

VaR Online User Guide

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Latest updates are highlighted in orange

1. Overview

INTRODUCTION

Hong Kong Securities Clearing Company Limited (HKSCC) operates a Risk Management System (RMS), namely VaR Platform, which will be official launched in 2022.

An online tool – VaR Online will be available to Clearing Participants (CPs) for margin and stress test simulation purpose.

SCOPE

This VaR Online User Guide (also known as RMS Guide) aims to guide CPs to conduct margin and stress test simulation for Hong Kong market via VaR Online and will be subject to further amendments and changes with on-going enhancement of RMS services. All simulation results are for reference only, CPs should refer to the respective reports for their risk obligations. CPs should also refer to the General Rules of CCASS and CCASS Operational Procedures for their rights, obligations and procedures in respect of RMS services.

AVAILABLE FUNCTION TIME

VaR Online will be available from 10:00 a.m. to 7:30 p.m. on Mondays to Fridays (except public holiday).

FOR MORE INFORMATION

Please refer to the following designated webpage via HKEX website for the latest information:

https://www.hkex.com.hk/Services/Next-Generation-Post-Trade-Programme/NextGen-Risk-Management?sc_lang=en

DISCLAIMER

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2. Getting Started

VaR Online is only accessible by authorized users. The assignment of Delegated Administrators is centralized and administered by HKSCC while the Delegated Administrators of the Clearing Participants are responsible for creating and managing the Business Users access to VaR Online. This section is divided into the following sub-sections to introduce the access and user management of VaR Online.

- 2.1 Access Management
- 2.2 User Management via VaR DA Platform
- 2.3 Password and Authentication Settings
- 2.4 Login and Logoff

2.1 ACCESS MANAGEMENT

Access management is implemented to ensure that only authorized users are allowed to access VaR Online. Clearing Participants should apply for VaR Online Delegated Administrator (VaR DA) from HKSCC. VaR DAs are responsible to manage Business Users' profile and grant VaR Online access to Business Users.

This sub-section provides details on VaR Online access management, covering the following key information:

- Setup of VaR DAs / Business Users
- Initial Password Setup
- Authentication Setting
- Locked / Unlock User Account
- Inactivity Timeout

Setup of VaR DAs / Business Users

To apply for VaR DAs, please submit the "VaR Online Delegated Administrator Rights Application / Maintenance Form" via <u>Client Connect</u> (eService ID: DA 1) by Client Connect Delegated Administrators (CCDAs) or Business Users with the access right "EU_UserMaintenance". Please ensure a valid corporate email address is provided for each VaR DA. When HKSCC completed the creation of VaR DA accounts, a notification email will be sent to VaR DAs.

The same applies to VaR Business Users, when VaR DAs set up VaR Business User accounts, corporate email addresses of the Business Users should be provided.

Initial Password Setup

Once VaR DA or VaR Business User account is created, DA or Business User would receive email notification with complete user ID and instructions to set up password via:

- VaR DA platform <u>https://idm.hkexposttrade.com.hk/user-management/</u> (Available from 7:00 a.m. to 1:00 a.m. on Mondays to Fridays, except for public holidays)
- VaR Online <u>https://rmcd.hkexposttrade.com.hk</u> (Available from 10:00 a.m. to 7:30 p.m. on Mondays to Fridays, except for public holidays)

Please refer to section 2.4.1 for initial password set up.

Authentication Setting

VaR DA platform & VaR Online adopt 2-Factor Authentication, being

- 1. VaR DA / VaR Business User self-defined password, plus
- 2. One Time Password (OTP) received via email or ForgeRock Authenticator mobile application

Please refer to section 2.3.2 for changing password and changing channel/ mobile device to receive OTP.

Locked / Unlock User Account

VaR DA or VaR Business User access will be locked after 5 consecutive unsuccessful attempts of login within 30 minutes. An email will be sent to the VaR DA or VaR Business User to notify the account status. To unlock the account:

- VaR DA please request HKEX to unlock account via email to <u>VaRDA_unlock@hkex.com.hk</u>.
- VaR Business User please request VaR DA to unlock the user access, VaR DA may refer to section 2.2.1 for detailed steps to unlock an account.

After the account is unlocked, you will receive an email. Please click <Forgot/Reset your password> at VaR DA platform/ VaR Online login page to reset login password and re-register mobile device. Detailed steps please refer to steps 2 to 8 under section 2.4.1 FIRST TIME LOGIN ON VAR DA PLATFORM/ VAR ONLINE.

Inactivity Timeout

To prevent unauthorized access to VaR DA Platform and VaR Online, the idle time for both systems is set at 15-minutes. Users please re-login if needed.

2.2 USER MANAGEMENT VIA VAR DA PLATFORM

Delegated Administrators can access VaR DA Platform by below URL via Google Chrome:

https://idm.hkexposttrade.com.hk/user-management/

(Available from 7:00 a.m. to 1:00 a.m. on Mondays to Fridays, except for public holidays)

To create/ edit/ delete/ unlock a Business User account:



2.2.1 DA MAKER – SUBMIT REQUEST FOR USER MAINTENANCE

On the main page of DA Platform, DA (maker) can go to <MANAGE> and then click on <USERS> to access manage user related functions.

HKEX (香港交易所) DASHBOARD	😋 MANAGE	adminmaker@xyz.com.hk 💄 🛩 II	DMv1.5
Dashboard			
My tasks My requests			
TaskiD Descri	ption	Date Status	

Create Users

1. Click on <+ CREATE USER>

Users

|--|

2. Fill in the user details and note below:

• User ID	Must be alphanumeric and no special character is allowed (e.g. DA100). System will auto append company ID of the user's company in the front when submitted the request. (e.g. 000123_DA100)
• Company	DA (maker) can only input the Company that he/ she manages. Once the company name is filled in, ROLES tab will appear.
• Email	Must be a unique corporate email.
 Business Application Name 	Default as VaR Online.
• User Type	Default as Business , should NOT be changed.

User Status

Default as **Active**, should NOT be changed. If it is changed to **Inactive**, created Business User would be unable to access VaR Online.

reate User			CANCEL	CREATE
Details Roles				
User ID				
First Name				
Last Name				
Company	XXZ Company Li	mitod v	7	
company	X12 company c			
Title (optional)			7	
Email				
Team Email (optional)				
Contact Number			7	
(optional)				
Business Application	VaR Online			
Name		_		
User Type	Admin	U Business		
Internal/External	 Internal 	 External 		
User Status	 Active 	Inactive		

3. Click <Roles> tab and then DA (maker) should click + sign next to company name to expand and click on the role EU_ORP_EXTERNALCOREDESKTOP

C	reate User			CANCEL	CREATE
	Details Roles				
	XYZ Company Limited	ADD MORE COMPANIES	U_ EU_ORP_EXTERNALCOREDESKTOP		
	HKSCC Participant	-			
	VaR Onl	ine			

4. After completing all required information, click <CREATE> to submit the request. A popup window will display to request for confirmation. Please review and click <CREATE> to confirm. The submitted request requires checker's approval.

Edit Users

VaR Online User Guide

- 1. If there are existing users, a user list will display after clicking <MANAGE> and then <USERS>.
- 2. On the user list, click on the particular Business User row to edit.
- 3. Click <EDIT> on the <Details> page to edit user information.
- Note: Roles of Business Users is default as EU_ORP_EXTERNALCOREDESKTOP, NO change is allowed

User			
Business User A		DELETE	EDIT
Details Roles			
User ID	999999_businessuser1		
First Name	Business		
Last Name	User A		
Business User	A	CANCEL	SUBMIT
Details Roles			
Liser ID	000000 hurinessured		
USER ID	1227250112272511		
First Name	Edit		
Last Name	User		
Company	XYZ Company Limited		
Title (optional)			
Email	husinessusera@vvz.com.hk		
Linar			
Team Email (optional	υ		
Contact Number			
(optional)			
Business Application Name	VaR Online		
User Type	Admin 🖌 Business		
Internal/External	External		
User Status	Active Inactive		

- Amend user information and click <SUBMIT> to submit the change. A pop-up window will display to request for confirmation. Please review and click <SUBMIT> to confirm. The submitted request requires checker's approval.
- Note: DAs (maker) may suspend/ reactivate a user by changing the User Status, i.e. <Active> or <Inactive>. Business Users are not required to reset password/ mobile device registration after account reactivation.

Delete Users

- 1. If there are existing users, a user list will be shown after clicking <MANAGE> and then <USERS>.
- 2. On the user list, click the particular Business User row to delete.
- 3. Click <DELETE> on the <Details> page to submit the user deletion.
- 4. A pop-up window will display to request for confirmation. Please review and click <DELETE> to confirm. Deletion will require checker's approval.

Remarks: Upon approval, Business User is no longer found in VaR DA platform and user status shown in user listing report will be changed to "INACTIVE". This account will be deleted from database within 72hrs.

Edit or Delete VaR DAs

To request for user maintenance of VaR DAs including:

- Edit user information
- Delete VaR DA's roles from certain managed company(ies)
- Delete VaR DA account from VaR DA Platform

Please submit "VaR Online Delegated Administrator Rights Application / Maintenance Form" via <u>Client Connect</u> (eService ID: DA 1) by Client Connect Delegated Administrators (CCDAs) or Business Users with the access right "EU_UserMaintenance".

Unlock Account/ Reset Device Registrations

A user account will be locked after five unsuccessful attempts to login within 30 minutes. Locked VaR DA accounts can only be unlocked by HKEX, while VaR DAs can unlock their Business User accounts.

