Eurex Clearing

C7 Advanced Risk Protection GUI - User Manual

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1 Introduction

This document provides an overview of C7 Advanced Risk Protection (ARP) GUI which will be available within C7. One of the part of this release is the porting of ARP functions from Eurex Classic to C7, which will be introduced in December 2018.

Please note that since the C7 ARP GUI is newly introduced, this GUI user manual has been created as a stand-alone document dedicated to C7 ARP GUI only.

All the general features like sorting, filters, search etc. in C7 ARP GUI is similar like C7 Clearing GUI. For more details please refer C7 Clearing GUI – User Manual available on the Eurex Clearing website: www.eurex.com => Support => Initiatives => C7 Releases => System Documentation

For detailed information on the C7 ARP functionality, please refer to the C7 ARP Functional Reference Guide, which will be available for download on the Eurex Clearing website: www.eurex.com => Support => Initiatives => C7 Releases => System Documentation

1.1 Audience

This document is intended for all the members intending to use the C7 ARP GUI. It assumes that the reader has a basic understanding of the clearing and risk management functionalities and the systems offered by Eurex Clearing.

1.2 Conventions Used in This Document

Cross-references to other chapters within this document are always clickable, but not marked separately.

Hyperlinks to websites are underlined.

1.3 C7 ARP GUI

The C7 ARP GUI is accessible via a separate menu switch “ARP” within the C7 GUI. The C7 ARP GUI provides Clearing Members with the facility to stop and release their Non Clearing Members and also maintain risk limits for their Non Clearing Members. The Non Clearing Members can also do maintain limits for themselves. The Clearing House Operator uses the C7 ARP GUI to stop and release Clearing Members and Non Clearing Members and to maintain risk limits for Clearing Members and Non Clearing Members. The C7 ARP GUI has the following windows.

- Stop Release window
- Limit Maintenance window
- Four-Eye approval window
- Event Log window

The C7 ARP GUI also offers a Dashboard and an automatic notification feature on the Dashboard.

2 Stop Release

2.1 Description

The *Stop Release* window can be accessed from the title bar or Dashboard in the C7 ARP GUI. It displays the member's status and the actual reason for halt if a member is in HALT state. Member Stop and Release actions can be initiated from this window. Further details about these functions can be found in the 'Functionality' section of this window.

The *Stop Release* window shows the member list with their up-to-date status. To list only member and/or their status of interest, a filter function is provided. In the search panel of the window there are various filter fields. Upon inquiry, all member records matching the selected filter criteria are listed in the table.

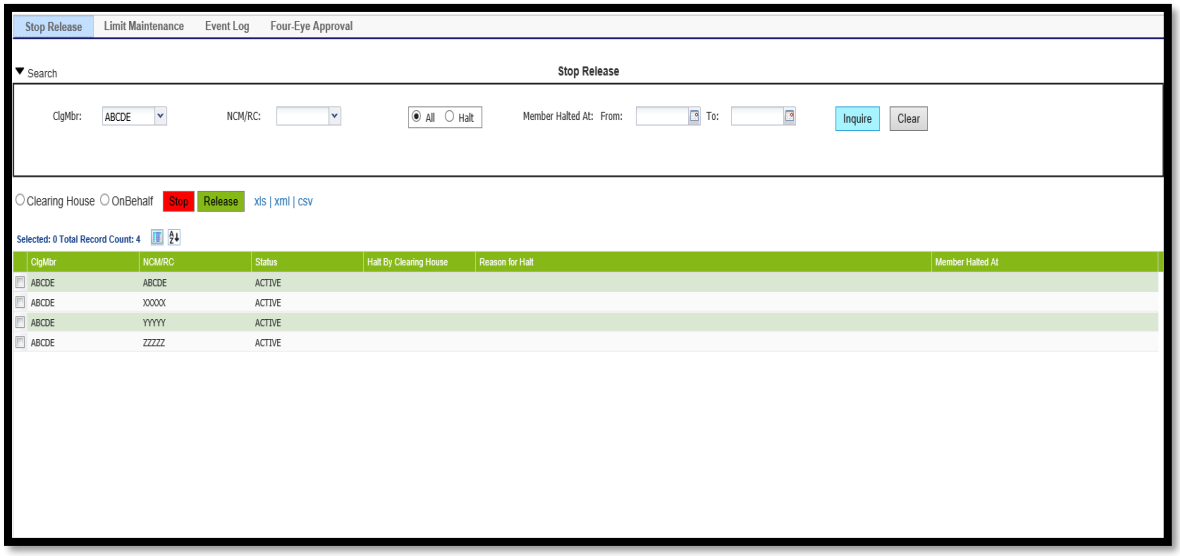

Figure 1: Stop release Window

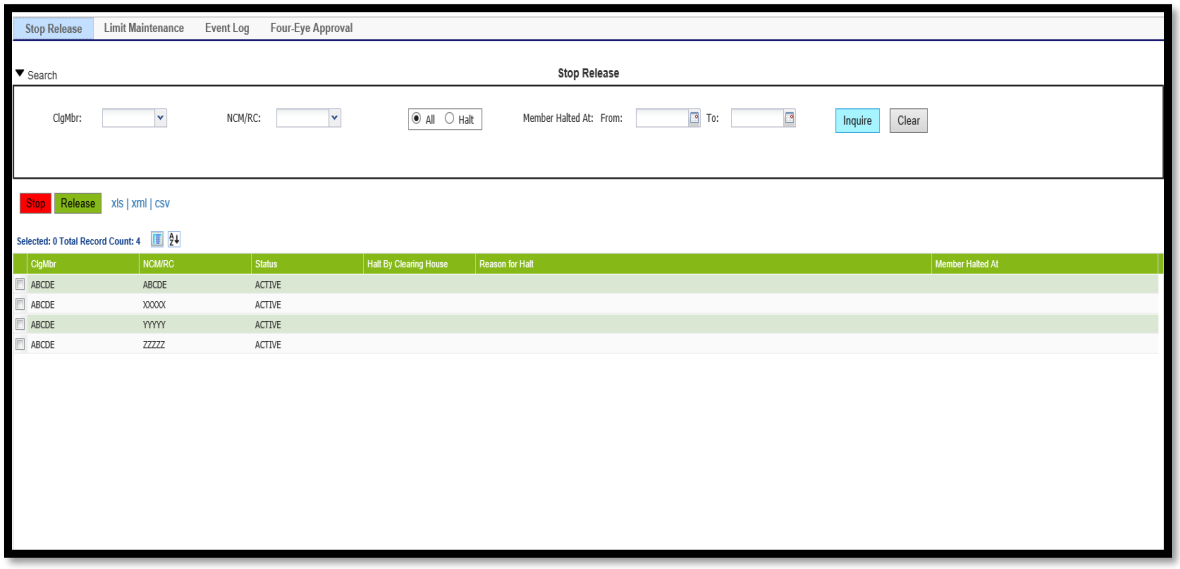

Figure 2: Stop Release Window

2.2 Functionality

Stop button enables Clearing House and Clearing Members to stop their participants from performing any trading and clearing related activity. The Stop Release window provides Clearing Members and Clearing House Operator with the facility to perform a 'Stop' or 'Release' action. Clearing Members can trigger a 'Stop/Release' action on their Non-Clearing Members.

