

This is a normal breaking message, appearing in the **Client Message Book**, informing the user of the rejection of the just submitted Block Bids.

There are several other instances where a Breaking Message is sent to a user, for instance when Orders do not meet a price check for a Trading Limit, or exposure exceeds the available trade limit.

Copyright Soops b.v.



MEMO Trader Manual
3.6.8

Chapter 6

Trading Limits

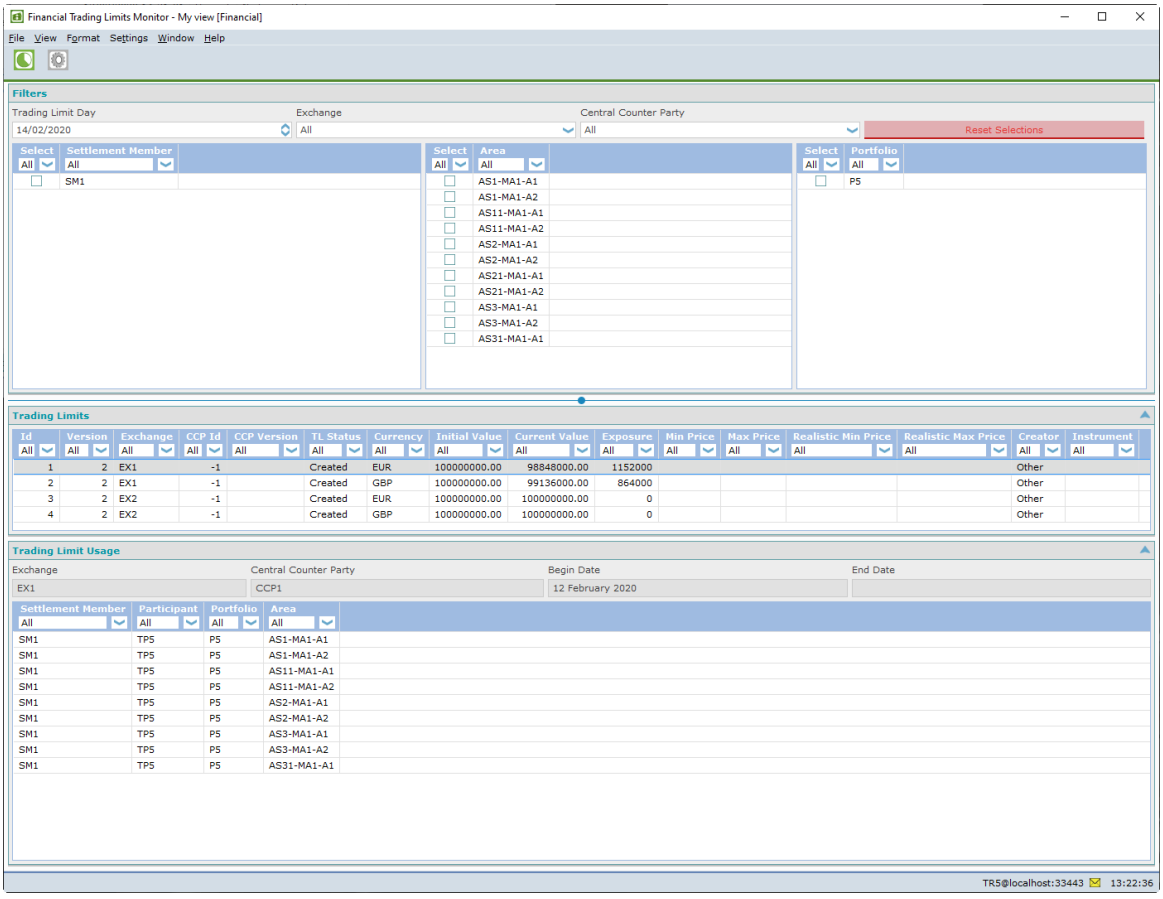
Copyright Soops b.v.

Chapter 6 Trading Limits

The MEMO Financial Trading Limits Monitor screen offers an actual overview about the exposure and Price boundaries of bids for your portfolio(s) for a certain date range.

These Trading Limits are set by the exchange.

In the **MEMO Trader Client** main screen, click the icon, select the **Financial** option from the **screen** menu.



With the selectors in the Filter pane a selection can be created of active Financial Trading Limits that are available to you.

Trading Limit Day	Select trading limit day. Doubleclick to access a calendar
Exchange	Select exchange, either a single exchange or all
Central Counter Party	Select central counter party, either a single central counter party or all
Settlement Members	Enter a known settlement member to directly filter for that member. Click one or more checkboxes to select
Areas	Enter a known area to directly filter for that area. Click one or more checkboxes to select
Portfolios	Enter a known portfolio to directly filter for that participant. Click one or more checkboxes to select
Reset Selections	Button, resets selections to default

Copyright Soops b.v.

Trading Limits

Id	Trading Limit identifier in the ETS database
Version	Trading Limit version for a given ETS identifier
CCP Id	Trading Limit identifier in Central Counter Party database
CCP Version	Trading Limit version for a given CCP id
TL Status	Actual Status of the Trading Limit. Can be Created or Cancelled
Initial Value	Initial value of the Trading Limit in Euro's
Current Value	Initial Value - Exposure = Current Value
Exposure	Current exposure value of the orders covered by the Trading Limit
Min Price	Trading Limit minimal price cap
Max Price	Trading Limit maximal price cap
Realistic Min Price	Minimal price boundary used for calculating exposure
Realistic Max Price	Maximal price boundary used for calculating exposure
Creator	User ID of the creator of the Trading Limit
Currency	Exchange currency

Label

Exchange	Displays name of the Exchange for the selected Financial Trading Limit
Central Counter Party	Displays name of the Central Counter Party for the selected Financial Trading Limit
Begin Date	Start date of the selected Financial Trading Limit
End Date	End date of the selected Financial Trading Limit

Financial Trading Limit Details:

Displays the included combinations of Settlement Members, Participants, Portfolios and Areas in the selected Trading Limit.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 7

MEMO Trading System Configuration

Copyright Soops b.v.

Chapter 7 MEMO Trading System Configuration

The **MEMO Settings Book** is the screen where you can define custom display and behavior settings.

The **Settings Book** is build up according to the various **MEMO Trader Client** modules and their respective screens you have access to.

Select the **View Settings** option from the **Settings** menu.

Depending on which screen you started the **Settings Book** from, it will open with the respective screen showing.

Copyright Soops b.v.

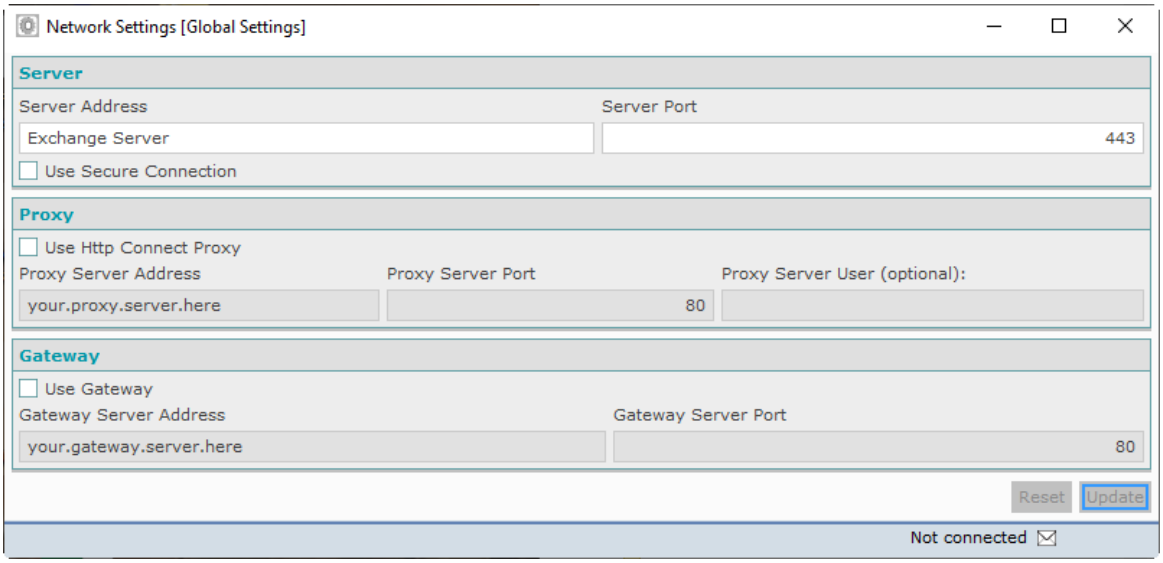
7.1 Navigate the Settings

The best way to navigate through the **Settings Book** is by using the mouse to select the various items.

Copyright Soops b.v.

7.2 Network Settings

When not connected to the **MEMO** servers, the **Network Settings** can be edited.



The settings in this screenshot are intentionally left incorrect because they are different per exchange.

These settings should only be modified on request from an exchange operator, and during the initial installation procedure.

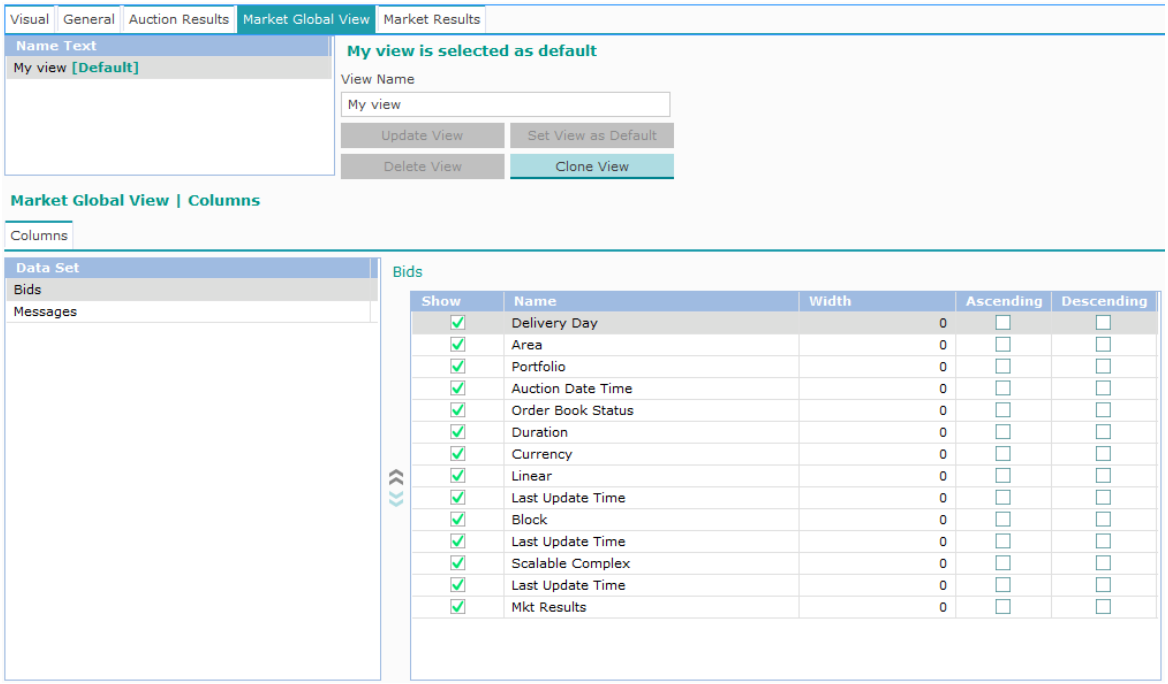
Click the Update button to save your new view settings.
Click the Reset button to revert to the original settings without saving.

Copyright Soops b.v.

7.3 Create View Settings

In order to create a custom view setting for each screen in a module, you need to make a clone of an existing view for each screen in a module.

Select the module and screen tab you want to edit your views manually, or click the Settings icon directly from the screen.



Select the screen you want to create a view for in the corresponding tab.

To create a new view, deselect any view in the 'Name Text' list, and press the Add View button.
The new view will appear, and automatically be selected.

To clone an existing view, select the source view to clone from in the 'Name Text' list, and press the Clone View button.
A cloned view will appear, with the timestamp of creation in its name by default, and automatically be selected.

In the **View Name** field you can change the default created name of your new view.

You can now edit any items in the lower pane.

Change any items you want by moving through the items.

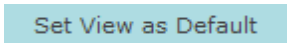
Click the Update button to save your new view settings.
Click the Reset button to revert to the original settings without saving.

Copyright Soops b.v.

7.3.1 Set a Default View

Once you are satisfied with the created view, you can opt to set the view as default. This has the effect that upon opening of the respective screen in **MEMO Trader Client**, these default view settings will be used.

Per book or screen only one view can be set as default. You can have many different views though and display more than one at the same time by opening more screens, each with a separate view.

To set a default view, select the view you want to become the default in the **Name Text** list.
Click the 

button.