- 1. Retrieve the user details by clicking <MANAGE>, <USERS>, then click on the particular Business User from user list to unlock.
- 2. On the Business User <Details> page, scroll to the bottom and click on <Unlock Account/Reset Device Registration> hyperlink.

rnal ve			
ve			

3. A pop-up window will display to request for confirmation. Please review and click <UNLOCK> to confirm. Unlock account request will require checker's approval.

Remarks: Upon the unlock account request is approved by DA (checker), Business User's account will be unlocked, he/ she must re-register mobile device registration.

View Submitted Requests

1. Go to <DASHBOARD> and then <My Requests>, a list of submitted requests is displayed here.

HKEX 香港交易所 か か の ひ ろ	SHBOARD	😋 MANAGE	adminmaker@xyz.com.hk	≛ -	IDMv1.5
Dashboard					
My tasks	My requests				
TaskID	Descrip	tion	Date	Status	5
0010	CREAT	EUSER	28-Jan-2021	Pendir	ng
0011	EDIT U	SER	28-Jan-2021	Pendir	ng

2. Click on the particular request row to see details of requests.

Remarks: Once a request is processed, it will be removed from Dashboard.

Notification Email to DA (maker)

For requests submitted for checker's approval, DAs (maker) within the same company will receive acknowledgment email. An example is shown below:

HKSCC System

Creation of a new user is submitted

Reference Number	0010
Status	Pending approval
Notification Type	For reference
Requested by	Admin Maker
Message	Nil

For enquiries, please contact us via link.

Please do not reply this e-mail as this is system generated.

Disclaimer

The information contained in this email is intended only for the use of the individual or entity named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us and delete the email. Internet communication cannot be guaranteed to be timely, secure, error-free or virus-free. The sender does not accept liability for any errors or omissions. Thank you.

2.2.2 DA CHECKER – APPROVE REQUEST FOR USER MAINTENANCE

Notification Email to DA (Checker)

User maintenance requests must go through DA (checker)'s approval. Once DA (maker) has submitted request, DA (checker) will receive a notification email like below for follow-up action.

HKSCC System

Creation of a	new user is pending for approval
Reference Number	0010
Status	Pending approval
Notification Type	For action
Requested by	Admin Maker
Message	Nil
HKEX 1 8 8 8 6 For enquiries, please of	contact us via <u>link</u> .
Please do not reply thi	is e-mail as this is system generated.
Disclaimer The information contain named above and may disclosure under applin are hereby notified that strictly prohibited. If you delete the email. Intern or virus-free. The server	ned in this email is intended only for the use of the individual or entity y contain information that is privileged, confidential and exempt from cable law. If the reader of this message is not the intended recipient, you it any dissemination, distribution or copying of this communication is un have received this message in error, please immediately notify us and net communication cannot be guaranteed to be timely, secure, error-free der does not accept liability for any errors or omissions. Thank you.

View and Approve/ Reject Requests

1. Go to <DASHBOARD> and <My Tasks>, all requests pending for action are listed here.

日KEX (香港交易所	🔉 DASHBOARD 🛛 🧔 MANAGE	adminchecker@xyz.com.hk 💄 🕶 IDMv1	.5
Dashboa	ard		
My tasks	My requests		
TaskID	Description	Date Status	
0010	CREATE USER	28-Jan-2021 Pending	
0011	EDIT USER	28-Jan-2021 Pending	

2. Click the particular pending request to view details.

CREATE USER	
REJECT	APPROVE
Task Status	Pending approval
User ID	999999_businessuser2
First Name	Business
Last Name	User B
Company	XYZ Company Limited
Title (Optional)	
Email	businessuserb@xyz.com.hk
Team Email (Optional)	
Contact Number (Optional)	
Business Application Name	VaR Online
User Type	Business
Internal/External	External
User Status	Active
Roles	XYZ Company Limited - HKSCC Participant Roles: EU_ORP_EXTERNALCOREDESKTOP
Date	28-Jan-2021

- 3. After review, checker can click <APPROVE> or <REJECT> directly.
- 4. A confirmation pop-up window will display. DA (checker) can input his/ her comment on the request. Then, checker can click <APPROVE> or <REJECT> to complete the process.

CONFIRM		
Are you sure you want to approve 0010 request?		
Type your comments here		
	_	
	CANCEL	APPROVE

Remarks: If a DA (checker) rejects a request, he/she must provide comment.

Notification Email to DA (maker)

Upon approval/ rejection of request, DA (maker) will receive a notification email like below:

HKSCC System

Creation of a new user has been Approved

Reference Number	0010
Status	Approved
Notification Type	For reference
Requested by	Admin Checker
Vessage	Message not provided

HKEX 后期文品的

For enquiries, please contact us via link.

Please do not reply this e-mail as this is system generated.

Disclaimer

Disclaimer The information contained in this email is intended only for the use of the individual or entity named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us and delete the email. Internet communication cannot be guaranteed to be timely, secure, error-free or virus-free. The sender does not accept liability for any errors or omissions. Thank you.

2.2.3 VIEW USER

Both maker and checker of DA can go to <MANAGE> and then <USERS> to view user list.

HKEX 香港交易所 のASHBOARD	🥵 MANAGE	adminmaker@xyz.com.hk 🔮 🔻 🛛	IDMv1.5
Dashboard			
My tasks My requests			
TaskiD Descriş	ption	Date Status	

Then, a list of users is displayed. Users can also click <Show filters> to apply filters and search for a particular user.

Users

+ CREATE USER	🛓 DOWNLOA	DLIST			DELETE SELECTED
Hide filters 🔺					
Internal/External 👻	User type 🔹	Status 🗸	Filter by keywords]	

To view details of a particular user, DAs may click the related user row.

Users

+ CREATE USER 🛓 DOW	NLOAD LIST			DELETE SELECTED	
Show filters 🝷					
NAME 🔻	INTERNAL/ EXTERNAL	USER TYPE 🔻	COMPANY -	STATUS -	
Business User A	External	Business	XYZ Company Limited	Active	4.4.0
Business User B	External	Business	XYZ Company Limited	Active	

From the list of users, DAs can click <DOWNLOAD LIST> to export the user list. The file will be downloaded as "users.csv" into your local PC.

<u>Users.csv</u>

	٨	B	6	D	E	E	G	ы			ĸ		м	Ν	0	P	0	P	c	т
-											n					,	4	N N		
1	The function may con	itain "Personal Data" th	at must not t	be used for a	iny pui	pose otne	r than that fo	r which they i	were originally col	llected.										
2	Once the data contain	ned in this database or p	printed repo	rts have cea	sed to	service the	eir legitimate	purpose, the	y must be approp	riately destro	oyed.									
3																				
4	List of Users																			
5	Business Application	User ID	First Name	Last Name	Title	Email	Team Email	Department	Contact Number	User Status	Is Locked	Is Deleted	Deleted By	Company	Managed Companies	Internal/External	Employee Type	Last Password Change Time	Roles	
6	ORP	999999_damaker	Admin	Maker		adminma				Active	No	No		XYZ Company Limited	XYZ Company Limited	External	Admin		XYZ Compa	ny Lin
7	ORP	999999_dachecker	Admin	Checker		adminche				Active	No	No		XYZ Company Limited	XYZ Company Limited	External	Admin	20210413 19:19:58	XYZ Compa	ny Lin
8	ORP	999999_businessuser1	Business	User A		businessu				Active	No	No		XYZ Company Limited		External	Business		XYZ Compa	ny Lin
9	ORP	999999_businessuser2	Business	User B		businessu				Active	No	No		XYZ Company Limited		External	Business	20210413 18:52:27	XYZ Compa	ny Lin
10																				
11	Total no. of external u	users: 4																		
12	No. of Admin users: 2	2																		
13	No. of Business users	: 2																		
14	No. of Admin and Bus	siness users: 0																		
15																				
14																				

Description of fields:

Field	Description
Business Application	Always "ORP"
User ID	User ID assigned to user
	 i.e. [company ID]_[User ID]
First Name	First name of user
Last Name	Last name of user
Title	Title of user, optional field
Email	The unique corporate email address of user
Team Email	Email for a team of users, optional field
Department	Not in use, always blank
Contact Number	Contact number of user, optional field
User Status	Status of user
	i.e. "Active" or "Inactive"
Is Locked	"Yes" = user account is locked
	"No" = user account is not locked

Is Deleted	 "Yes" = user account is deleted
	 "No" = user account is existed
Deleted Du	
Deleted By	Indicates the execution of deletion
	• I.e. "Admin" or "System"
	• Appear as blank when "Is Deleted = No"
	"Admin" when user is deleted by HKEX or VaR DA
	• "System" when user is deleted automatically due to the user is
	only attached to a deactivated HKSCC identity of a company
Company	Assigned company of user
	5 1 5
Managed	The assigned companies to DA for user management
Companies	Applicable to DAs only
Internal/External	Always "External"
Employee Type	Type of the user
	 i.e. "Admin", "Business" or "Admin; Business"
Last Password	The date and time when user changed his/ her login password
Change Time	last time
Polos	 Bolo(a) assigned to user
	• Role(s) assigned to user
Total no. of External	 Show the total number of external users
Users	
No. of Admin Users	• Show the number of users with "Employee Type = Admin"
No. of Business	• Show the number of users with "Employee Type = Business"
Users	
No. of Admin and	• Show the number of users with "Employee Type = Admin;
Business Users	Business

A User Management Audit Trail Report will be available via Report Access Platform (RAP) on each business day. This report generates in .csv file format and lists user management activities on that day.

2.2.4 VIEW COMPANY AND COMPANY IDENTITY

DA (maker) and DA (checker) can view details of their own company from <MANAGE> and then <COMPANIES>.