Clearing House Operator can also take 'Stop/Release' actions on Clearing Members and Non-Clearing Members.

Clearing Members and Non Clearing Members are not allowed to take 'Stop/Release' action on themselves.

Below the search panel Stop and Release buttons are available in Stop Release screen to perform Stop and Release actions on the members.

Stop: 'Stop' button performs a Stop action on the selected Member (Non Clearing Member). Clearing House Operator uses the Stop button to Halt Clearing Members and Non Clearing Members. For Clearing House Operator, the Stop button will always be used along with Clearing House/On Behalf radio buttons. On Stop of a Clearing Member, all its associated Non Clearing Members will automatically be stopped. Multiple member selection is not allowed. Only one member can be stopped at a time. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

Non Clearing Member can also be stopped automatically if its level 3 risk limit is breached. Non Clearing Members will be stopped automatically if it's Clearing Member is stopped.

Release: 'Release' Button performs a Release action on the selected Member (Non Clearing Member). Clearing House Operator uses the Release button to release Clearing Members and Non Clearing Members. For Clearing House Operator, the Release button will always be used along with Clearing House/On Behalf radio buttons. On Release of a Clearing Member, all its associated Non Clearing Members will automatically be released (if not Halted before when Clearing Member was Halted). Only one member can be released at a time. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

The Release button cannot be used to release a member stopped automatically by a level 3 limit breach. If user tries to do so, it will get an error message. To release an automatic stop, the user needs to release the triggered limit on the Limit Maintenance window. Also, the Release button cannot be used if the member is in Halt due to listing status. Listing Status of member can only be changed by Member General Information window in Eurex Classic GUI. If user will try to do so in C7 ARP by clicking the release button, he will get an error message.

2.2.1 Member Listing Status Change

Members can be stopped/released automatically in C7 Advance Risk Protection depending on their listing status in Eurex Classic. Release button cannot be used if the Member is in Halt state due to listing status. Listing status of member can only be changed by Member General Information window in Eurex Classic GUI. If the user tries to do so in C7 ARP GUI by clicking the Release button, he will get an error message.

2.3 Screen Elements

Stop Release - Filter criteria	
Filter	**Description**
ClgMbr	Filter for Clearing Member
NCM/RC	Filter for Non Clearing Member or Registered Customer.
All and Halt	Filter to show either All statuses or only the Halt status
Halt	Filter for only halt type of member status
Member Halted at	Filter for members halted between time duration

Stop Release – Buttons	
Button	**Description**
Inquire	'Inquire' button will display member status on the Stop-Release window.
Clear	'Clear' button will clear the Inquiry filter criteria.
Clearing House and On Behalf	These radio button will be used by the Clearing House Operator to either perform the action on its own or on behalf of the Clearing Member.
Stop	Performs a 'Stop' action for the selected member
Release	Performs a 'Release' action for the selected member

Stop Release – Table Columns	
Column	**Description**
ClgMbr	Identification code of the Clearing Member present in C7 ARP.
NCM/RC	Identification code of the Non Clearing Member/Registered Customer present in C7 ARP.
Status	Status of the member – ACTIVE or HALT.
Halt by Clearing House	Member is halted by Clearing House Operator – Yes or No
Reason for Halt	Reason of Halt Status There could be one of the following reason for Halt status: 1. Listing Status changed to Halt 2. CM-CM Level 3 limit for TMR/CULI/CASH/NDM is breached 3. CM-NCM Level 3 for TMR/CULI/CASH/NDM is breached 4. NCM-NCM Level 3 for TMR/CULI/CASH/NDM is breached 5. Stop button hit by Clearing House 6. Stop button hit by Clearing Member

	7. Clearing Member of the corresponding Non Clearing Member is in HALT state.
Member Halted At	Displays Date and time at which the member status has been changed to Halt in C7 ARP. For the members whose status is other than Halt i.e. active/ Inactive, the Member Halted at field will be blank.

3 Limit Maintenance

3.1 Description

The *Limit Maintenance* window can be accessed from the *title bar* or Dashboard in the C7 ARP GUI. It displays the member's risk limits configurations and their breach status. Risk Limit maintenance, Manual Slowdown and Release actions can be initiated from this window.

The *Limit Maintenance* window shows member's risk limits and whether the risk limits are breached. To list the records of interest, a filter function is provided. In the search panel of the window there are various filter fields. Upon inquiry, all member's risk limit records matching the selected filter criteria are listed in the table.

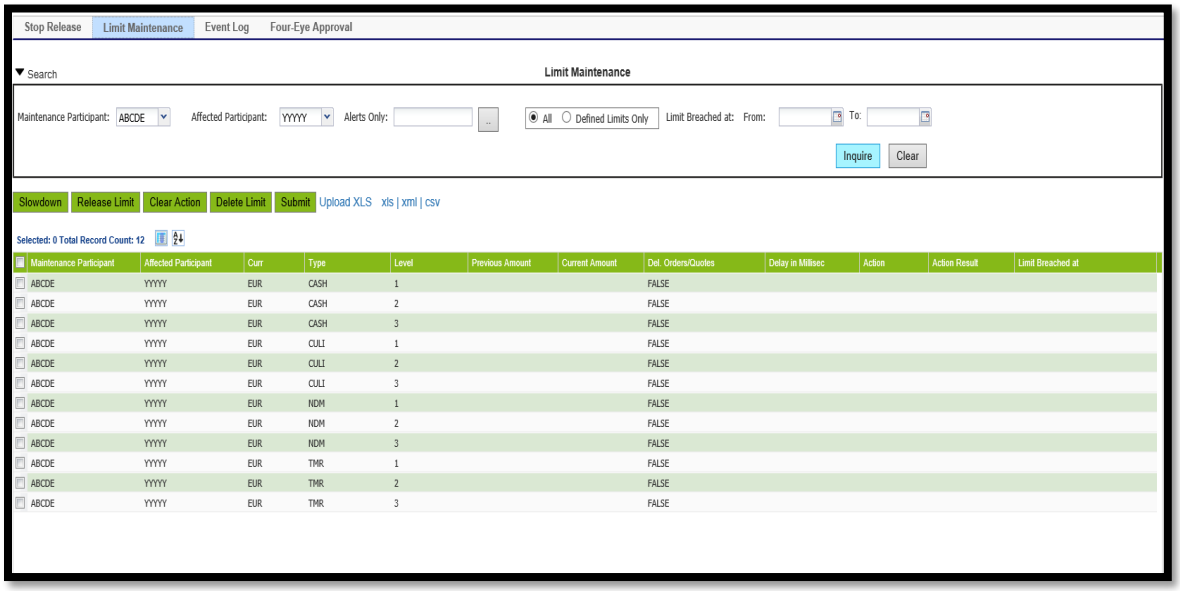

Figure 3: Limit Maintenance

3.2 Functionality

Limit maintenance window enables Clearing Members to define individual risk limits for their Non Clearing Members. Non Clearing Members can also set risk limits for themselves. Clearing House Operator can define limits for Clearing Members including their associated Non Clearing Members. Normally the Clearing House Operators set the limits only for Clearing Members.