The selected view will now show with the extension **'[Default]'** in the list.

If no default is set, the **Factory View** will be the default.

7.3.2 Delete a View

To delete a view, select the view you want to remove in the **Name Text** list click the

button.

Please note that deleting the view can not be undone.

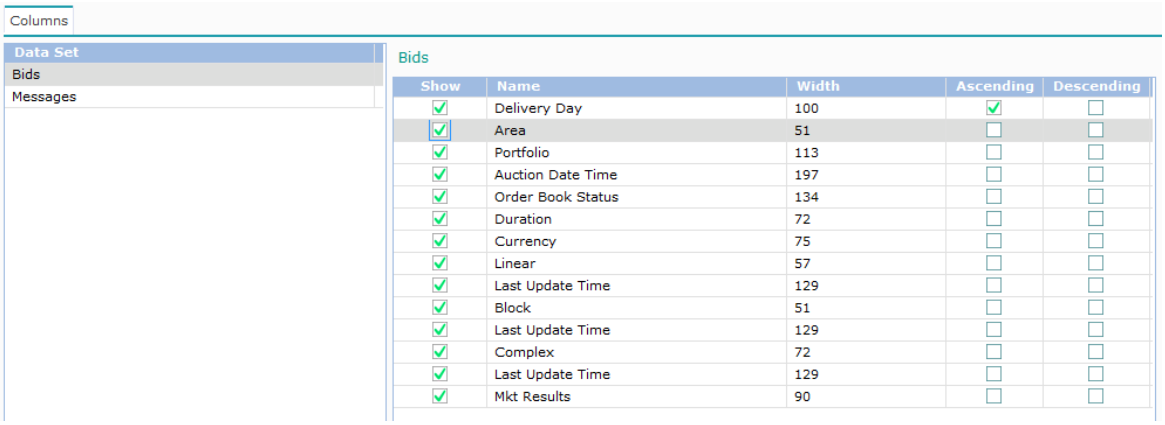
A default view cannot be deleted.

Copyright Soops b.v.

7.4 Set Columns

Across the **Settings** you find options to modify the columns settings for their respective windows. These settings allow you to define what width it should have, and if they should sort and if so, in what order.

Select the row corresponding to the columns you want to modify.



Show Checkbox, enable to display the column, disable to hide the column.Note you cannot disable if the column also has sorting enabled.
Name Name of the Column, cannot be modified
Width Number of pixels the column is wide, maximum size is 600 pixels
Ascending/ Descending Check any single one, enforces the column to sort alphanumerically, either top-bottom, or bottom-top respectively.

Click the Update button to save your new view settings.
Click the Reset to factory settings button to revert to the factory settings without saving. This will not remove any created view settings.

Please note that upon saving a default view your modifications will be updated immediately to the respective window if that view was selected.

Please note that the menu option **Save Column Widths into <Name of View>** in the various screens also saves the current widths to the selected view.

Copyright Soops b.v.

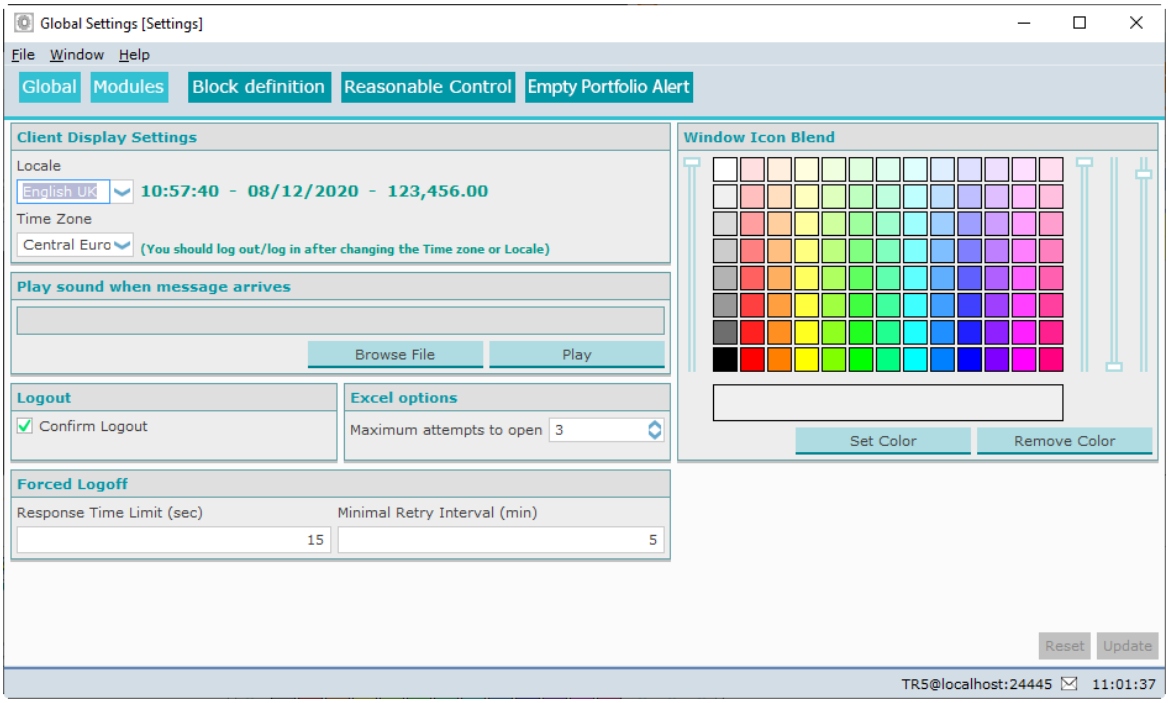
7.5 Global Settings

The **Global Settings** screen offers the **General Client Display Settings.**

Click the Global button to access the Global Settings.

7.5.1 General Client Settings

While connected to the **MEMO** servers, **Global Client Settings** can be edited.



Important:
A change in the **Time Zone** setting will only be executed after logging off and on again.

Click the Update button to save your new view settings.
Click the Reset button to revert to the original settings without saving.

7.5.1.1 Time-Date-Number Notation

The **Time/Date/Number notation** option sets the default country settings for all screens in your **MEMO Trader Client**.

In all these modules the same settings will be used. Only the Time, Date and Number notation can be set; any written texts will always be English.

The list contains all the country locales currently supported by the **MEMO** system.

Copyright Soops b.v.

The usage of commas, dots or half-spaces in numbers is important, where they are used to indicate decimals or thousands.

Changing these settings does not affect the way bids or contracts are sent or stored at the exchange. This will be set by the exchange.

Also, changing these settings will not affect *Windows* or *Excel* settings in any way. These programs use their own settings where applicable.

7.5.1.2 Time Zone

The **Time Zone** option sets the default time zone settings for your **MEMO Trader Client.**
In all modules the same settings will be used. This setting influences the way the clock is displayed in market views and other screens.

This is a **User setting** and has therefore no influence on the market time. Market time is set by the exchange.

Product codes and other market dependent days are in market time, as dictated by the grid operator of the corresponding market segment.

Important:
A change in the **Time Zone** setting will only be executed after logging off and on again.

7.5.1.3 Play Sound when Message arrives

With this setting you can play a sound when a message arrives in the **Message Book**.

Setting a sound:

To set a sound effect, click on **Browse...** to open a *Windows Explorer*, and navigate to the *.wav* file you want to set as the sound effect.

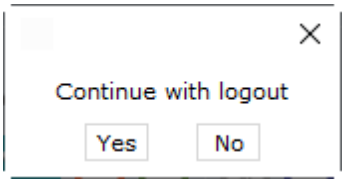
You can click **Preview** to hear the effect without setting it first.

7.5.1.4 Confirm Logout

The option to set **Confirm Logout** will enable or disable an additional warning dialog before logging off, warning you that you are about to log off.

Within the dialog you can opt to stay connected, or to continue to log off.

Enabling this option will help prevent 'accidental' disconnecting.



Copyright Soops b.v.

7.5.1.5 Excel Options

With the **Maximum attempts to open:** setting you can set a limit to the number of retries MEMO Trader Client attempts to **Export to Excel** if the export is not correctly handled by Excel.

Use the arrow buttons to set the value from 3 attempts to 8 maximal. Note that each attempt after the first will have a slight longer timeout, so setting the number of attempts to 8 will result in a maximum timeout of about 1 minute.

7.5.1.6 Window Icon Blend

With the **Window Icon Blend** color you can differentiate more easily between multiple launches of MEMO Trader Client.

When MEMO Trader Client screens are collapsed to the Windows toolbar, the little icon and a part of the screen name are the only thing visible.
If a large number of screens are collapsed, the Window Icon Blend option helps identifying the correct screens.

By setting a Blend Color, the little icons in the Windows toolbar will get that color as an overlay hue.

This feature is only helpful if multiple MEMO Trader Clients are running on the same Windows Interface.

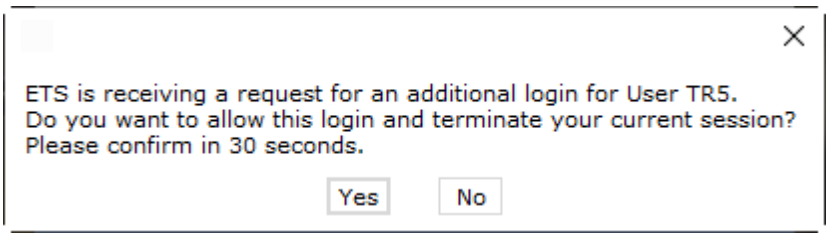
Copyright Soops b.v.

7.5.1.7 Forced Logoff

With the Forced Logoff settings you can set the values used for timeouts during the Force Logoff procedure.

Response Time Limit (sec) determines the number of seconds the original connected user has in order to respond to the request dialog.

If a second connection is being established with identical login credentials, the original connected user will receive a confirmation dialog.

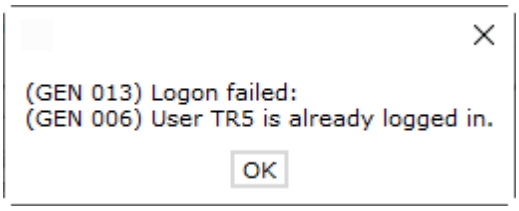


If after X (default set to 30) seconds no response was given, the first connection will terminate automatically, and the second, new connection is being established.

If YES is pressed within the X (default set to 30) seconds timelimit, the first connection will terminate also, and the second, new connection is being established.

If NO is pressed within the X (default set to 30) seconds timelimit, the first connection remains active, and the second, new connection is not established. Instead, the second connection gets a warning dialog.

Minimal Retry Interval (min) determines the minimum number of minutes any further attempts with the second login will be handled by ETS without further confirmation request to the original connection.
Within this interval the second login will receive the default warning dialog instead, and not connect.



Copyright Soops b.v.

7.6 Modules Settings

The **Modules Settings** give access to settings for the behavior of the accessible modules within the MEMO Trader Client.
These settings will effect only the locally installed MEMO Trader Client.

Please note that these settings are persisted only after you click the Update button to save your new view settings.

Click the Modules button to access the Modules Settings.

Copyright Soops b.v.

7.6.1 Visual

For each module, the **Visual** tab allows to define the initial screens that will be displayed upon opening the module's screens.

Screen
Select the default screen from the **Startup Book** list.

Check the **Show in New Window** option if opening the Module from the Main Toolbar should open in a fresh screen.
Uncheck the option if opening the Module from the Main Toolbar should open in the already displayed screen, replacing the existing view.

Visual Book Settings
Here you can set the opening behavior within the module. Each screen in the module can be opened using the respective Icon or the corresponding View menu option.
For each screen you can set options here separately.
Please note that for the MEMO Module this cannot be set.

Book	Name of the screen
Show Tool bar	Checkbox, en/disables display of the icon bar within the screen
Show In new window	Checkbox, en/disables if the screen should open in a fresh screen or should open in the already displayed screen, replacing the existing view.

Click the Update button to save your new view settings.
Click the Reset button to revert to the original settings without saving.

Copyright Soops b.v.

7.6.2 General

The **General** tab is only available for the MEMO Module.

Market Global View

Preferred Market Area
Select the preferred initial displayed Market Area upon opening the Market Global View.

Preferred Area
Select the preferred initial displayed Area upon opening the Market Global View.

Preferred Portfolio
Select the preferred initial displayed Portfolio upon opening the Market Global View.

Preferred Date Type
Select the preferred initial displayed Date Type upon opening the Market Global View.

Disable Date Type
Checkbox, enable to lock the date type filter field on the impacted screens. However the change does not apply to already open screens.

Block Results Volume Display

Preferred Block Results Volume Type
Select the preferred initial displayed Volume Type upon opening the various Market Results Block views.

Blocks Graph
Select either manually Open or Automatically Open to open the Block Graph Screen manually or automatically respectively.

Order Entry Screens Closure
Check the box to enable the option.
If enabled, the entry screen will be closed immediately after submitting a Bid successfully.
If disabled, the entry screen will remain open after submitting a Bid successfully.

