



# LME Pre Trade Risk Management (PTRM) User Guide

February 2019

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# 1 Introduction

This document provides user guidance on the LME Pre Trade Risk Management (PTRM) system. The document is intended for Members' compliance staff, support trading staff or for any person who may be using or involved with PTRM.

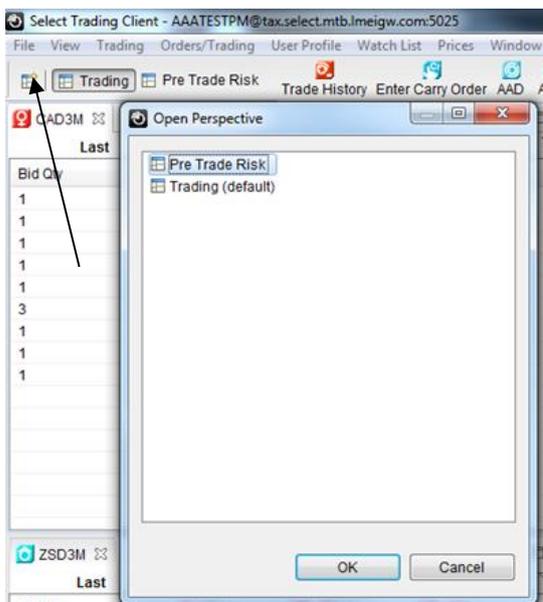
PTRM affords Members the opportunity to manage their risk by using intelligent limits that reflect their risk profile and business model. The PTRM Manager has the ability to enable/disable accounts, assign users and Tag58 values to accounts, and manage credit limits. This document will explain how the PTRM Manager is able to do this.

**Traders and Tag58 values must be assigned to an account in order to trade.**

# 2 Pre Trade Risk Perspective

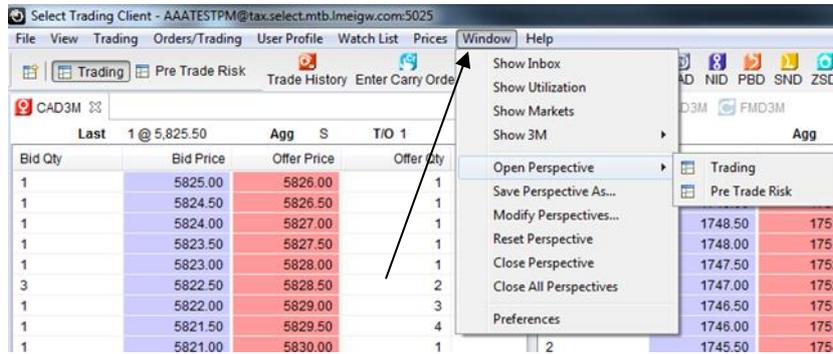
There are two ways in which a PTRM Manager can open the Pre Trade Risk perspective for the first time:

- Click on the icon on the top left of the screen and select 'Pre Trade Risk' from the 'Open Perspective' window.



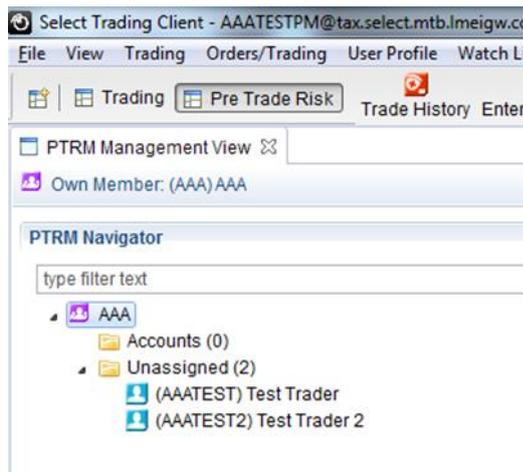
- Select 'Window' at the top of the page, followed by 'Open Perspective' and 'Pre Trade Risk'.





## 2.1 PTRM Navigator View

In the PTRM Navigator tree view, the PTRM Manager can view accounts, users, and Tag58 values, as well as any trading Members that clear through them, if applicable. They can also view the association – if any – between accounts, users and Tag58 values.



- Accounts – these are essentially pools of credit which can be used by one or several users and/or Tag58 values. An account is shown as a purple icon with a disc. 

The 'Accounts' folder contains all the accounts that have been established, and the drop down option will show all the users and/or Tag58 values assigned to that account.

- Users – these are the LMEselect GUI trading users currently enabled. The user IDs are added by the system automatically and will initially be found in the 'Unassigned' folder. Users are shown as light blue icons with a person's profile. 



- Tag 58 values – these represent FIX trading accounts. A client identifier is sent on Tag58 in the FIX order message, and this value must be established in PTRM and linked to an account to allow trading. Tag58 values are shown as dark blue icons with a profile / box. 
- Unassigned folder – contains all the users and Tag58 values that are not assigned to any account.

## 2.2 Basic Information View

The section to the top right of the PTRM Navigator will show the basic information of anything selected by the PTRM Manager in the Navigator section, i.e.:

- Account - name and description
- User - name, LMEselect user ID and assigned account
- Tag58 - name and assigned account

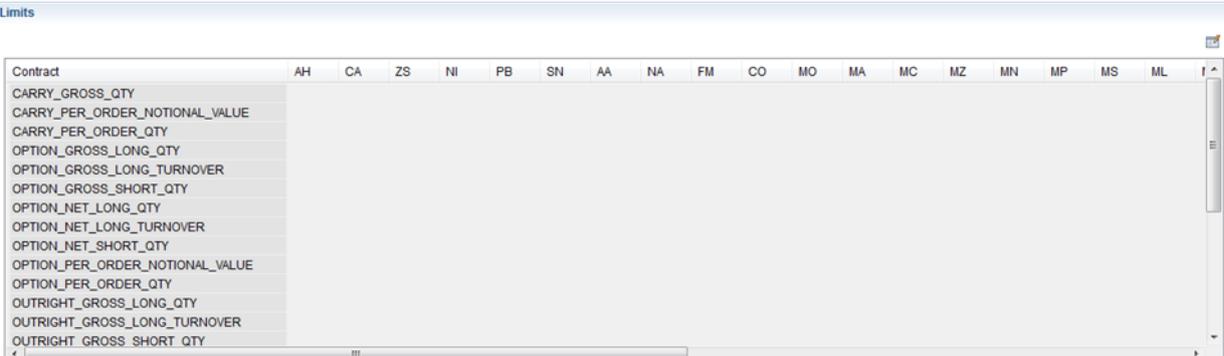
### 2.2.1 Changing and saving content in the Basic Information view

When a PTRM Manager creates, modifies or deletes any of the information in the Basic Info view, they can either:

- Click 'Save' to save the content.
- Click 'Undo' to clear the changes.