Currently four pre-defined risk limit types are available, each representing different aggregates of risk values, calculated on Eurex Clearing's near-real-time risk calculation ability:

Risk type	Abbreviation	Description
1	TMR	Total Margin Requirement
2	CULI	Premium Margin + Current Liquidating Margin + Variation Margin + Option Premium
3	CASH	Variation Margin + Option Premium
4	NDM	Additional Margin + Initial Margin

When setting any such limit, the user have to choose following action level for each limit.

- Level 1: Send an Alert Message. Additionally orders/ quotes can be deleted if flag is set to Y.
- Level 2: Applying a slowdown for Add and Modify Orders/Quotes. Besides orders/quotes can be deleted if flag is set to Y.
- Level 3: Setting the member to state 'HALT' and halt it from all trading & Clearing activities

Action Level Applicable on Clearing Members Level : Level 1 and Level 3.
Action Level Applicable on Non-Clearing Members Level: Level 1, Level 2 and Level 3

Only Clearing House Operator can set risk limit for Clearing Members. However, Non-Clearing Members are allowed to set risk limits for themselves.

Below the search panel there are several buttons to perform actions on Limit Maintenance window.

Submit: C7 ARP supports intraday changes of risk limits through Limit Maintenance window. To change or set a risk limit, click in the respective field, enter a limit amount and submit it by pressing the Submit button. Changes to risk limit amounts and the Order/Quote Delete flags as well as the level 2 delay parameter have an immediate effect. Multiple rows can be changed at the same time. Clicking on Submit button will submit all the changes. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

If a risk limit is already breached and the user tries to change either 'Del. Orders/Quotes' flag or the 'Delay' parameter, then it will get an error message. The limit must be released first and only then these values can be changed. However the Amount can always be changed irrespective of whether the limit is breached or not.

User can release any breached limit by a) increasing the limit amount or b) deleting the limit amount. The user can then release the risk limit in C7 ARP GUI.

Delete Limit: Deleting a limit via the Delete button has immediate effect. Multiple rows can be selected and limits can be deleted. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

The Current Amount will become blank and the value of Current Amount field will be moved to Previous Amount field. Other parameters such as 'Del. Orders/Quotes', 'Delay in millisec' and so on will also be cleared when the limit is deleted. If a limit has been breached, the 'Delete Limit' button can still be used, user can Release the limit by pressing the 'Release Limit' button.

Release Limit: The highest level breached limit is highlighted in yellow. For example L1, L2 and L3 limit is breached for Margin Type TMR. In this case L3 limit breach of TMR would be highlighted in yellow.

The release of a limit is strictly manual and can only be performed by the member who set the respective limit.
If several action levels are triggered for one limit type, releasing the most severe limit causes the automatic release of all action level limits of the same type. If several levels of the same type are breached, then only the most severe level of the limit can be released.

For Example:
Level 1, 2 and 3 of Risk Type TMR have been breached. If the user tries to release level 3 breach, it will result in the release of all the limit, i.e. Level 1, 2 and 3 of type TMR will be released. But if

the user tries to release a lower limit (L1 or L2) while a more severe limit is still breached then the system will respond with an error message and ask the user to select and release the most severe breached limit. Of course if there are any further limits breached for the same member but for another type e.g. CULI, they remain unaffected.

Both the Clearing Member's and the Non Clearing Member's currently triggered limits must be released separately by the respective limit owner.

A member set to HALT for exceeding a level 3 limit can only be reactivated through the release limit button on the Limit Maintenance window. An attempt to reactivate a member through the Stop-Release window is rejected with an error message.

If a Clearing Member level 3 limit is released, the Clearing Member status will change to 'ACTIVE' if he was on Halt due to only this reason. Also the associated Non Clearing Members will be set to 'ACTIVE' if the only reason for their Halt was that the Clearing Member Level 3 limit was breached. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

Slowdown: It is possible for users to use the slowdown functionality manually. If activated, all transactions in all products for the member are delayed in trading platform (T7 and T7 FX) by the defined delay time in C7 ARP.

User can select multiple rows and click on slowdown button.

This function is available if the following conditions apply:

- The member to be slow down has at least one level 2 limit defined by the member that is triggering the manual slowdown. If several different level 2 limit types are defined for the member, the most restrictive time delay value is used.
- The member to be slow down is not stopped or slowed down already.

If these conditions are not fulfilled, the manual slowdown is rejected with an error message.

For the Manual Slowdown, the optional order/quote deletion is ignored, that message to T7 will contain the DeleteOrderQuoteFlag as NO even if the flag is set TRUE. Depending on user's entitlement level setup, Four Eyes Principle check may be applicable.

The release from a manual slowdown follows the same process as for the Release Limit.

3.2.1 Upload of Risk Limit

An upload or import feature is provided to maintain several risk limits at once. Upload feature reduces significantly the operative risk especially for on behalf entries as the file is provided by the member.

- It is possible to first download the risk limits to a file, modify the risk limits and then upload this file.
- Before uploading the file, Inquire on the 'Limit Maintenance window' with the filter set as Clearing Member and new Non Clearing Member ID for example ABCXX and NCMXX. The inquiry results will display all the valid risk limit records with blank amount.
- Now upload the file by clicking the 'Upload XLS' link on the 'Limit Maintenance window'. Import the file using the file selection pop-up and click 'Upload'.
- The content of the file will be immediately reflected in the inquiry result grid on the Limit Maintenance window. The rows where the risk limits are modified will be distinguished with the value 'Mod' in the 'Action' column and 'Pending' in the 'Action Result' column. The rows

where risk limits are defined for the first time will be distinguished with the value ‘Add’ in the ‘Action’ column and ‘Pending’ in the ‘Action Result’ column.

- If there is a syntax or a formatting error in some records in the input file, the respective records will not be updated in the inquiry result grid. Instead a pop-up message will be displayed containing the records which were not uploaded successfully. The remaining records which are successfully validated will be updated in the inquiry result grid. For example, if 5 out of 15 uploaded records are erroneous, then the 10 correct records will be displayed in the inquiry result grid and an error pop-up will be displayed containing the details of the 5 erroneous records.

Now the user can click on the ‘Submit’ button to submit the modifications. If the records are successfully modified, the Action Result will display ‘Modified successfully’ against those records. For the records where some validations fail, the Action Result will display the respective error message.