HKEX 香港交易所 のASHBOARD	🥵 MANAGE	adminmaker@xyz.com.hk 🔮 🔫 IDMv1.:	5
Dellard	USERS		
Dashboard	COMPANIES		
My tasks My requests	0		
TaskID Descri	ption	Date Status	

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- 1. After clicking <COMPANIES>, your company's name will be listed. Click the company row to view details.
- 2. Details will be displayed. DA can click <Company identity>, <Users> or <Admins> tabs to view different information.

Remarks: For DA (maker) viewing <Users> tab, option to <+ CREATE USER> and <DELETE SELECTED> will be displayed.

 Back to compar 	ny list			
Company XYZ Con	npany Limite	d		
Details	Company identity		Users	Admins
BIC Code (0	Optional)			
Company II	D	9999	99	
Company N	lame (English)	XYZ	Company L	imited
Chinese Na	me (Optional)			
Internal/ Ex	kternal	Exter	mal	
Status		Activ	e	
Max No. Of	Users	20		
IP Range		1.0.0.	.0 - 555.25	5.255.255

XYZ Company Limited

Details	Company identity	Users	Admins
CODE	IDENTITY	STATUS	
B99999	HKSCC Participar	nt Active	
 Back to company l 	list		

XYZ Company Limited

Details	Company identity	Users Adr	mins	
+ CREA	ATE USER DELETE S	ELECTED		
NAM	EV	USER TYPE 🔻	STATUS 🔻	
Busin	iess User A	Business	Active	0.00
Busin	less User B	Business	Active	000

Company XYZ Company Limite	ed			
Details Company identity	Users Admins			
NAME -	INTERNAL/ EXTERNAL =	USER TYPE 👻	COMPANY -	STATUS 🔻
Administrator Maker	External	Admin	XYZ Company Limited	Active
Administrator Checker	External	Admin	XYZ Company Limited	Active

2.3 PASSWORD AND AUTHENTICATION SETTINGS

2.3.1 PASSWORD REQUIREMENT

To access VaR DA Platform/ VaR Online, user has to setup a login password for his/her account during first time login. Below listed out the login password's requirements:

- 1. 8-15 characters
- 2. At least 1 number
- 3. At least 1 lower letter
- 4. At least 1 capital letters
- 5. At least 1 special character from !@#\$%^&*()

The password is confidential and should not be disclosed to unauthorized persons. New password shall not be the same as any of the last 5 passwords. If a user is assigned as both Delegated Administrator in VaR DA Platform and Business User in VaR Online, the same set of User ID and Login password will be used to access both platforms.

2.3.2 CHANGE PASSWORD AND AUTHENTICATION SETTING

Delegated Administrators (DAs):

After login to VaR DA Platform, DAs can access to change password site via URL: <u>https://sso.hkexposttrade.com.hk/sso?realm=ex</u>

Business Users:

After login to VaR Online, Business Users can change password from the main view.



After clicking CHANGE PASSWORD hyperlink, the change password window will be displayed, please input and confirm new password; then click <Update>.

日本	EX 🚓 AUTHENTICAT 易所	ION SETTINGS	4 CHANGE PASSWORD	A +
Chan	ige passwore	d		
Password				
	New password			
	Confirm new password			
				Reset Update

Remark: For VaR DAs, password changed via VaR Online will also be applicable to login to VaR DA platform and vice versa.

Users can also click <AUTHENTICATION SETTINGS> to choose OTP delivery method.

HKEX 香港交易所	& AUTHENTICATION SETTINGS	•

Authentication settings

Authentication Devices		
0		
OATH Device		

To change the One-time Password (OTP) mobile device, users may click it to delete the registered mobile device for OTP. Then they should re-register a new mobile device for authentication during next login.

|--|

Authentication settings

	1	
	E Recovery Codes	
	X Delete	
OATH Davi		
OATTDevi	ce	

If users opt to choose email as OTP delivery method instead of mobile device, please click on the right then choose <Settings>. Users can disable <Mobile One-time Password> and click <Save>.

HKEX 香港交易所	ዲ CHANGE PASSWORD	. •
---------------	-------------------	------------

Authentication settings

Authentication Devices				Settings
HKEX 香港交易所	Devices Settings Configure the Login One- time Password Delivery	Enable Mobile	×	A *
+ Authentication Devices	Method.	Password	The One-time Password will be sent to your email during login if the Mobile One-time Password is disabled.	1
OATH Device			Cancel Save	

Remarks: HKEX suggests users to enable mobile One-time Password for optimal account security.

2.3.3 FORGOT/ RESET PASSWORD

In case of forgot or reset password, users who enabled mobile OTP may use "Self-service Reset Password" function on login page. For users who disabled OTP sent via mobile device, please contact your VaR DAs (applicable to VaR business user) or HKEX (applicable to VaR DA) to reset mobile device registration before using "Self-service Reset Password".

Self-service Reset Password

1. Click <Forgot/Reset your password>.



- 2. Please enter your User ID and click <SUBMIT>.
- 3. You will be required to enter two OTPs.

4. Please input your new password and click <SUBMIT>.

日代E)				
Reset Password Please enter your new password below.				
Password				
Confirm password				
SUBMIT				

5. Upon successful validation of new password, please close the "Self-service Reset Password" window. Navigate back to login page to login with User ID and new login password.

2.3.4 EXPIRED ACCOUNT PASSWORD

Both Delegated Administrator and Business User account's login password expires every 90 days. 10 days before expiry, users will start to receive reminder for changing password after login.

HKEX	Password Expires In: 10 Day
	Old Password
Welcome to VaR Online	New Password
	Confirm Password
	SUBMIT
	CANCEL

You should change your login password. If DA or Business User click <CANCEL> to skip this reminder, he/ she may continue to login with existing password.

After expiry of password, user still have one-time grace login. Then, user will be asked to change password. If user still DO NOT change his/her password, then such user will be UNABLE to login and access VaR DA Platform/ VaR Online until reset of password. The user must click <Forgot/Reset your password> to perform "Self-service Reset Password". Please refer to last sub-section, 2.3.3 FORGOT/ RESET PASSWORD for details.

2.4 LOGIN AND LOGOFF

2.4.1 FIRST TIME LOGIN ON VAR DA PLATFORM/ VAR ONLINE

1. Delegated Administrators and Business Users will receive below notification email for successful creation of their accounts.



Your account is ready

Dear Admin,

Welcome to HKSCC System. Your user ID is 999999_damaker.

Please follow instructions below to setup password:

- 1. On Login page click on "Forgot/Reset your password?" 2. Enter your user ID
- . Enter your user

HKEX

For enquiries, please contact us via link.

Please do not reply this e-mail as this is system generated.

Disclaimer

The information contained in this email is intended only for the use of the individual or entity named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us and delete the email. Internet communication cannot be guaranteed to be timely, secure, error-free or virus-free. The sender does not accept liability for any errors or omissions. Thank you.

2. Access the login page via the following URL:

 VaR DA platform
 https://idm.hkexposttrade.com.hk/user-management/

 VaR Online
 https://rmcd.hkexposttrade.com.hk

3. Click <Forgot/ Reset your password> to set up login password.

日KEX 香港交易所	User Login
Welcome to VaR Online	Password LOG IN
	Forgot/Reset your password? >
	By clicking the 'LOG IN' button, I confirm that the individual(s) whose personal data is disclosed in my use of this application consent to the processing of their personal data. Unauthorised access and use are prohibited, HKEX reserves the right to take actions against offenders.

Enter your user ID (as mentioned in the notification email) and click <SUBMIT>. Then, you
will receive a One-time Password (OTP) from your registered email. Please input the OTP
and click <SUBMIT OTP>.

日KEX 香港交易所	HKEX 香港交易所
Welcome to VaR Online	Welcome to VaR Online
Input User ID User ID SUBMIT	Please Enter Your One Time Password, Or Request A New One Enter OTP SUBMIT OTP REQUEST OTP
日 に しょうしゅう しゅうしゅう しゅうしゅう しゅうしゅう しゅうしゅう しゅうしゅう しゅうしゅう しゅう	日 民臣 文 香 港 交 易 所 © 2021 Hong Kong Exchanges and Clearing Limited. All rights reserved.
The Password (OTP) for HKSCC S	Fime Password org * Date Today 17:30

Remarks: The screen for this login session will time out in 6 minutes. Email OTP is valid for 5 minutes and it can only be requested every 5 minutes.

5. Please set-up your login password according to the password requirements and click <SUBMIT>. A message for successful set-up of password will be displayed.

	日代日本
R	eset Password ease enter your new password below.
	Password
	Confirm password
	SUBMIT

- 6. Navigate back to the login page and enter User ID, Password then click <LOG IN>.
- 7. You will be asked to register a mobile device, please click <REGISTER A DEVICE> and install ForgeRock Authenticator App in your mobile device. This application is available in both Google Play and Apple's App Store. If you have been using ForgeRock Authenticator for Client Connects' Logon, it is not necessary to download the same App again.



Note: This QR code will only display once. Please scan it using ForgeRock Authenticator App before clicking <LOGIN USING VERIFICATION CODE>. If not, your user account will require unlock to reset device registration. Please refer to section 2.1 ACCESS MANAGEMENT - Locked / Unlock User Account.



 Click + sign to scan the QR code using your ForgeRock Authenticator App. You will see that your VaR DA Platform/ VaR Online account is registered in your App with your user ID. Then, click <LOGIN USING VERIFICATION CODE> via login page.



9. Your VaR DA Platform ID/ VaR Online user ID is stated on the list of accounts in ForgeRock Authenticator App. Click the account and then click \mathbb{C} to generate a One-time Password. Input OTP on login page then click <SUBMIT>.