## 2.3 Limits View

When an account is selected in the Navigator section, the lower right-hand section will display the available limits:

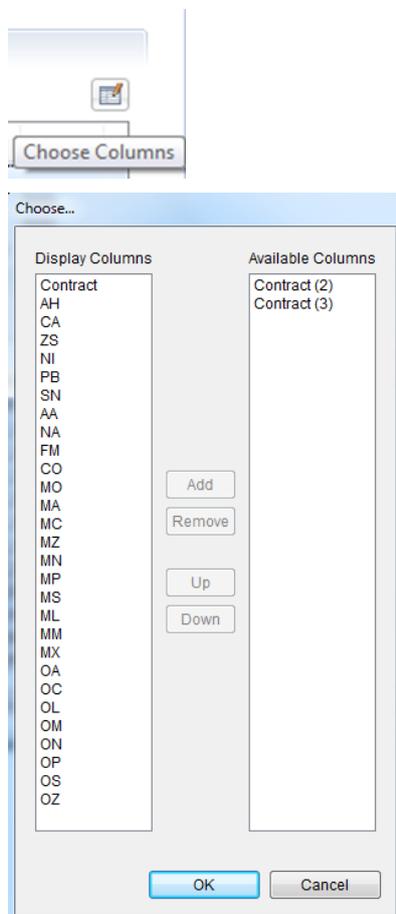


Contract	AH	CA	ZS	NI	PB	SN	AA	NA	FM	CO	MO	MA	MC	MZ	MN	MP	MS	ML
CARRY_GROSS_QTY																		
CARRY_PER_ORDER_NOTIONAL_VALUE																		
CARRY_PER_ORDER_QTY																		
OPTION_GROSS_LONG_QTY																		
OPTION_GROSS_LONG_TURNOVER																		
OPTION_GROSS_SHORT_QTY																		
OPTION_NET_LONG_QTY																		
OPTION_NET_LONG_TURNOVER																		
OPTION_NET_SHORT_QTY																		
OPTION_PER_ORDER_NOTIONAL_VALUE																		
OPTION_PER_ORDER_QTY																		
OUTRIGHT_GROSS_LONG_QTY																		
OUTRIGHT_GROSS_LONG_TURNOVER																		
OUTRIGHT_GROSS_SHORT_QTY																		

OUTRIGHT_NET_LONG_QTY
OUTRIGHT_NET_LONG_TURNOVER
OUTRIGHT_NET_SHORT_QTY
OUTRIGHT_PER_ORDER_NOTIONAL_VALUE
OUTRIGHT_PER_ORDER_QTY
TOMNEXT_GROSS_QTY
TOMNEXT_NET_LONG_QTY
TOMNEXT_NET_SHORT_QTY
TOMNEXT_PER_ORDER_NOTIONAL_VALUE
TOMNEXT_PER_ORDER_QTY

The values entered into the 'Limits' section will be the maximum permissible limits applied to ALL users / Tag58 values assigned to that account.

PTRM Managers can customise their view of the limits table by adding / removing contracts. To do this, click on the icon at the top right of the table:



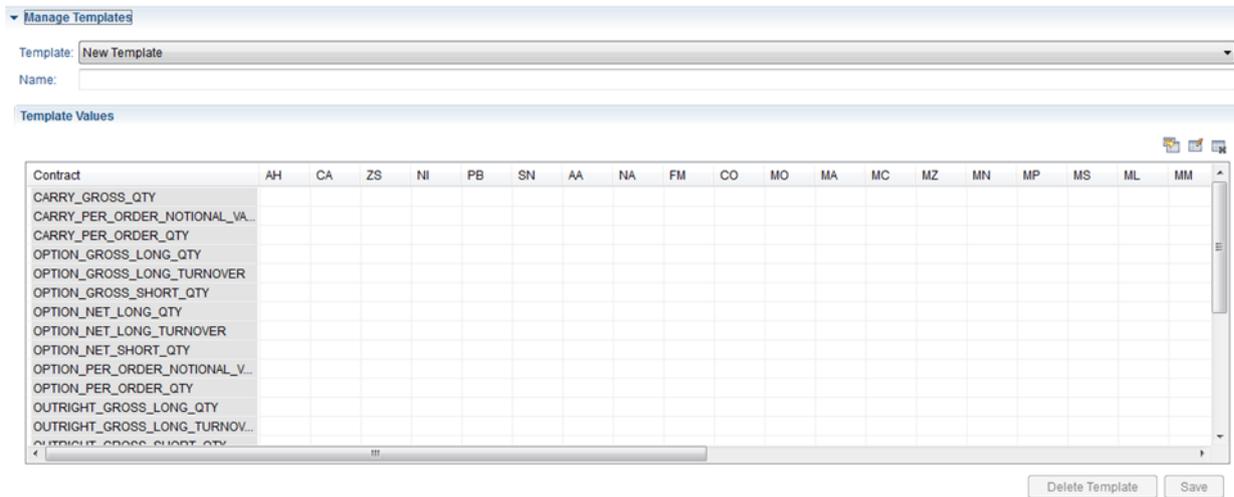
It should be noted that the removal of contracts will not automatically set them to a zero limit so PTRM Managers should ensure that any required limits are already applied to contracts when removing them from the limits view.