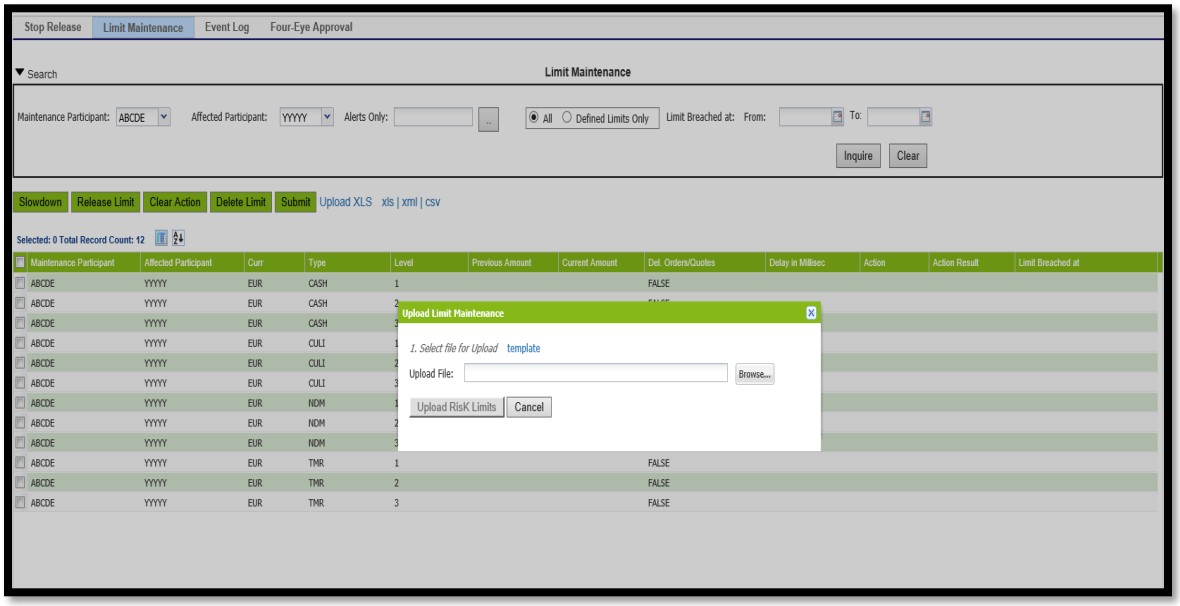

Figure 4: Limit Maintenance- Upload Screen

3.3 Screen Elements

Limit Maintenance - Filter criteria	
Filter	**Description**
Maintenance Participant	Identification code of the member who set the risk limits.
Affected Participant	Identification code of the member for whom the risk limits applies.
Alerts Only	Filter for breached risk limits **Valid values:** Level 1 Breached Limits, Level 2 Breached Limits, Level 3 Breached Limits
All and Defined	Filter to show either All rows or only the rows where risk limits are defined

'Defined Limits Only'	Filter for only defined risk limits
Limit Breached at	Filter for risk limits breached between time duration

Limit Maintenance – Buttons	
Button	**Description**
Inquire	Inquire button will display risk limits on the Limit Maintenance window.
Clear	Clear button will clear the Inquiry criteria.
Slowdown	Triggers manual slowdown for the selected level 2 limit. At least one record must be selected to enable Slowdown button.
Release Limit	Releases the selected triggered limit. At least one record must be selected to enable Release Limit button.
Clear Action	Clears the settings of the selected row and reverts them to the previous state.
Delete Limit	Deletes the currently selected limit with immediate effect. At least one record must be selected to enable Delete Limit button.
Submit	Applies changes in the table. At least one record must be selected to enable Submit button.

Limit Maintenance – Table Columns	
Column	**Description**
Maintenance Participant	Identification code of the member who set the risk limits. **Note:** Clearing House Operator can define limits for Clearing Member. Also Clearing House Operator can define limit for a Non Clearing Member, either on behalf of the Clearing Member/Non Clearing Member or on his own. In all such cases where Clearing House Operator is defining limits, this column will be shown with maintenance member = Clearing Member/Non Clearing Member on the GUI.
Affected Participant	Identification code of the member for whom the risk limits applies.
Curr	Clearing Currency of the Clearing Member.
Type	Types of Risk Limit. 'TMR' – (Total Margin Requirement) 'CULI' – (Premium Margin + Current Liquidating Margin + Variation Margin +Option Premium) 'CASH' – (Variation Margin + Option Premium) 'NDM' - (Additional Margin + Initial Margin + Future Spread Margin)
Level	Action Levels (1-3)
Previous Amount	Last effective risk limit amount. Amount will be displayed with a thousand separator (,).
Current Amount	Current risk limit amount field holds the intraday modified amount. Amount will be displayed with a thousand separator (,).

	This field is empty until first change are done on current business day or if the latest modified amount is equal to the Previous Amount. The amount can be updated only in the multiples of thousand. The minimum value allowed is 1000 and Maximum value allowed is 900,000,000,000. User have to click 'Submit' to submit modified amount.
Del. Orders/Quotes	'Del Orders/Quotes' flag allows members to configure to delete all open orders and quotes upon risk limit breach. This field is optional for Action levels 1 and 2. For level 3 this field is mandatory and TRUE by default. This field will be enabled only when the user enters value in field Current Amount.
Delay in millisec	Transaction delay in milliseconds. Applicable to risk limit level 2 only. This field will be enabled only when the user enters value in field Current Amount for a Level 2 risk limit. The fields will be displayed with yellow background and submit button will be disabled if user enters value in field Current Amount for a Level 2 risk limit and do not fill value in this field. The minimum value allowed is 0 milliseconds and Maximum value allowed is 5000 milliseconds.
Action	Specifies action to be executed. **Example:** Mod Action field will have value as 'Mod' when a user modifies a risk limit. This applies when the user changes the limit for the first time for a blank row or when the user modifies an already set risk limit. Click on the 'Clear Action' button will clear this field to blank. In case of Release, Slowdown and Delete button click event, the value in this field (that is Rel/ Sldn/Del) will be displayed only when the response of Release, Slowdown and Delete action is received from the system. In case of upload of risk limits by a XLS file, the Action column will display all the actions that are going to be applied on the Members. Also click on 'Submit' button will not clear this field. User should click on inquire button again and then values in action column will clear to blank.
Action Result	Specifies the result of the Action. For example If the Action was 'Mod' / 'Del' and then the Submit / Delete button is clicked, the Action result will display 'Modification successful' / 'Deletion Successful' if the modification / Deletion was successful. It may also display an error message if the modification was not successful and a validation failed in the system. This is particularly useful when the user is modifying several rows at a time. As soon as the window is refreshed, the value of this column will be blank again. It may be possible that the error message is quite big and does not fit in the Action Result column. In this case, when user hovers the mouse cursor on the error message then the entire error message will be displayed over mouse hover.
Limit Breached At	Displays Date and time at which the risk limit has been breached in C7 ARP. For un-breached/released limits, the Limit Breached at field will be blank.

4 Four-Eye Approval

4.1 Description

The *Four Eye Approval* window can be accessed from the title bar or via Dashboard in the C7 ARP GUI. It displays the pending four eye approval requests initiated by certain actions taken on *Stop Release and Limit Maintenance* windows. Approve and Reject actions can be initiated from this window.

The *Four Eye Approval* window shows *four eye* requests with their status. To list only *four eye* requests of interest, a filter function is provided. In the search panel of the window there are various filter fields. Upon inquiry, all *four eye* requests matching the selected filter criteria are listed in the table.

Examples are provided here for the Limit Maintenance and Stop-Release result grids.

