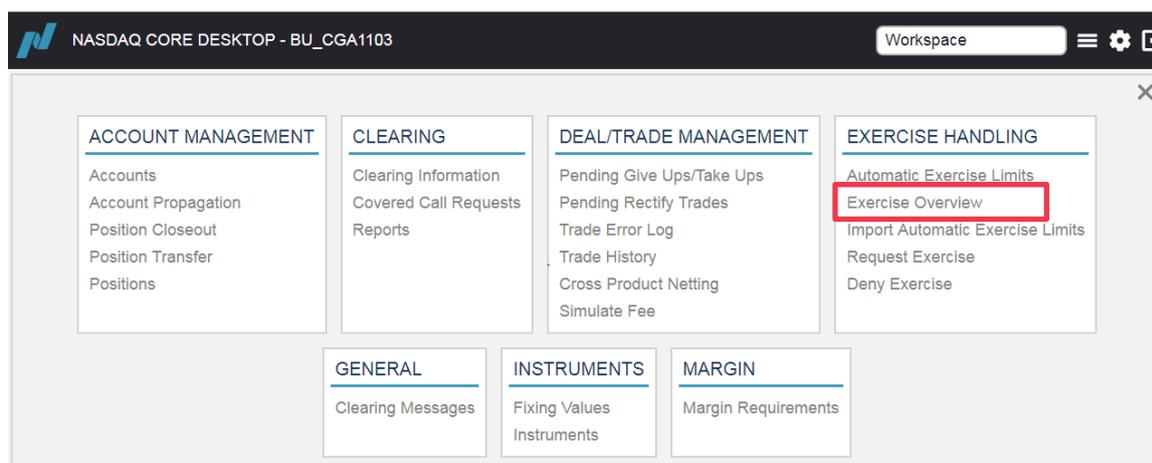# 4 Exercise

Note:
This section is only applicable for SEOCH options products.

The Exercise Handling category provides functions for exercising open long option positions.

Submitted exercise requests will be assigned with a unique exercise request number and can be enquired via the "Exercise Overview" view. The exercise requests and assignment process will take place after SEOCH Batch.
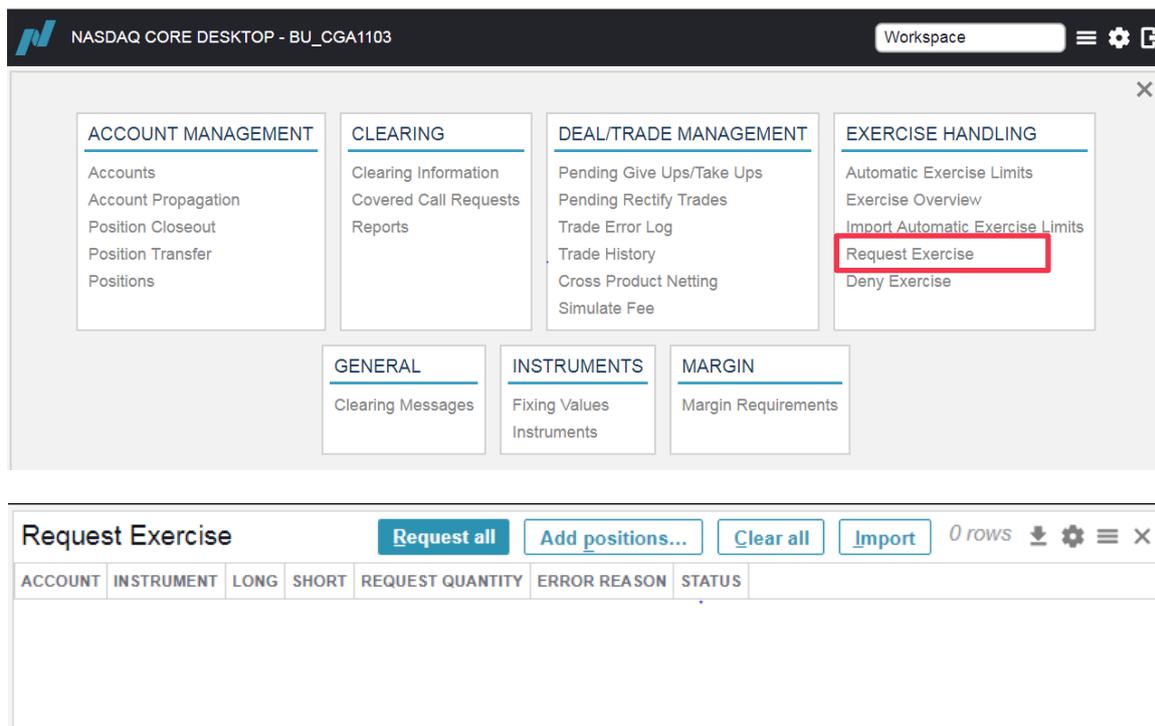