10. You will be re-directed to VaR DA Platform/ VaR Online homepage when login is successful.

For subsequent login to VaR DA Platform/ VaR Online, users will have to provide (1) User ID, (2) Password; and (3) OTP from ForgeRock Authenticator App.

If a user is assigned with both VaR DA and VaR Online Business User roles, only one single login will be required. For example, after entering VaR DA Platform's URL and login successfully, user can enter VaR Online's URL to switch application without re-login and vice versa.

2.4.2 LOGOFF

To prevent unauthorized access of VaR DA Platform/ VaR Online, please logoff every time after usage.

Logoff via VaR DA Platform:

Click the user email address on top right hand corner and then click <Logout>. You will be re-directed to VaR DA Platform login page.

HKEX ☎ 港 交 易 所	HBOARD 🥵 MANAGE	adminmaker@xyz.com.hk 💄 🕶 IDMv1.	9
Dashboard		Logout	
My tasks M	1y requests		
TaskID	Description	Date Status	

Logoff via VaR Online:

Click the **b** icon on the top right hand corner, then a confirmation message will display at the bottom. Please click <OK> to confirm.

X 🗾 NASDAQ CORE DESKTOP - 999999_BU01		CHANGE PASSWORD	Workspace] ≡ ✿ ② 💽
	MARGIN SIMULATION			0
	Margin Simulation			
Confirm logout				
				OK Cancel

3. Settings & Screen Standard

3.1 SETTING FOR INTERNET PROPERTIES

It is important to have proper setup for the protocols that can provide data encryption and authentication for "https" secure access. Before accessing VaR Online, Clearing Participants (CPs) should check and ensure their Google Chrome browser setting by referring to Section 6 of CCASS/ VaR Online/ RAP Technical Guide for HKSCC Participants.

3.2 MAIN VIEW STANDARDS

Upon login to VaR Online, the main view with Margin Simulation view will be displayed.

Example of the main view (in dark theme):

X	NASDAQ CORE DESKTOP	FIRM01_U	JSER1		CHANGE PASSWORD	Workspace	e	=	‡ 🕞
		Login I	D	MARGIN SIMULATION Margin Simulation			General Icor	Sett	ing
				Clicl Margi	k to access In Simulation				

General Setting Icons

Icon	Description
Open pop-up menu	Click to open another view to display all available views
Settings	Click to manage settings for: • Language • Colors • System Info
Logout C	Click to logout VaR Online

3.3 SETTINGS

2.

1. Click the <Settings> icon to view the following tabs.

) //	NASDAQ	CORE DESKTOP - FIRM01_USER1		CHANGE PASSWORD	Workspace]≡	\$	G
Fi	ive tabs	s will be	e displayed.						
	Settin	igs							
	LANG	UAGE	WORKSPACE	CONFIRMATIONS	COLORS	S SYSTEM	INFC)	_
	Browse	r format	English (United States)						
	User for	rmat							

- Language
- Workspace [not applicable]
- Confirmations [not applicable]
- Colors
- System Info
- a) Language

There are 2 language selections. These selections are related to the format configured in the PC Region and Language settings.

The settings are important when exporting and importing ".csv files". To manage language settings, steps are as follows:

Click the <Language> tab.

- "Browser format" display the current language setting of the browser
- "User format" for setting VaR Online language

Please ensure the language in "User format" is set to "English (United States)".

Settings

LANGUAGE	WORKSPACE	CONFIRMATIONS	COLORS	SYSTEM INFO
Browser format	English (United States)			
User format	English (United States)]		

b) Colors

VaR Online can be configured with two color themes, i.e. Light or Dark. Steps are as follows:

- 1. Click the <Colors> tab.
- 2. Click <Theme> field and select <Light> or <Dark> theme.

Sample screen of light theme:

Settin	gs				
LANG	JAGE	WORKSPACE	CONFIRMATIONS	COLORS	SYSTEM INFO
Theme	Light Dark Light				
	Dark Light				

Sample screen of dark theme:

Settin	gs								
LANG	JAGE	WORKSPA	\CE	CONFIRMA	TIONS	COLORS	1	SYSTEM INFO)
Theme	Dark Dark Light								

- c) System Info
 - 1. Click the <System Info> tab.
 - 2. The system date and time snapshot will be displayed.

Settings				
LANGUAGE	WORKSPACE	CONFIRMATIONS	COLORS	SYSTEM INFO
Business date	7/24/18			
Business time	5:04:59 PM			

3.4 SCREEN STANDARD

VaR Online screens have the following common features, i.e. selection filters, data table, action buttons and general setting icons.

Simulation accor	unt HK B4	40071 MA1	Used	d prices Re	al-time	Used positions Real-time	Sim	ulation triggered		
Margin	Sim	ulate	Action I	Buttons	7					
Import 20	rows				_					
STRUMENT CO	DE BOUGHT/SOL		Y SETTLEN	IENT PRICE	ERROR REASON					
						٦				
	Bought		Sele	ction				Ac	tion	
	3010		Tille	15		Data Table		Co	nfirmation	
		rid?								
nulate Margin f	or all rows in the g	nui								
mulate Margin f	or all rows in the g	ilu :							OK	Can
mulate Margin f	or all rows in the g	nu :							ок	Cano
mulate Margin f	or all rows in the g	nui							ОК	Cano
nulate Margin f	or all rows in the g		ENTED T	74755					ОК	Cano
nulate Margin t 1argin Sim	nulation se	TTINGS	ENTER T	TRADES	SIMULATION	RESULTS SIMULATION RE	SULTS - DETAILS	S STRESS T	OK	Cano
Mulate Margin 1	nulation se	TTINGS IK B40071 M	ENTER T	TRADE S Used prices	SIMULATION I Real-time	RESULTS SIMULATION RE	SULTS - DETAILS	S STRESS T	ОК TEST RESULTS ed 5/18/2021 5::	Canc
nulate Margin f	nulation se	ITTINGS IK B40071 M	ENTER T	TRADES Used prices	SIMULATION I Real-time	RESULTS SIMULATION RE Used positions Real-tin	SULTS - DETAILS	5 STRESS T Simulation trigger	OK TEST RESULTS ed 5/18/2021 5:2	Canc = 21:03 Pv
Mulate Margin 1	nulation se	ITTINGS IK B40071 M	ENTER T	RADES Used prices	SIMULATION I Real-time	RESULTS SIMULATION RE Used positions Real-tin	SULTS - DETAILS	5 STRESS T Simulation trigger	OK TEST RESULTS ed 5/18/2021 5:2	Cano 21:03 PV
Mulate Margin 1 1argin Sim imulation accor imulation resu ortfolio per pro iarket and curr	nulation se nulation se unt H duct area, ency	ITTINGS IK B40071 M	ENTER T	TRADES Used prices	SIMULATION I Real-time	RESULTS SIMULATION RE Used positions Real-tir	SULTS - DETAILS	s stress t Simulation trigger neral	OK TEST RESULTS ed 5/18/2021 5.2	Cano 21:03 P
Iargin Sim imulation accor mulation resu prtfolio per pro arket and curr rows	nulation set	ITTINGS	ENTER T	TRADES Used prices	SIMULATION I Real-time	RESULTS SIMULATION RE Used positions Real-tir	SULTS - DETAILS me Ge Set	s STRESS T Simulation trigger neral Iting Icons	OK TEST RESULTS ed 5/18/2021 5:	Cano 21:03 P
Iargin Sim imulation account mulation account mulation resu proficio per pro arket and curr rows	nulation set unt H PRODUCT AREA	TTINGS HK B40071 M MARKET C	ENTER T IA1	RADES Used prices P&L	SIMULATION I Real-time INITIAL MARGIN	RESULTS SIMULATION RE Used positions Real-tir FLAT RATE MARGIN MULTIPLIER	SULTS - DETAILS me Ge Set	s STRESS T Simulation trigger neral tting Icons	OK TEST RESULTS ed 5/18/2021 5:2	Cano 21:03 P
argin Sim mulation accor mulation accor mulation resu arket and curr rows TFOLIO isting portfolio	nulation se nulation se unt H boduct area, ency PRODUCT AREA CN	TTINGS K B40071 M MARKET C MAMK C	ENTER T IA1 CURRENCY CNY	TRADES Used prices P&L 0	SIMULATION I Real-time INITIAL MARGIN 0	RESULTS SIMULATION RE Used positions Real-tin FLAT RATE MARGIN MULTIPLIER 1.0000	SULTS - DETAILS me Ge Sel MARGIN CREDIT 5,000,000.00	s STRESS T Simulation trigger neral tting lcons	OK TEST RESULTS ed 5/18/2021 5:2	Cand 21:03 P
Iargin Sim imulation account mulation account mulation resu partfolio per pro- arket and curr rows mrrFoLIO isting portfolio isting portfolio	PRODUCT AREA CN CN	TTINGS HK B40071 M MARKET C MAMK C SZMK C	ENTER T IA1 CURRENCY CNY CNY	RADES Used prices P&L 0 0	SIMULATION I Real-time INITIAL MARGIN 0	RESULTS SIMULATION RE Used positions Real-tin FLAT RATE MARGIN MULTIPLIER 1.0000 1.0000	SULTS - DETAILS me Ge Sel MARGIN CREDIT 5,000,000.00 5,000,000.00	s STRESS T Simulation trigger neral tting Icons TOTAL ADD-ONS 0 0	OK TEST RESULTS ed 5/18/2021 5:2	Cano 21:03 P
Iargin Sim imulation account mulation account mulation resum mulation resum mulation resum mulation account mulation account mulation mul	PRODUCT AREA CN HK	TTINGS IK B40071 M MARKET C MAMK C SZMK C HKMK F	ENTER T IA1 CURRENCY CNY CNY HKD	P&L 0 68,191,307	SIMULATION I Real-time INITIAL MARGIN 0 0 0 8,761,696	RESULTS SIMULATION RE Used positions Real-tin FLAT RATE MARGIN MULTIPLIER 1.0000 1.0000 1.0000	SULTS - DETAILS me Ge Set MARGIN CREDIT 5,000,000.00 5,000,000.00 5,000,000.00	s STRESS T Simulation trigger neral tting lcons TOTAL ADD-ONS 0 0 751,969	OK TEST RESULTS ed 5/19/2021 5:2	Cancella Can
Iargin Sim imulation account imulation account imulation resum imulation resum imulation resum imulation account imulation account internation i	PRODUCT AREA CN HK CN	ITINGS IK B40071 M MARKET C MAMK C SZMK C HKMK F MAMK C	ENTER T IA1 CURRENCY CNY CNY HKD CNY	P&L 0 68,191,307 0	SIMULATION I Real-time INITIAL MARGIN 0 0 0 8,761,696 0 0	RESULTS SIMULATION RE Used positions Real-tin FLAT RATE MARGIN MULTIPLIER 1.0000 1.0000 1.0000 1.0000	SULTS - DETAILS me MARGIN CREDIT 5,000,000.00 5,000,000.00 5,000,000.00 5,000,000.00	s STRESS T Simulation trigger neral tting lcons TOTAL ADD-ONS 0 0 751,969 0	OK TEST RESULTS ed 5/19/2021 5:3	Canc 21:03 P
Margin Simulate Margin 1	PRODUCT AREA CN CN CN CN CN	MARKET C MARKET C MAMK C SZMK C HKMK H MAMK C	ENTER T IA1 CURRENCY CNY CNY HKD CNY CNY	P&L 0 68,191,307 0 0 0	SIMULATION I Real-time INITIAL MARGIN 0 0 0 8,761,696 0 0 0 0 0 0 0 0 0	RESULTS SIMULATION RE Used positions Real-tin FLAT RATE MARGIN MULTIPLIER 1.0000 1.0000 1.0000 1.0000 1.0000	SULTS - DETAILS me MARGIN CREDIT 5,000,000.00 5,000,000.00 5,000,000.00 5,000,000.00 5,000,000.00	s STRESS T Simulation trigger neral tting lcons TOTAL ADD-ONS 0 0 751,969 0 0	OK TEST RESULTS ed 5/18/2021 5:3	Canc 21:03 P MARGIN