## 2.4 Manage Templates View

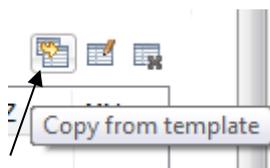
When the Member mnemonic is selected in the Navigator section, the lower right-hand section will display the limits, along with the option to establish templates of limits.



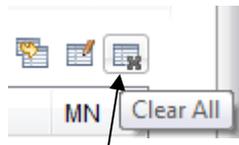
PTRM Managers can create, modify and delete templates. The templates can be used to populate the initial limits for an account.



To copy values from an existing template, click on the 'copy' icon at the top right of the table:



All template limits can be cleared by clicking the 'clear' icon:



To save or delete templates, click on the 'Save' or 'Delete Template' buttons.



## 2.5 Credit Limit Utilization View

At the bottom of the PTRM perspective is the Credit Limit Utilization View which displays any warning messages and attempted credit breaches:



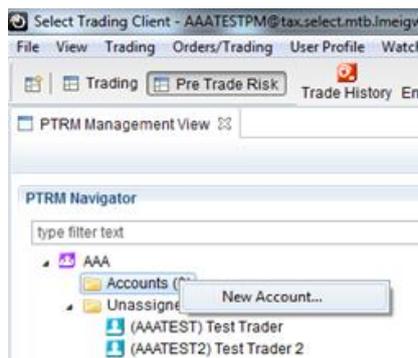


### 3 Accounts, Users and Tag58 Values

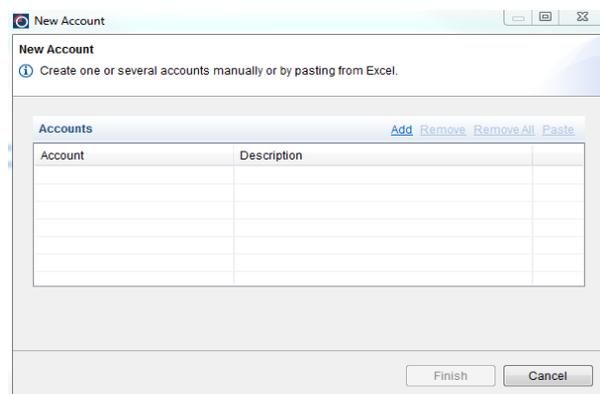
**Traders and Tag58 values must be assigned to an account in order to trade.**

#### 3.1 Adding Accounts

To add an account, right click on the Member mnemonic or 'Accounts' folder and select 'New Account'.



This will bring up a box to add account names and descriptions, simply click 'Add' and then click on the relevant boxes to enter details. Click 'Finish' once all account information has been entered.



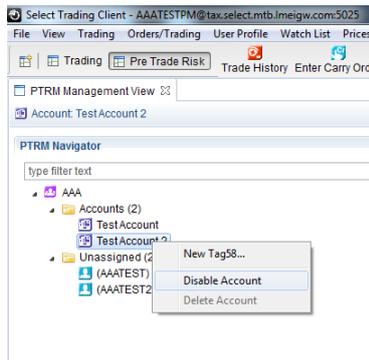
Please refer to section 4 for an explanation about entering values into the **Limits** section for each account.

#### 3.2 Disabling & Enabling Accounts

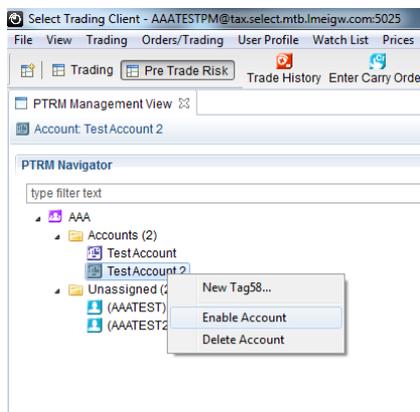
PTRM Managers can disable and re-enable in the PTRM Navigator tree view.

To disable an account, right click on the relevant account and select **Disable**.



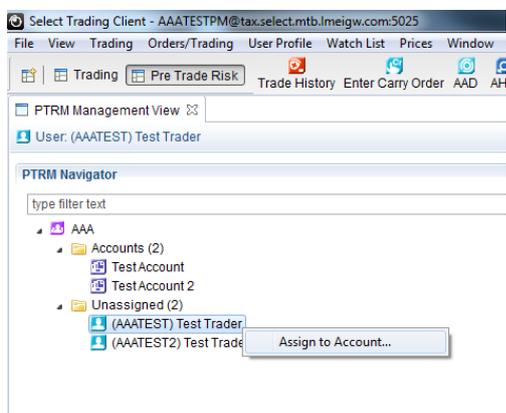


To enable an account, right click on the relevant account and select Enable

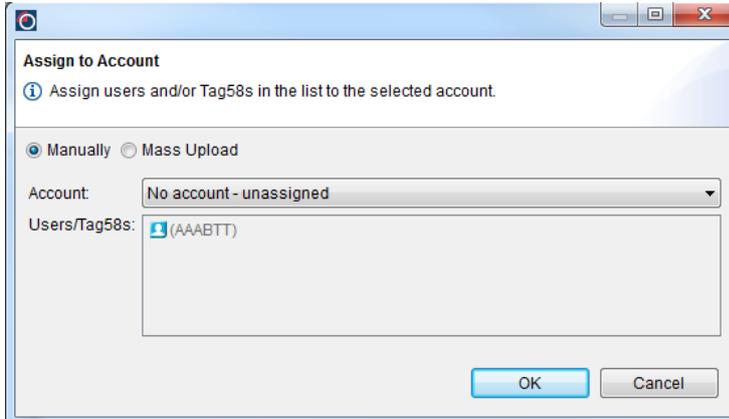


### 3.3 Adding Users

User ID's are pre-populated from LMEselect; however, traders will not be able to enter orders unless they have been assigned to an account. Expanding the 'Unassigned' folder will show the full list of users. To assign the user to an account, right-click on the relevant user (or select several users at once using the shift or Ctrl keys) and click 'Assign to Account'.