Confirmation
Check the box to enable the option.
If enabled, a confirmation dialog will request confirmation of the submit action before actually submission is executed. This dialog allows to cancel the submission.
If disabled, a submission is executed immediately, and no cancellation of the submission is possible.
The **Show confirmation dialog if not submitting order for next auction** option allows for an extra safeguard to prevent accidental submission of bids not for the next auction.
Having multiple options selected can result in more than one confirmation dialog appearing sequentially.

Linear Order Entry Screen Updates
Select one of the three options corresponding to the desired functionality during updates of portfolio information in the Linear Bid Entry Screen.

Scalable Complex Order Entry Screen Updates

Copyright Soops b.v.

Select one of the three options corresponding to the desired functionality during updates of portfolio information in the Scalable Complex Bid Entry Screen.

Indexes

Sets the default selected Area Set, Currency and Duration values in the filters of the Indexes screen. Please note this can only be used if a Preferred Market Area or a Preferred Area was set.

Currency	Select from the available Settlement Currencies
Duration	Select from the available Period Durations
Set Preferred	Click to set the selected Area Set as default filter selection in the Indexes screen

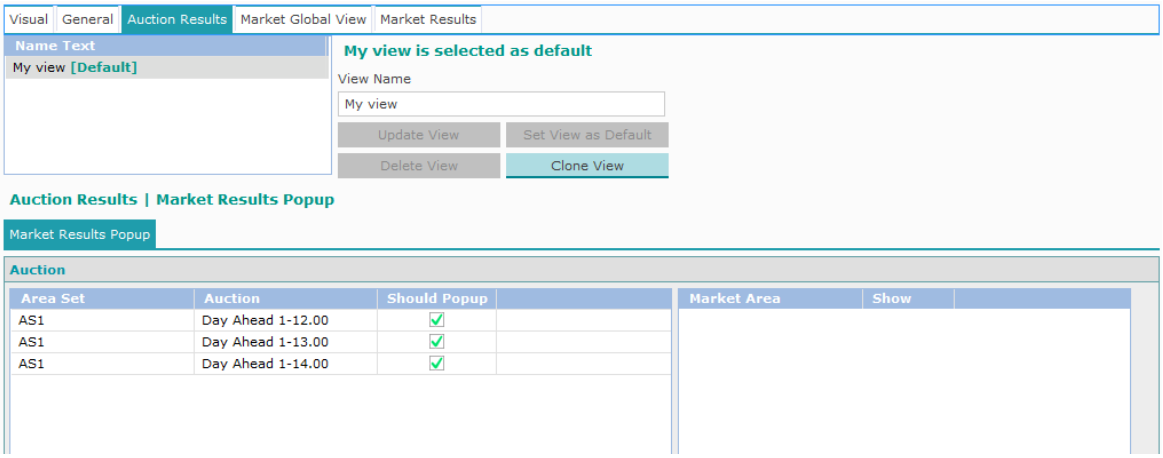
Click the Update button to save your new view settings.

Click the Reset button to revert to the original settings without saving.

Copyright Soops b.v.

7.6.3 Market Results Notification

The **Market Results Notification** tab tab is only available for the MEMO Module.



Auction
Sets the appearance of the Auction Results pop-up per Area Set, per Auction.

Should Popup Checkbox, en/disable to receive pop-up auction results screen when the auction session has finished

It is also possible to set the appearance of the Auction Results pop-up per Market Area in the same way.
First select an Area Set, Auction. A list of all associated Market Areas appears.

Show Checkbox, en/disable to receive pop-up auction results screen when the auction session has finished

Click the Reset to factory settings button to revert to the factory default settings. This enables all pop-ups.

Click the Update button to save your new view settings.

Click the Reset button to revert to the original settings without saving.

7.7 Block Definitions

The **Block Definitions** settings allow configuration of Block Definition templates that can be used during Block Bid entry to easily create a pre-defined Block Bid.
These Block Definitions will be added to the list of definitions provided by the exchange, and will be useable by the user only.

Click the Block Definitions button to access the Block Definitions settings.

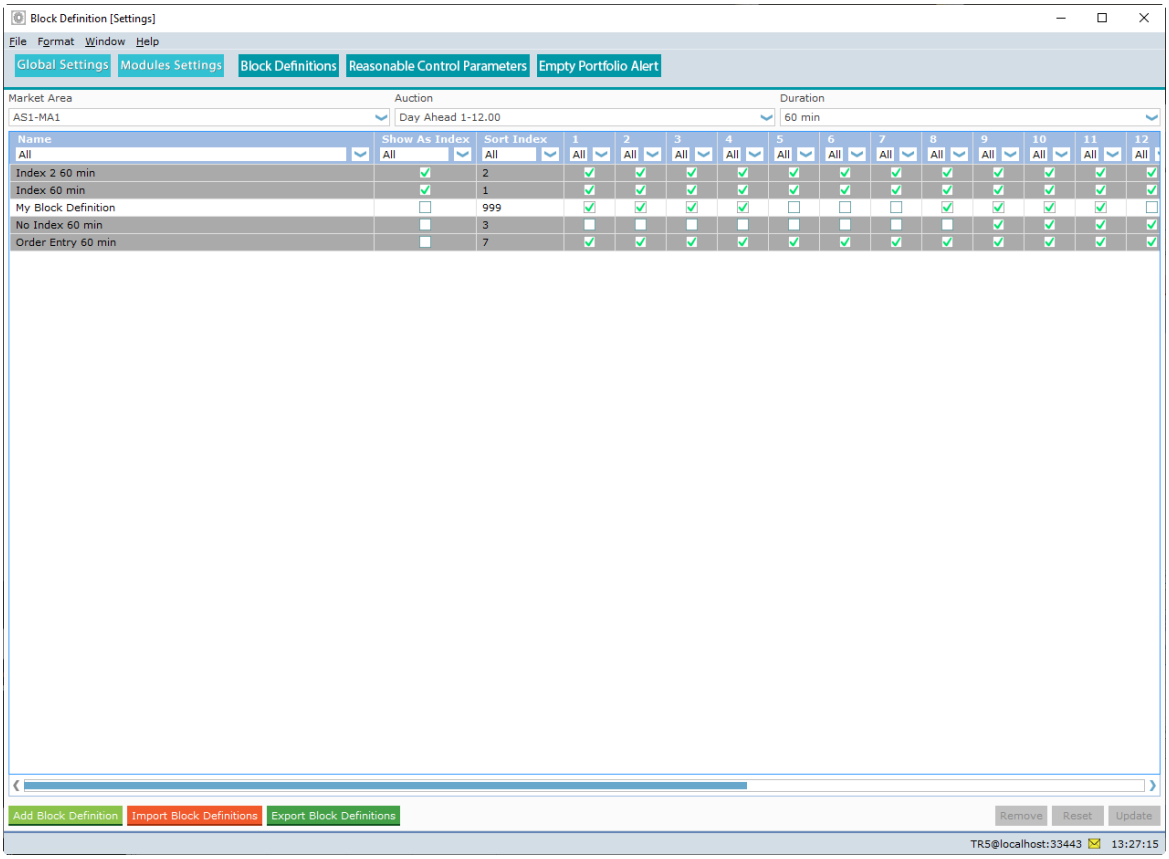
Select the **Market Area, Auction** and **Duration** to create a Block Bid Definition for in the filter bar.

Click the Add Block Definition button to create an additional definition template in the Block Definitions list.

Click the Import Block Definitions button to import Block Definitions from Excel.

Click the Export Block Definitions button to export Block Definitions on screen to Excel.

Copyright Soops b.v.



Block Definitions with a dark grey background color are exchange defined. You can however modify the exchange defined Block Definitions.

Name Name of the Block Definition, text field.

Show as Index Check this option if the Block Definition is to be included in the Index, in the Market Result and pop-up overview

Sort Index Block Definitions can be assigned an index number (max 999), determining the sorting sequence of the block definition lists.

Periods Check each period to be included in the Block Definition

Click the Update button to save your new view settings.

Click the Reset button to revert to the original settings without saving.

Click the Remove button to delete the selected block definition.

Copyright Soops b.v.

7.8 Reasonable Control Parameters

The **Reasonable Control Parameters** settings allow traders to define reasonable control parameters (RCP) to create their own checks from the trader client.

Click the

button to access the Reasonable Control Parameters settings.

Exceeding the set parameters during order creation will trigger an alert message to be displayed in the Market Global View message bar, and the corresponding order is displayed in yellow in the **Market Global View.**

The parameter checks are:

- Order side at Pmin/Pmax
- Volume difference at Pmin/Pmax

All checks are independent and can be filled without the others, e.g. it is possible for a given check to define only the volume difference at Pmin.

Reasonable Control Parameters are defined at the portfolio level, per Area, per duration.

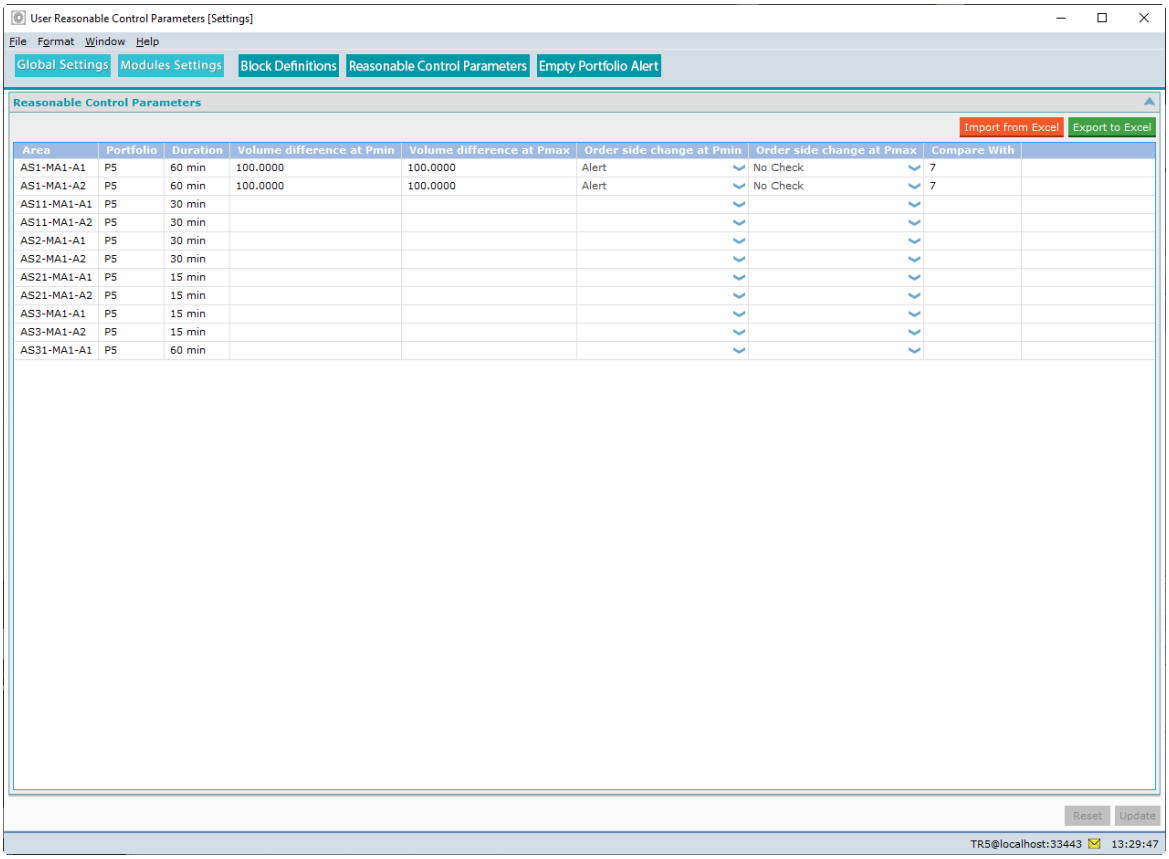
It is possible to export or import the list of checks, by using the

and

buttons.

This alert is non-binding: the trader can still submit the order if the check is not successful.

Copyright Soops b.v.



Copyright Soops b.v.

Area	All area / portfolio with period duration for which there is permission are automatically included in the table
Portfolio	All area / portfolio with period duration for which there is permission are automatically included in the table
Duration	All area / portfolio with period duration for which there is permission are automatically included in the table
Vol difference at Pmin	Absolute value, triggers alert if Volume deviation at Pmin is exceeding the set amount since **Compare With** setting
Vol difference at Pmax	Absolute value, triggers alert if Volume deviation at Pmax is exceeding the set amount since **Compare With** setting
Order side change at Pmin	Triggers alert if Volume at Pmin changes from Buy to Sell or vice versa since **Compare With** setting
Order side change at Pmax	Triggers alert if Volume at Pmax changes from Buy to Sell or vice versa since **Compare With** setting
Compare With	Compare with Xth previous auction session“ with X a strictly positive integer included in [1;100]. With ‘previous auction session’ is meant the auction sessions that were scheduled. If order history is shorter than auction X defined, then no check is done

Click the Update button to save your new view settings.