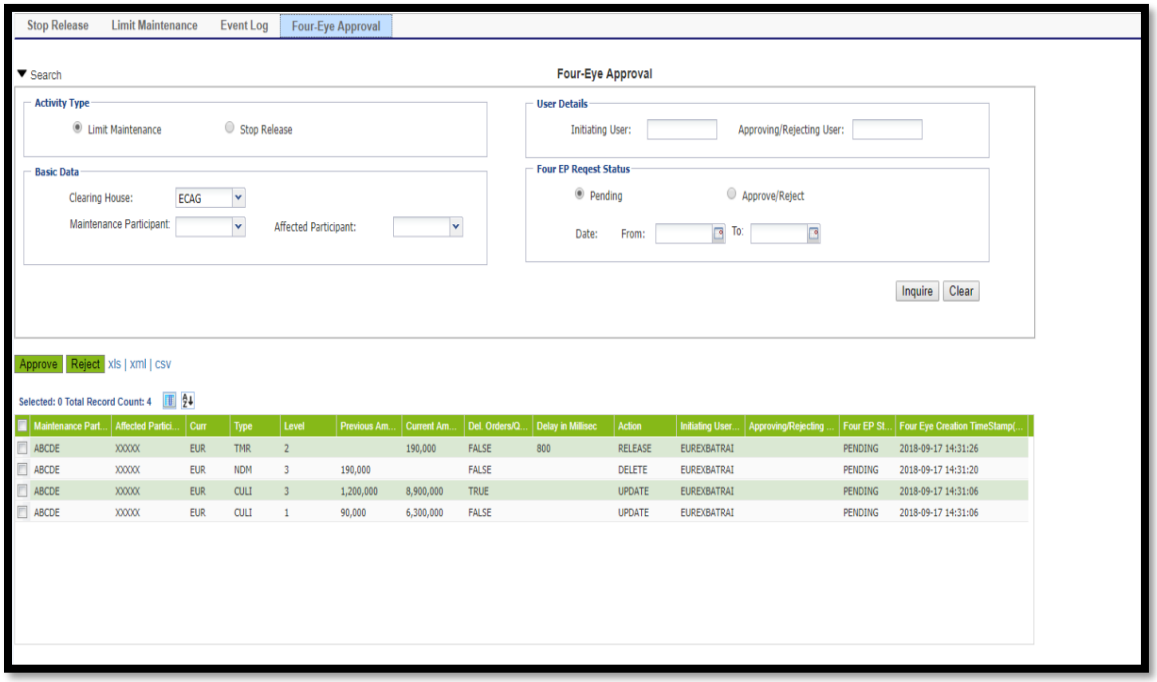

Figure 5: Four-Eye Approval - Limit Maintenance

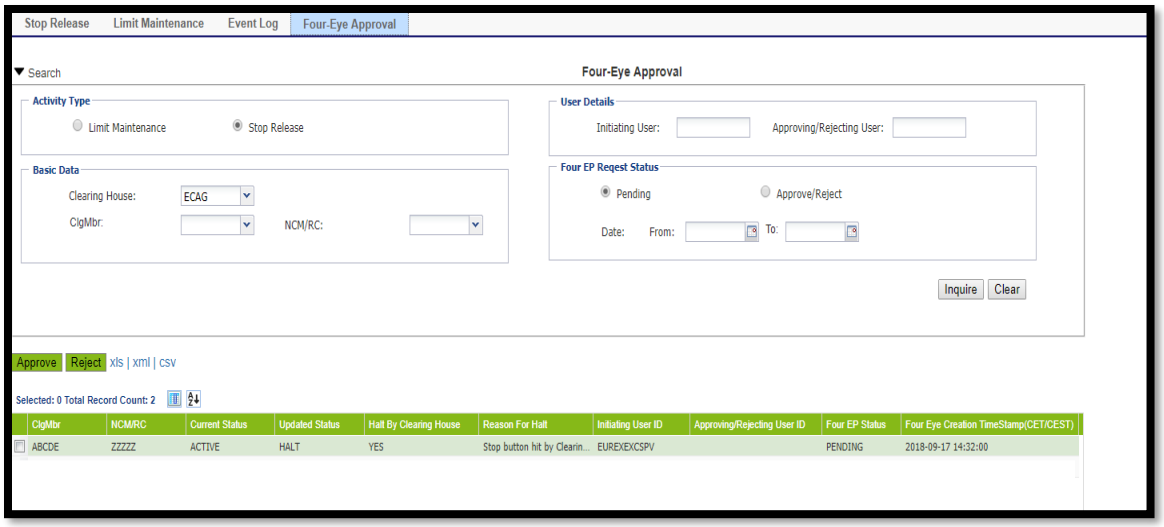

Figure 6: Four-Eye Approval - Stop Release

4.2 Functionality

The Four-Eye Approval window will enable the users to view (user's own requests) and act on the pending four-eye requests initiated by other users of his participant to perform the appropriate action (Approve/Reject). Following operations can be performed on this window

- Inquiry of pending Four Eyes requests for Risk Limit Maintenance and Member Stop-Release actions.
- Approve the pending requests.
- Reject the pending requests.
- View historical (10 days but configurable) approved or rejected Four Eyes requests

The Four-Eye Approval window is divided in two different sections. One section is for inquiry related fields where user can fill/select the value and view the data as per its need. The inquiry section also has filter for limit maintenance and stop-release activity where user can select any one of them (by default Limit Maintenance is selected).
The second section is for the inquiry result grid that displays different columns as per the selection of Limit Maintenance or Stop-Release activity type in the inquiry section.

Historical Search: It is possible to search historical data in the four-eye approval window. Date filter can be used to view pending and approved/rejected Four Eyes request for the specified period.

Note: Every new business day during C7 ARP SOD process, all member initiated pending Four Eyes requests are deleted and only internal user's (CH) initiated pending Four Eyes requests will be carried forward to next business day. The internal user's (CH) initiated pending Four Eyes requests will be displayed in the C7 ARP GUI until they are not approved/rejected.

Limit Maintenance pending Four Eyes request

User can approve and reject multiple request at the same time. Request initiator cannot approve its own request. However, it can reject its own initiated request. Approval of different request types when multiple requests are selected is allowed. User cannot approve pending requests that are already acted upon.

Stop-Release pending Four Eyes request

User can approve and reject only one single request at a time. Request initiator cannot approve its own request. However it can reject its own initiated request. User cannot approve pending requests that are already acted upon.

Note: Clearing House Operator can also inquire and act on the pending four eye requests initiated by members.