3.4.1 SELECTION FILTERS

Input a value in the input field under the selection filters area to retrieve the desired information. Mandatory input field will be marked with an * asterisk. Most of the input fields allow users to select the available value from a drop-down list, simply by typing a character in the input field to shortlist the available selection.

If an invalid value is input, the background color of the input field will change to red to alert the user. Once a valid value is entered, the input field will no longer be highlighted.

3.4.2 ACTION BUTTONS

Click action buttons on different tabs to perform respective actions. For example, click <Simulate> in the <ENTER TRADES> tab to conduct the selected simulation.

3.4.3 DATA TABLE

For display of data input or result after an action. For example, display the margin result after completion of simulation.

3.4.4 GENERAL SETTING ICONS

lcon	Description
Export	Export data from the data table displayed in the view to a ".csv" file
Menu	Close the current view and display all available views menu
Close ×	Close the current view

4. Margin and Stress Test Simulation

PURPOSE:

To conduct margin and/or stress test simulation for Hong Kong market, with

- latest available marginable positions; or
- latest available marginable positions with hypothetical trades; or
- hypothetical trades only

ACCESS PATHS:

A. To conduct margin simulation for existing positions with default settings

SETTINGS	ENTER TRADES	SIM	ULATION RESULTS
To view the default settings	To submit margin simulation	Margin	SIMULATION RESULTS
	request		SIMULATION RESULTS - DETAILS

B. To conduct margin **and/or stress test** simulation for existing positions **with customised settings**

SETTINGS	ENTER TRADES	SIM	ULATION RESULTS
To set simulation criteria	To select type of simulation	Margin	SIMULATION RESULTS
			SIMULATION RESULTS - DETAILS
		Stress Test	STRESS TEST RESULTS

C. To conduct margin **and/or stress test** simulation for existing positions **plus hypothetical trades with customised settings**

	ENTER TRADES	SIMULATION RESULTS
To set simulation criteria	To select type of simulation	Margin SIMULATION RESULTS
	hypothetical trades	SIMULATION RESULTS - DETAILS
		Stress STRESS TEST Test RESULTS

4.1 SIMULATION WITH DEFAULT SETTINGS (ACCESS PATH – A)

4.1.1 SETTINGS

Default view after clicking <Margin Simulation> on main view

Margin Simulation	SETTINGS	ENTER TRADES	SIMULATION RESULTS	SIMULA	TION RESULTS - DETAIL	S STRESS TEST RESULTS	$\equiv \times$
Simulation account	HK B40071 M	A1 Used prices	Real-time	Used positions	Real-time	Simulation triggered	
Saved Settings		Save	Delete				
Simulation account *	HK B40071 M	A1					
Used positions *	Real-time			-			
Used prices *	Real-time	D	efault Settings				
Include greeks	\checkmark						
Stressed scenario set definition	on						

Field	Description
Simulation account*	 Default as "HK <part id=""> MA1""</part> HK exchange location MA1 marginable "Main Account", to be used for simulation
	<u>Applicable to GCP:</u> Main Account capturing marginable positions of GCP its own and its Non-Clearing Participants.
Used position*	 Default as "Real-time" Real-time use the latest available marginable positions in VaR Online for the simulation
Used prices*	 Default as "Real-time" Real-time use the latest available prices in VaR Online for simulation
Include greeks	Not applicable for simulation, reserved for future use
Stressed scenario set definition	 Default as blank Only applicable to "Stress Test" or "Margin and Stress Test" simulation

Note: * Mandatory fields

4.1.2 ENTER TRADES

The default type of simulation is "Margin", which is mark-to-market and margin simulation only; results to be displayed via <SIMULATION RESULTS> and <SIMULATION RESULTS – DETAILS> tabs.

The simulation processing time may varies subject to system scheduled jobs.

Click <ENTER TRADES> tab and click <Simulate> to proceed the margin simulation

Margin Simula	tion SETTING	s I	ENTER TRADES	SIMULATION R	ESULTS S	IMULATION RES	ULTS - DETAILS	STRESS TEST RESULTS	$\equiv \times$
Simulation account	HK B40071 I	MA1	Used prices	Real-time	Used position	ns Real-time	Simulation	triggered	
Margin	<u>S</u> imulate		efault Type o	f Simulation]				
INSTRUMENT CODE	BOUGHT/SOLD QU	ANTITY	SETTLEMENT PRIC	E ERROR REASON					^
								Action Confirma	ition
Simulate Margin for all	rows in the grid?							2 ок	Cancel

4.1.2.1 TO VIEW MARGIN SIMULATION RESULTS

- 1. Click < SIMULATION RESULTS> tab, to display the simulation result
- 2. Click the "Export" ± button to download the simulation results as a CSV file

Sample screen:

Simulation accourt	nt HK	B40071 N	IA1 ા	Jsed prices	Real-time	Used positions Real-tim	e	imulation triggered	5/25/2021 7:28:14 PM
Simulation result portfolio per prod market and currer 6 rows	ts on duct area, ncy	S	Settings o	, of the sim	nulation			Timesta simu	mp of the lation
PORTFOLIO	PRODUCTAREA	MARKET	CURRENCY	P&L	INITIAL MARGIN	FLAT RATE MARGIN MULTIPLIER	MARGIN CREDIT	TOTAL ADD-ONS	TOTAL MTM AND MARGIN F
Existing portfolio	CN	MAMK	CNY	0	0	1.0000	5,000,000.00	0	
Existing portfolio	CN	SZMK	CNY	0	0	1.0000	5,000,000.00	0	
Existing portfolio	HK	нкмк	HKD	60,442,054	9,161,512	1.0000	5,000,000.00	51,788	
	Chi	MANAK	CNY	0	0	1.0000	5.000.000.00	0	

Sample exported results (view in Excel):

N	17			• 12 2	× 4 3	÷ 0					*
	A	В	с	D	E	F	G	н	t	1	
1	Portfolio	Product area	Market	Currency	P&L	Initial Margin	Flat Rate Margin Multiplier	Margin Credit	Total Add-Ons	Total MTM And Margin Re	c
2	Existing portfolio	CN	MAMK	CNY	0	0	1	5,000,000.00	0		
3	Existing portfolio	CN	SZMK	CNY	0	0	1	5,000,000.00	0		
\$	Existing portfolio	нк	нкмк	HKD	60,442,054	9,161,512	1	5,000,000.00	51,788		
5	Effect	CN	MAMK	CNY	0	0	1	5,000,000.00	0		
5	Effect	CN	SZMK	CNY	0	0	1	5,000,000.00	0		
7	Effect	нк	нкмк	HKD	60,442,054	9,161,512	1	5,000,000.00	51,788		
9.							1.171				

Description of fields:

Field	Description
PORTFOLIO	Existing portfolio: simulation based on existing portfolio (latest available marginable positions in VaR Online) without hypothetical trades