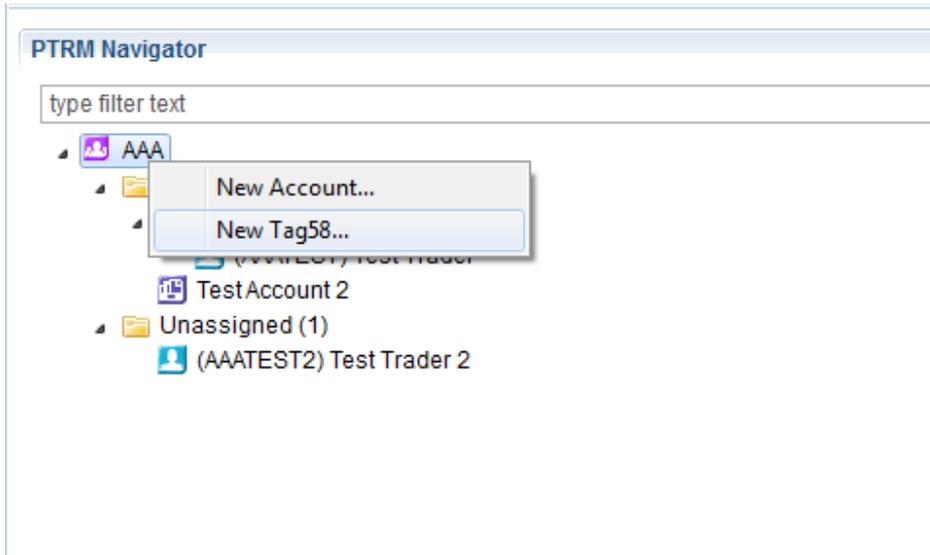
Use the drop down account box to select the account the user/s should be assigned to.



A user can only be assigned to one account.

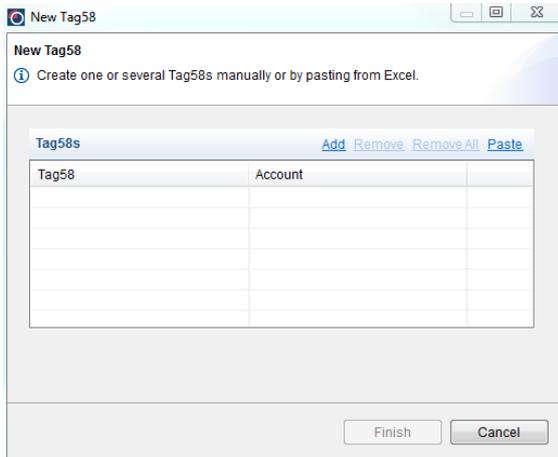
### 3.4 Adding Tag58 Values

To add a Tag58 value, right-click on the Member mnemonic or one of the established accounts and select 'new Tag58...'



This will bring up a box to add Tag58 values and assign them directly to an account. Simply click 'Add' and then click on the relevant boxes to enter details.



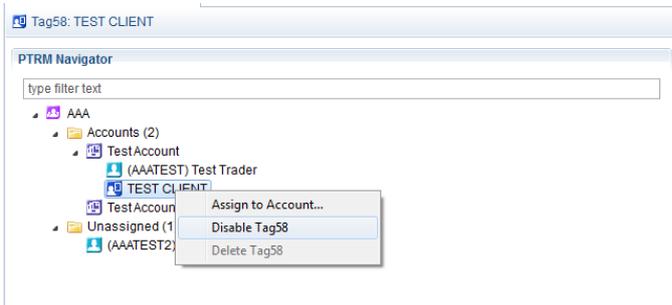


A Tag58 value can only be assigned to one account.

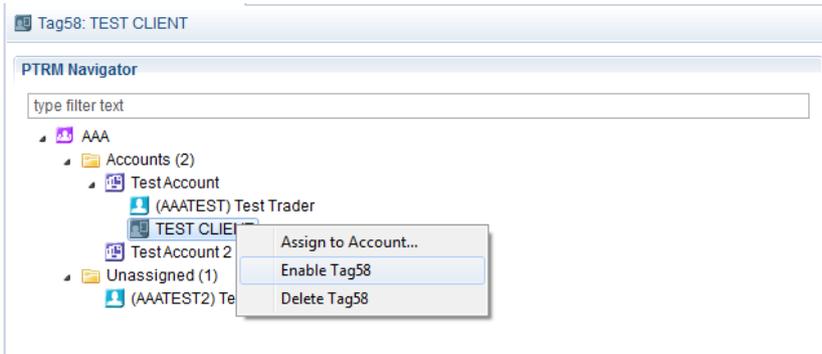
### 3.5 Disabling & Enabling Tag58 Values

A PTRM Manager can disable and enable Tag58 values.

To disable a Tag58 value, right-click on a Tag58 value and select 'Disable Tag58'



To enable a Tag58 value, right-click on a Tag58 value and select 'Enable Tag58'



## 4 Credit Limits

In the 'Limits' table, an empty cell represents an infinite credit limit for the corresponding contract and metal.

### 4.1 Limit Values

PTRM Managers have the ability to add limits for carries, outright, options or Tom-Next. In addition to this, users can specify between long and short positions (for outright, options and Tom-Next) and also between net and gross quantities, turnover and notional value.

(See PTRM – Guide to Limits Appendix 1 for details of available limits)

### 4.2 Adding Limits for an Account

To add credit limits, select the relevant account in the Navigator view and the related limits table will be displayed to the right.

In the 'Limits' table, double click on a cell to enter a value for the corresponding contract and metal, e.g. **1000** lot limit for **Carry Gross Qty** in **CA** metal.

When a value is entered, the cell becomes yellow. If the value is invalid, the cell becomes red and a warning appears.