4.3 Screen Elements

Four Eye Approval - Filter criteria	
Filter	**Description**
Activity Type	Filter for Activity type Based on the selection of the Activity type different columns will be displayed in the inquiry results grid. Activity Type : 'Limit Maintenance' and 'Stop Release'
Clearing House	Filter for the Clearing House of the Logged In user This is a mandatory field and will be pre-filled with the clearing house Id of the logged in user.
Maintenance Participant	Filter for Identification code of the member who set the risk limits.
Affected Participant	Filter for Identification code of the member for whom the risk limits applies.
ClgMbr	Filter for Identification code of the Clearing Member present in C7 ARP.
NCM/RC	Filter for Identification code of the Non Clearing Member present in C7 ARP.
Initiating User Id	Filter for Identification code of the request Initiator Wild card search is possible where user can only enter partial text for example ABCXXMBR and all the results where the initiating users for example ABCXXMBRSPV, ABCXXMBRSP1 are displayed.
Approving/Rejecting User Id	Filter for Identification code of the request Approver/Rejecter Wild card search is possible where user can only enter partial text for example ABCXXMBR and all the results where the initiating users for example ABCXXMBRSPV, ABCXXMBRSP1 are displayed.
Pending and Approve/Reject	This radio button can be used to filter either Pending Four Eyes requests or Approved/Rejected Four Eyes requests
Date	Date filter can be used to view historical data. User can select a range (**To** and/or **From**) in this filter. Depending on the selection, C7 ARP will display either pending or approved/rejected Four Eyes requests of the specified period.

Four Eye Approval – Buttons	
Button	**Description**
Inquire	Retrieves and displays data based on specified filter criterion.

	All the filters mentioned above are optional. If none of the above filter is specified, it will result in fetching of all the Four Eyes pending records available in the system. The records are first sorted by time (ascending), then in ascending order by Request type and then in ascending order by User Id.
Approve	Approve Button send approval request to C7 ARP. On Clicking approve button backend validations will be performed and on successful approval user will be informed by pop up message. Only pending requests can be approved. Previously approved/rejected request cannot be approved again. **Limit Maintenance pending Four Eyes request:** User can approve multiple request of the same member together. **Stop-Release pending Four Eyes request:** User can approve only one single request at a time. Selection panel will not be provided in Stop-Release Inquiry result grid. In case of error, the respective error message will be shown.
Reject	Reject Button sends rejection request to C7 ARP. On Clicking Reject Button, backend validations will be performed and on successful rejection user will be informed by pop up message. Only pending requests can be rejected. Previously acted request cannot be rejected again. **Limit Maintenance pending request:** User can reject multiple request at the same time. **Stop-Release pending Four Eyes request:** User can reject only one single request at a time. Selection panel will not be provided in Stop-Release Inquiry result grid. In case of error, the respective error message will be shown.
Clear	Clears the Inquiry Criteria or the values filled in the Inquiry parameters.

Based on the activity type, selection inquiry result grid will display either limit maintenance or stop-release related columns.

For Limit Maintenance the following columns will be displayed on the result grid:

Limit Maintenance – Table Columns	
Column	**Description**
Selection Panel	Selection Panel to select one or more record
Maintenance Participant	Identification code of the member who set the risk limits
Affected Participant	Identification code of the member for whom the risk limits applies.
Curr	Clearing Member Clearing Currency.
Type	Types of Risk Limit. TMR CULI CASH

	NDM
Level	Action Levels (1-3)
Previous Amount	Last effective amount. Amount will be displayed with a thousand separator(,)
Current Amount	Current Amount field holds the intraday modified amount pending for approval. Amount will be displayed with a thousand separator
Del. Orders/Quotes	'Del Orders/Quotes' flag allows members to configure to delete all open orders and quotes upon level breach.
Delay in millisec	Transaction delay in milliseconds. Applicable to risk level 2 only.
Action	Specifies action to be approved/reject **Example:** New Risk Limit Added, Risk Limit Modified, Risk Limit Deleted, Manual Slowdown, Risk Limit released etc.
Initiating User ID	Identification code of the request Initiator.
Four-Eye Request Status	Status of the Four Eyes request. **Example:** Pending, Approved, Rejected
Four-Eye Request Creation Date and Time	Date and Time of the initiating Four Eyes request
Approving/Rejecting User ID	Identification code of the request Approver/Rejector.

For Stop-Release the following columns will be displayed on the result grid:

Stop-Release – Table Columns	
Column	**Description**
ClgMbr	Identification code of the Clearing Member present in C7 ARP.
NCM/RC	Identification code of the Non Clearing Member/Registered Customer present in C7 ARP.
Current Status	Current Status of the member – ACTIVE or HALT.
Updated Status	Current Status of the member pending for approval – ACTIVE or HALT.
Halt by Clearing House	Member is halted by Clearing House Operator – Yes or No
Reason for Halt	Reason of Halt Status There could be one of the following reason for Halt status: 1- Listing Status changed to Halt 2- CM-CM Level 3 limit for TMR/CULI/CASH/NDM is breached 3- CM-NCM Level 3 for TMR/CULI/CASH/NDM is breached 4- NCM-NCM Level 3 for TMR/CULI/CASH/NDM is breached 5- Stop button hit by Clearing House 6- Stop button hit by Clearing Member. 7- Clearing Member of the corresponding Non Clearing Member is in HALT state.

Stop-Release – Table Columns	
Initiating User ID	Identification code of the request Initiator.
Four-Eye Request Status	Status of the Four Eyes request. **Example:** Pending, Approved, Rejected
Four-Eye Request Creation Date and Time	Date and Time of the initiating Four Eyes request
Approving/Rejecting User ID	Identification code of the request Approver/Rejecter.

5 Event Log

5.1 Description

The *Event Log* window can be accessed from the *title bar* in the C7 ARP GUI. The *Event Log* window displays the event messages generated in C7 ARP. Further details about these functions can be found in the 'Functionality' section of this window.

The *Event Log* window shows the Event messages in chronological order. In order to list only event messages of interest, a filter function is provided. In the search panel of the window there are various filter fields. Upon inquiry, all event messages matching the selected filter criteria are listed in the table.

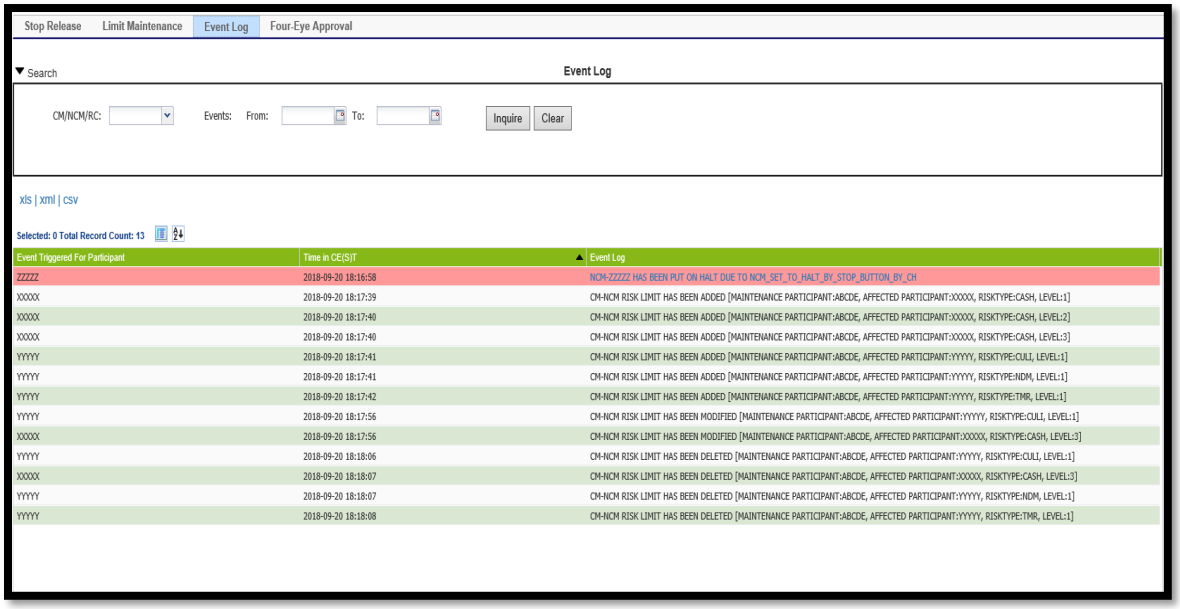

Figure 7: Event Log

5.2 Functionality

The Event Log window displays the events generated in C7 ARP like Stop-Release action on members, Member Limit Maintenance and risk limit breaches.
The Clearing House Operator can see Risk Limits defined for Clearing Member, Level 3 limit breaches and Stop/Release events in the Event Log window.

