

ASX Administration and Risk Terminal User Guide

Version 3.3 | December 2023



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1. Introduction

The Australian Securities Exchange (ASX) provides market participants with an independent terminal interface for access to the ASX 24 market. The ASX Administration and Risk Terminal (ART) is designed to provide participants with a greater level of administration and help with minimising risk exposure for their accounts.

ART provides participants these abilities:

- Setup and administration of Accounts and Limits
- Shared Order Groups (SOG) management
- Trading Protection Limits (TPL) administration across Member Units (MU)
- Ability to view exposures at both a member and account level at any time
- User ID management – ability to disable/enable and also change the passwords across users.



Note:

Participants are responsible for meeting their Market Integrity Rule (MIR) obligations. While ASX offers functionality that may assist a user in meeting some of their MIR obligations, it is still the ultimate responsibility of the participant.

1.1. Document information

This document describes:

- The functionality provided to manage various risk elements such as providing access to orders and managing account positions
- How to use the ART terminal to apply the functionality

1.1.1. Terms and Acronyms

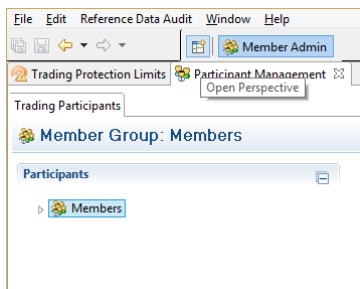
Term / Acronym	Description
ART	Administration and Risk Terminal
MU	Member Unit
SOG	Shared Order Group
TPL	Trading Protection Limit
PTRM	Pre-trade risk management

1.2. Before Starting

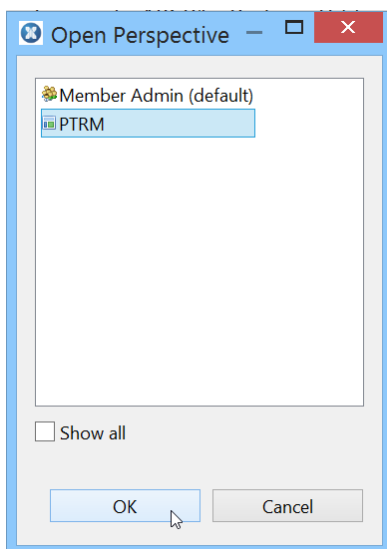
To logon to ART, participants need to use the logon details provided by Trading Operations.

When ART is first opened the Member Admin perspective is displayed. To maintain *Pre Trade Risk Management* (PTRM) features such as Accounts and Limits, the PTRM perspective is used. If the PTRM perspective label is not shown, it can be shown as follows:

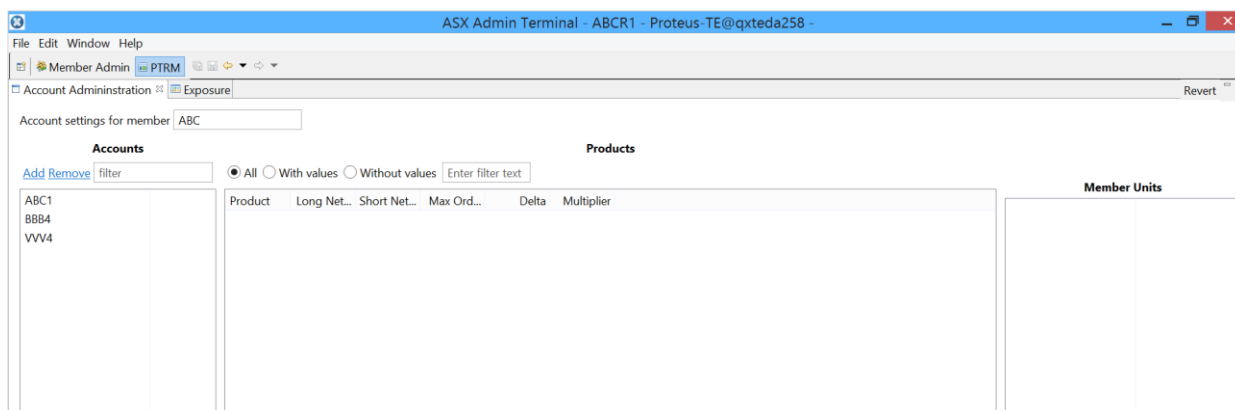
1. Click the *Open Perspective* icon.
This opens the *Open Perspective* screen.



2. Select **PTRM** and click **OK**.



This opens the *PTRM* frame with the *Exposure* and *Account Administration* views.



1.3. Version History

This document has been revised according to the table below:

Version	Date	Comment
V2.0	July 2017	User guide now includes content from the ART Summary Guide
V3.0	July 2017	Changes for the Service Release <ul style="list-style-type: none"> • Export of PTRM limits • Export of user data • Disabling order entry by using TPL • Enhanced TPL decision tree • Applying PTRM limits to tradeable instruments
V3.1	Sept 2017	<ul style="list-style-type: none"> • Description of setting limits on multi-leg option products • Addition of information about TPL on combination instruments
V3.2	Dec 2017	<ul style="list-style-type: none"> • Removal of redundant comment on TPL Multiplier • Clarification of TPL and UDCs
V3.3	Dec 2023	<ul style="list-style-type: none"> • Updates to naming conventions

2. Trading Protection Limits

Trading Protection Limits (TPL) provide a mechanism to limit the distance a new order can be from a reference price. TPL is checked for orders with a more aggressive price than the reference price i.e. prices greater than the reference for buy orders, less than the reference for sell orders.

TPL can be used to prevent trading in a product segment by selecting disable order entry. This feature can be used in conjunction with pre-trade risk management as an additional control over the types of products that can be traded by users within a Member or Member Unit. For example a risk manager can disable order entry in Electricity Strip Options, which would override any account limits for Electricity Strip products, effectively only allowing users to trade Electricity Strip Futures.

Members can choose whether to utilise TPL functionality or not.

TPLs are setup by adding a Settings Group. Each group applies to a list of segments for a particular Member or Member Unit. See 3.2 *TPL and MU* for details of how member units affect TPL settings. The single limit type that can be applied to a Settings Group is “Max Deviation”. This is the limit on the distance a new order can be away from the reference price.

Please refer to the “Reference Price” decision tree below. This is specified in absolute price units, not ticks. For example, 0.05 Max Deviation would mean a new buy order price on YTM6 cannot exceed 98.110, when the last trade price level is 98.060.

2.1. TPL on Combination Instruments

TPL limits are effective for single instruments and exchange defined combinations including Intra and Inter-Spreads, Packs & Bundles and Butterflies. The reference price for spread instruments and Butterflies is calculated from the differential of the reference prices of each component leg rather than trading activity in the spread itself. For Strips, Packs & Bundles the reference price is either the last traded price or prior settlement price for the combination. The TPL setting is then applied against that reference price.

TPL is not applied to User Defined Combinations (UDC).

2.2. Reference Price Decision Tree

The reference price is the first price that exists in the following list:

- 1 Equilibrium Price (if available)
- 2 Last Traded Price
- 3 Adjusted Closing Price of the night session
- 4 Prior Settlement Price

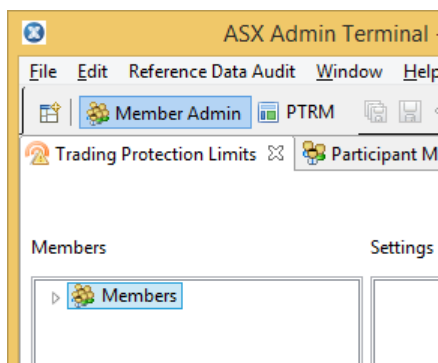
2.3. TPL Maintenance

Trading Protection Limits (TPLs) can be applied to products via the *Member Admin* perspective, Trading Protection Limits view.