Field	Description
PRODUCT AREA	• Displays the location of the market, i.e. HK – Hong Kong
MARKET	 Displays the market code HKMK – Hong Kong market MAMK – Shanghai market SZMK – Shenzhen market Simulation is only applicable to Hong Kong market, the results for Shanghai and Shenzhen market are reserved for future use
CURRENCY	 Displays the currency of the simulation results, i.e. HKD – Hong Kong dollar
P&L	 Mark-to-market (MTM), in Hong Kong dollar equivalent Positive value: unfavorable MTM Negative value: favorable MTM
INITIAL MARGIN	 Sum of various margins: portfolio margin + flat rate margin + corporate action position margin
FLAT RATE MARGIN MULTIPLIER	Flat rate margin multiplier
MARGIN CREDIT	Margin credit which is granted to each Clearing Participant and applied for Margin calculation
TOTAL ADD-ONS	 Sum of all add-ons. The total add-ons will be included in TOTAL MTM AND MARGIN REQUIREMENT, except default fund add-on
TOTAL MTM AND MARGIN REQUIREMENT	 Total MTM and margin requirement incorporate add-ons, if any, except default fund add-on
AD-HOC ADD-ON	Ad hoc risk component related to individual CP imposed by HKSCC, if applicable
LIQUIDATION RISK ADD-ON	 Risk component related to the liquidity risk of concentrated positions
HOLIDAY ADD-ON	Always "0", reserved for future use, market risk component related to additional risk during holiday period
CREDIT RISK ADD-ON	 Always "0", reserved for future use, risk component related to individual CP's credit risk imposed by HKSCC, if applicable
DEFAULT FUND ADD- ON	 Always "0", reserved for future use, risk component to mitigate excessive risk exposures of individual CP on

Field	Description
	Default Fund. If any, will be collected separately from Total MTM and Margin Requirement
POSITION LIMIT ADD- ON	 Risk component related to settlement counterparty risk arising from excessive CNS exposure against CP's apportioned liquid capital
STRUCTURED PRODUCT ADD-ON	 Risk component to handle the huge percentages loss resulting from downward price movement approaching the minimum security prices for long structured product positions

4.1.2.2 TO VIEW MARGIN SIMULATION RESULTS DETAILS

- 1. Click < SIMULATION RESULTS DETAILS> tab, to display the simulation result details
- 2. Click the "Export" ¹ button to download the simulation results as a CSV file

Sample	e sc	reen:							
Margin S	Simul	ation SETTINGS	ENTER TR	ADES SIMU	LATION RES	ULTS	SIMULATION RESULTS - DE	TAILS STRESS TEST RES	JLTS = X
Simulation a	iccount	HK B4007	1 MA1 Use	ed prices Real-time	е	Used pos	sitions Real-time	Simulation triggered 5/20/202	21 5:58:22 PM
Simulation r instrument i currency 39 rows	results in instru	per ument	Defined	settings				Timestamp o simulation	f the າ
MAIN							ORTFOLIO		SIMULATED PO
INSTRUMENT	CODE	INSTRUMENT NAME	LONG QUANTITY	SHORT QUANTITY	CURRENCY	P&L	LIQUIDATION RISK ADD-ON	STRUCTURED PRODUCT ADD-ON	P&L LIC
700		TENCENT	99,000	0	HKD	52,925,600	29,712	0	0
10001		TESTDWHV1	100,000	0	HKD	1,651,000	0	1,200	0
10002		TESTDWFR1	100,000	0	HKD	1,998,000	0	1,200	0
10003		TESTDWHV2	0	0	HKD	0	0	0	0
<									
🖺 -2021052	20-18005	8csv ^							Show all

Sample exported results (open with Excel):

F	ile Ho	ome I	Insert	Page Layout For	rmulas Data	Review View										x 🕜 🗆 🔂 X	S
ľ	<mark>`</mark> ∦ ⊪	Calibri		* 11 * A* A*	= = =	≫r → Wrap Text	General	•	S ³			-		Σ AutoSum •	Ż	ñ	
Pa	ste 🛷	BZ	<u>n</u> .	🖽 • 🌺 • <u>A</u> •	E = 3	譚 🎏 🧱 Merge & (Center ▼ \$ ▼ % ,	€.0 .00 C .00 →.0 Fc	onditiona	al Format I≚ as Table ≠	Cell Styles +	Insert Delete	Format		Sort & F Filter ▼ S	ind & elect ≠	
Clip	board 🕞		Fo	ont 🕞		Alignment	5 Number	Fai		Styles		Cells		Ed	iting		
	G6		(-	f _x												`	
		А		В		С	D	E		F				G		-	Ξ
1	Main:Inst	rument	Code	Main:Instrument N	ame	Main:Long Quantity	Main:Short Quantity	Main:Curre	ency Or	riginal port	folio:P&L	Original p	ortfolio:l	iquidation Ris	k Add-or	Original po	
2			700	TENCENT		99,00)	0 HKD			5292560	D			297	12	1
3			10001	TESTDWHV1		100,00)	0 HKD			165100	D				0	ł
4			10002	TESTDWFR1		100,00)	0 HKD			1,998,00	D				0	h
5			10003	TESTDWHV2		()	0 HKD				00				0	

Description of fields:

Field	Description
MAIN	
INSTRUMENT CODE	CCASS stock code
INSTRUMENT NAME	Name of the CCASS stock

Field	Description
LONG QUANTITY	Quantity of long position, including allocated quantity
SHORT QUANTITY	Quantity of short position
CURRENCY	Currency of the instrument, i.e. HKD – Hong Kong dollar
The following columns ar • ORIGINAL PORTFO • SIMULATED PORTF applicable to Access	e applicable to LIO – available marginable positions without hypothetical trades OLIO – available marginable positions with hypothetical trades (not Path – A)
P&L	 Mark-to-market (MTM) Positive value as unfavorable MTM Negative value as favorable MTM After netting and FX conversion, the sum of the P&L in Hong Kong dollar will be the P&L in <simulation results=""> tab</simulation>
LIQUIDATION RISK ADD-ON	 Risk component related to the liquidity risk of concentrated positions The liquidation risk add-on of structured products, if any, will be incorporated into the marginable position of the underlying instrument in HKD-equivalent If no corresponding marginable position of the underlying instrument, a record of the underlying instrument will be shown exclusively for liquidation risk add-on. If the underlying instrument is a non-HKD instrument, the record will be shown in instrument currency while the liquidation add-on will be in HKD-equivalent.
STRUCTURED PRODUCT ADD-ON	 Risk component to handle the huge percentages loss resulting from downward price movement approaching the minimum security prices for long structured product positions

Note: Greeks is reserved for future use, Clearing Participants should ignore these columns: Cash Delta, Cash Gamma (%), Vega, Theta

4.2 SIMULATION WITH CUSTOMISED SETTINGS (ACCESS PATHS – B & C)

Clearing participants can define the simulation criteria, type of simulation and hypothetical trades in <SETTINGS> and <ENTER TRADES> tabs.

4.2.1 SETTINGS

- To define settings for simulation
- To save frequently-used settings for future simulation

Direct Clearing Participant (DCP)'s default view after clicking <Margin Simulation> on main view:

VaR Online User Guide

Margin Simulation										×
SETTINGS ENTER TRA	ADES SIMULATIO	NRESULTS	SIMULATION	RESULTS - DETAILS	STRE	SS TEST RE	ESULTS	_		≡
Simulation account	HK B40071 MA1	Used prices	Real-time	Used position	s Real-time)	Simula	tion triggered		
Saved Settings		Save	Delete							
Simulation account *	HK B40071 MA1)					HK B40	071 HSE0001	Acco	ount
Used positions *	Real-time)			None - emp	ty portfolio				
Used prices *	Real-time]			Real-time		<u> Г</u>	00466		
Include greeks		Id	Description					Participar	nt ID	
Stressed scenario set definition	(STANDAR	D Stress set for E	UL and STV model			L			
		,			Excl alwa	hange Lo ays "HK"	ocation,			

General Clearing Participant (GCP)'s default view after clicking <Margin Simulation> on main view:

Margin Simulation								>
SETTINGS ENTER TR	ADES SIMULATIO	ON RESULTS	SIMULAT	ON RESULTS - DETAILS	STRESS	S TEST RESULTS		Ξ
Simulation account	HK B20071 MA1	Used prices	Real-time	Used positions	Real-time	Simulation trig	ggered	
Saved Settings		Save	Delete				A	
Simulation account *	HK B20071 MA1						HK B20071 37108+	
							HK B20071 37109+	
Used positions *	Real-time					None - empty portfolio	HK B20071 H1	
Used prices *	Real-time					Real-time	HK B20071 HSE0001	
Include greeks	\checkmark		ld	Description			HK B20071 MA1	-
Stressed scenario set definition		}	STANDARI	O Stress set for EUL and ST	V model			-

Description of fields:

Field	Description
Part A. Save and manag	e frequent-use settings (optional)
Saved Settings	 To save new setting or retrieve saved setting for use/deletion A maximum of 50 settings can be saved per user To create and save a setting: Input a name within 30 characters in "Saved Settings" Refer to Part B to select the settings Click <save> button to save the settings</save> To retrieve a saved setting for simulation or update: Click on the field and select the saved setting from the dropdown menu Upon selection, the saved setting will be displayed Click <enter trades=""> tab for simulation or update the saved setting and click <save> button to save the updates</save></enter> To delete a saved settings: Select the corresponding setting from the dropdown menu and click <delete> button</delete>
Part B. Define single use	settings for the simulation
Simulation account*	 Mandatory field – default as "HK <part id=""> MA1""</part> HK exchange location MA1 marginable "Main Account", to be used for simulation. For GCP, it is capturing all

Field	Description
	 marginable positions of GCP and its Non- Clearing Participants (NCPs) for simulation HSE001 collateral "HOUSE" account is NOT applicable for simulation, please ignore
	 <u>Applicable to GCP:</u> Main Account capturing marginable positions of GCP its own (H1) and its Non-Clearing Participants (NCPs denoted as nnnnn+). GCP may select H1 or nnnn+ for margin simulation and the time of availability of these accounts are: H1 only available in end of day nnnn+ will be updated before intra-day margin call and end of day
Used position*	 Mandatory field – click to select from the dropdown menu None – empty portfolio use only the input/imported hypothetical trades for the simulation Real-time use the latest available marginable positions in VaR Online with or without the input/imported hypothetical trades for the simulation
Used prices*	 Mandatory field – always "Real-time" Real-time use the latest available prices in VaR Online for simulation
Include greeks	Not applicable for simulation, reserved for future use
Stressed scenario set definition	 Leave blank for "Margin" simulation only Mandatory field – for "Stress Test" or "Margin and Stress Test" simulation Click to select "Standard" from the dropdown menu

4.2.2 ENTER TRADES

To conduct the following 3 types of simulation:

- **Margin**: mark-to-market and margin simulation only; results to be displayed via <SIMULATION RESULTS> and <SIMULATION RESULTS DETAILS> tabs
- Stress test: stress test simulation only; result to be displayed via <STRESS TEST RESULTS> tab
- Margin and stress test: mark-to-market and margin simulation; together with stress test simulation; results to be displayed via <SIMULATION RESULTS>, <SIMULATION RESULTS – DETAILS> and <STRESS TEST RESULTS> tabs

The simulation processing time may varies subject to system scheduled jobs.