Click the Reset button to revert to the original settings without saving.

Copyright Soops b.v.

7.9 Empty Portfolio Alert

The **Empty Portfolio Alert** settings allow traders to set an alert message which warns the user about portfolios not having an order submitted.

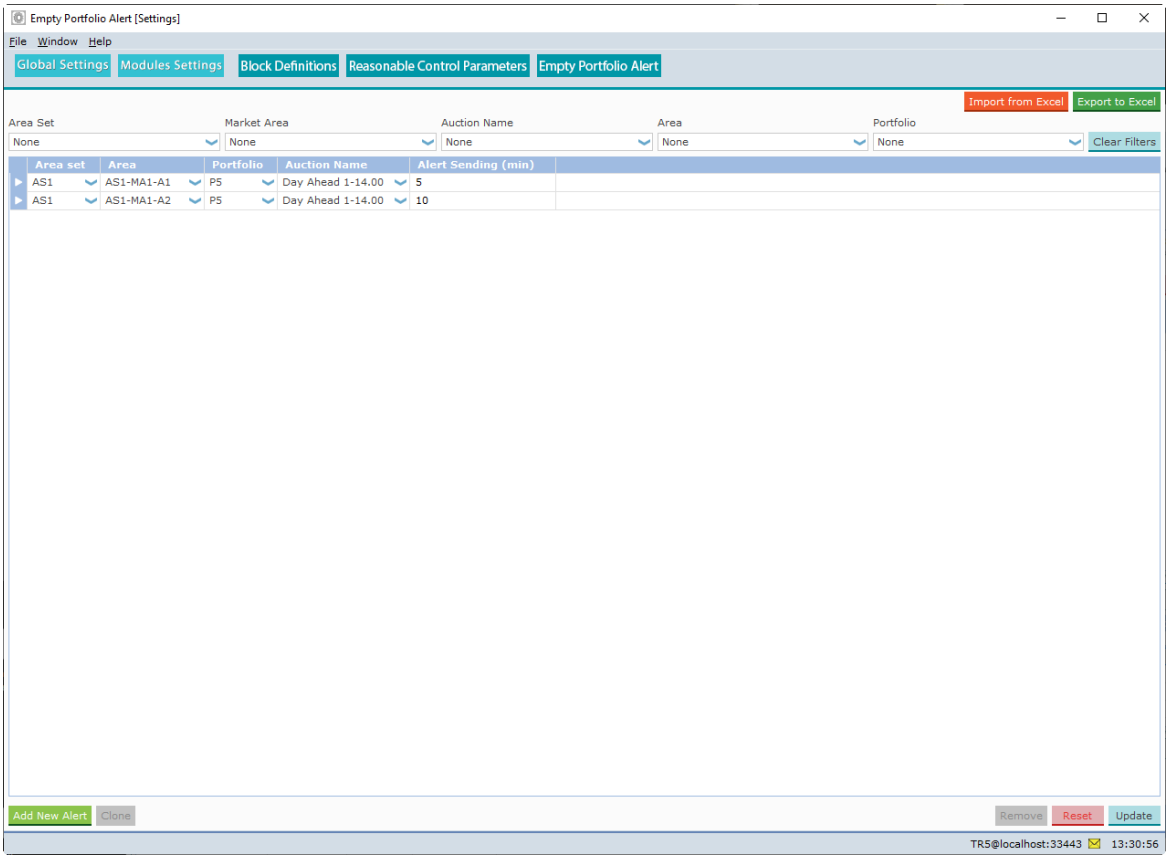
Click the Empty Portfolio Alert button to access the Empty Portfolio Alert settings.

The alerts are defined per (area, portfolio, auction name). Multiple alerts can be configured for the same (area, portfolio, auction name) combination.

It is possible to export or import the list of alerts, by using the Import from Excel and Export to Excel buttons.

Click the Add New Alert button to create an additional alert template in the Alert list.

Click the Clone button to create a copy of the selected alert template in the Alert list.



Area Set Select an Area Set
Area Select an Area
Portfolio Select a Portfolio
Auction Name Select an Auction
Alert Sending (min) Number of minutes before Order Entry End, the check will be triggered.

Copyright Soops b.v.

If an alert is triggered, a warning message will be sent to the Client Message Book, and to the message pane of the Market Global View.
If there are more Auctions available for the same area, portfolio, auction name combination, for example one for 60 minutes, one for 30 minutes and one for 15 minutes, you will receive a warning for each separately, if applicable.

Click the Remove button to remove the selected Alert.

Click the Reset button to revert to the original settings without saving.

Click the Update button to save your new settings.

Copyright Soops b.v.

7.10 Super User Permissions

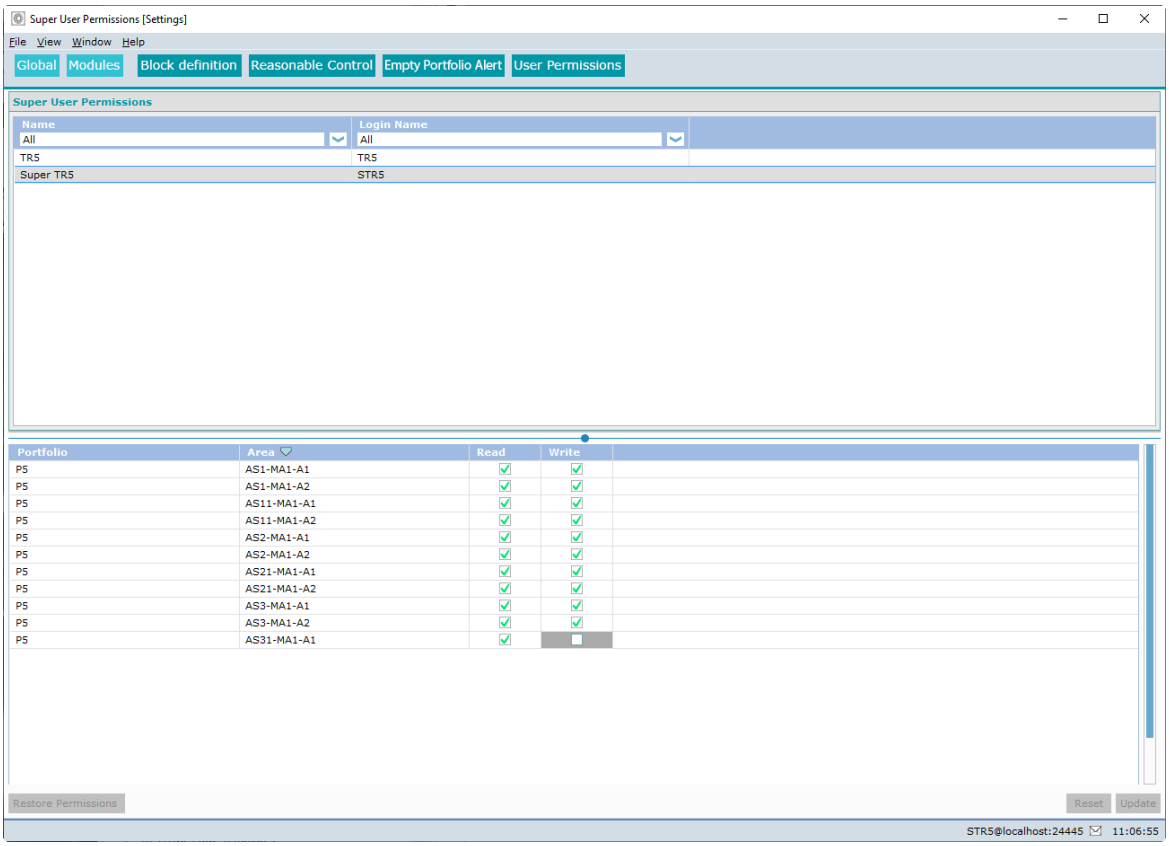
Operations can assign Super User permissions to a Trader user.

If Super User permissions have been granted by Operations, an additional Settings screen becomes available.

Trader super users are allowed to manage the users portfolio – area permissions of their participant's users.

Click the

button to access the permission manager screen.



Super User Permissions

Name	List of participant's users (own only)
Login Name	List of participant's login names (own only)
Portfolio	List of portfolios made accessible for the selected user by Market Operations (own and 3rd)
Area	List of areas made accessible for the user by Market Operations (own and 3rd)
Read	Checkbox, gives read rights for the selected portfolio-area. Default value is as was given by Market Operations
Write	Checkbox, gives write rights for the selected portfolio-area. Default value is as was given by Market Operations

Copyright Soops b.v.

The following rules apply to the Super User feature:

1. A super user can restrict its own permissions.
2. A super user can restrict the permissions for all the users of its own participant (client or API).
3. A super user can only manage the users of its own participant.
4. A super user can manage the permissions for its participant users on both own and third party portfolios.
5. A super user can't manage the permissions of a user linked to a different participant with permissions (3rd party) on the super user participant's portfolios.
6. A participant can have 0, 1 or several super users
7. Write permissions are always going with read permissions
8. The list of (portfolio – area) available on the super user settings contains only the (portfolio – area) for which the MO gave at least a read right.
9. For a user who has only a read right on a (portfolio – area), the write check box is disabled (grayed out) and can't be ticked.
10. After removing or restricting a permission on a (portfolio – area), a super user can restore the user's rights as long as it remains in the scope granted by MO.
11. All the super users of a participant are sharing the users permissions setup. It means that there is no super user ownership of the changes. When a super user applies a change, it is visible in all the other participant's super user settings. A client message is also sent to those super users to inform them about the change.

Important:
If a super user modifies permissions of another user, open screens of this other user might be closed automatically upon updating these permission changes.

Copyright Soops b.v.

7.11 Financial Module Settings

There are no special settings options for the Financial Module.
Please refer to the Visual chapter, the Create a View Setting chapter, and the Set Columns chapter for details.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 8

Password Settings

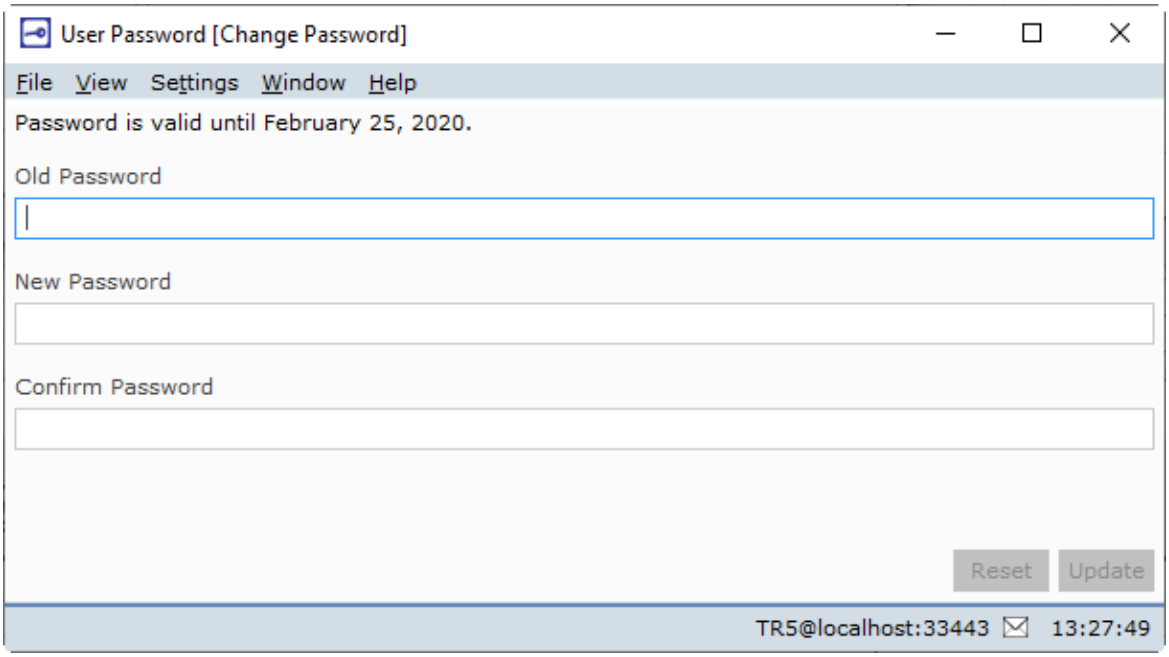
Copyright Soops b.v.

Chapter 8 Password Settings

A user can change the login password.
The initial password is provided by the exchange.

After initial login with the provided password, click the button in the main toolbar.

The **Password** screen opens as shown below.



In the **Old Password:** entry field, enter the password **exactly** as provided by the exchange, or your current active password.

In the **New Password:** entry field, enter your chosen password.