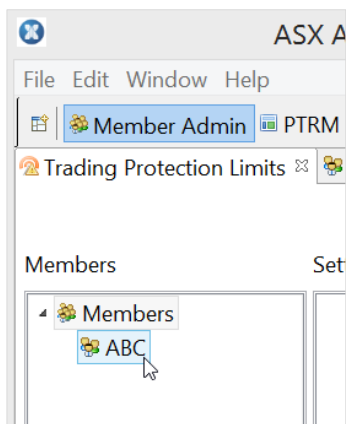
2.3.1. Creating a Settings Group

To create a settings group:

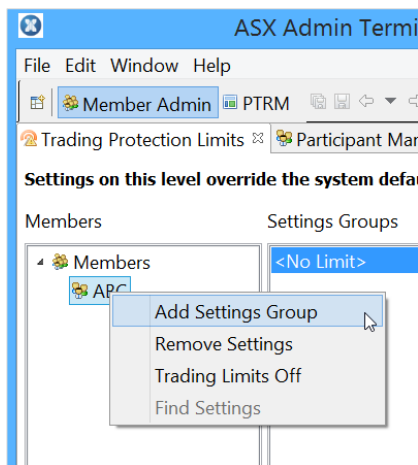
1. Select **Trading Protection Limits**.



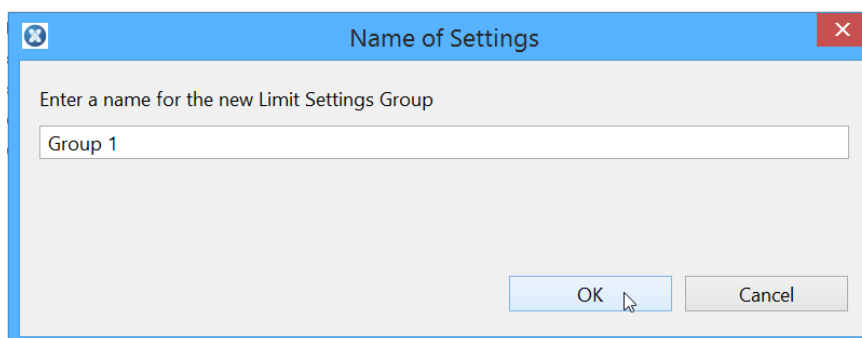
2. Expand the *Members* directory tree structure to display the member's mnemonic.



3. Right-click the member's mnemonic and select *Add Settings Group*.



4. Enter the name of the Limit Settings Group in the corresponding field, and click **OK**. The new Settings Group appears in the *Settings Groups* column.



5. Select the required segment from the **Segments and Tradeable Instrument** frame.



Note:

Limits can be only applied at the segment level.

In the example below, BS_OPTIONS is a segment.

ASX_ONLY

NZFX

XSFE

COMMODITIES (XSFE)

ENERGY (XSFE)

BN_BV_INTERSPREADS (XSFE)

BN_FUTURES (XSFE)

BN_GN_INTERSPREADS (XSFE)

BN_INTRASPREADS (XSFE)

BN_OPTIONS (XSFE)

BQ_BN_INTERSPREADS (XSFE)

BQ_FUTURES (XSFE)

BQ_GQ_INTERSPREADS (XSFE)

BQ_INTRASPREADS (XSFE)

BQ_OPTIONS (XSFE)

BS_FUTURES (XSFE)

BS_GS_INTERSPREADS (XSFE)

BS_INTRASPREADS (XSFE)

☒ BS_OPTIONS (XSFE)

BV_BS_INTERSPREADS (XSFE)

BV_FUTURES (XSFE)

BV_GV_INTERSPREADS (XSFE)

PV_INTRASPREADS (XSFE)

Max Deviation

☐ Disable Order Entry

6. Enter a value for the maximum deviation. To prevent order entry in the settings group select *Disable Order Entry*. Disabling order entry means that any max deviation entered does not apply.

BS_GS_INTERSPREADS (XSFE)

BS_INTRASPREADS (XSFE)

☒ BS_OPTIONS (XSFE)

BV_BS_INTERSPREADS (XSFE)

BV_FUTURES (XSFE)

BV_GV_INTERSPREADS (XSFE)

PV_INTRASPREADS (XSFE)

Max Deviation

☐ Disable Order Entry

7. Click **Save**



Note:

The Max Deviation value is points-based, and there can only be **one value** per group. However, there can be multiple segments.

2.3.2. Modifying Settings Groups

To modify an existing Settings group:

1. Select the required *Settings Group*.
2. Modify the required segments and/or max deviation, and click **Save**.

Segments and Tradable Instruments

> ☐ ENERGY (XSFE)

▣ ☒ INDEX (XSFE)

☐ AA_FUTURES (XSFE)

☐ AA_INTRASPREADS (XSFE)

☐ AF_AA_INTERSPREADS (XSFE)

☐ AF_AR_INTERSPREADS (XSFE)

☐ AF_FUTURES (XSFE)

☐ AF_INTRASPREADS (XSFE)

☐ AM_AA_INTERSPREADS (XSFE)

☐ AM_AF_INTERSPREADS (XSFE)

☐ AM_AP_INTERSPREADS (XSFE)

☐ AM_AR_INTERSPREADS (XSFE)

☐ AM_FUTURES (XSFE)

☐ AM_INTRASPREADS (XSFE)

☐ AP_AA_INTERSPREADS (XSFE)

☐ AP_AF_INTERSPREADS (XSFE)

☐ AP_AR_INTERSPREADS (XSFE)

☒ AP_FUTURES (XSFE)

☐ AP_INTRASPREADS (XSFE)

☐ AP_OPTIONS (XSFE)

☐ AR_AA_INTERSPREADS (XSFE)

☐ AR_FUTURES (XSFE)

☐ AR_INTRASPREADS (XSFE)

☐ DL_FUTURES (XSFE)

☐ DL_OPTIONS (XSFE)

☐ VI_FUTURES (XSFE)

☐ VI_INTRASPREADS (XSFE)

▣ ☒ INTEREST_RATES (XSFE)

☒ FL_FUTURES (XSFE)

☐ GB_FUTURES (XSFE)

☐ GP_FUTURES (XSFE)

☐ IR_FUTURES (XSFE)

Max Deviation



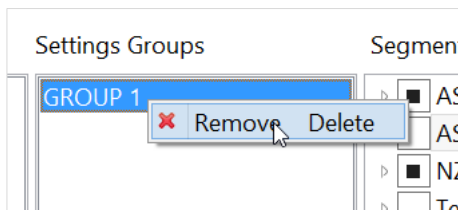
Note:

Changing the *Max Deviation* value changes the value for all segments for the selected *Settings Group*.

2.3.3. Removing a Settings Group

To remove a settings group:

1. Right-click the required *Settings Group* and select **Remove**.

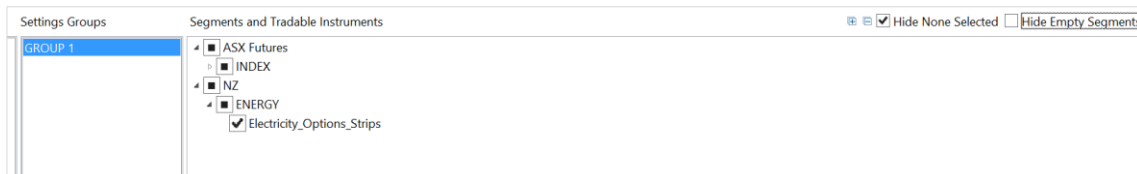


2. Click **Save**.

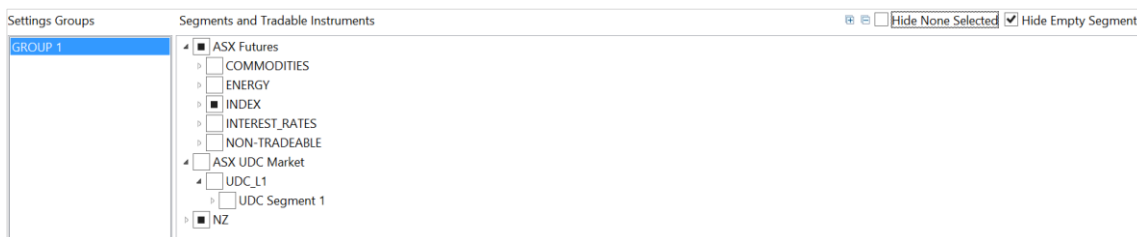
2.3.4. Filtering Settings Groups

To filter settings groups:

1. Select the required group from the *Settings Groups* column.
2. Select the required filter option.
3. Select **Hide None Selected** to view only markets that have TPLs applied.