Contract	AH	CA	ZS	NI	PB	SN	AA	NA	FM	CO	MO	MA	MC	MZ	MN	MP	MS	ML	MM	M
CARRY_GROSS_QTY		1000																		
CARRY_PER_ORDER_NOTIONAL_VA...																				
CARRY_PER_ORDER_QTY																				
OPTION_GROSS_LONG_QTY																				
OPTION_GROSS_LONG_TURNOVER																				
OPTION_GROSS_SHORT_QTY																				
OPTION_NET_LONG_QTY																				
OPTION_NET_LONG_TURNOVER																				
OPTION_NET_SHORT_QTY																				
OPTION_PER_ORDER_NOTIONAL_V...																				
OPTION_PER_ORDER_QTY																				
OUTRIGHT_GROSS_LONG_QTY																				
OUTRIGHT_GROSS_LONG_TURNOV...																				
OUTRIGHT_GROSS_SHORT_QTY																				
OUTRIGHT_NET_LONG_QTY																				
OUTRIGHT_NET_LONG_TURNOVER																				
OUTRIGHT_NET_SHORT_QTY																				
OUTRIGHT_PER_ORDER_NOTIONA...																				
OUTRIGHT_PER_ORDER_QTY																				
TOMNEXT_GROSS_QTY																				
TOMNEXT_NET_LONG_QTY																				
TOMNEXT_NET_SHORT_QTY																				
TOMNEXT_PER_ORDER_NOTIONAL...																				
TOMNEXT_PER_ORDER_QTY																				

Click 'Save' to apply the changes.

PTRM Managers can also use predefined templates to add credit limits (please see Templates section 5).



### 4.3 Viewing Utilised Credit for Limits

PTRM Managers can view the utilised credit for each of the established limits

To view the utilised credit, select the relevant account in the Navigator view and the related limits table will be displayed to the right. Subsequent to this, in the Limits table hover over a cell to view information about the utilised credit limit.

A tooltip appears where you can view:

- \* **Utilised credit** – the current total quantity or turnover utilised.
- \* **Credit limit** – the overall limit entered in the cell.
- \* **Utilised value** – the percentage of credit limit utilised.

Contract	AH	CA	ZS	NI	PB	SN	AA	NA	FM	CO	MO	MA	MC	MZ	MN	MP	MS	ML	MM	M
CARRY_GROSS_QTY		1000																		
CARRY_PER_ORDER_NOTIONAL_VA...																				
CARRY_PER_ORDER_QTY																				
OPTION_GROSS_LONG_QTY																				
OPTION_GROSS_LONG_TURNOVER																				
OPTION_GROSS_SHORT_QTY																				
OPTION_NET_LONG_QTY																				
OPTION_NET_LONG_TURNOVER																				
OPTION_NET_SHORT_QTY																				
OPTION_PER_ORDER_NOTIONAL_V...																				
OPTION_PER_ORDER_QTY																				
OUTRIGHT_GROSS_LONG_QTY																				
OUTRIGHT_GROSS_LONG_TURNOV...																				
OUTRIGHT_GROSS_SHORT_QTY																				
OUTRIGHT_NET_LONG_QTY																				
OUTRIGHT_NET_LONG_TURNOVER																				
OUTRIGHT_NET_SHORT_QTY																				
OUTRIGHT_PER_ORDER_NOTIONA...																				
OUTRIGHT_PER_ORDER_QTY																				
TOMNEXT_GROSS_QTY																				
TOMNEXT_NET_LONG_QTY																				
TOMNEXT_NET_SHORT_QTY																				
TOMNEXT_PER_ORDER_NOTIONAL...																				
TOMNEXT_PER_ORDER_QTY																				

If the utilised value is above certain thresholds, an icon appears in the corresponding cell:

- > 75%
- > 90%
- > 100%

### 4.4 Modifying Credit Limits

PTRM Managers can modify established credit limits. When a modification is made the changes take effect immediately and do not affect existing orders.

To modify credit limits, double click in the relevant cell of the limits table to update the entry.



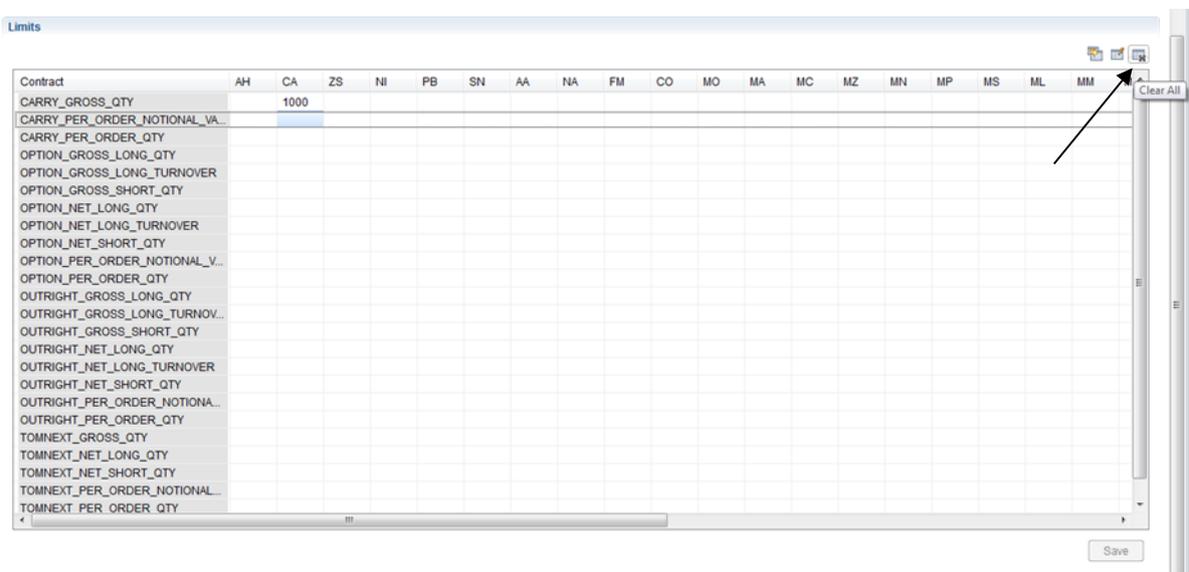
Click 'Save' to apply the changes.