4.2.2.1 TO CONDUCT MARGIN AND/OR STRESS TEST SIMULATION WITH LATEST AVALIABLE MARGINABLE POSITIONS ONLY

- 1. Click <ENTER TRADES> tab, the defined settings will be displayed.
- 2. Select the type of simulation, i.e. "Margin", "Margin and stress test" or "Stress test"
- 3. Click <Simulate> button and click <OK> to confirm the simulation

4. Go to Section 4.2.3 to view the results

Margin Simulation	n settings	ENTER TRADES	SIMULATION R	ESULTS	SIMULATION RESULTS	DETAILS	STRESS TEST RESULTS = ×
Simulation account Margin Margin Margin Stress test Stress test	HK B40071 MA1	Used prices R simulation SETTLEMENT PRICE	ERROR REASON	Used pr	Settings of the simulation		riggered 5/24/2021 4:05:33 PM
							Action Confirmation
Simulate Margin for all rows	s in the grid?						OK Cancel

4.2.2.2 TO CONDUCT MARGIN AND/OR STRESS TEST SIMULATION WITH HYPOTHETICAL TRADES

A maximum of **500** hypothetical trades can be used for simulation.

4.2.2.2.1 MANUAL INPUT HYPOTHETICAL TRADES

- 1. Click <ENTER TRADES> tab, the defined settings will be displayed
- 2. Select the type of simulation, i.e. "Margin", "Margin and stress test" or "Stress test"
- Input up to 20 trades details by clicking the respective data fields to input or select from the dropdown menu. Please refer to Section 4.2.2.2.2 for trades import by Comma Separated Values (CSV) file
- 4. Click <Simulate> button and then <OK> to confirm the simulation
- 5. Go to Section 4.2.3 to view the result

Sample screen:

Margin Simulation	Margin Simulation							
SETTINGS ENTER	R TRADES	MULATION RESULTS	SIMULATIO	N RESULTS - D	ETAILS S	TRESS TES	TRESULTS	
Simulation account	HK B40071 MA1	Used prices	Real-time	Used posi	tions Real-time		Simulation triggere	d
Margin	Simulate	Bought	INS	RUMENT CODE	BOUGHT/SOLD	QUANTITY	SETTLEMENT PRICE	ERROR REASON
		Sold	1		Bought	300	62.3534	Rounding necessary
Import 20 rows	Import 20 rows							
INSTRUMENT CODE BOUG	HT/SOLD QUANTI	TY SETTLEMENT PRIC	E ERROR REASON					
-								
Instrument Market Und	erlying Instrum	ent group Strike pri	ce Expiration date					
1 1	STOCK							
10001 BSK	10001MB BASKE	T DW CALL 100.0000	1/3/19					
10002 BSK	10002MB BASKE	T DW CALL 100.0000	1/3/19					
10003 BSK	10003MB BASKE	T DW CALL 100.0000	1/3/19					
10004 BSK	10004MB BASKE	T DW CALL 100.0000	1/3/19					
	•							

Description of fields:

Field	Description
INSTRUMENT CODE	 CCASS stock code Click and select a valid instrument code from the dropdown menu; or input directly IPO stock code only valid from listing date onward Display the instrument code of the hypothetical trades
BOUGHT/SOLD	 Click and select Bought (long CNS position) or Sold (short CNS positions) from the dropdown menu; or input directly Display the bought or sold of the hypothetical trades
QUANTITY	Input the quantity of the hypothetical tradesDisplay the quantity of the hypothetical trades
SETTLEMENT PRICE	 Input the unit price of the hypothetical trades (up to 3 decimal places), i.e. price per share Display the settlement price of the hypothetical trades
ERROR REASON	 If there is invalid input, error messages will be displayed with the corresponding error highlighted in red shading Examples of error reasons: Invalid instrument Invalid entry, e.g. non numeric quantity or settlement price Excess decimal input, e.g. settlement price with more than 3 decimal places Excess the maximum number of hypothetical trades, i.e. 500

4.2.2.2.2 IMPORT CSV FILE WITH HYPOTHETICAL TRADES

1. Click <ENTER TRADES> tab, the defined settings will be displayed.

- 2. Select the type of simulation, i.e. "Margin", "Margin and stress test" or "Stress test"
- 3. Click <Import> button to select a Comma Separated Values (CSV) file for import
- 4. Click <Simulate> button and then <OK> to confirm the simulation
- 5. Go to Section 4.2.3 to view the result

The CSV file must come with the correct headers for identifying the corresponding required fields: Instrument code (i.e. CCASS stock code), Bought/Sold, Quantity and Settlement Price.

Sample CSV file:

🧾 Hypethotical Trades Impot Sample.csv - Notepad 🛛 - 🛛 🗙							
File Edit Format View Help							
INSTRUMENT CODE, BOUGHT/SOLD, QUANTITY, SETTLEMENT PRIC	CE 🔺						
5,SOLD,1000,50.4							
388,BOUGHT,5000,450.11							
700,SOLD,1000,650.021							
1211,SOLD,122,143.011							
1299,BOUGHT,666,101.111	~						

The imported CSV file will replace all existing hypothetical trades. You may further amend the hypothetical trades but for adding more trades, you should import another CSV file.

Currently, this import function supports up to 500 trades.

Margin Sir	Margin Simulation SETTINGS			ENTER TRADES	SIMULATION F	RESULTS	SIMULATION RESUL	TS - DETAILS	ILS STRESS TEST RESULTS				
Simulation acco	unt	HK B40	071 MA1	Used prices F	leal-time	Used	positions Real-time	Simulation t	nulation triggered				
Margin		<u>S</u> imul	ate	To import	a csv file								
mport 5	rows					_							
INSTRUMENT C	DE BOUG	HT/SOLD	QUANTITY	SETTLEMENT PRICE	ERROR REASON								
5	Sold		1,000	50.400)				_				
388	Bough	nt	5,000	450.110)		Imported hypothe	etical trades.					
700	Sold		1,000	650.021			no new trades ca	n be added					
1211	Sold		122	143.011									
1299	Bough	nt	666	101.111									

4.2.3 SIMULATION RESULTS

To view and export the simulation results for Hong Kong market. The simulation results for Shanghai and Shenzhen markets are reserved for future use.

4.2.3.1 TO VIEW MARGIN SILUMATION RESULTS

- 1. Click < SIMULATION RESULTS> tab, to display the simulation result
- 2. Click the "Export" [±] button to download the simulation results as a CSV file

Sample screen:

	t HK B	40071 MA	1 Use	ed prices R	eal-time	Used positions Real-time	Sim	Simulation triggered 5/20/2021 2:46:32 PM					
Simulation results portfolio per prod market and curren	s on uct area, ncy	Se	ettings of	▼ Timestamp of the simulation									
PORTFOLIO	PRODUCT AREA	MARKET	CURRENCY	P&L	INITIAL MARGIN	FLAT RATE MARGIN MULTIPLIER	MARGIN CREDIT	TOTAL ADD-ONS	TOTAL MTM AND MARGI				
Simulated portfolio	CN	MAMK	CNY	0	0	1.0000	5,000,000.00	0					
Simulated portfolio	CN	SZMK	CNY	0	0	1.0000	5,000,000.00	0					
Simulated portfolio	НК	нкмк	HKD	69,527,226	8,755,662	1.0000	5,000,000.00	755,254					
Existing portfolio	CN	МАМК	CNY	0	0	1.0000	5,000,000.00	0					
Existing portfolio	CN	SZMK	CNY	0	0	1.0000	5,000,000.00	0					
	нк	нкмк	HKD	68,191,307	8,761,696	1.0000	5,000,000.00	751,969					
Existing portfolio													