4. Select **Hide Empty Segments** to view only segments that have TPLs applied.



2.3.5. Exporting TPL

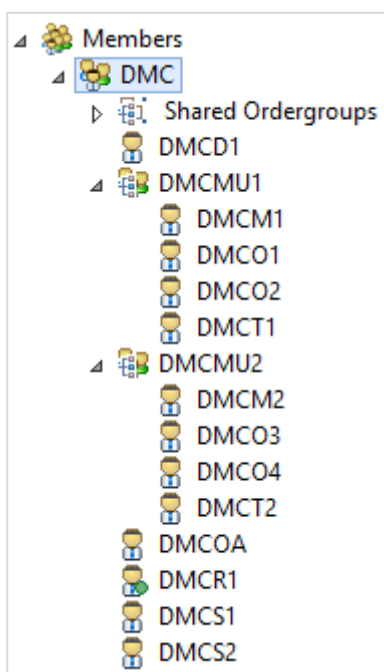
TPL Settings Groups can be bulk copied using ART by going into the File menu and Select All, Copy.

3. Member Units (MU)

Member Units (MU) sit one level below the member itself, that is, they act as a sub-member. MU can be used to split out the relevant accounts within the member. TPL can be set at the MU member level and also at the MU sub-member level. Additionally, Account Limits need to be applied at a Member and/or Member Unit level. Any user within the same MU will have the same TPLs and Account Limits applied.

3.1. Working Example for Member DMC

In this example, we have 2 sub-member MUs setup under the MU member level DMC – DMCMU1 and DMCMU2.



3.2. TPL and MU

TPL can be set at the member and member unit level. Limits set at each level are independent of each other and apply only to users at the level TPL is applied.

In the diagram above, TPL applied at DMC will apply to DMCOA, DMCS1 and DMCS2. Limits applied at DMCMU1 apply to DMCO1, DMCO2 and DMCT1.

3.3. Shared Order Groups and MU

Shared Order Groups (SOG) can be used to link users across MU and within a MU.

The example below is the setup of the SOG for DMC –

Group Details	Group Details	Group Details
<input type="checkbox"/> Disabled Id 2150 Name* SOG1 Owner* DMCOA	<input type="checkbox"/> Disabled Id 2151 Name* SOG2 Owner* DMCOA	<input type="checkbox"/> Disabled Id 2152 Name* SOG3 Owner* DMCOA
Users	Users	Users
Add User DMCO1 DMCO2	Add User DMCO3 DMCO4	Add User DMCO1 DMCO3

The following access has been permissioned based on the SOG setup in the example above:

- DMCOA is the same owner across all SOGs. This means DMCOA can see all orders for all users (assuming the SOG is used).
- FIX session users under SOG1 can see and act on each other's orders. FIX Session users under SOG2 can see and act on each other's orders.
- As per the figure below, DMCO1 and DMCO3 can see and act on each other's orders via SOG3 (as can DMCOA). This illustrates that a SOG can be used across multiple MUs.

Shared Ordergroup: SOG3 (DMCOA)

Participants

Members

- DMC
 - Shared Ordergroups
 - SOG1 (DMCOA)
 - SOG2 (DMCOA)
 - SOG3 (DMCOA)**
 - DMCD1
 - DMCMU1
 - DMCM1
 - DMCO1
 - DMCO2
 - DMCT1
 - DMCMU2
 - DMCM2
 - DMCO3
 - DMCO4
 - DMCT2
 - DMCOA
 - DMCR1
 - DMCS1
 - DMCS2

☐ Schedule Change

Group Details

☐ Disabled

Id 2152

Name* SOG3

Owner* DMCOA

Users

Add User

DMCO1
DMCO3

3.4. Shared Order Group Ownership and Account access

The relationship between a member or member unit and a SOG owner creates access considerations that must be understood to ensure the appropriate access levels are applied.

The owner of a Shared Order Group provides access to **all** of the accounts it can access to the members of the SOG. If a SOG owner is in a different member unit to SOG members, this may provide the SOG member with access to accounts that have not been authorised for the member unit it belongs to. This includes accounts that are authorised for other members units.

Note: To reduce the risk of unauthorised access to accounts, it is not prudent to make users outside of a member unit the owner of a SOG.

3.5. Naming Convention for ASX 24 Users

Users in ASX 24 are named using the following convention

Character	Description
1-3	Member ID
4	S – ASX Trading Terminal Super User T – ASX Trading Terminal Trader O, E – FIX Order Entry M – FIX Market Data User
5	Increments for each user, 1 to 9 then A-Z.

4. Shared Order Group

Shared Order Group (SOG) functionality provides capabilities for multiple users to view and control orders. A SOG consists of a several users. These can be both FIX and ASX Terminal users. When an order is placed as a SOG order by one of the users in the group, information about all actions on the order are disseminated to all users within the group. Any of the users (with the relevant user role) in the SOG can cancel or replace the order.

All SOGs require an Owner. If an Owner is disabled, all open orders under the SOG will be purged. If a User ID (which isn't an Owner) is removed from a SOG, any open orders which were nominated as part of the SOG will remain.



Note: Disabling the owner of a SOG will also cause the SOG itself to be disabled.

4.1. SOG and Cancel on Connection Loss

If a user within a SOG had the last touch on an order placed with FIX tag 18=o (cancel on connection loss) disconnects, their order will be cancelled. If any other user disconnects (within the same SOG), the order will remain.

4.2. ASX Trade Terminal Users and SOG

ASX Trading Terminal Users (Super Users and Trader Users) have a slightly different setup with SOGs compared to FIX session users. A Super User under the Member can view and cancel all orders for the member and all its MUs. A Super User under a MU can only view/amend/cancel orders within that MU. Although a Super User can view and cancel other user's orders within the member, they can only update shared orders if they are part of the SOG or are their own orders.

As per the user setup in 3.3 *Shared Order Groups and MU*, DMCS1 and DMCS2 have full access to view and act on all orders, across all users as they are under the member itself, DMC. Users DMCT1 and DMCT2 (Trader User Roles) however act alone, that is, they cannot amend/cancel orders on behalf of other users. They can however view orders across FIX user sessions provided they are included in the same SOG and MU level.

4.3. Shared Order Group Maintenance

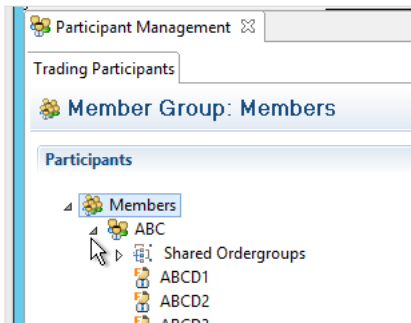
4.3.1. Creating a Shared Order Group

A shared order group can be created in the *Member Admin* perspective.

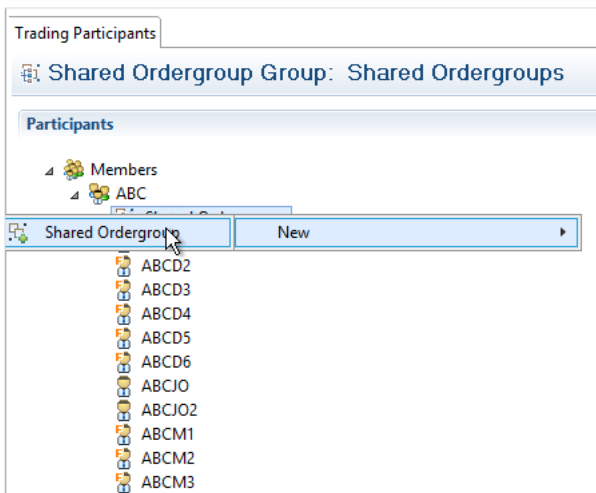
To create a shared order group (SOG):

1. Open the *Member Admin* perspective.

2. Select **Members > [Member]** to expand the tree structure in the *Trading Participants* frame. In the example below, the member would be ABC.



3. Right-click **Shared Ordergroups > New > Shared Ordergroup**. The *New Shared Ordergroup* window is displayed.



4. Enter the name for the new SOG in the Name field.

New Shared Ordergroup

❌ Owning User needs to be specified.

☐ Schedule Change

Group Details

Name* GGG654

Owner*

Users

Add User Remove

Filter

Add Market Remove Add Market List Remove Add Instrument Remove Add Segment Remove Add Tradable Instrument Remove

Finish Cancel

5. Enter the owner's user ID in the *Owner* field.

The owner's user ID needs to be an existing ID within the member. Once the first character of the ID has been entered in the field, all existing IDs beginning with that character are displayed in the drop-down list.