Currently Clearing Participants can only submit exercise requests for Stock Options which are American–styled and physically settled options on Hong Kong stocks.

On expiration day, SEOCH will auto-exercise those long positions in spot month options which meet the prescribed exercise criterion prescribed (i) by SEOCH, i.e. in-the-money by or above 1.5%; or (ii) the valid criterion prescribed by the Clearing Participant via "Automatic Exercise Limits".   Automatic Exercise Information report showing only those spot month series which are expired and to be exercised automatically based on SEOCH's prescribed criterion, i.e. 1.5% will be available shortly after market close. SEOCH Participants should enquire via "Exercise Overview" for a complete list of automatically generated exercise request.

4.1 Request Exercise

To exercise an option, a request should be submitted to DCASS via the Request Exercise function. This function can be accessed directly in the "Exercise Handling" category.

1. Click <Add positions…>

2. Specify an account in the "Account" field (wildcards can be used)

3. Specify the instrument in the "Instrument' field (wildcards can be used)

4. Select "Current trading day in the "Date" field. All the positions fitting the search criteria will be shown.

5. Tick [Nettable only] to display all nettable positions.

6. Select the rows to input exercise request. Right-click and select "Add selected rows" to add new rows.

   Note: As an alternative to steps 1-6, Clearing Participants can set exercise request by:-
   a) *Importing a file, i.e. click <Import> and select the file to be imported for inputting exercise request. The import template can be downloaded by clicking the export button ⬇ . A maximum of 100 records can be imported for each file.*
   b) *Right-click a position from the "Positions" view.*

7. In the "Request Quantity" field, enter the quantity to input exercise request for.

8. Check that the details are correct and click the <Request all> button to input exercise request. To only input exercise request for selected positions, right-click and select "Request exercise".

4.2

9. After the exercise requests are confirmed, the exercise requests in the data table become green.

For those stock options contracts which are out-of-the-money ("OTM") i.e. exercise price is greater / smaller than the prevailing underlying stock price for call / put options contracts, there is an alert message prompt requiring a Clearing Participant to confirm upon input of an exercise request of an OTM contract via DCASS.   No alert message will be displayed for stock options contracts being in-the-money or at-the-money.

e.g. The following warning message will be displayed if the contracts being exercised are OTM.

List Columns

| Field	Description
Account	Display the account in which the positions are held.
Instrument	Display the instrument of the positions being held.
Long	Display the number of long positions being held. Blank indicates nil.
Short	Display the number of short positions being held. Blank indicates nil.
Request Quantity	Display the number of positions request to exercise.
Error Reason	Display the reason of error, if applicable.
Status	Display the status of the exercise request.