Clearing Members can see events of their Non Clearing Members related to Level 3 limit breaches, Stop/Release action, Member Limit Maintenance and risk limit breaches if the risk limits are defined by the Clearing Member for its Non Clearing Member. Clearing Member cannot see the Member Limit Maintenance and risk limit breaches events for the limits defined by Non Clearing member.

Event Log window provides the users with the facility to Inquire events. By default, these events will be displayed only for the current business day in chronological order. However, user can inquire for historical data by using date filter available in search panel.

Legal Messages: For Level 3 limit breach and Stop/Release events, the event messages is highlighted in red color. Clicking on a message opens the Message Detail pop up with the detailed legal text messages in English and German Language.

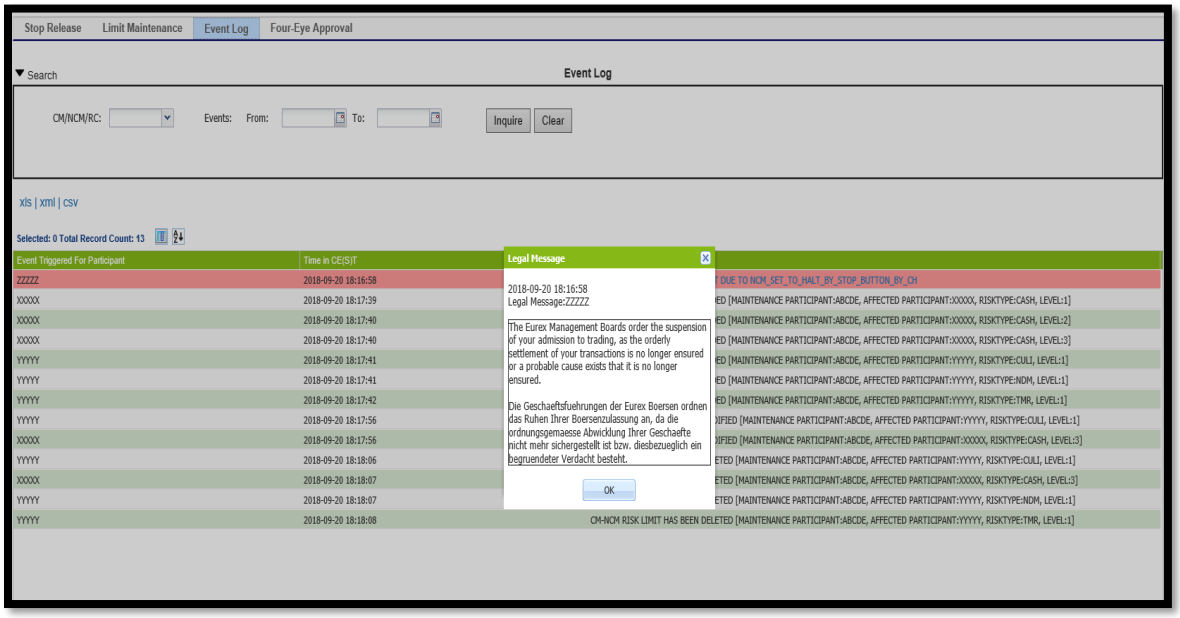

Figure 8: Legal Message Pop up

5.3 Screen Elements

Event Log - Filter criteria	
Filter	**Description**
CM/NCM/RC	Identification code of the Clearing Member/Non Clearing Member/Registered Customer present in C7 ARP.
Events	Filter for the events generated between time duration

Event Log – Buttons	
Button	**Description**
Inquire	Clicking on Inquire button will display Events of the selected member on the Event Log window.
Clear	Clicking on this button will clear the Inquiry criteria.

Event Log - Table Columns	
Column	**Description**
CM/NCM/RC	Identification code of the Clearing Member present in C7 ARP.

Time in CE(S)T	Time at which the event was recorded.
Event	Description of the event.

6 Dashboard

6.1 Description

The *Dashboard* section is available above the *title bar* in the C7 ARP GUI. It displays the Logged In user details and certain statistics of C7 ARP. Further details about these functions can be found in the 'Functionality' section of this window.

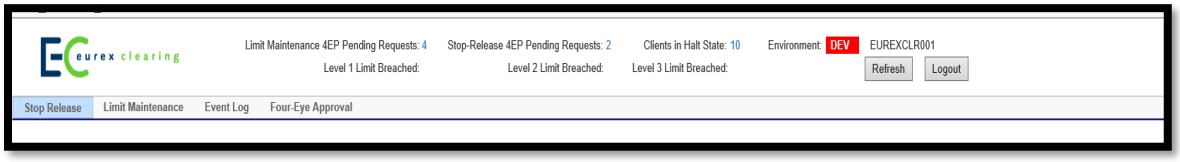

Figure 9: Dashboard with Environment Details

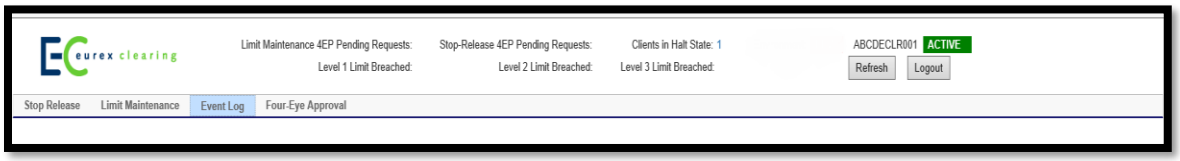

Figure 10: Dashboard

6.2 Functionality

Dashboard provides important statistics to the users. Also, a pop-up functionality is offered for the most important changes in the dashboard (see chapter 6 for more details). The dashboard will display the following fields with the updated values:

- Four-Eye pending changes
- Clients in Halt State
- Level 1 Limit Breached
- Level 2 Limit Breached
- Level 3 Limit Breached
- Member Status of logged in user.
- Environment (SIMU/PROD)

The data displayed in the dashboard is automatically refreshed every 10 seconds (configurable time) to enable the user to view the latest data.