### 4.5 Deleting Credit Limits

PTRM Managers can delete credit limits.

To delete credit limits, double click in the relevant cell of the limits table and click the 'Delete' button on your keyboard.

To delete all limits in the table, click the 'Clear All' icon.



Click 'Save' to apply the changes.

## 5 Templates

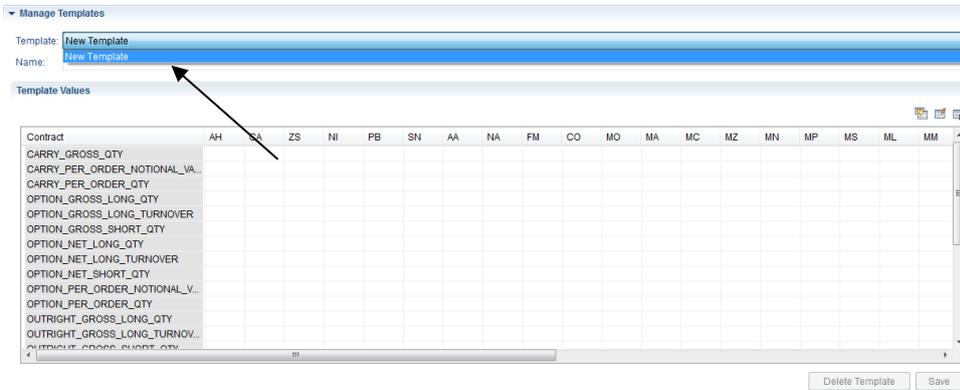
A template is a pre-established set of limits that can then be copied to any Limits table, and works as an alternative to directly editing the table for each account (see **Credit Limits** section 4).

To locate the 'Manage Templates' view, see section 2.4



### 5.1 Adding Templates

To add a credit limit template, use the 'Template' dropdown and select 'New Template', then complete the 'Name' field.

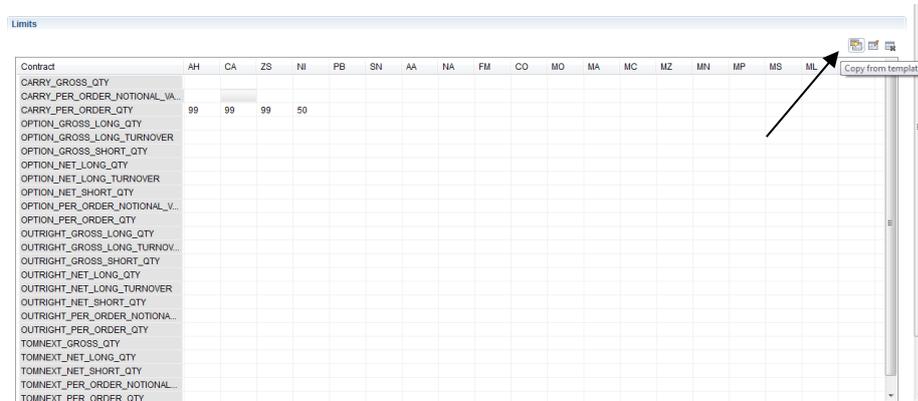


Enter the relevant limits into the table, and click 'Save'.

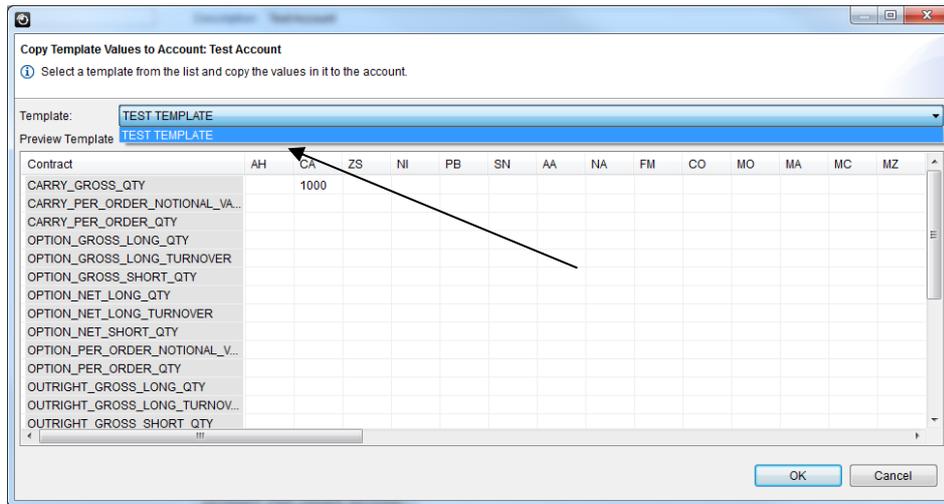
### 5.2 Applying Templates to Accounts

To apply template limits to an account, select the relevant account in the Navigator tree.

In the Limits table, click the 'Copy from Template' icon and a new window will appear.