In the **Verification Password:** entry field, repeat your **New Password:** entry.

Click **Update** to confirm your new password, click **Reset** to revert to your original password.

Please note, that upon saving your new password, your requested password is verified and validated against a set of rules. See Appendix C, Password Rules. A password that is too simple will be rejected by the exchange, and your old password will be maintained.
Every 90 days a new password must be configured; the system informs you when renewal is due.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 9

Support

Copyright Soops b.v.

Chapter 9 Support

In case of problems with the **MEMO Trader Client** module, or if you require more information please contact your exchange.
See Appendix E, Helpdesk for details.

To aid you in finding what went wrong, **MEMO Trader Client** offers a detailed error message system via the message bar.

Please note:

In the unlikely case that **MEMO Client** reports a critical failure, or crashes to the Windows desktop (meaning the application closes without further notice), an *error.log* file is written to your hard disk. This file can be very important for the **Helpdesk** to help track down the problem and will automatically be sent to the exchange the next time you log in.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 10

Appendix B, Technical Requirements

Copyright Soops b.v.

Chapter 10 Appendix B, Technical Requirements

Recommended system requirements for the client computer:

Multi-Core processor,
4GB internal memory,
100 MB of free Hard Disk space.
Each upgradable client version collected from the exchange server is locally stored, requiring approximately an additional 15Mb per version.

Minimum Supported operating systems:

Windows10 Pro or Enterprise, or newer,
Server 2016 or newer,
MS Excel, 2016, 2019, locally installed,
Please note that MS Excel Viewer is not supported.

The above is valid according to the Microsoft Lifecycle Policy for these versions.

Important:

Due to Windows evolutions in Kernel and security handling, the deployment of ETS Clients can no longer work on the following operating systems:

Windows 8.1 Pro: win32 V6.2 nt i386 ucs2
Windows Server 2012 R2 Standard: win32 V6.2 nt i386 ucs2
Windows 7 Home Premium: win32 V6.1 nt i386 ucs2
Windows Server 2008 R2 Standard: win32 V6.1 nt i386 ucs2
Windows 7 Professional: win32 V6.1 nt i386 ucs2
Windows 8.1 Connected: win32 V6.2 nt i386 ucs2
Windows 7 Enterprise: win32 V6.1 nt i386 ucs2
Windows 8.1 Enterprise: win32 V6.2 nt i386 ucs2

Note that any older versions than those mentioned above are also not supported in any way.

Network settings:

MEMO Trader Client requires a stable Internet connection.
Recommended minimum connection speed is 256Kbit/s or better.
All traffic is TLS encrypted.

Proxy support

The MEMO Trader Client does support connecting to an exchange using HTTP CONNECT proxy servers.
Please see the HTTP Proxy Settings chapter in the Trader Client Guide for more details.

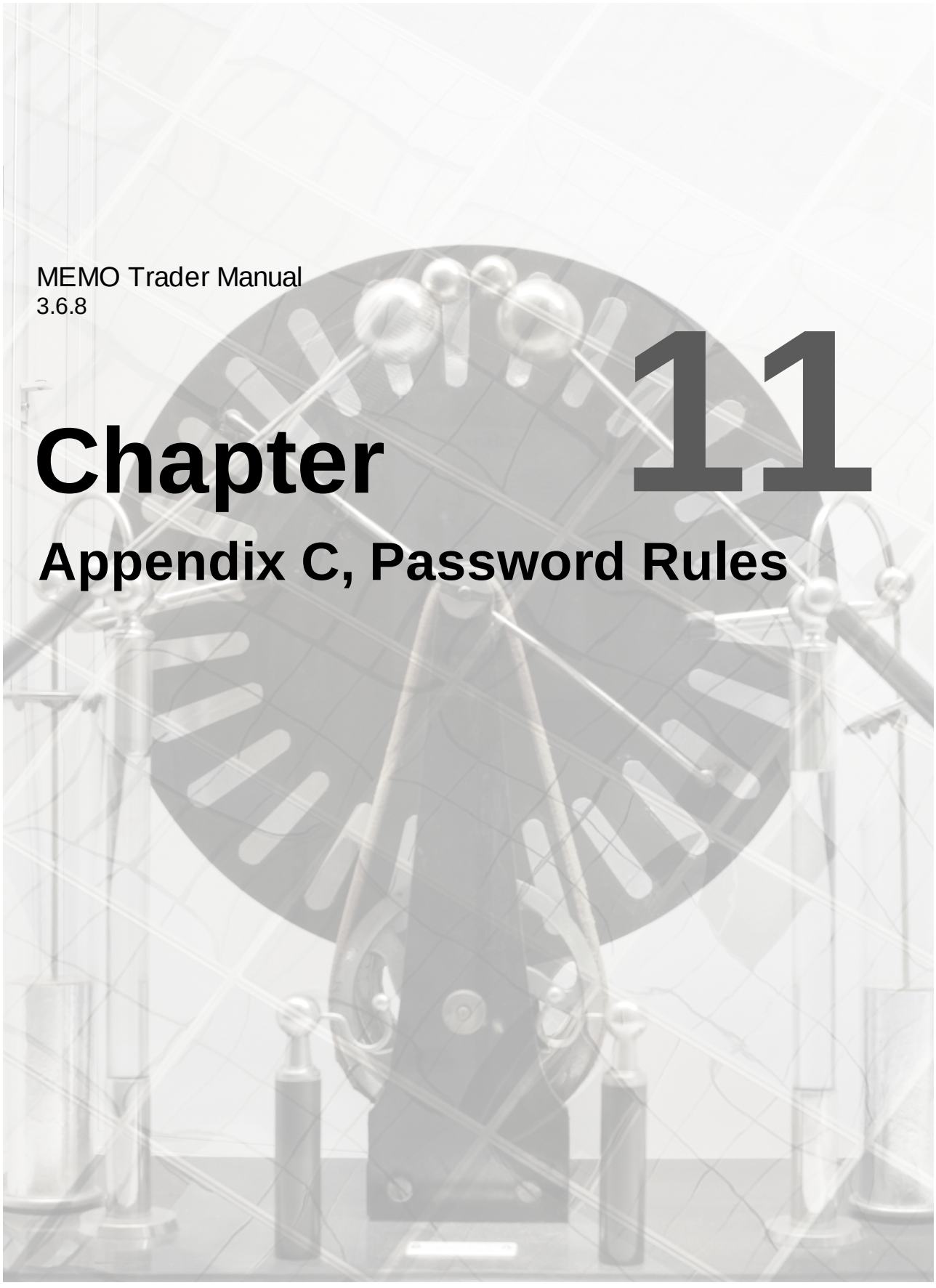
Note:

Using an Upgradable client on Citrix is not recommended.

For further details please contact the Helpdesk.

Copyright Soops b.v.

Copyright Soops b.v.



MEMO Trader Manual
3.6.8

Chapter 11

Appendix C, Password Rules

Copyright Soops b.v.

Chapter 11 Appendix C, Password Rules

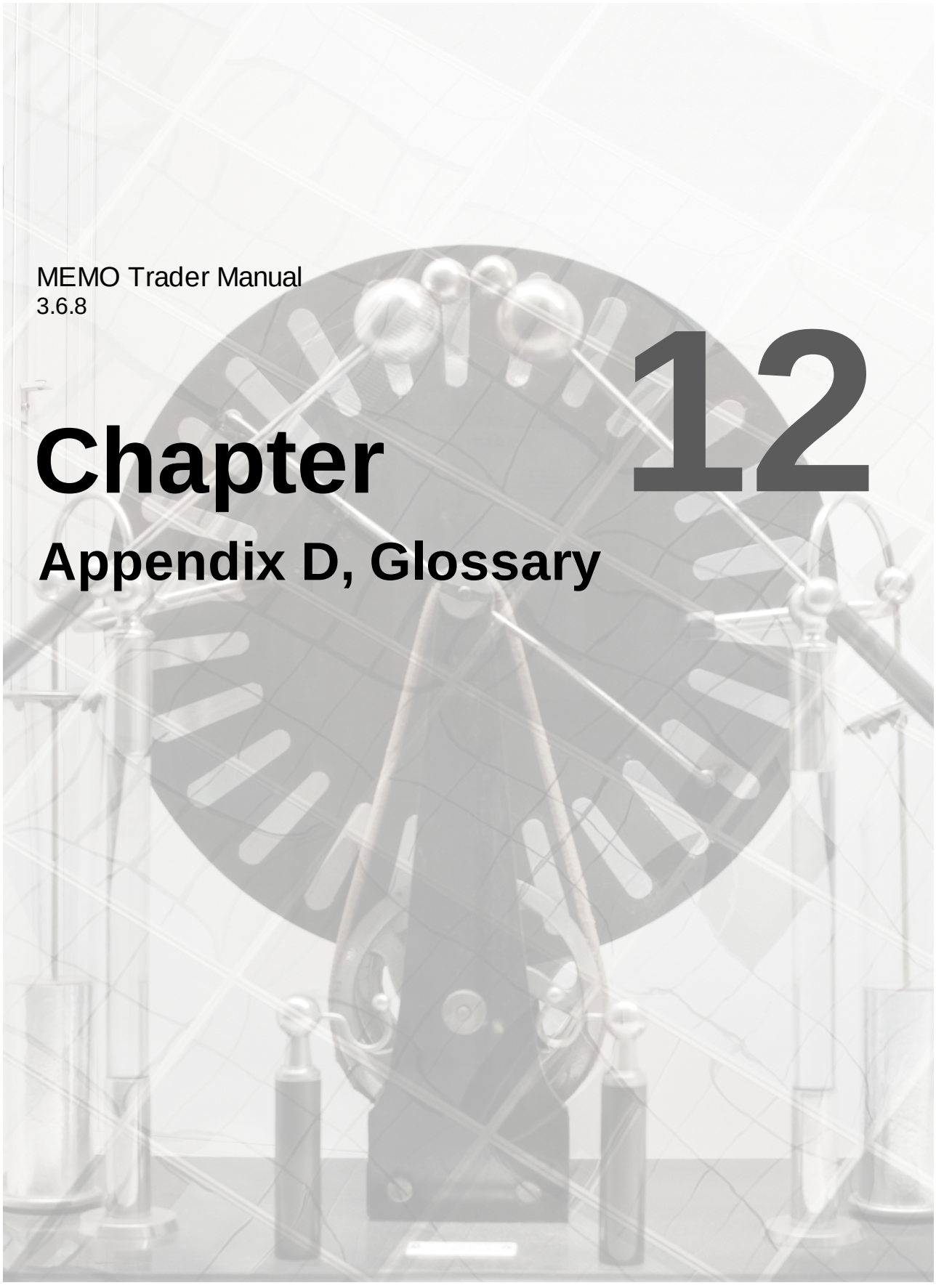
The user defined password needs to abide by a set of rules in order to guarantee the password is sufficiently secure.

1 Must contain a minimum of 8 characters
2 Must include 3 out of 4 of symbol, number, uppercase letter and lowercase letter
3 May not include composed characters
4 May include a space, but this counts as a symbol
5 May only repeat each character once in sequence, i.e. each character can be doubled, but not tripled in a row

Symbol: examples are: '$', '&', '~', ']', etcetera
Number: examples are: '1', '7', '0'
Uppercase: examples are: 'E', 'T', 'S'
Lowercase: examples are: 'e', 't', 's'
Composed: examples are: 'é', 'â', 'ê'

Your password will automatically expire 90 days after the last change. Upon expiration, you will be prompted to alter your password during login.
The initial password, assigned by the operator, remains valid for only 7 days however.

Copyright Soops b.v.



MEMO Trader Manual
3.6.8

Chapter 12

Appendix D, Glossary

Copyright Soops b.v.