6. Double-click the required ID, or press **Enter** to select.

Group Details

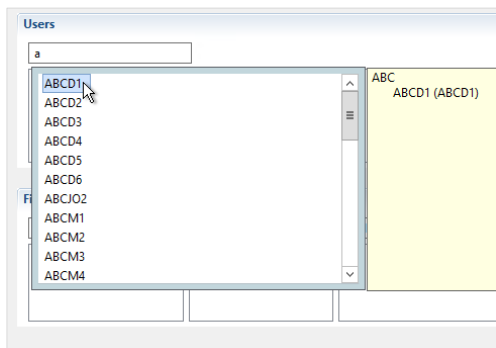
Name* NewGroup

Owner* a

ABCD1
ABCD2
ABCD3
ABCD4
ABCD5
ABCD6
ABCD7

7. Enter the user ID in the *Users* field.

8. Double-click the required ID, or press **Enter** to select. Additional users can be added as many times as required.



9. Add the required values in the filter fields in the *Filter* frame.

Instruments can be added at one of the following levels:

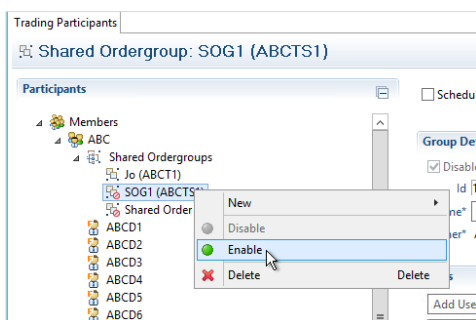
- **Market**– All contract types for whole Market. For example, XSFE or NZFX.
- **Market List** – All contract types for a product type. For example, Index, or Interest Rates.
- **Instrument** – All contract types for an individual instrument. For example, AP.
- **Segment** – Selected contract types for an individual instrument. For example, AP Futures/Options/Spreads.
- **Tradeable instrument** – Individual contract expiries or strikes of an instrument. For example, APH6/APH6000C.

10. Click **Finish**.

The new SOG appears in the Shared Ordergroups directory structure in a disabled state indicated by a red circle. To enable the new group, see *Enabling or Disabling a Shared Order Group* below.

4.3.2. Enabling or Disabling a Shared Order Group

Right click on the required SOG. The menu will contain **Enable** if the SOG is currently disabled, **Disable** if it currently active. Select the menu item to take the action.



Note:

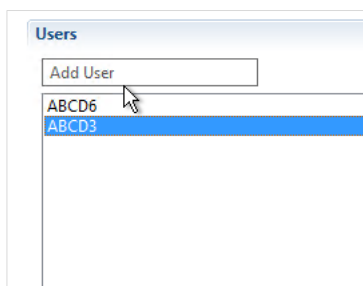
If a SOG is disabled with active orders, these active orders remain. They can be cancelled but not modified. They will trade normally and follow normal order lifecycle actions e.g. removed at the end of a session if day orders.

4.3.3. Modifying a Shared Order Group

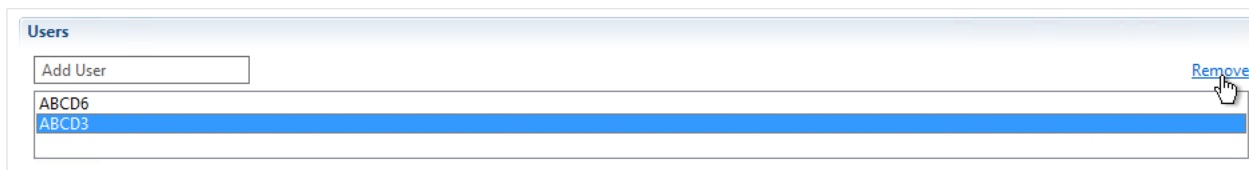
To modify a SOG:

1. Select the required SOG from the Shared Ordergroup directory.
The details of the selected SOG appear on the right of the screen.
2. Modify the SOG as required.

To add a user to a SOG, click in the *Add User* field in the *Users* frame and select the required user from the drop-down list.



3. To remove a user from a SOG, select the required user and click **Remove**.



4. Click **Save**.



Note:

Once **Remove** has been selected the user is permanently removed from the SOG.

4.3.4. Deleting a Shared Order Group

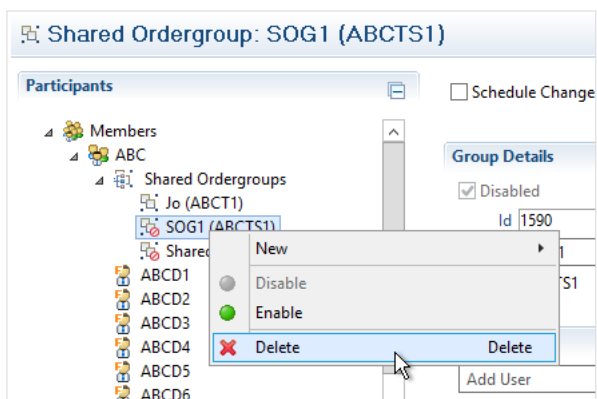


Note:

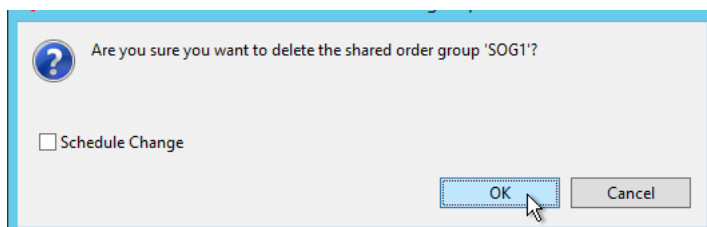
To delete a SOG, it needs to be in a disabled state.

To delete a shared order group:

1. Right-click the required SOG and select **Delete**.



2. Click **OK**. SOG shared order group, click **OK**.



5. Accounts and Limits

Accounts contain position related settings for products. They enable the exposure to be limited according to account settings.

Limits can be set at a product level for example on the ASX 90 Day Bank Bills (IR) contracts. Selected products can also have limits set at the future level, in addition to, or instead of at the product level. For example, limits could be set on IR and/or IRHO. Limits set must be applied to an account to be effective. It is mandatory to set account limits on products to be able to trade them, but it is not mandatory to set limits for individual futures. As product-level account limits are netted across all contract expiries, the purpose of setting account limits for outright futures is to manage exposure to the futures curve.

Account position limits are reset to zero at the end of each trading date.

An example of the Account Administration page is shown below.

Accounts

[Add](#) [Remove](#)

AGT4

BLUE6

DMC1

DMC2

PPP1

PPP2

PPP3

PPP9

RED6

YTR6

Long net limit

200

Short net limit

200

Max order volume

50

Delta

1

Multiplier

1

Close

☒ All ☐ With values ☐ Without values

Product	Long Net Limit	Short Net Limit	Max Order Vol...	Delta	Multiplier
AP / ASX SPI 20...	200.0	200.0	50.0	1.0	1.0
YT / (YT) 3 Year...	1000.0	1000.0	100.0	1.0	1.0
XT / (XT) 10 Ye...	1000.0	1000.0	100.0	1.0	1.0
IR / ASX 90 Day...	1000.0	1000.0	100.0	1.0	1.0
BB / NZ - 90 Da...	200.0	200.0	50.0	1.0	1.0
EN / ASX NSW ...					
PV / ASX VIC P...					
EV / ASX VIC Ba...					
EH / ASX NZ Ba...					

Member Units

☐ DMC

☒ DMCMU1

☐ DMCMU2

In the example above, we have account DMC2 setup across five products, which are enabled for users under MU DMCMU1. Items are highlighted in light grey to indicate that they are not enabled/active.

5.1. Account Modifications with Active Orders

The following behaviour applies:

- Modification of any account parameter will not apply to any active orders.
- Amending an active order's account will not adjust the position to the new account parameter. The position will be kept against the original account parameter that was validated on order entry.
- It is not recommended to add or delete PTRM limits on individual futures for accounts with existing positions during the trading session. Account exposure may not reflect the actual position until the next trading business date.

5.2. Account Position Limit Breach Notifications

A notification will be sent to the sessions who are hitting their 75% and 90% accounts position limits via the PartyRiskLimitsReport (CM) FIX message and also on the ASX Trading Terminal.

A lower limit warning message will be sent for orders which are within the 75-90% limit range of the account and a higher limit warning message will be sent for orders within the 90-100% range. A warning message will be sent to the session placing the order for every order placed within those thresholds (75-100% range), not just the initial order that moves the account position limit over 75 or 90%.