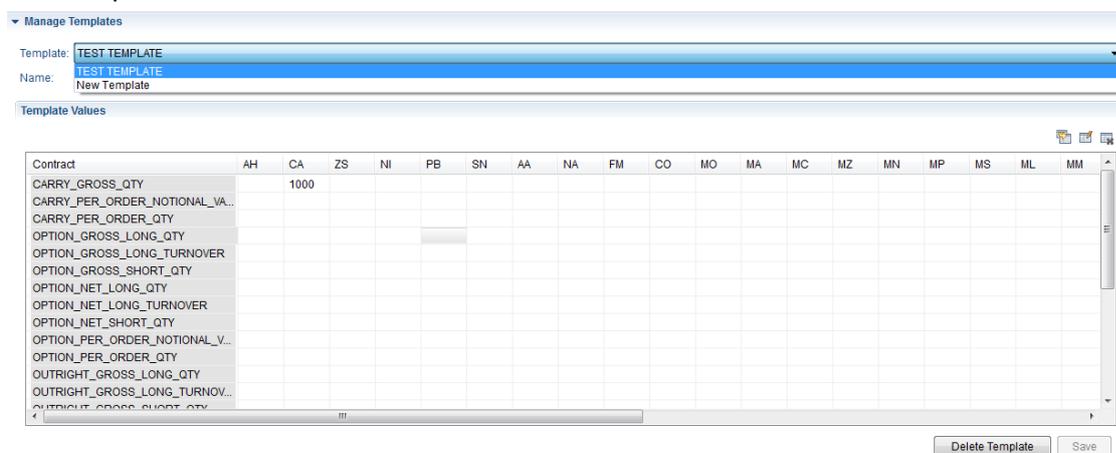
Select a template from the 'Template' list, and a preview of the selected template is displayed.



Click 'OK' and 'Save' to select the template and then save its values to the account limits table.

### 5.3 Modifying Saved Templates

To modify a saved template, in the 'Template Management' view, select the relevant template from the 'Template' menu.



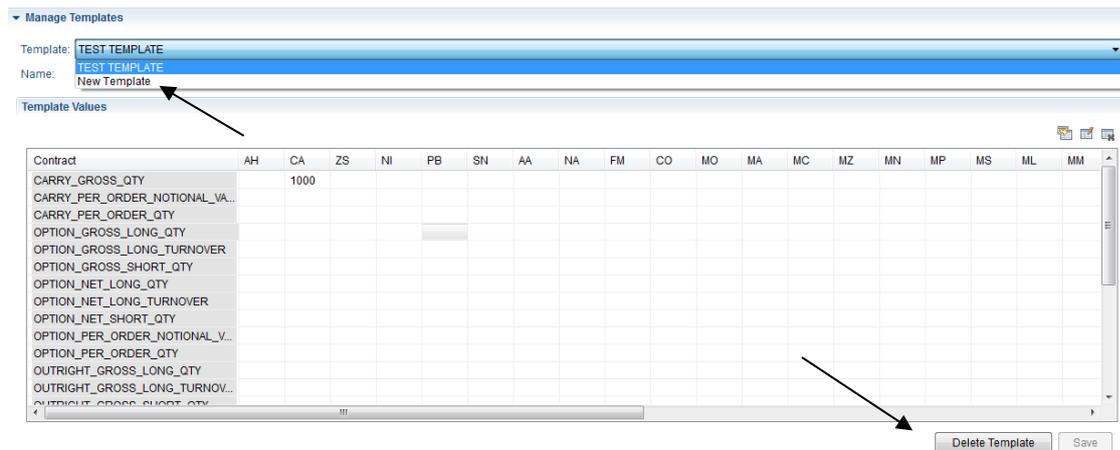
Adjust the values in the selected template limit table.

Click 'Save' to apply the changes.

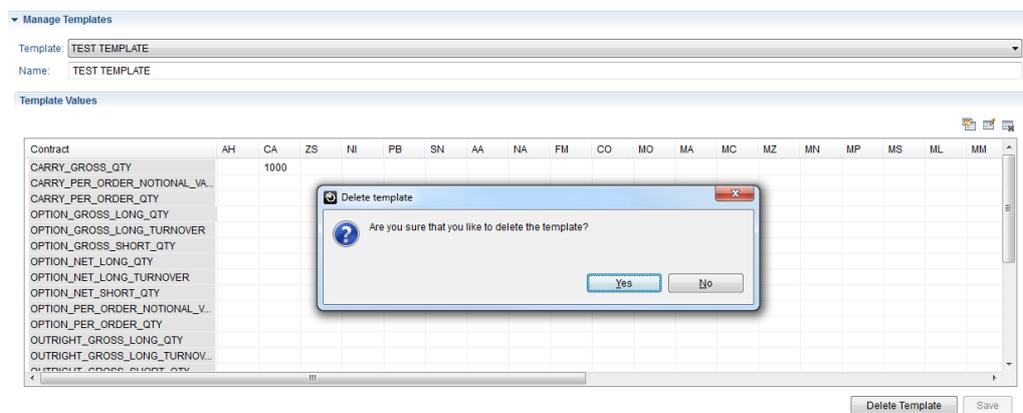
### 5.4 Deleting Templates

To delete a template, in the 'Template Management' view, select the relevant template from the 'Template' menu and click 'Delete Template'.





Click 'Yes' to delete the template.

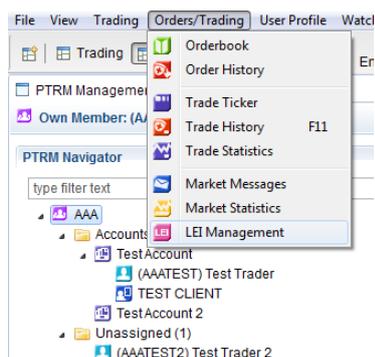


## 6 LEI (Legal Entity Identification) Management

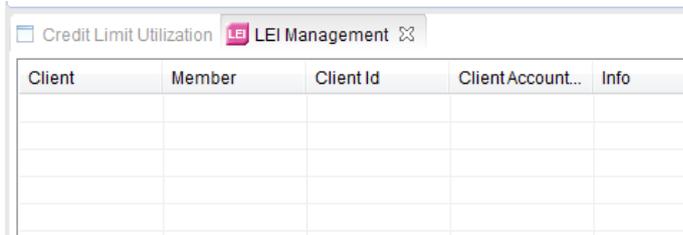
The PTRM Manager can also establish MiFID II regulatory LEI codes for GUI traders to use when entering orders into the LMEselect GUI.