Chapter 12 Appendix D, Glossary

Term	Explanation
Actual Acceptance Ratio	AAR the executed fraction of the block order. The matching algorithm returns AAR for each block order. Each period of the block has same AAR value. Each block of a loop family has same AAR value.
Area	A place for delivery, for power contracts: the hub and high voltage network that is being traded
Area Set	Regrouping of areas for which the matching is done at the same moment
Auction Day	Day on which an auction is set to be performed
Auction Group	Filter option allowing grouped auctions to be selected as a filter option
Big Block	A block of which the volume for each of its time steps is inferior or equal to a Maximum volume of a big block order as defined at the market area and with a volume for at least one of its time steps strictly greater than the Maximum volume of a block order as defined for the area
Block Bid	Order relating to a contract on several linked Expiries
Scalable Complex Bid	Linear Stepwise orders that are defined by a single side (always sell), a volume, and a limit price, where a single linear stepwise order per period is expected. A mandatory MAV (Minimum Acceptance Value) for each period is expected.
Curtailable Block	A block orders for which the execution can be total or greater than a minimum acceptance ratio
Delivery Day	Day on which the Contracts negotiated on the exchange are to be delivered
Exclusive Group Block Bid	Exclusive group of choice block bids, from which a maximum of one block bid can be accepted
Index	Price published by the exchange for a market area
Linear Bid	Bid formed by discrete volume / price pairs; expression of sell or purchase interest depending on the price Can be 60 minutes (Hourly Linear) or 15 minute periods
Linked Family Block Bid	Linked Block Bids correspond to a set of block bids which are linked together. Only when all parent block bids are matched, their children can also be matched
Loop Family Block Bid	Loop Family Block Orders correspond to a group of block orders which must either all be executed or none of them be executed
Market Area	An area comprising one or several Delivery Areas
Minimum Acceptance Ratio	MAR the minimum fraction of the block order that has to be accepted. MAR is defined for each block order (standard, linked family, exclusive group, loop). Each period of the block has same MAR value. Per default, the value of MAR is 1, i.e. all or none
Minimum Acceptance Value	MAV the minimum volume of the scalable complex order that has to be accepted. MAV is defined for each scalable complex order. Each period of the scalable complex order has a individual MAV value. The value of the MAV must be higher or equal to the lowest volume of the curve.
MCP	Market Clearing Price: the price at which the bids are executed
MCV	Market Clearing Volume: traded volume on a market area
Portfolio	Provides the possibility to separate participant bids and trades by aspect
Piecewise Order	Orders that are defined by a side (buy or sell), a volume, an initial price at which the order starts to be (partially) accepted, and a final price at which the order is completely accepted. Piecewise orders are accepted at a proportion depending on price
Smart Blocks	Collective definition containing Linked Family Blocks and Exclusive Group Blocks
Spread Family Block Bid	A Spread Block is a smart block which is part of a spread family.They always come in pairs; the 2 Block orders included in the spread family must have necessarily opposite sides (1 buy and 1 sale). The quantities defined for a spread block are either all ≥ 0 or all ≤ 0. They are either both executed or both are not.

Copyright Soops b.v.

Stepwise Order	Orders that are defined by a type (buy or sell), a volume and a limit price, whereas the limit price applies to the entire volume irrespective of it being accepted completely or in part. Stepwise orders may be accepted in whole or in part as soon as they are in-the-money
Suspended	Bid that is subject to an Auction Exclusion Rule
Trading Limit Day	Day on which a Trading Limit is set to be applied
Virtual Area	Virtual Area in ETS which submits an empty order book to PMB

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 13

Appendix E, Helpdesk

Copyright Soops b.v.

Chapter 13 Appendix E, Helpdesk

Copyright Soops b.v.

Chapter 14

Appendix F, Excel Paste supported

Copyright Soops b.v.

Chapter 14 Appendix F, Excel Paste supported

To copy/paste information from Excel, certain information must be available within the paste information in order to be accepted by the MEMO Trading System.

All pastes from Excel are validated by the MEMO Trading System, thus invalid entries are rejected.

Any resulting message dialogs indicate what is missing or invalid in the paste.
In such cases include or correct the data in the Excel copy and retry the copy/paste action.

Please note that the Windows File Browser that is opened in order to select a file to import, does not support shortcuts. Only actual directories and files are supported.

Important:
Please note that Excel Viewer versions are not supported; copied information from Excel Viewer is not recognized as legitimate Excel format, and will be rejected.

Important:
Please note that Excel must be installed locally, working via the cloud to access the *Excel.exe* is not supported.

14.1 Linear Bids (Step- and Piecewise)

Stepwise and Piecewise order submission templates are (almost) identical. Note that for Stepwise each price column except the min and max price columns must occur at least twice, in order to create quantity steps.

Please refer to your market rules regarding availability of described functions.

General remark:

Prices are written in the 1st line, first price and last price must always be the price limits.
Quantities are written in subsequent lines.

Copy/paste operation :

A comment can be optionally written in the 1st column (not mandatory), but in this case 'comment' has to be written in the upper cell to indicate the column contains comment information.

Optionally, periods can be written in the 1st column (if there is no comment column) or in the 2nd column (if there is a comment column), but in this case 'period' has to be written in the upper cell to indicate the column contains period information.

Information regarding the period:

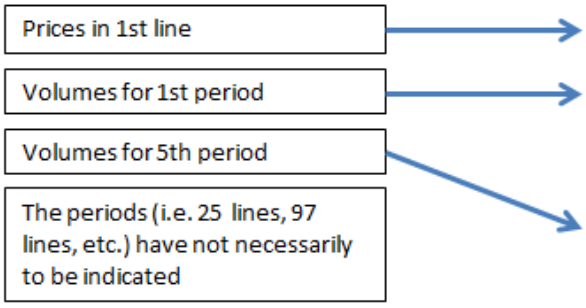
If the pasted grid does not contain any period, then the first line contains the price information, the 2nd line contains quantities for the 1st period, the 3rd line contains quantities for the 2nd period…, etc.

If the pasted grid contains periods, then the 1st line must contain the price information, and subsequent lines must contain quantities for the given period.

Copyright Soops b.v.

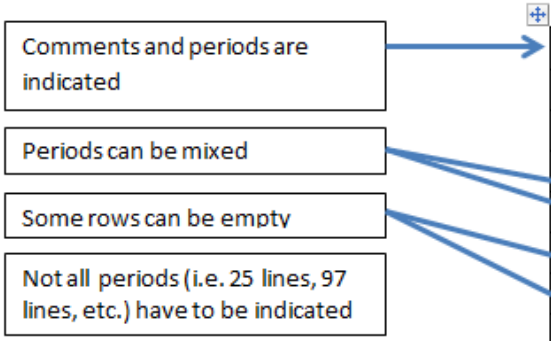
Four possible configurations (Piecewise) are illustrated below:

Configuration 1



-500	200	3000
10		10
30		-90
40	36	-30
50		50

Configuration 2



comment	period	-500	200	3000
	1	10		10
my bid	3	8	5	-6
	15	8	5	-6
	6	8	5	-6
	10	8	5	-6

Configuration 3

period	-500	200	3000
1	10		10
3	8	5	-6
15	8	5	-6
6	8	5	-6
10	8	5	-6

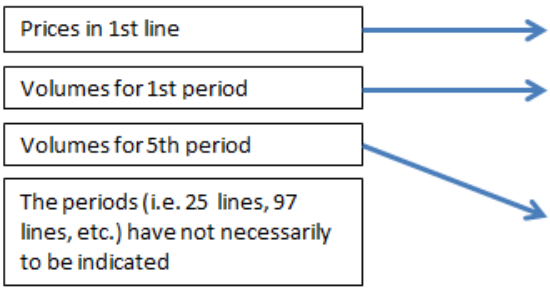
Configuration 4

comment	-500	200	3000
	10		10
my bid	8	5	-6
	8	5	-6
	8	5	-6
	8	5	-6

Copyright Soops b.v.

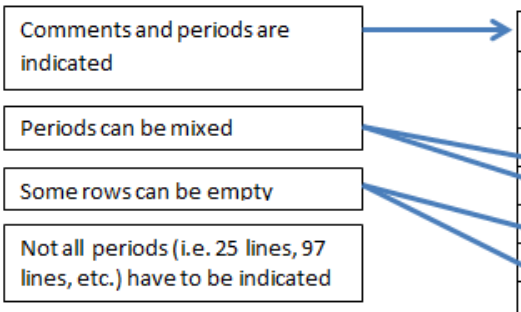
Four possible configurations (Stepwise) are illustrated below:

Configuration 1



-500	200	200	3000
10			10
30	30	-90	-90
40	40	-30	-30
50			50

Configuration 2



comment	period	-500	200	200	3000
	1	10	10	10	10
my bid	3	8	8	-6	-6
	15	8	8	-6	-6
	6	8	8	-6	-6
	10	8	8	-6	-6

Configuration 3

period	-500	200	200	3000
1	10			10
3	8	8	-6	-6
15	8	8	-6	-6
6	8	8	-6	-6
10	8	8	-6	-6

Configuration 4

comment	-500	200	200	3000
	10			10
my bid	8	8	-6	-6
	8	8	-6	-6
	8	8	-6	-6
	8	8	-6	-6

Copyright Soops b.v.

14.2 Block Bids

Market participants can either enter bids directly into the trading system or paste them in from Excel by using the copy & paste functionality.

When no Spread Blocks are allowed in an Area, the rules below are to be followed:

Copy/paste operation :
The 1st column must contain a Block Code.
The 2nd column may contain an Id.
The 3rd column must contain a BlockCodePRM for C02, C04 and C88 Bids. For C01 bids the column remains empty.
The 4th column may contain a MAR value. If left empty, the default value of 1.00 (100%) will be inserted after paste. MAR is indicated as a decimal number and not as a percentage to avoid any confusion during the copy paste operation.
Example: 10% in excel percentage format will paste a value of 0.1; but one can think that a value of 10 should be pasted to indicate 10%...
The 5th column may contain a comment.
The 6th column must contain the price.
Subsequent columns contain Quantities (with at least one volume among them), the periods of the block are not necessarily contiguous.

Check on the copied/pasted grid:

The copied grid must always have 6 columns more as the number of periods for the Area, otherwise it will be rejected.
i.e: 30 for 60-minutes (Hourly), 54 for 30-minutes and 102 for 15-minutes.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
1	Block Code	Block Id	BlockCodePRM	MAR	Comment	Price	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	C01	1		1	Standard Bid	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
3	C01	2		1	Parent	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4	C02	3	1	1	1st Gen Child	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
5	C02	4	2	1	2nd Gen Child	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
6	C04	5	10	1	1st Exclusive	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7	C04	6	10	1	2nd Exclusive	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
8	C88	7	11	1	1st Loop	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
9	C88	8	11	1	2nd Loop	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
10	C88	9	11	1	3rd Loop	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

Hourly columns, without Spread Blocks enabled

When Spread Blocks are allowed in an Area, the rules below are to be followed:

Copy/paste operation :
The 1st column must contain a Block Code.
The 2nd column may contain an Id.
The 3rd column must contain a BlockCodePRM for C02, C04, C88 and C89 Bids. For C01 bids the column remains empty.
The 4th column may contain a MAR value. If left empty, the default value of 1.00 (100%) will be inserted after paste. MAR is indicated as a decimal number and not as a percentage to avoid any confusion during the copy paste operation.
Example: 10% in excel percentage format will paste a value of 0.1; but one can think that a value of 10 should be pasted to indicate 10%...
The 5th column may contain a comment.
The 6th column must contain the price.
The 7th column must contain, but only for C89 Bids, the name of the opposing spread block bid Area. Must be left empty for non C89 Bids.
The 8th column must contain, but only for C89 Bids, the price of the opposing spread block bid Area. Must be left empty for non C89 Bids.

Copyright Soops b.v.

Subsequent columns contain Quantities (with at least one volume among them), the periods of the block are not necessarily contiguous.

Check on the copied/pasted grid:

The copied grid must always have 8 columns more as the number of periods for the Area, otherwise it will be rejected.
i.e: 30 for 60-minutes (Hourly), 54 for 30-minutes and 102 for 15-minutes.

Block Code	Block Id	BlockCodePRM	MAR	Comment	Price	Spread Area	Spread Price	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
C01	1		1	Standard Bid	12			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C01	2		1	Parent	12			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C02	3	1	1	1st Gen Child	11			11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
C02	4	2	1	2nd Gen Child	10			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
C04	5	10	1	1st Exclusive	12			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C04	6	10	1	2nd Exclusive	10			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
C88	7	11	1	1st Loop	12			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C88	8	11	1	2nd Loop	13			13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
C88	9	11	1	3rd Loop	15			15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
C89	10		1	Spread	17	AS1-MA1-A2	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

Hourly columns, with Spread Blocks enabled

In the examples above, the gray selection is valid for copy/paste action.

Note that it is not possible to update existing Block Bids using the Block Id, this must be done manually.

On Daylight Saving Days there are exceptions:

DST25 - 15min, expected are 106 columns: 96 normal periods + 4 specific DST25 + the 6 first values (Block Code, ...)
DST23 - 15min, expected are the same number of columns as of a normal day (96+6 = 102) including 4 empty columns
DST25 - 30min, expected are 56 columns: 48 normal periods + 2 specific DST25 + the 6 first values (Block Code, ...)
DST23 - 30min, expected are the same number of columns as of a normal day (48+6 = 54) including 4 empty columns
DST25 - hourly, expected are 30 columns: 24 normal periods + 1 specific DST25 + the 6 first values (Block Code, ...)
DST23 - hourly, expected are 30 columns, including 1 empty column

Please refer to your market rules regarding availability of described functions.

14.3 Block Definitions

The **Block Definitions** screen in the User Settings accepts the following Excel paste format:

Name	Show As Index	Sort Index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
BD 60 AS 1-2 1600	Yes	92	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BD 60 AS 1-2 1601	Yes	93	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BD 60 AS 1-2 1602	Yes	94	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Pasting from Excel does not allow overwriting entries that have the same Sort Index value.