If an order simultaneously breaches multiple thresholds, only one notification will be sent. Examples of this are breaching the lower and upper thresholds, or a spread order breaching both long and short limits.

Any order which would breach the account position limit will be rejected.

5.3. Interaction of product and individual contract limits

Long net, short net and max order volume limits can be set at the product level and also at the future level. The logic for calculating the position is the same in both cases. In the case where limits are set for both a product and an individual tradeable instrument, the interaction is as follows:

- Orders in a future are validated only against the limits set for the outright. They will not affect position set at the product level
- If an outright contract in a spread has a limit set, the system will validate that leg. Any breach of a position will cause the order to be rejected

Consider the following scenario where limits are set at both the product and outright contract level:



IR Product

Limit	Value
Long Net	10000
Short Net	10000
Max Order Volume	50
Delta	0.1
Multiplier	0.5

IRH7

Limit	Value
Long Net	100
Short Net	100
Max Order Volume	75

IRM7

Limit	Value
Long Net	100
Short Net	100
Max Order Volume	75

The following orders will be validated solely against product limits

- Order in IRH70095000C - Options are validated against product, so even though there is limit for the underlying (IRH7) this will not be used. One tenth (0.1) of the order volume will be counted against the relevant long/short limit.
- Order in IRH8 - No limits for this outright contract, therefore the product limit is applied
- Order in IRH8U8 - no limits for either of the outright legs, therefore the product limit is applied

The following orders be affected by outright contract limits

- Order in IRH7 - validated against IRH7 limits. The maximum long and short position is 100, lower than the product level. Maximum order value is higher, at 75
- Order in IRH7M7 - validated against IRH7 and IRM7 limits

- Order in IRH7H8 - IRH7 is validated against contract level. IRH8 is validated against IR product limits, as no limits defined for IRH8

5.4. Setting limits on multi-leg products

If a combination instrument has options over it (e.g. base load energy strip products) limits must be set on both the parent level and the individual products. For example NSW Base Load Energy Strip products (HN) consist of NSW Base Load Quarter Electricity Futures (BN). Limits must be set on both the HN and BN products.

When trading the option over the strips the strip PTRM limits will apply. When trading the strip the future PTRM limits will apply.

The list of products is:

Product name	Strip	Future
Australian Electricity - NSW Base Load Energy	HN	BN
Australian Electricity - VIC Base Load Energy	HV	BV
Australian Electricity - QLD Base Load Energy	HQ	BQ
Australian Electricity - SA Base Load Energy	HS	BS
NZ Electricity - Benmore Base Load	EF	EE
NZ Electricity - Otahuhu Base Load	EB	EA



Note:

Combination products that do not have options listed over them only have limits set on the individual products (i.e. the leg instruments).

5.5. Account Limit Types

A number of different limits can be set on an account. Long net limit, short net limit and max order volume can be set at both product and future level. Delta and Multiplier only apply to product level. These limits are described in the following sections.

5.5.1. Long Net Limit

The aggregate sum of quantities on working buy orders and the long position of traded quantity so far at the current point in time. The traded position is calculated by netting against the sell trades, but the working buy orders are not netted against working sell orders.

Example: The Long Net Limit is 50. The user has completed 5 buy trades at quantities 2, 25, 14, 5, 7, sum of 53, and 2 sell trades of 10 and 25, sum of 35. The long position is 18 (53-35). There are 2 buy orders at quantity of 5 each, so the current Long Net Limit calculation is 28. The user can therefore place a further aggregate quantity of 22 in buy orders. Note that any working sell orders were ignored.

5.5.2. Short Net Limit

The aggregate sum of quantities on working sell orders and the short position of traded quantity so far at the current point in time. The traded position is calculated by netting against the buy trades, but the working sell orders are not netted against working buy orders.

5.5.3. Max Order Volume

The limit on quantity for a single order, with a system-enforced maximum of 9999.

5.5.4. Delta

The Delta option is a factor that can be applied to reduce the position weighting of option positions. They reflect the weighting they have on the overall product position. Acceptable values are between 0 and 1 with a default of 1.

Delta can only be applied to a product, not a future. Any value other than 1 will not be saved.

Example: With a Delta of 0.2 an option order of 100 will add 20 to the position ($100 \times 0.2 = 20$).

5.5.5. Multiplier

The multiplier is a factor that can be applied to overall product positions in 1:1 intra-commodity spreads. Acceptable values are between 0 and 1, with a default of 1.

Multiplier can only be applied to a product, not a future. Any value other than 1 will not be saved.

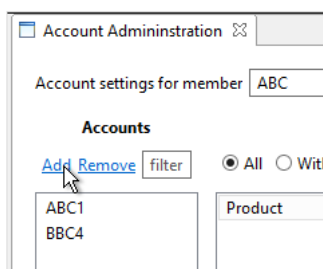
Example: With a multiplier of 0.5 an intra-spread order of 10 will add 5 to the position ($10 \times 0.5 = 5$).

5.6. Account Maintenance

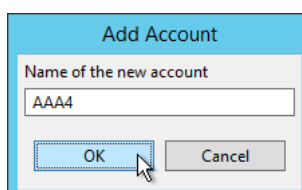
5.6.1. Creating an Account

To create an account via the **PTRM** perspective:

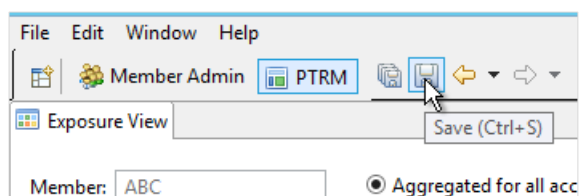
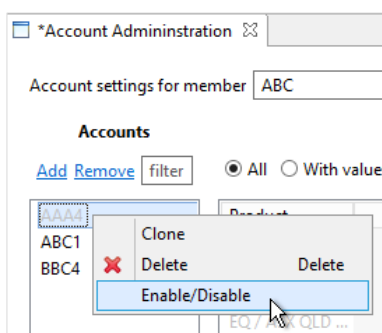
1. Click **Add** in the Account Administration view.
This opens the *Add Account* dialog box.



2. In the *Name of the new account* field, add the name of the account and click **OK**.
The new account is now listed in the Accounts column. It is displayed in grey until it has been enabled.



3. Right-click the created account and select **Enable/Disable**.
Once the account is enabled, it changes from grey to black.

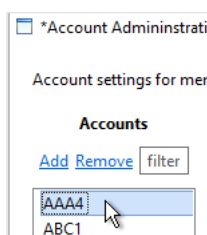


4. Click **Save**.
The account is now active.

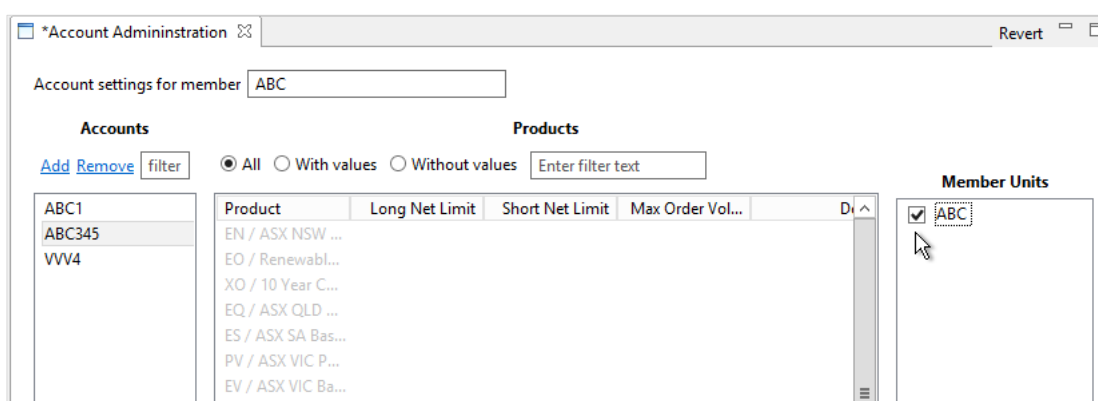
5.6.2. Adding a Member Unit to an Account

To add a member unit to an account:

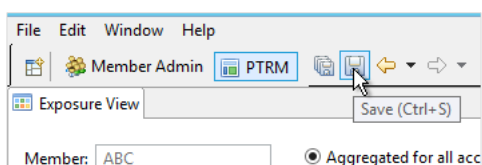
1. Select the required new account.