Notes:
1) *Exercise requests from daily account will be rejected by DCASS. For exercise requests with accounts without position, error message "an internal error has occurred" will be displayed.*
2) *DCASS will not prohibit Clearing Participants to enter "excessive" exercise requests. A warning message "Quantity too large" will be displayed; then the submitted request will be pending for the actual exercise and assignment process.   DCASS will check the availability of long position when it is performing the exercise and assignment process during SEOCH Batch.   However, if there is no long position*

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available (i.e. 0), DCASS will be unable to process the request. Therefore, Clearing Participants MUST check via the "Exercise Overview" view to ensure that their exercise requests are input into DCASS properly.

4.2 Exercise Overview

The "Exercise Overview" view can be used to view the exercise and assignment records within 6 clearing days.
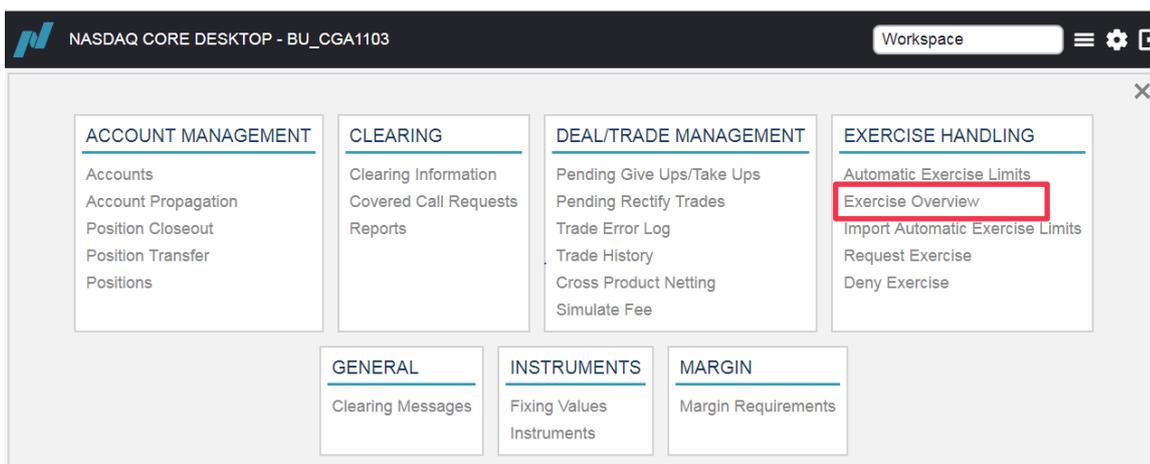
The "Type" indicates whether the record is subject to Exercise or Assignment. The "Exercise Request Number" refers to the reference of the requests submitted before the exercise and assignment process.

In the example shown below, exercise requests with "Exercise Request Number" of 34, 35, 36 and 37 were exercised in the account of HK CGA1 A1 after SEOCH Batch. For SEOCH Batch end time, please refer to Section 1.3.1 – "Operation Timeline".

To view exercise history, check the [Completed] checkbox.

Two fields can be used to identify if the exercised trades (not assigned trades) are resulted from on-behalf-of request or general exercise on expiration day:

Before general exercise:
i) If "Type" is marked by "Manual request" and "Confirmed By" is NOT blank, the exercise trade is created by SEOCH based on Clearing Participant's on-behalf-request.

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ii) If "Type" is marked by "Manual request" and "Confirmed By" is blank, the exercise trade is created by Clearing Participant via "Request Exercise".

After general exercise:

i) If "Requested By" is marked by "HK CYYY XXXXX" where CYYY is DCASS Code and "Confirmed by" field is **NOT** blank, the exercise trade is created by SEOCH based on Clearing Participant's on-behalf request.

ii) If "Requested By" is marked by "HK CYYY XXXXX" where CYYY is DCASS Code and "Confirmed by" field is blank, the exercise trade is created by Clearing Participant via "Request Exercise".