Copyright Soops b.v.

14.4 Scalable Complex Bids

Market participants can either enter bids directly into the trading system or paste them in from Excel by using the copy & paste functionality.

1. The first line of the import format should always be the labels of the parameters, and the second line the value for each parameter
   a. The order of the parameters is fixed and is defined as follows:
      i. Fixed Term
      ii. Schedule Stop Periods
      iii. Increase Gradient
      iv. Decrease Gradient
   b. The names of the parameter labels can be changed and is not subject to a sanity check.

2. The “Comment” and “Period” columns are optional: both can be present, only one of them, or none of them
   a. If the columns (or one column) are present, the labels (“Comment” and/or “Period”) must be present
   b. The labels of these columns must be “Comment” and “Period” and are subject to a sanity check
   c. The labels “Comment and “Period” are not case sensitive.

3. The order of the “Comment” and “Period” columns, if both present, can be inverted.

4. The MAV column is mandatory
   a. The label “MAV” is mandatory
   b. The label “MAV” is not case sensitive
   c. The MAV is always the column directly before the (price, quantity) combinations.

5. For DST23, there must be 24 periods, but the 3rd one is ignored.

6. For DST 25, there must be 25 periods and all of them are taken into account.

Example 1: All columns are present

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient	
0	0	3		
Comment	Period	MAV	-500	3000
	1	0	-10	-10
	2	0	-10	-10
	3	0.5	-10	-10
	4	1	-10	-10

Copyright Soops b.v.

Example 2: Order of columns "Comment" and "Period" are inverted

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient	
0	0	3		
Period	Comment	MAV	-500	3000
	1	0	-10	-10
	2	0	-10	-10
	3	0.5	-10	-10
	4	1	-10	-10

Example 3: Only the "Comment" column is present

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient
0	0	3	
Comment	MAV	-500	3000
1	0	-10	-10
2	0	-10	-10
3	0.5	-10	-10
4	1	-10	-10

Example 4: Only the "Period" column is present

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient
0	0	3	
Period	MAV	-500	3000
1	0	-10	-10
2	0	-10	-10
3	0.5	-10	-10
4	1	-10	-10

Example 5: None of the columns "Comment" and "Period" are present

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient
0	0	3	
MAV	-500	3000	
0	-10	-10	
0	-10	-10	
0.5	-10	-10	
1	-10	-10	

Copyright Soops b.v.

Example 6: DST23

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient	
0	0	3		
Comment	Period	MAV	-500	3000
	1	0	-10	-10
	2	0	-10	-10
	3	0.5	-10	-10
	4	1	-10	-10
	5	1	-10	-10
	6	1	-10	-10
	7	1	-10	-10
	8	1	-10	-10
	9	1	-10	-10
	10	1	-10	-10
	11	1	-10	-10
	12	1	-10	-10
	13	1	-10	-10
	14	1	-10	-10
	15	1	-10	-10
	16	1	-10	-10
	17	1	-10	-10
	18	1	-10	-10
	19	1	-10	-10
	20	1	-10	-10
	21	1	-10	-10
	22	1	-10	-10
	23	1	-10	-10
	24	1	-10	-10

NB: In this example, the 3rd period would be ignored

Copyright Soops b.v.

Example 7: DST25

Fixed term	Schedule Stop Periods	Increase Gradient	Decrease Gradient	
0	0	3		
Comment	Period	MAV	-500	3000
	1	0	-10	-10
	2	0	-10	-10
	3	0.5	-10	-10
	4	1	-10	-10
	5	1	-10	-10
	6	1	-10	-10
	7	1	-10	-10
	8	1	-10	-10
	9	1	-10	-10
	10	1	-10	-10
	11	1	-10	-10
	12	1	-10	-10
	13	1	-10	-10
	14	1	-10	-10
	15	1	-10	-10
	16	1	-10	-10
	17	1	-10	-10
	18	1	-10	-10
	19	1	-10	-10
	20	1	-10	-10
	21	1	-10	-10
	22	1	-10	-10
	23	1	-10	-10
	24	1	-10	-10
	25	1	-10	-10

Copyright Soops b.v.

14.5 Reasonable Control Parameters

The **Reasonable Control Parameters** screen accepts the following Excel paste format:

Area	Portfolio	Duration	Volume difference at Pmin	Volume difference at Pmax	Order side change at Pmin	Order side change at Pmax	Compare With
Area 1	Portfolio Trader	60 min	-500	3000	alert	no check	21
Area 11	Portfolio Trader	15 min	-500	3000	alert	no check	21
Area 11	Portfolio Trader	30 min	-500	3000	alert	no check	21
Area 11	Portfolio Trader	60 min	-500	3000	alert	no check	21
Area 12	Portfolio Trader	15 min	-500	3000	alert	no check	21
Area 12	Portfolio Trader	30 min	-500	3000	alert	no check	21
Area 12	Portfolio Trader	60 min	-500	3000	alert	no check	21
Area 2	Portfolio Trader	60 min	-500	3000	alert	no check	21
Area 21	Portfolio Trader	15 min	-500	3000	alert	no check	21
Area 21	Portfolio Trader	30 min	-500	3000	alert	no check	21
Area 21	Portfolio Trader	60 min	-500	3000	alert	no check	21
Area 22	Portfolio Trader	15 min	-500	3000	alert	no check	21
Area 22	Portfolio Trader	30 min	-500	3000	alert	no check	21
Area 22	Portfolio Trader	60 min	-500	3000	alert	no check	21

Please note that the copy-paste should not contain the title bar.

Pasting from Excel does not allow overwriting entries that have the same Area/Portfolio combination.

Copyright Soops b.v.

Chapter 15

Appendix G, Daylight Saving Time

Copyright Soops b.v.

Chapter 15 Appendix G, Daylight Saving Time

This chapter is specified for the **Central European Time Zone (CET)**.

In March and October each year, the change between summer and winter time is made.

For Central Europe, this means that at 02.00 hours, last Sunday of March, an hour is removed from the day.
For Central Europe, this means that at 02.00 hours, last Sunday of October, an hour is added to the day.

This does create a number of issues with creating and handling bids for these days.

Copyright Soops b.v.

15.1 March Short Day (Summer)

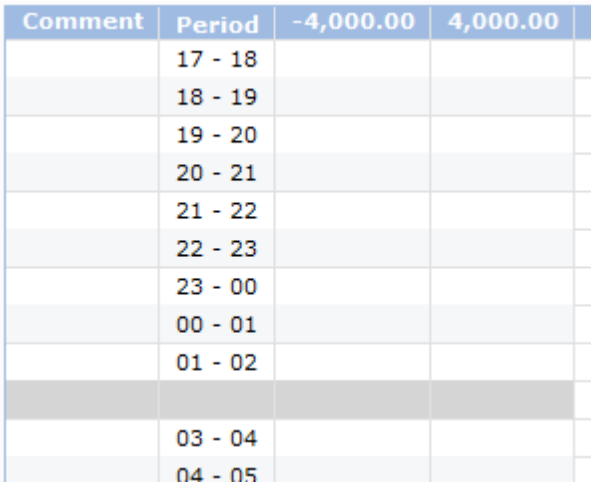
On the short March day, the period from 02.00 to 03.00 hours cannot be entered, because the hour does not exist.

In MEMO Trader Client this non-existent hour is indicated by grayed out row(s) or column(s), which is (are) not writable.

Paste from Excel:
The obsolete hour in March will be left blank, and is further ignored.
The normal Linear Excel paste templates can be used, the obsolete period(s) for this hour are automatically left out.

15.1.1 Linear / Scalable Complex

In March for the 23 hour day the missing hour will be displayed as below:



Comment	Period	-4,000.00	4,000.00
	17 - 18		
	18 - 19		
	19 - 20		
	20 - 21		
	21 - 22		
	22 - 23		
	23 - 00		
	00 - 01		
	01 - 02		
	03 - 04		
	04 - 05		

Hourly

For 15 minute products each quarter of the missing hour will have its own row, grayed out.

Comment	Period	-4,000.00	4,000.00
	01:00 - 01:15		
	01:15 - 01:30		
	01:30 - 01:45		
	01:45 - 02:00		
	03:00 - 03:15		
	03:15 - 03:30		
	03:30 - 03:45		
	03:45 - 04:00		

15 minute

For 30 minute products each half hour of the missing hour will have its own row, grayed out.

Copyright Soops b.v.

Comment	Period	-4,000.00	4,000.00
	23:30 - 00:00		
	00:00 - 00:30		
	00:30 - 01:00		
	01:00 - 01:30		
	01:30 - 02:00		
	03:00 - 03:30		
	03:30 - 04:00		
	04:00 - 04:30		
	04:30 - 05:00		
	05:00 - 05:30		

30 minutes

If Submitting Several Days, including the March DST day, then all normal days are handled normally, and the DST day will ignore the value(s) for the missing hour.

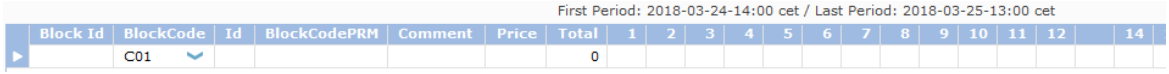
In case of more periods for the non-existing hour, all these periods will be grayed out.

Note that for Scalable Complex the MAV column is present as well.

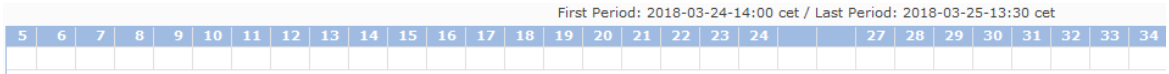
Copyright Soops b.v.

15.1.2 Block

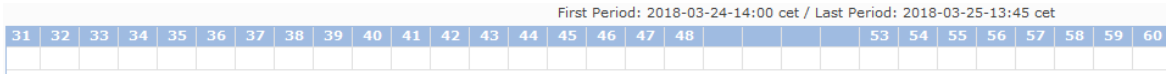
In March for the 23 hour day there will be a total of 24 hours in periods but the 'missing' hour will be empty and cannot be filled.



Hourly



30 minute



15 minute

Submitting Block Bids using Block Definitions will take the missing periods into account.

The missing periods will be left blank, and cannot be filled.

Copyright Soops b.v.

15.1.3 Market Results

In March for the 23 hour day the 'missing' periods for the hour will be offered as gray line(s) in the Market Results overview.

Exports to Excel or *.csv* will not include the missing period(s).

Please refer to your market rules regarding availability of the 15 and/or 30 minute functionality.

00 - 01	400.000	0	-12	12	24	12	12
01 - 02	400.000	0	-12	12	24	12	12
03 - 04	400.000	0	-12	12	24	12	12
04 - 05	400.000	0	-12	12	24	12	12

Copyright Soops b.v.

15.2 October Long Day (Winter)

On the long October day, the period(s) from 02.00 to 03.00 hours exist(s) twice.

In MEMO Client the double existent hour is indicated by an extra row(s) or column(s), which can contain either duplicated values of each other, or contain independent values.

Duplicate Long Day Hour:
If enabled, this means that entering values in period(s) in one of these two hours will automatically apply the same values to the period(s) of the other hour.

If disabled, this means that entering values in period(s) in one of these two hours will only apply to the period(s) of the entered hour. The period(s) of the other hour have separate values.

Paste from Excel:

A normal 24 hour Excel paste template will no longer result in a 25 hour filled bid, but will return an invalid paste error.
A full 25 hour Excel paste template is needed for both an independent and a duplicated long day, with all periods in the double hour having their own values.
For a duplicated long day hour, the values for all periods in the double hour must be the same however.

This is also true of course for all periods in these hours.

15.2.1 Linear / Scalable Complex

In October for the 25 hour day there will be a total of 25 periods.

Comment	Period	-4,000.00	4,000.00
	15 - 16		
	16 - 17		
	17 - 18		
	18 - 19		
	19 - 20		
	20 - 21		
	21 - 22		
	22 - 23		
	23 - 00		
	00 - 01		
	01 - 02		
	02 - 03		
	02X - 03X		
	03 - 04		

60 minutes

For 15 minute products each quarter of the duplicate hour will have its own row, with the periods indicated with an 'x'.

Copyright Soops b.v.

Comment	Period	-4,000.00	4,000
	02:00 - 02:15		
	02:15 - 02:30		
	02:30 - 02:45		
	02:45 - 03:00		
	02:00X - 02:15X		
	02:15X - 02:30X		
	02:30X - 02:45X		
	02:45X - 03:00X		
	03:00 - 03:15		
	03:15 - 03:30		
	03:30 - 03:45		
	03:45 - 04:00		
	04:00 - 04:15		
	04:15 - 04:30		

15 minutes

For 30 minute products each half hour of the duplicate hour will have its own row, with the periods indicated with an 'x'.