2. Select the required member unit in the *Member Units* column.



3. Click **Save**.



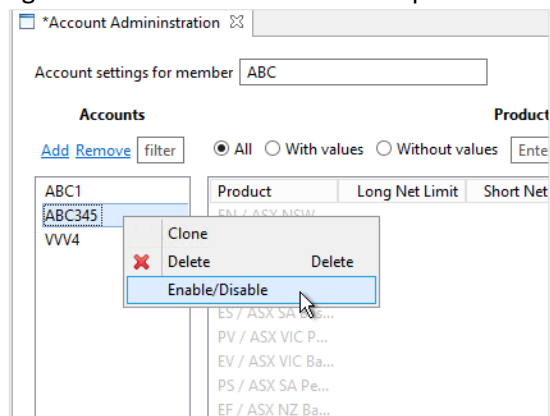
5.6.3. Cloning, Deleting and Disabling or Enabling an Account

The right-clicking menu on the account list provides a menu with options to Clone, Delete and Enable/Disable an account.

To disable/enable an account:

1. Select the required account in the *Accounts* column.

2. Right-click and select the action required.



3. Click **Save** to apply the change performed.



Notes:

- A cloned account is automatically active (not greyed out) and does not need to be enabled.
- All orders for an account will be deleted as soon as it is disabled.
- An account must be disabled before it can be deleted.

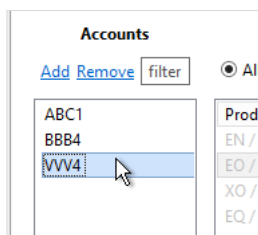
5.7. Account Limit Maintenance

Limits can be applied by using the relevant screens within the terminal. They can also be applied by uploading a file.

5.7.1. Applying Limits to an Account

To apply a limit to an account:

1. Select the required account.



2. Double-click the required product from the product column.

The screenshot shows a software interface with two main panels. The left panel, titled 'Accounts', has a search bar with 'Add', 'Remove', and 'filter' buttons, and a list of account codes: ABC1, BBB4, and VVV4. The right panel, titled 'Prod', has radio buttons for 'All', 'With values', and 'Without values', and a list of products: EN / ASX NSW..., EO / Renewable Energy Certificate, XO / 10 Year C..., and EQ / ASX QLD ... The 'EO / Renewable Energy Certificate' product is highlighted, and a mouse cursor is clicking on it.

- 5.8. If there are existing limits, these will be displayed and can be modified. If limits have not been set long net, short net and max order values will be empty. Enter the required values. See 5.4 Setting limits on multi-leg products

If a combination instrument has options over it (e.g. base load energy strip products) limits must be set on both the parent level and the individual products. For example NSW Base Load Energy Strip products (HN) consist of NSW Base Load Quarter Electricity Futures (BN). Limits must be set on both the HN and BN products.

When trading the option over the strips the strip PTRM limits will apply. When trading the strip the future PTRM limits will apply.

The list of products is:

Product name	Strip	Future
Australian Electricity - NSW Base Load Energy	HN	BN
Australian Electricity - VIC Base Load Energy	HV	BV
Australian Electricity - QLD Base Load Energy	HQ	BQ
Australian Electricity - SA Base Load Energy	HS	BS
NZ Electricity - Benmore Base Load	EF	EE
NZ Electricity - Otahuhu Base Load	EB	EA



Note:

Combination products that do not have options listed over them only have limits set on the individual products (i.e. the leg instruments).

3. Account Limit Types
3. for information on each parameter

Long net limit
10000

Short net limit
10000

Max order volume
10000

Delta
1

Multiplier
1

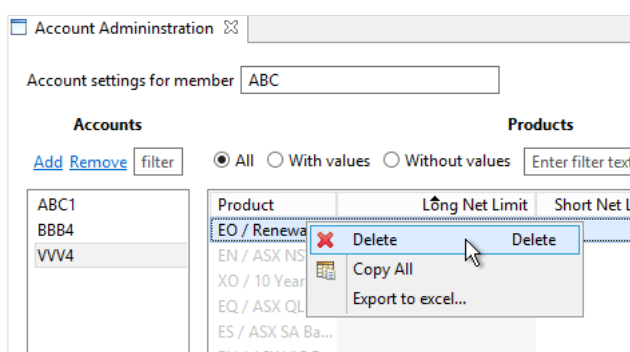
Close

4. If setting limits for a product, enter the required values in the Delta and Multiplier fields. For limits at future level, leave the values as 1. Click on **Close**.
5. Click **Save**.
The account is deselected when saved. Clicking back on it shows the current values.

5.8.1. Deleting Limits on Accounts

To delete limits on accounts:

1. Select the required account.
2. Right-click on the required product and select **Delete**.
Alternatively, select **Delete** on your keyboard.



3. Click **Save**.
4. Click the updated account.
Once the updated account has been selected again, the product limit values are removed.

5.9. Bulk Account and Limit Maintenance

5.9.1. Overview

PTRM provides users with the option of importing and exporting account data using a simple file format. A sample import file is:

	A	B	C	D	E	F	G	H	I
1	ACCOUNT	A	PPP9	DMC					
2	LIMITS	A	PPP9	AA-S	1000000	1000000	9999	1	1
3	LIMITS	A	PPP9	AF-S	1000000	1000000	9999	1	1
4	LIMITS	A	PPP9	AM-S	1000000	1000000	9999	1	1
5	LIMITS	A	PPP9	AP-S	1000000	1000000	9999	1	1
6	LIMITS	A	PPP9	AR-S	1000000	1000000	9999	1	1
7	ACCOUNT	A	PPP1	DMC					
8	LIMITS	A	PPP1	AA-S	1000000	1000000	9999	1	1
9	LIMITS	A	PPP1	AF-S	1000000	1000000	9999	1	1
10	LIMITS	A	PPP1	AM-S	1000000	1000000	9999	1	1
11	LIMITS	A	PPP1	AP-S	1000000	1000000	9999	1	1
12	LIMITS	A	PPP1	AR-S	1000000	1000000	9999	1	1
13	ACCOUNT	U	PPP2	DMC					
14	LIMITS	U	PPP2	AA-S	500000	500000	5000	0.5	0.5
15	LIMITS	U	PPP2	AF-S	500000	500000	5000	0.5	0.5
16	LIMITS	U	PPP2	AM-S	500000	500000	5000	0.5	0.5
17	LIMITS	U	PPP2	AP-S	500000	500000	5000	0.5	0.5
18	LIMITS	U	PPP2	AR-S	500000	500000	5000	0.5	0.5
19	ACCOUNT	U	PPP3	DMC					
20	LIMITS	U	PPP3	AA-S	0	0	0	0	0
21	LIMITS	U	PPP3	AF-S	0	0	0	0	0
22	LIMITS	U	PPP3	AM-S	0	0	0	0	0
23	LIMITS	U	PPP3	AP-S	0	0	0	0	0
24	LIMITS	U	PPP3	AR-S	0	0	0	0	0
25	ACCOUNT	X	PPP4	DMC					

In the screenshot example above, we have Member DMC requesting to Add, Modify and Delete the relevant accounts and limits.

5.9.2. File format

The Administration and Risk Terminal accepts and produces Comma Separated Value (CSV) files. The same format is used for both import and export of account data. A line describes a single account or account limit. An account line describes the member units the account applies to and precedes the account limit lines which describe the limits for a segment or instrument for the account.

Import files specify an action to take - add, update or delete. An account line will be followed by account limit lines for additions, updates and deletions. Account deletion lines do not have any account limit lines following them.

The first three columns for both line types are as follows:

Column No	Description	Valid values	Comments
1	Type of instruction	ACCOUNT LIMITS	
2	Action to take	A – Addition U – Update X – Delete	The action column must be supplied on imported files. It is blank on exported files.
3	Account name		Existing account names for updates and deletes, new name for additions

Columns 4 onwards are different for each line type. For **ACCOUNT** lines, each subsequent column contains the member unit the account applies to.