Below is a summary of exercised trades (not assigned trades) before & after general exercise on expiration day (Table A):

Creation of exercise request	Before General Exercise		After General Exercise	
	Type	Confirmed By	Requested By	Confirmed by
On-behalf input	Manual request	NOT blank	HK CYYY XXXXX	NOT blank
Clearing Participant's own input	Manual request	blank	HK CYYY XXXXX	blank
SEOCH's Auto-Exercise	Not available via "Exercise Overview"		HK CYYY XXXXX	blank

Selection Filters:

Filter	Description
Account	Specify a particular account, or use the wildcards (* and ?) to retrieve the matching accounts.
From / To	Display the from and to date for the period of exercise requests being processed. Default as current business date. Clearing Participant should use "Exercise Overview" to enquire exercise requests of current business date only.
Checkboxes	Only the exercise record of the states checked will be displayed: Pending, Rejected, Completed

List Columns (General)

Field	Description
Account	Display the account in which the positions are being exercised or assigned.
Instrument	Display the instrument of the exercise record.

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Field	Description
Type	Display the exercise type, the following text would be shown: Manual request: Long positions manually requested to exercise General request: Long positions to be automatically exercised Exercised: Long positions being exercised Assigned: Short positions being assigned
Market	Display the market of the instrument
State	Display the status of the exercise request: Pending: The exercise request is pending Rejected: The exercise request is rejected Completed: The exercise request is completed
Total Quantity Denied	Display the quantity which was denied for exercise
Created	Display the date and time on which the exercise request was created.

List Columns (Request Information)

Field	Description
Requested Quantity	Display the quantity requested for exercise
Exercise Request Number	Display a unique number assigned to the exercise request
Rejected By	Display the user ID that rejected the request
Requested By	Display the user ID that input the exercise request

List Columns (Exercise Information)

Field	Description
Assigned/ Exercised Quantity	Display the exercised quantity
Exercise Number	Display a unique number assigned to the entry
Confirmed By	Display whether the exercise trade is created by SEOCH's Auto Exercise or by Clearing Participants' own general exercise at expiration. Please refer to Table A for behavior of this field.

List Columns (Instrument Information)

Field	Description
Fixing	Display the fixing price
Fixing Instrument	Display the underlying instrument

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Field	Description

OTM / ITM	For records in "Pending" state, display if the exercise request is in-the-money (ITM) or out-of-the-money (OTM), taking into consideration the auto-exercise limit as prescribed by SEOCH. The following text would be shown:
	
	OTM
	    The instrument is out-of-the-money compared to current day fixing price
	
	ITM
	    The instrument is in-the-money compared to current day fixing price
	
	ITM excl del limit
	    The instrument is in-the-money compared to current day fixing price if auto-exercise limit is not taken into consideration

Underlying	Display underlying of the instrument
Contract Size	Display number of underlying in a contract
Option Style	Display whether the option is American or European
Option Type	Display whether the option is call or put
Strike Price	Display the strike price of the instrument
Year	Display the expiration year of the instrument
Month	Display the expiration month of the instrument

Note:
i)   *The following columns are not applicable to DCASS, Clearing Participants are recommended to set them as "hidden" columns:*

Instrument Long Name	ISIN	Settlement Type

ii) *Exercise and assignment records shown in "Exercise Overview" view will be related to the delivery records in "Clearing Information" view. Records shown in the "Exercise Overview" view is created by a randomized exercise and assignment process. Delivery records shown in the "Clearing Information" view will summarize the result and report total figures by account, instrument and event (assignment and exercise). Therefore it is normal to have two assignment trades in the "Exercise Overview" view for an account of a particular instrument whereas only one record is shown in the "Clearing Information" view.*

4.3 Pending Exercise

An exercise request can be annulled before the System Input Cutoff Time by selecting the request in the "Exercise Overview" view, right-click and select <Reject pending>. The rejected request will be showed as "Rejected" under the "State" column in the "Exercise Overview" view.

To narrow down the search results, Clearing Participants can select the desired accounts and instrument of the pending requests.   Besides, Clearing Participants can select the state of exercise requests by ticking [Pending], [Rejected] and [Completed] checkboxes.