### 6.1 Accessing the LEI Management Table

To access the 'LEI Management' table, select the file menu 'Orders/Trading' and then 'LEI Management'



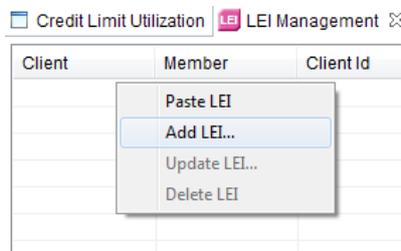
The 'LEI Management' view will become available as a tab alongside the 'Credit Limit Utilisation' tab.



Client	Member	Client Id	Client Account...	Info

## 6.2 Adding LEI's

To add LEI values right-click anywhere on the table and select 'Add LEI'



Client	Member	Client Id

- Paste LEI
- Add LEI..
- Update LEI...
- Delete LEI

The first available field 'Client' should be used to identify that specific set of LEI's, and will be visible to the GUI traders in a drop down field on the order entry ticket.

All mandatory fields will be identified by an "\*" at the start. The number of mandatory fields will change depending on the 'Sub Acc' selection.

The mandatory fields are the minimum fields required for an order to be accepted into the market; however, they may not cover an individual Member's regulatory obligation. All Members should understand their individual obligations before adding LEI information.



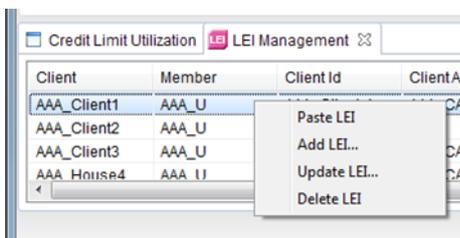
Once completed, click 'OK' and the LEI entry will be visible in the table.

Client	Member	Client Id	Client Account...	Info	DEA	Is Algo	User or Algo D...	Execution Dec...	Trading Capa...	Sub Acc
TEST CLIENT	AAA_U	CLIENTABC	321	TEST	Yes	Yes	ABC	TRADER1	DEAL	S

Repeat the process to add more sets of LEI data.

### 6.3 Updating and Deleting LEI's

To edit or delete LEI data, right-click on the relevant LEI set and select 'Update LEI' or 'Delete LEI'.



Edit and click 'Save' or delete the set as required.

## 7 Appendix 1

### PTRM – Guide to Limits

Limit Type	Description	Monitoring	Example	Expectations
Per_Order_Qty	The amount of lots per order (monitors both long and short orders) *percentage warning messages are not generated for this credit limit	Per order	750	Order 1 = 800 Order 2 = 750 Order 3 = 500 Order 1 would be rejected as it exceeds the 750 lot size per order limit
Per_Order_Notional_Value	The total notional value (lots x tonnes x price) per order *percentage warning messages are not generated for this credit limit	Per order	45,000,000	Order 1 = 1000 (lots) x 25 (tonnage) x 2001.5 (price) = \$50,037,500.00 Order 2 = 800 (lots) x 25 (tonnage) x 2002 (price) = \$40,040,000.00 Order 1 would be rejected as it exceeds the 45,000,000 notional value limit
Gross_Qty	The total amount of lots submitted through-out the day (monitors both long or short orders and trades)	Accumulative	500	Order 1= 250 Order 2 = 251 Order 2 would be rejected as, when combined with order 1, it would breach the 500 lot size credit limit
Gross_Long_Qty	The total amount of lots submitted through-out the day (only monitors long future outright orders and trades)	Accumulative	1500	Order 1 = 1000 Order 2 = 300 Order 3 = 300 Order 4 = 200 Order 3 would be rejected as, when combined with orders 1



				and 2, it would breach the 1500 lot size credit limit When combined orders 1, 2 and 4 would equal the 1500 lot size credit limit and would generate a warning that the limit has been reached
Gross_Long_Turnover	The total turnover (lots x tonnes x price) of orders submitted through-out the day (only monitors long orders and trades)	Accumulative	89,000,000	Order 1 = 1000 (lots) x 25 (tonnage) x 2001.5 (price) = \$50,037,500.00 Order 2 = 800 (lots) x 25 (tonnage) x 2002 (price) = \$40,040,000.00 Order 2 would be rejected as the combined turnover (\$90,077,500.00) would breach the \$89,000,000.00 turnover limit
Gross_Short_Qty	The total amount of lots submitted through-out the day (only monitors short future outright orders and trades)	Accumulative	2000	Order 1 = 1500 Order 2 = 750 Order 2 would be rejected as, when combined with order 1, it would breach the 2000 lot size credit limit
Net_Long_Qty	The total amount of lots submitted through-out the day (monitors long orders and trades minus sell trades)	Accumulative	500	Order 1 (long trade) = 500 Order 2 (short trade) = 500 Order 3 (long order) = 500 Order 4 (long order) = 100 Order 4 would be rejected as, when combined with orders, 1, 2 and 3, it would breach the 500 lot size credit limit



Net_Long_Turnover	The total turnover (lots x tonnes x price) of future outright orders submitted through-out the day (monitors long orders and trades minus sell trades)	Accumulative	89,000,000	<p>Order 1 (long trade)= 1000 (lots) x 25 (tonnage) x 2001.5 (price) = \$50,037,500.00</p> <p>Order 2 (short trade)= 100 (lots) x 25 (tonnage) x 2002 (price) = \$5,005,000.00</p> <p>Order 3 (long order) = 1000 (lots) x 25 (tonnage) x 2003 = \$50,075,000.00</p> <p>Order 3 would be rejected as the combined turnover (\$95,107,500.00) would breach the \$89,000,000.00 turnover limit</p>
Net_Short_Qty	The total amount of lots submitted through-out the day (monitors short orders and trades minus long trades)	Accumulative	500	<p>Order 1 (short trade) = 500</p> <p>Order 2 (long trade) = 500</p> <p>Order 3 (short order) = 500</p> <p>Order 4 (short order) = 100</p> <p>Order 4 would be rejected as, when combined with orders, 1, 2 and 3, it would breach the 500 lot size credit limit</p>