For **LIMITS** lines the columns are as follows

Column No	Description	Valid values	Comments
4	Segment name		E.g. AP-S, IB-S
5	Long Net Limit		
6	Short Net Limit		
7	Max Order Volume		
8	Delta		
9	Multiplier		



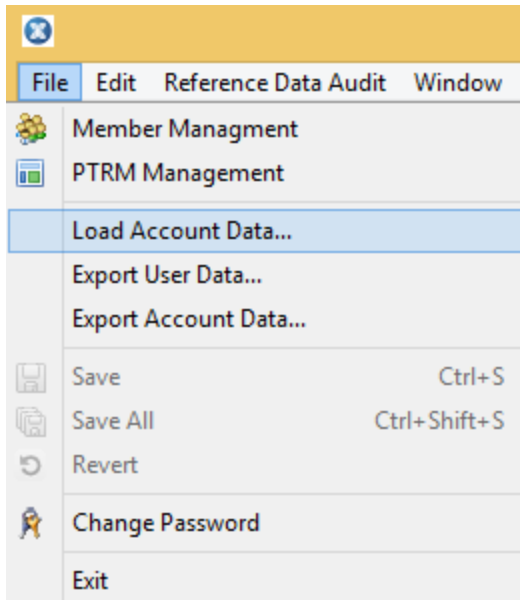
Notes:

- If adding, updating or deleting account limits from an existing account, the action on the ACCOUNT line must be U.

5.9.3. Bulk Upload Accounts and Limits Steps

Here are the steps to bulk upload accounts and limits via PTRM:

1. Select 'File' and 'Load Account Data...'

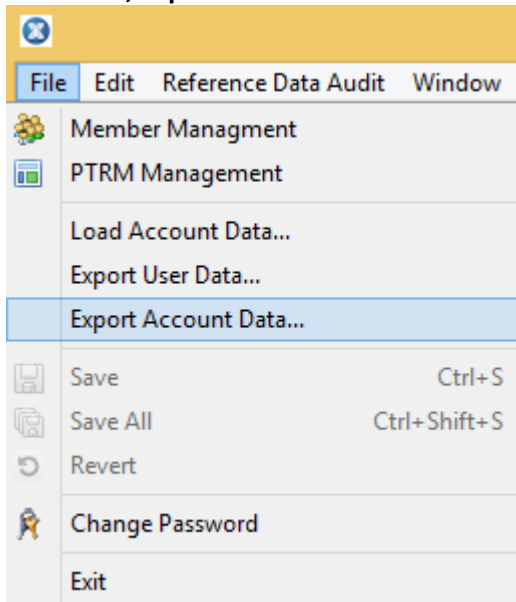


2. Select where the .csv file is located on your local PC and click 'Open'.
3. If errors are contained in the file, a popup will appear with 'Errors in file, do you want to proceed anyway?'. Click 'Yes' or 'No' as appropriate.
4. A 'Result from updating PTRM data' window will appear showing all the successful and rejected uploads via the bulk file.

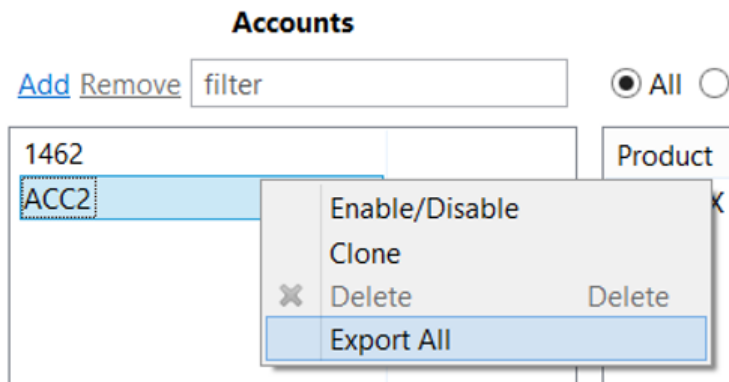
5.9.4. Bulk Export of Account Data

To export account data:

1. Select **File, Export Account Data...**



Alternatively, select **Export All** from the right-click menu on the Accounts list.



2. Select a location and name for the file and press **OK**



Note:

All accounts are exported. It is not possible to export a single account.

6. Member and Account Exposure

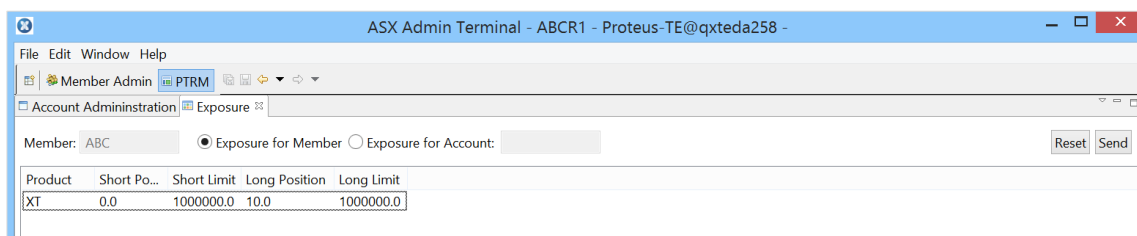
ART allows participants to send requests to see their exposures at a Member or Account level at any time. This allows participants to work out exactly what exposure they have across all accounts and at the member level as a whole.

6.1. Open Order and Position Summary Queries

To query one or more accounts:

1. Open the *PTRM* perspective in the *Exposure* view.
2. Click the required search criteria option.

Select **Exposure for Member** and click **Send**. This displays the overall product positions for all accounts and the member's position limits.



The screenshot shows the ASX Admin Terminal window titled "ASX Admin Terminal - ABCR1 - Proteus-TE@qxteda258 -". The interface includes a menu bar (File, Edit, Window, Help) and a toolbar. The main area is divided into two tabs: "Member Admin" and "Account Administration". The "Account Administration" tab is active, and the "Exposure" view is selected. Below the tabs, there is a section for "Member: ABC" with two radio buttons: "Exposure for Member" (selected) and "Exposure for Account:". To the right of these buttons are "Reset" and "Send" buttons. Below this section is a table with the following data:

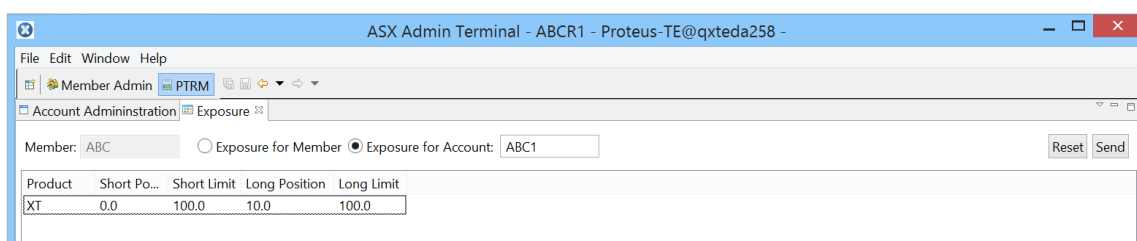
Product	Short Po...	Short Limit	Long Position	Long Limit
XT	0.0	1000000.0	10.0	1000000.0



Note:

This does not continuously update. To update, click **Send**.

Select **Exposure for Account** to view individual account orders and positions. Enter the account in the *Enter filter* text field and click **Send**.



The screenshot shows the ASX Admin Terminal window titled "ASX Admin Terminal - ABCR1 - Proteus-TE@qxteda258 -". The interface is similar to the previous screenshot, but the "Exposure for Account:" radio button is selected, and the "Member: ABC" text field is replaced by "ABC1". The table below shows the following data:

Product	Short Po...	Short Limit	Long Position	Long Limit
XT	0.0	100.0	10.0	100.0

The results are displayed at the product level showing account limits and account positions.



Note:

Position *limits* are reset to zero at the end of each Trading Date

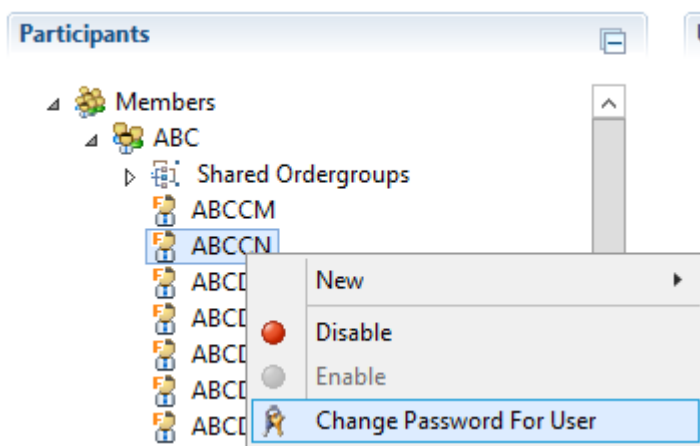
7. User Management

The Administration and Risk Terminal provides functionality to manage users. Passwords can be reset and a user can be disabled if it is no longer required.