In this example, CGA1 submitted 4 exercise requests (with "Exercise Request Number" of 28, 29, 30, 31).   For each of the requests submitted, DCASS will check the long position in the account and exercise the specified quantity.   At the time of the exercise and assignment process, if there is insufficient long position, DCASS will exercise as much as possible up to the requested quantity.

Before the SEOCH Batch, the state of the pending exercise requests will be shown as "Pending". Clearing Participants can reject multiple pending exercise requests by right-clicking on the row and choosing <Reject pending>; and   re-enter the exercise requests, if needed.

Clearing Participants are required to confirm the Rejection requests.

After the batch processing for SEOCH, the state of the Pending Exercise will be changed from "Pending" to "Completed" or "Rejected", please refer to Section 1.3 – "Operation Timeline" for the processing schedule.

Clearing Participants may select separately under the "State" column to check the state of different pending exercise records.

4.4 Deny Exercise

The Deny Exercise function can be accessed directly in the "Exercise Handling" category or by right-clicking the selected position in the "Positions" view.   The purpose of this function is to allow Clearing Participants to specify a spot month instrument of a particular account which they do **not** want to be exercised automatically by SEOCH on expiration day.
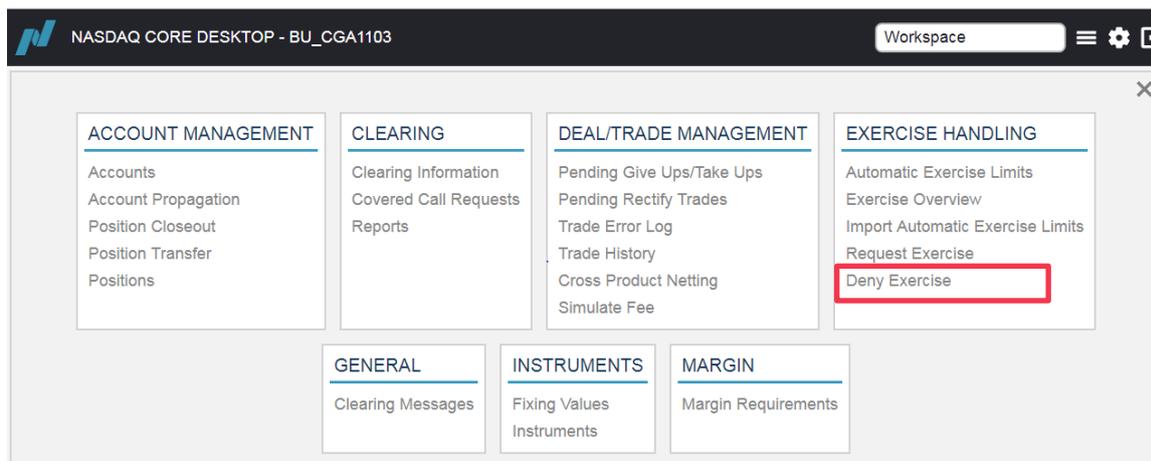
A Deny Exercise request is only valid on the day when it is entered, therefore the request **MUST** be submitted on the instrument's expiration day.

1. Click <Add positions…>

2. Specify an account in the "Account" field (wildcards can be used)

3. Specify the instrument in the "Instrument" field (wildcards can be used)

4. Select "Current trading day" in the "Date" field. All the positions fitting the search criteria will be shown.

5. Tick [nettable only] to display all nettable positions.

6. Select the rows to input deny exercise request. Right-click and select "Add selected rows" to add new rows.

    Notes:

    As an alternative to steps 1-6, Clearing Participants can input deny exercise request by:

    a) Importing a file, i.e. click <import> and select the file to be imported for input deny exercise request. The import template can be downloaded by clicking the export button ⬇ . A maximum of 100 records can be imported for each file.

    b) Right-click a position from the "Positions" view.