6.3 Screen Elements

The following fields will be displayed in Dashboard:

Dashboard – Fields	
Field	**Description**
Limit Maintenance 4EP Pending Changes	The count of Limit maintenance Four eye pending changes for approval/rejection. Clicking on the value for this field will open the 'Limit Maintenance Four eye approval window' on the C7 ARP GUI and by default, it will display all the Limit Maintenance four eye pending changes in the grid.

Dashboard – Fields	
Stop-Release 4EP Pending Changes	The count of Stop-Release Four eye pending changes for approval/rejection. Clicking on the value for this field will open the 'Stop-Release Four eye approval window' on the C7 ARP GUI and by default, it will display all the Stop-release four eye pending changes in the grid.
Clients in Halt State	For a Clearing Member, this field will display the total count of Non Clearing Member/ Registered Customer in 'Halt' status. For the internal Clearing House Operator, this field will display the total count of members which are in 'Halt' status. For Non Clearing Member, this field will contain 'Not Applicable'. Clicking on the value for this field will open the 'Stop-Release' window on the C7 ARP GUI and it will display all the halted members. The 'Halt' radio button will be selected in the Inquiry criteria of the Stop-Release window. Every time when a member status is changed from ACTIVE to HALT or vice versa, the count of field 'Clients in Halt State' will be increased or decreased respectively. A Pop up will be displayed to the user.
Level 1 Limit Breached	The count of of level 1 triggered limits of the member(s). For the Non Clearing Member, the count indicates the number of L1 limits breached for the Non Clearing Member. For the Clearing Member, the count indicates the number of L1 limits breached for the Clearing Member or its clients. For the Clearing House Operator, the count indicates the number of L1 limits breached for members of the respective Clearing House. Clicking on the value for this field will open the 'Limit Maintenance' window on the C7 ARP GUI and it will display all the level 1 risk alerts.
Level 2 Limit Breached	The count of level 2 triggered limits of the member(s). For the Non Clearing Member, the count indicates the number of L2 limits breached for the Non Clearing Member. For the Clearing Member, the count indicates the number of L2 limits breached for the Clearing Member or its clients. For the Clearing House Operator, the count indicates the number of L2 limits breached for the members of the respective Clearing House. Clicking on the value for this field will open the 'Limit Maintenance' window on the C7 ARP GUI and it will display all the level 2 risk alerts.

Dashboard – Fields	
Level 3 Limit Breached	The count of level 3 triggered limits of the member(s). For the Non Clearing Member, the count indicates the number of L3 limits breached for the Non Clearing Member. For the Clearing Member, the count indicates the number of L3 limits breached for the Clearing Member or its clients. For the Clearing House Operator, the count indicates the number of L3 limits breached for the members for the respective Clearing House. Clicking on the value for this field will open the 'Limit Maintenance' window on the C7 ARP GUI and it will display all the level 3 risk alerts. Every time when a member's level 3 risk limit breached or released, the value count of field 'Level 3 Limit Breached' will increased or decreased respectively. A Pop up will be displayed to all the concerned members.
Environment	The environment details like SIMU/PROD will be display in dashboard. In Production GUI the field 'Environment' will not be present in dashboard.
User Name and Status	This field will display the member status of the logged in User. In case of Halt status 'HALT' will be displayed next to the username. In case of Active status, the field will display 'ACTIVE'. Status of Clearing House Operators (ECAG and ECC internal users) will not be shown as they must be in active state all the time. A pop-up must be displayed every time the status of the member changes.

Dashboard – Buttons	
Button	**Description**
Refresh	On clicking the Refresh button, a new inquiry is sent to obtain the refreshed data for the dashboard fields. It will be possible for the user to manually refresh the screen. However, these details will also refresh automatically in every 10 seconds. (configurable).
Logout	On clicking the 'Logout' button system will log out the user from C7 ARP.
Go Back to C7 GUI	'Go Back to C7 GUI' link will close the C7 ARP GUI and redirect the user to C7 GUI.

7 Dashboard Pop Ups

7.1 Description

The Dashboard Pop Ups displays to the concerned users whenever the member's status is changed and risk limit level 3 is breached or released. Further details about these functions can be found in the 'Functionality' section of this window.

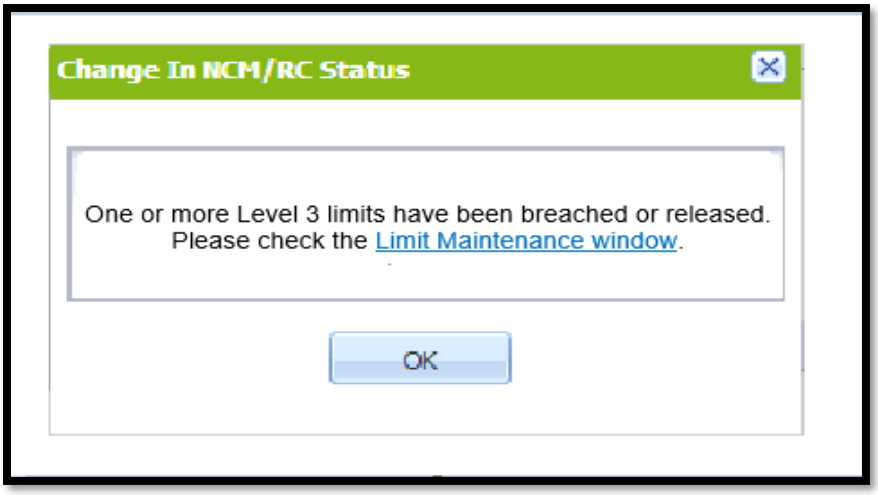

Figure 11: Dashboard Pop Up

7.2 Functionality

Dashboard Pop Ups designed for the convenience of users. These Pop Ups displays to the concerned users whenever the member's status is changed and risk limit level 3 is breached or released.

These Pop up are displayed to the user even if the user is on some other C7 ARP GUI screen or the browser is minimize or it is running in the background. The user has to click 'OK' button in order to close this pop up. The Pop Ups also have a link to open Stop-Release or Limit Maintenance window.
When the user logs in, it receives a pop-up for all the affected dashboard statistics wherever pop-up is applicable.

7.3 Screen Element

Following are the different Pop Ups.

Dashboard Pop Ups		
Pop Up	**Event to Trigger Pop Up**	**Pop Up Message**
Clients in Halt State	Non Clearing Member Status is changed from ACTIVE to HALT or HALT to ACTIVE	'Member status for one or more clients have been changed. Please check the Stop-Release window.' The Stop-Release window in the above pop-up message is a hyperlink. Clicking on the hyperlink will open the 'Stop-Release' window on the C7 ARP GUI and it will display all the halted members.

Dashboard Pop Ups		
Level 3 Limit Breached	A Level 3 limit is breached or released	'One or more Level 3 limits have been breached or released. Please check the Limit Maintenance window.' The Limit Maintenance window in the above pop-up message is a hyperlink. Clicking on the hyperlink will open the 'Limit Maintenance' window on the C7 ARP GUI and it will display all the level 3 risk alerts.
Change in Member status of logged in user	The member status of the logged in user changes from HALT to ACTIVE or ACTIVE to HALT	Your status has changed to HALT OR Your status has changed to ACTIVE

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