7.1. Changing a user's password

Passwords can be updated for all users under the Member. This function can be used to unlock users who have entered their password incorrectly too many times and for those with expired passwords. To change a user's password:

1. Open the *Member Admin* perspective.
2. Select **Members > [Member]** to expand the tree structure in the *Trading Participants* frame.
3. Locate the required user and right-click on it



4. Select **Change Password For User**
5. Enter the new password in the **New Password** and **Confirm Password** boxes. Select **User has to change Password on next login** if required

6. Press OK.



Notes:

The new password must meet at least three of the following criteria:

- Contain an English upper case character (A-Z)
- Contain an English lower case character (a-z)
- Contain a Hindu Arabic numeral (0-9)
- Contain one or more of the following non-alphanumeric, special characters:
!@#\$%^&*()_+|~=-\`{}[]:~;'<>?,./)
- Contain any character that is categorized as an alphabetic character but is not uppercase or lowercase; this includes characters from Asian languages.

Passwords must be a minimum of 8 characters in length.

Passwords are valid for 90 Days, and when reset must be different to the previous 12 passwords used.

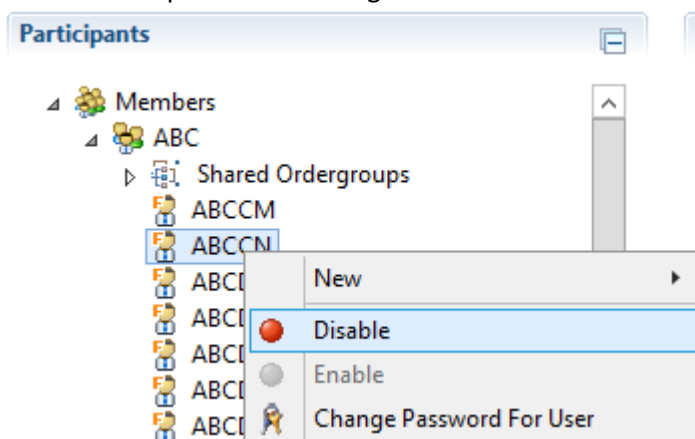
The account will lock after 6 failed attempts.

7.2. Disabling a user

Disabling a user will remove all active orders for that user, disconnect the user if logged on and prevent them from logging on. This action can be considered a kill switch for an exchange connection.

To disable or enable a user:

1. Open the *Member Admin* perspective.
2. Select **Members** > [**Member**] to expand the tree structure in the *Trading Participants* frame.
3. Locate the required user and right-click on it



4. Select **Disable** or **Enable**.

7.3. Export of user data

Administration and Risk Terminal provides functionality to export the list of all users set up in system.

7.3.1. File format

User data is exported in Comma Separated Value (CSV) files. The format is as follows:

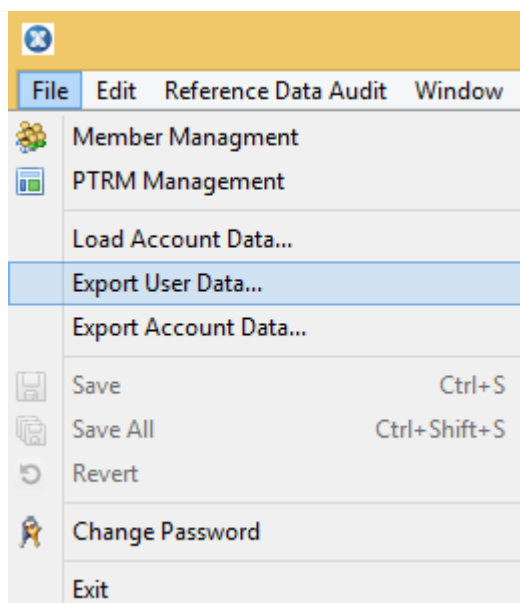
Column No	Column name	Comments
1	User	User id
2	First name	First name of the user
3	Last name	Last name of the user
4	E-Mail	E-mail address of the user
5	Phone Number	Phone number of the user
6	Member Firm	Id of the member firm the user belongs to
7	Member Unit	Id of the member unit the user belongs to. Same as the member firm if the user does not belong to a member unit
8	SOG Group(s)	Comma separated list of SOG group names
9	TAP List	Trading access profiles assigned to the user
10	SAP List	Subscription access profiles assigned to the user
11	Throttling Limit	Number of transactions the user can place in one second
12	User Type	Type of service user has access to. One of: <ul style="list-style-type: none">• FIX• GUI• ITCH

The first line of the file is a header line containing the names of each column.

7.3.2. Exporting user data

To export all user data:

- 1 Select **File, Export User Data...**



- 2 Select a location and name for the file and press **OK**

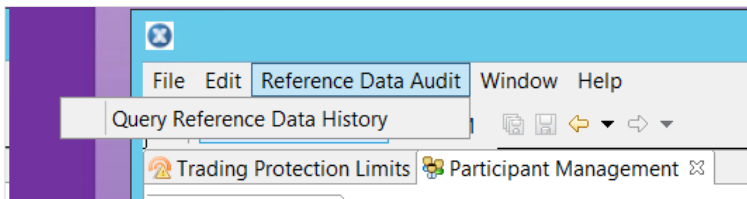
8. Reference Data Audit

8.1. Reference Data Audit Queries

A Reference Data Audit query provides an audit trail of all changes made to accounts and limits.

To query data history:

1. Open **Reference Data Audit > Query Reference Data History** perspective



2. Enter search criteria for these fields at the top of the screen:

- **User** – Risk Terminal User to be queried, e.g. DMCR2
- **Data type** – Account
- **Action** – Select individual checkboxes or select all for a blanket search, e.g. Add, Update, Remove
- **ID** – Account ID
- **From** – Query from date
- **To** – Query to date
- **Send** – Click **Send** to query the history

User	Data type	Action	Id	From	To		
DMCR2	Account	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Update <input checked="" type="checkbox"/> Remove		1/01/2000	9/08/2016	Send	Reset

The queried information appears in the middle section of the screen.

Data Type	ID	TimeStamp	Action	Modified by	Attributes c...
> Account	DMC8				
> Account	DMC2				
> Account	GGG76				
> Account	PPP9				
> Account	DMC1				



Note:

This does not continuously update. To update, click **Send**.

Drill down on the Data Type to expand information for that Account ID, e.g. DMC8. This displays details, including TimeStamp, Action, Modified by, and Attributes changed for the selected account, e.g DMC8

Data Type	ID	TimeStamp	Action	Modified by	Attributes changed
Account	DMC8	2016-08-02T15:16:32.133	Add	DMCR2	
		2016-08-02T15:20:21.167	Update	DMCR2	accountLimits[0].de...
		2016-08-02T16:04:18.863	Update	DMCR2	isDisabled
		2016-08-02T16:04:25.350	Remove	DMCR2	
Account	DMC2				
Account	GGG76				
Account	PPP9				
Account	DMC1				

To view additional information about each item returned from the above query, select a row in the list. Details of the change are displayed in the lower section of the screen.

Data Type	ID	TimeStamp	Action	Modified by	Attributes changed
Account	DMC8	2016-08-02T15:16:32.133	Add	DMCR2	
		2016-08-02T15:20:21.167	Update	DMCR2	accountLimits[0].de...
		2016-08-02T16:04:18.863	Update	DMCR2	isDisabled
		2016-08-02T16:04:25.350	Remove	DMCR2	
Account	DMC2				
Account	GGG76				
Account	PPP9				
Account	DMC1				

Attribute	Old value	New value
isDisabled	false	true

In the above Query, the New Value is **True** for isDisabled, meaning that the account, DMC8 has been disabled.

8.2. Exporting Query Data

To export query data, right-click in the top section to select, copy, and paste the content into Excel.

Data Type	ID	TimeStamp	Action	Modified by	At
Account	DMC8	2016-08-02T15:16:32.133	Add	DMCR2	
		2016-08-02T15:20:21.167	Update	DMCR2	ac
		2016-08-02T16:04:18.863	Update	DMCR2	isD
		2016-08-02T16:04:25.350	Remove	DMCR2	





Note: Only content visible in the top half of the screen is copied to Excel.

To export all sections, take a print screen of the entire page.

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