7. In the "Deny Quantity" field, enter the quantity to input deny exercise request for.

8. Check that the details are correct and click the <Deny all> button to input deny exercise request for all shown positions. To input exercise request for selected rows, right-click and choose "Deny exercise".

9. After the deny exercise requests are submitted, the exercise requests in the data table become green.

List Columns

Field	Description
Account	Display the account in which the positions are held.
Instrument	Display the instrument of the positions being held.
Long	Display the number of long positions being held. Blank indicates nil.
Short	Display the number of short positions being held. Blank indicates nil.
Deny Quantity	Display the number of positions to be denied.
Error Reason	Display the reason of error, if applicable.
Status	Display the status to indicate the result of the deny exercise request.

Notes:

1) *This function is only applicable for Stock Options.*

2) *The quantity submitted is the **total** long position which a user wants to exclude from Auto Exercise.   E.g. If the current deny automatic total is 50 and the user wants to add 10 more contracts to be excluded from the automatic exercise, the user should submit "60" as the new deny automatic total.*

3) *The user should check the "Automatic Exercise Information for Stock Options" report about the details of the auto-exercise on expiration date after market close.*

4) *After submission, the Deny Auto Exercise request can be seen in "Positions" view.*

4.5 Automatic Exercise Limits

The in-the-money (ITM) triggering percentage for automatic generation of stock option exercise limit is prescribed by SEOCH from time to time, i.e. currently being 1.5% of the strike. The "Create Automatic Exercise Limit" function allows Clearing Participants to configure their own automatic generation exercise limit per Instrument Type per account and/or per company. The "Automatic Exercise Limit" view can be accessed directly in the "Exercise Handling" category.   Currently Automatic Exercise Limits can only apply for Stock Options products.

Exercise limit will take effect immediately upon confirmation. SEOCH Participants should take extra cautious and are reminded to have proper internal control when setting up their own exercise limit in DCASS.
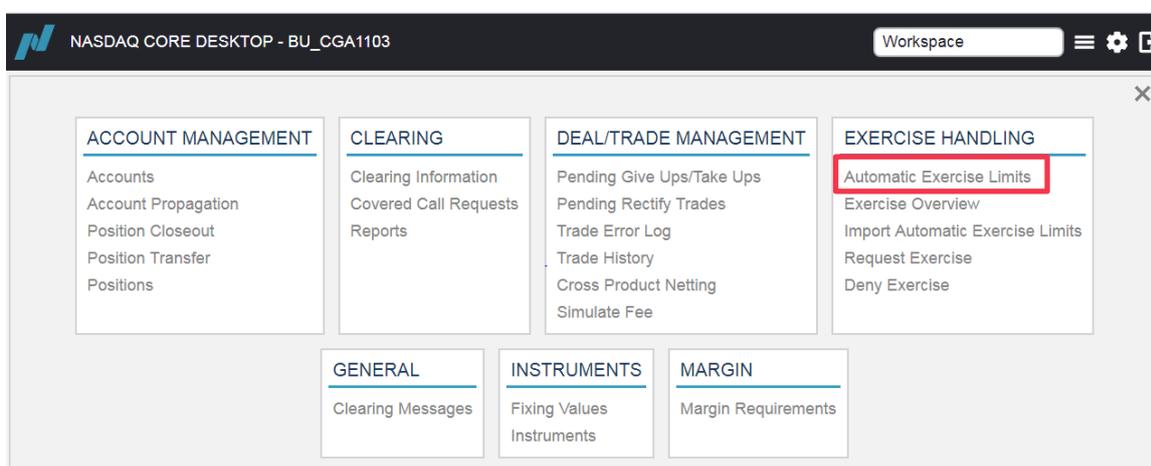
Clearing Participants can set in-the-money (ITM) limits for all spot month contracts on or before expiry.