Comment	Period	-4,000.00	4,000
	01:00 - 01:30		
	01:30 - 02:00		
	02:00 - 02:30		
	02:30 - 03:00		
	02:00X - 02:30X		
	02:30X - 03:00X		
	03:00 - 03:30		
	03:30 - 04:00		
	04:00 - 04:30		
	04:30 - 05:00		
	05:00 - 05:30		
	05:30 - 06:00		
	06:00 - 06:30		
	06:30 - 07:00		

30 minutes

Duplicate DST hour:
If Submitting Several Days, including the October DST day, then all normal days are handled normally, and the DST day will insert a copy of the values of the periods from the 'parent hour into the 'X' hour.

Independent DST hour:
Submitting Several Days, including the October DST day, is not possible. A warning message 'Orders Submission for several days is not possible because one of the Delivery Days is a Long DST Day' is presented if this is attempted.

Note that for Scalable Complex the MAV column is present as well.

Copyright Soops b.v.

15.2.2 Block

In October for the 25 hour day there will be a total of 25 hours in periods.
The extra hour is no longer specifically indicated; the extra hour is only displayed as extra period(s) on the day.

Submitting Block Bids using Block Definitions will take the extra hour into account.

If Duplicate Long Hour is enabled for the Market Area, the period(s) for the extra hour will automatically be filled with a copy of the value of the corresponding period(s) of the 'actual' hour.
If Duplicate Long Hour is NOT enabled for the Market Area, the period(s) for the extra hour must be normally filled with it's own value, independent of the corresponding period(s) of the 'actual' hour.
Please refer to the Market Rules which of the above is available.

No screenshots are available, since these would be identical to a 'normal' day.

Copyright Soops b.v.

15.2.3 Market Results

In October for the 25 hour day the 'extra' period(s) will be offered in the Market Results overview. There will therefore be 25 hours in periods in the Market Results.

Exports to Excel or *.csv* will also include the extra period(s).

Please refer to your market rules regarding availability of the 15 and/or 30 minute functionality.

00 - 01	400.000	0	-24	12	36	12	12
01 - 02	400.000	0	-24	12	36	12	12
02 - 03	400.000	0	-24	12	36	12	12
02X - 03X	400.000	0	-24	12	36	12	12
03 - 04	400.000	0	-24	12	36	12	12

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 16

Appendix H, Trade Reports Export Files (.xml)

Copyright Soops b.v.

Chapter 16 Appendix H, Trade Reports Export Files (.xml)

This XML report contains an inventory of order/trade information of (portfolio, area) combinations for which the user has read or read write permission.

Please refer to your market rules regarding availability of described functions.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 17

Appendix I, Market Results Export File (.csv)

Copyright Soops b.v.

Chapter 17 Appendix I, Market Results Export File (.csv)

This report contains an inventory of a participant's Trades that have been executed in ETS during an Auction. This report is generated at the Auction level.

Please refer to your market rules regarding availability of described functions.

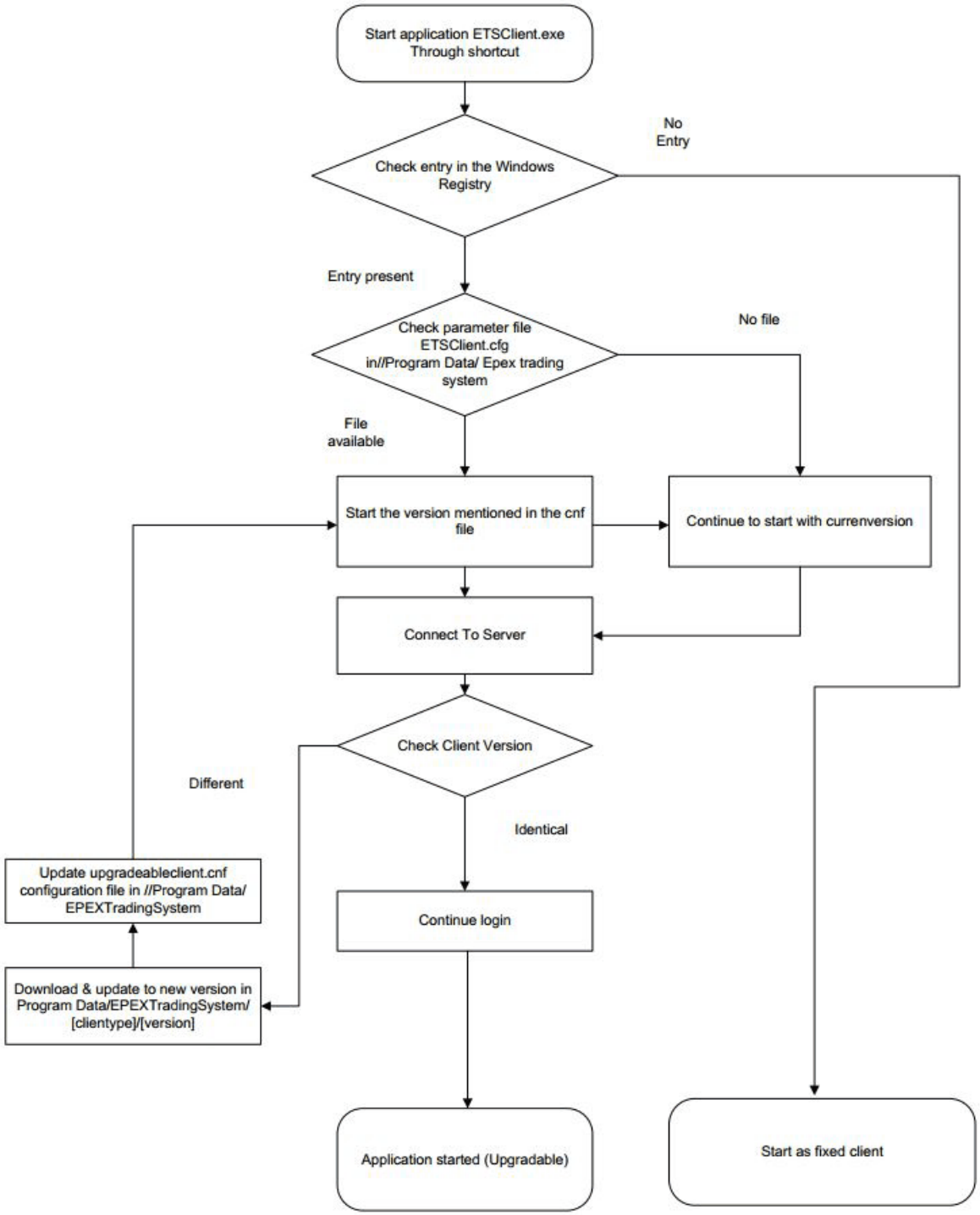
Copyright Soops b.v.

Chapter 18

Appendix J, Upgrade Schematic

Copyright Soops b.v.

Chapter 18 Appendix J, Upgrade Schematic



Copyright Soops b.v.

Chapter 19

Appendix K, Average MCP for Block

Copyright Soops b.v.

Chapter 19 Appendix K, Average MCP for Block

$$avMCP_{b,curr} = Round\left(\frac{\sum_{h\in H_b} q_{h,b} * Round\left(MCP_Unrounded_{h,a}.ConvertTo(curr); K_p + 1\right)}{\sum_{h\in H_b} q_{h,b}}; K_p + 1\right)$$

With:

curr: the considered currency

If the prices are the same within the market area of block b

Area a is the area which comes first in alphabetic order in the market area of block b

If the prices are different within the market area of block b

Area a is the area of block b

Remark: submitted quantity and not executed quantity is considered to calculate avMCP. The reason is:

- curtailable block may receive rounding deviation for specific period(s): this leads to a different value of avMCP if it is calculated from executed volume or submitted volume,
- EUPHEMIA/PMB provides the PRB status without knowing the allocated rounded deviation.

Copyright Soops b.v.

MEMO Trader Manual
3.6.8

Chapter 20

Appendix L, Keyboard usage

Copyright Soops b.v.

Chapter 20 Appendix L, Keyboard usage

Focus shifting ('tabbing'):

- The Tab key is used to switch keyboard focus between widgets in a window. Tab for forward motion and Shift+Tab for reverse motion.

Exception: some widgets need to interpret Tab and Shift+Tab internally, such as a text editor widget. In such cases Ctrl+Tab and Ctrl+Shift+Tab can be used.

- Circular: 'Tabbing' through the widgets should result in a circular pattern: when focus is at at the last/first widget in the window the next Tab/Shift+Tab keystroke should take you to the first/last widget in the window.
- Skipping: not all widgets are reachable by tabbing, for example: temporarily invisible widgets, or disabled widgets are skipped. Some widgets can be explicitly programmed by the application designer to always be skipped.

Default Actions:

- Hitting the 'Return' key may invoke a 'default action' on one of the widgets (usually an 'accept' button) regardless of whether that widget has keyboard focus or not.
- The presence or absence of such a default action is decided by the application designer.
- Some widgets that need to interpret the Return key (such as a text editor) can 'eat' the default action while they have keyboard focus

Escape:

- The 'Escape' key is used to abort an edit by a widget. For an input field it resets it to its initial value, for combo box pull-down menus it re-selects the original value, etc.

Widgets:

- Action button
  - 'Space' performs button press action
  - 'Return' performs button press action (if no 'default action' is defined on this application window).
  - A shortcut character may be defined (made visible by an underscore) on the label 'Alt'+this character will activate this button even when it does not have the keyboard focus.

- Binary indicator (check box, expander button)
  - 'Space' performs button press action
  - 'Return' performs button press action (if no 'default action' is defined on this application window).

- Radio button
  - 'Space' performs button press action.
  - 'Return' performs button press action (if no 'default action' is defined on this application window).

- Input field
  - typing of normal characters will insert (replace selection) with them
  - Return accepts (sets) current value, Esc reverts it to original.
  - Left/Right arrow moves cursor by 1 character
  - Ctrl+Left/Right move cursor by 1 word
  - Home/End ArrowUp/Down move cursor to begin/end
  - Shift+ArrowLeft/Right selects characters
  - Ctrl+Shift+ArrowLeft/Right selects words
  - Shift+Home/End selects to begin/end
  - Ctrl+C copy selection

Copyright Soops b.v.

  - Ctrl+X cut selection
  - Ctrl+V paste over selection
  - Ctrl+Z undo
  - Ctrl+Y redo
  - Ctrl+Delete delete next word
  - Ctrl+Backspace delete previous word
  - Ctrl+F find
  - Ctrl+G find again
  - Ctrl+Shift+G find backwards again
  - Ctrl+R replace
  - Ctrl+Shift+R replace again
  - Ctrl+] indent
  - Ctrl+[unindent

- Text editor
  - see all of Input Field
  - Return and Tab are inserted into the text
  - Arrow Up/Down, PageUp/Down moves cursor
  - Ctrl+Home/End move to start/end of document
  - Shift+ ArrowUp/Down, PageUp/Down selects lines/pages of text

- Combo box
  - typing normal characters will try to match one of the menu items
  - ArrowDown will open the menu with preset values
  - ArrowUp/Down/Left/Right with menu open will run through the menu selections.
  - Return accepts the current value (if not acceptable flashes red and resets to original value)

- Data set
  - Tab/Shift+Tab will move between editable fields inside the Data set
  - if there are no editable fields in the rows then Tab will select the whole Data set, ArrowUp/Down will select rows in such a Data set.
  - Single-select Data set:
    - ArrowUp/Down will move selected row (and if possible editable cell focus).
    - Home/End will change selection (and if possible editable cell focus) to be first/last row.
    - PageUp/Down will move selected row (and if possible editable cell focus) by number of visible rows.
  - Multi-select Data set has a movable 'focus' ring separable from the selected rows :
    - Ctrl+ArrowUp/Down will move focus (and not alter selections) by one row.
    - Ctrl+PageUp/Down will move focus (not alter selections) by number of visible rows.
    - Space will add the row indicated by the focus ring to the selections.
    - Ctrl+Space will toggle whether the row indicated by the focus ring is in the selections.
    - Ctrl+A will select all the rows.
    - ArrowUp/Down will set selections to be only the previous/next row.
    - PageUp/Down will set selections to be only the previous/next page's row.
    - Shift+ArrowUp/Down will add previous/next row to selections
    - Shift+PageUp/Down will add a page worth of rows to the selections.
    - Shift+Home/End will add all previous/following rows to the selections.

- Stepper
  - see all of Input field, except:
  - ArrowUp/Down steps the value up/dow

- Tab bar
  - ArrowLeft/Right selects previous/next tab.
  - Home/End selects first/last tab

Copyright Soops b.v.

- Splitter
  o no keyboard interaction.

- Linear gauge
  o no keyboard interaction.

Menu Actions:

- Pop-up menus (right-mouse click) no longer exist. These are replaced with actual buttons where appropriate.
- All options in the Menu Bar are available by simultaneously using the **ALT** key and a **letter** key. In the menu the corresponding letter key is indicated by underlining.

Copyright Soops b.v.