1. Click <Create>

2. Specify the account, instrument type, limit unit (i.e. in percentage up to 4 decimal places or in fixed value up to 3 decimal places) and exercise limit. Once the exercise limit is being setup, it will be applied to all instruments within the specified instrument type. Clearing Participants are recommended to set their exercise limit in **percentage**. Below are 2 examples of inputting exercise limit:

    i.   An exercise limit of 1% is set up for stock call option for CGA1's house account only

ii.   An exercise limit of 2% is set up for stock put option for CGA1's omnibus
        client account only

3. Click "Create".

4. If Clearing Participants want to set an exercise limit that is higher than the default
    exercise limit, the following warning message will be shown.   To proceed, click OK.

5. Once created, a new record will appear in the 'Automatic Exercise Limits" view. The
    created exercise limit will take effect immediately and apply to <u>ALL</u> instruments
    within the same instrument type by overriding SEOCH's prescribed limit.

6. To edit the created exercise limit, select the row to edit then right-click and select
    "Edit". Clearing Participants can amend "Limit unit" and "Exercise limit".

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7. To clone the exercise limit to another account, select the row to be cloned then right-click and select "Clone". Clearing Participants can specify the "Account" to clone the exercise limit.

8. To delete the exercise limit set, select the row to be deleted then right-click and select "Delete".

Selection Filters:

Filter	Description
Account	Specify a particular account, or use the wildcards (* and ?) to retrieve the matching accounts.
Instrument type	Specify the instrument type, i.e. Stock Put Option or Stock Call Option

List Columns

Field	Description
Account	Display the account of such automatic exercise limit record.
Market	Display the market of the instrument type.
Instrument Type	Display the instrument type to which the limit applies.
Limit Unit	Indicate whether the limit was defined as percentage or fixed value.

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Field	Description
Limit	Display the limit created.
Default Limit	Display the ITM triggering percentage for automatic generation of stock options exercise limit as prescribed by SEOCH from time to time.
Default Limit Unit	Indicate whether the default limit was defined as percentage or fixed value.
Created	Display the time and date on which the setting was created.
Modified	Display the time and date on which the automatic exercise limit setting was last modified. If the state of the setting is changed, the "Modified" date and time will differ from the "Created" date and time.
User	Display the user who created the setting.
Version	Display the number of times the limit was modified.
Error Reason	Display the reason of error, if applicable.

The column not used is:

Currency

Notes:

a) *The "Automatic Exercise Information for Stock Options Report" (TP013) will only show those spot month instruments to be automatically exercised based on SEOCH's prescribed limit, i.e. 1.5% of the strike. Clearing Participants who created their own automatic exercise limits should verify their limits via the "Automatic Exercise Limits" view.*

b) *Exercise limit can be set at i) Clearing Participant level, which is applicable to ALL accounts; or ii) account level, which is only applicable to that particular account.*

c) *This function is only available 30 minutes before market open of Stock Options trading and up to the close of trading.*

d) *As an alternative to setting up exercise limits via the "Automatic Exercise Limits" view, Clearing Participants can import exercise limits via the "Import Automatic Exercise Limits" view under "Exercise Handling" category. The import template can be downloaded by clicking the export button ⬇ . A maximum of 100 records can be imported per file.*

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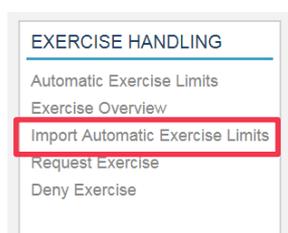
Examples:

Case 1: A Participant defined its own exercise limit, in <u>percentage (%)</u>, for its house account only, i.e. at account level, as follows:

For CGA1 House Account		Other Accounts
On or before Expiration Day		
Stock Call Option Set Limit As 1.0000%	Stock Put Option Set Limit As 2.0000%	*** No Action Taken ***

For CGA1 House Account	Other Accounts
On Expiration Day	
Apply preset limit to **ALL** series in house account	Apply SEOCH predefined exercise limit, i.e. 1.5000% to **ALL** series in other accounts

<u>A series will be auto-exercised</u>:

- Call options: if the Final Settlement Price ≥ (strike * (1 + ITM limit in %))
- Put options: if the Final Settlement Price ≤ (strike * (1 – ITM limit in %))

<u>Legend</u>:

- ✓ The series will be automatically exercised
- ✗ The series will <u>not</u> be automatically exercised
- ▭ The limit preset for house account by the Participant overridden SEOCH's predefined exercise limit. For strike at 102.00, the put options for series X in house account will NOT be auto-exercised, with the preset limit at 2.0000%; while the put options in other accounts will auto-exercise by applying SEOCH's prescribed limit at 1.5000%.

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Case 2: A Participant defined its own exercise limit, in <u>fixed value ($)</u>, for its omnibus client account only, i.e. at account level, as follows:

For CGA1 Omnibus Client Account		Other Accounts
On or before Expiration Day		
Stock Call Option Set Limit As HKD3.000	Stock Put Option Set Limit As HKD4.000	*** No Action Taken ***

Stock Call Option — Create Automatic Exercise Limit

Field	Value
Account *	HK CGA1 A1
Instrument Type *	STOCK CALL OPTION
Limit unit *	Fixed value
Exercise limit *	3.000

Create   Clear

Stock Put Option — Create Automatic Exercise Limit

Field	Value
Account *	HK CGA1 A1
Instrument Type *	STOCK PUT OPTION
Limit unit *	Fixed value
Exercise limit *	4.000

Create   Clear

On Expiration Day

For CGA1 Omnibus Client Account: Apply preset Limit to ALL series in omnibus client account

Series X — Final Settlement Price = 100.00

ITM Limit	Stock Call Option	Stock Put Option
	HKD3.000	HKD4.000

Auto-Exercise

Strike	Call	Put
106.00	✗	✓
104.00	✗	✓
102.00	✗	✗
100.00	✗	✗
98.00	✗	✗
96.00	✓	✗
94.00	✓	✗

Series Y — Final Settlement Price = 3.00

ITM Limit	Stock Call Option	Stock Put Option
	HKD3.000	HKD4.000

Auto-Exercise

Strike	Call	Put
4.50	✗	✗
4.00	✗	✗
3.50	✗	✗
3.00	✗	✗
2.50	✗	✗
2.00	✗	✗
1.50	✗	✗

Other Accounts: Apply SEOCH predefined exercise limit, i.e. 1.5000% to **ALL** series in other accounts

Series X — Final Settlement Price = 100.00

ITM Limit	Stock Call Option	Stock Put Option
	1.5000%	1.5000%

Auto-Exercise

Strike	Call	Put
106.00	✗	✓
104.00	✗	✓
102.00	✗	✓
100.00	✗	✗
98.00	✓	✗
96.00	✓	✗
94.00	✓	✗

Series Y — Final Settlement Price = 3.00

ITM Limit	Stock Call Option	Stock Put Option
	1.5000%	1.5000%

Auto-Exercise

Strike	Call	Put
4.50	✗	✓
4.00	✗	✓
3.50	✗	✓
3.00	✗	✗
2.50	✓	✗
2.00	✓	✗
1.50	✓	✗

<u>A series will be auto-exercised:</u>
- Call options: if the Final Settlement Price ≥ (strike + ITM limit at fixed value)
- Put options: if the Final Settlement Price ≤ (strike − ITM limit at fixed value)

<u>Legend</u>:

✓   The series will be automatically exercised

✗   The series will <u>not</u> be automatically exercised

☐   The limit preset for omnibus client account by the Participant overridden SEOCH's predefined exercise limit.   Hence, both call & put options for series X and series Y have different auto-exercise results as compared those in other accounts applying SEOCH's prescribed limit at 1.5000%.

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