Sample exported results (view in Excel):

	ile Home Inse	rt Page Layo	ut Fo	ormulas	Data Rev	iew View									۵	() – 🗗 S
6	Calibri	• 11 •	A A		■ ≫	🚔 Wrap Text		General	*	55		+	1	Σ AutoSum -	27 á	ħ
Pa	ste 🧹 🖪 🛛 🗓	* <u>•</u> * 👌	• <u>A</u> •			📲 Merge & Cer	nter 👻	\$•%,	00. 0. . 0.€ 00.	Conditional Formatting * a	Format Cell s Table + Styles +	Insert *	Delete For	rmat →	Sort& Fi Filter * Se	nd & lect ≠
Cli	board 🕞	Font	- Gi		Alignme	ent	5	Number	5	St	yles		Cells	Editi	ng	
	A	В	С	D	E	F		G		Н	1			J		K
1	Portfolio	Product area	Market	Currency	P&L	Initial Margin	Flat R	ate Margin M	ultiplier	Margin Credit	Total Add-Ons	Total	MTM And I	Margin Requiremen	t AD-H	OC ADD-ON
2	Simulated portfolio	CN	MAMK	CNY	0	0			1	5,000,000.00) (D			0	0
3	Simulated portfolio	CN	SZMK	CNY	0	0			1	5,000,000.00) (D			0	0
4	Simulated portfolio	нк	нкмк	HKD	69,527,226	8,755,662			1	5,000,000.00	755,254	4		77,542,0	52	0
5	Existing portfolio	CN	МАМК	CNY	0	0			1	5,000,000.00) (D			0	0
6	Existing portfolio	CN	SZMK	CNY	0	0			1	5,000,000.00) (D			0	0
7	Existing portfolio	нк	нкмк	HKD	68,191,307	8,761,696			1	5,000,000.00	751,96	Э		76,206,1	32	0
8	Effect	CN	МАМК	CNY	0	0			1	5,000,000.00) (D			0	0
9	Effect	CN	SZMK	CNY	0	0			1	5,000,000.00) (D			0	0
10	Effect	нк	нкмк	HKD	1,335,919	-6,034			1	5,000,000.00	3,28	5		1,335,9	20	0

Description of fields:

Field	Description
PORTFOLIO	 Existing portfolio: simulation based on existing portfolio (latest available marginable positions in VaR Online) without hypothetical trades Simulated portfolio: simulation based on existing portfolio, together with hypothetical trades (latest available marginable positions plus hypothetical trades) Effect: Net changes from existing portfolio results to simulated portfolio results
PRODUCT AREA	Displays the location of the market, i.e. HK – Hong Kong
MARKET	 Displays the market code HKMK – Hong Kong market MAMK – Shanghai market SZMK – Shenzhen market Simulation is only applicable to Hong Kong market, the results for Shanghai and Shenzhen market are reserved for future use
CURRENCY	 Displays the currency of the simulation results, i.e. HKD – Hong Kong dollar

Field	Description										
P&L	 Mark-to-market (MTM), in Hong Kong dollar equivalent Positive value: unfavorable MTM Negative value: favorable MTM 										
INITIAL MARGIN	 Sum of various margins: portfolio margin + flat rate margin + corporate action position margin 										
FLAT RATE MARGIN MULTIPLIER	Flat rate margin multiplier										
MARGIN CREDIT	Margin credit which is granted to each Clearing Participant and applied for Margin calculation										
TOTAL ADD-ONS	 Sum of all add-ons. The total add-ons will be included in TOTAL MTM AND MARGIN REQUIREMENT, except default fund add-on 										
TOTAL MTM AND MARGIN REQUIREMENT	 Total MTM and margin requirement incorporate add-ons, if any, except default fund add-on 										
AD-HOC ADD-ON	Ad hoc risk component related to individual CP imposed by HKSCC, if applicable										
	Applicable to Main Account (MA1) only										
LIQUIDATION RISK ADD-ON	 Risk component related to the liquidity risk of concentrated positions 										
	Applicable to Main Account (MA1) only										
HOLIDAY ADD-ON	Always "0", reserved for future use, market risk component related to additional risk during holiday period										
	Applicable to Main Account (MA1) only										
CREDIT RISK ADD-ON	 Always "0", reserved for future use, risk component related to individual CP's credit risk imposed by HKSCC, if applicable 										
	Applicable to Main Account (MA1) only										
DEFAULT FUND ADD- ON	 Always "0", reserved for future use, risk component to mitigate excessive risk exposures of individual CP on Default Fund. If any, will be collected separately from Total MTM and Margin Requirement 										
	Applicable to Main Account (MA1) only										
POSITION LIMIT ADD- ON	 Risk component related to settlement counterparty risk arising from excessive CNS exposure against CP's apportioned liquid capital 										

Field	Description									
	Applicable to Main Account (MA1) only									
STRUCTURED PRODUCT ADD-ON	 Risk component to handle the huge percentages loss resulting from downward price movement approaching the minimum security prices for long structured product positions 									
	Applicable to Main Account (MA1) only									

4.2.3.2 TO VIEW MARGIN SIMULATION RESULTS DETAILS

- 1. Click < SIMULATION RESULTS DETAILS> tab, to display the simulation result details
- 2. Click the "Export" ± button to download the simulation results as a CSV file

Sample screen:

Margin S	Simul	ation SETTINGS	ENTER TR	ADES SIMUI	LATION RES	ULTS	SIMULATION RESULTS - D	ETAILS	STRESS TEST RES	JLTS =	= ×
Simulation a	ccount	HK B4007	1 MA1 Use	ed prices Real-time	e	Used pos	sitions Real-time	Simu	lation triggered 5/20/20	21 5:58:22 PI	м
Simulation re instrument in currency 39 rows	esults n instru	per ument	Defined	settings					Timestamp of simulation	the	_
MAIN						ORIGINAL P	ORTFOLIO			SIMULATED	D POF
INSTRUMENT	CODE	INSTRUMENT NAME	LONG QUANTITY	SHORT QUANTITY	CURRENCY	P&L	LIQUIDATION RISK ADD-ON	STRUCT	URED PRODUCT ADD-ON	P&L	LIQ
1299		AIA	666	0	HKD	0		С	0	1,664	ţ
388		HKEX	5,000	0	HKD	0		С	0	1,898,830)
5		HSBC HOLDINGS	0	1,000	HKD	0		С	0	21,047	,
700		TENCENT	99,000	0	HKD	52,925,600	29,71	2	0	52,346,344	ţ
10001		TESTDWHV1	100,000	0	HKD	1,651,000	(С	1,200	1,651,000)
10002		TESTDWFR1	100,000	0	HKD	1,998,000	(С	1,200	1,998,000)
10003		TESTDWHV2	0	0	HKD	0		0	0	0)
4					1	1					
-2021052	0-18005	8csv ^								Show all	×

Sample exported results (open with Excel):

Fi	le H	ome	insert	Page l	Layout	F	ormulas	Da	ata Re	eview	View													۵ ()	- 6	3
ľ	<u>ل</u> ا	Calibri		× 11	~ A	А Л	=	= =	89	1	Wrap Text	Gen	neral	I	¥				+	Þ		Σ AutoSum	· A	r A		
Pas	te 🛷	BI	Π·	···· •	<u> (</u> *	<u>A</u> -	E	= =			Merge & Cent	er * \$	- °	%,	00. 00. 0.♦ 00.	Conditional Formatting	Format as Table	Cell Styles	Insert	Delete	e Format	🖉 Clear 🔻	Sor Filte	a Find & r * Select *		
Clip	board 🗔		F	ont		- Fa			Alignr	nent		F _M	N	lumber	6		Styles			Cells			diting			
_	A1		• (*		f_x	Main:	Instru	ment (Code																	~
	A B C)		E		F			G						l	=	
1	Main:Instrument Code Main:Instrument Name			Main:	Long Qu	antity	Main:Shor	t Quantit	ity Main:Currency		Original portfolio:P&L Orig		Original portfolio:Liquidation Risk Add-on				on C	riginal po	rtfolio:S	Ē						
2			1299	AIA				666		5	0 HKD		HKD		0		0	1				0				
3			388	HKEX						5,000	000		0 HKD		0			0				0				
4			5	HSBC H	OLDI	NGS				0	C	1,00	00 H	HKD		0							0			
5			700	TENCE	NT					99,000	D		0 F	HKD			52,925,6	00				29	,712			
6			10001	TESTDV	VHV1				1	.00,000	0		0 F	HKD			1,651,0	00					0			=
7			10002	TESTDV	VFR1				1	.00,000	D		0 F	HKD			1,998,0	00					0			
8	10002 TESTDWHV2								C	D		0 HKD					0	1			0					

Description of fields:

Field	Description
MAIN	
INSTRUMENT CODE	CCASS stock code
INSTRUMENT NAME	Name of the CCASS stock
LONG QUANTITY	Quantity of long position, including allocated quantity
SHORT QUANTITY	Quantity of short position
CURRENCY	Currency of the instrument, i.e. HKD – Hong Kong dollar
The following columns ar	e applicable to
ORIGINAL PORTFO	LIO – available marginable positions without hypothetical trades
SIMULATED PORTF	OLIO – available marginable positions with hypothetical trades
P&L	Mark-to-market (MTM)
	 Positive value as unfavorable marks
	 Negative value as favorable marks
	 After netting and FX conversion, the sum of the P&L in Hong
	Kong dollar will be the P&L in <simulation results=""> tab</simulation>
LIQUIDATION RISK ADD-ON	 Risk component related to the liquidity risk of concentrated positions
	 The liquidation risk add-on of structured products, if any, will be incorporated into the marginable position of the underlying
	instrument in HKD-equivalent
	 If no corresponding marginable position of the underlying
	instrument, a record of the underlying instrument will be shown
	exclusively for liquidation risk add-on. If the underlying
	instrument is a non-HKD instrument, the record will be shown in
	equivalent.
	Applicable to Main Account (MA1) only
STRUCTURED	Risk component to handle the huge percentages loss resulting
PRODUCT ADD-ON	from downward price movement approaching the minimum
	security prices for long structured product positions
	Applicable to Main Account (MA1) only

Note: Greeks is reserved for future use, Clearing Participants should ignore these columns: Cash Delta, Cash Gamma (%), Vega, Theta

4.2.3.3 TO VIEW STRESS TEST SIMULATION RESULTS

- 1. Click < STRESS TEST RESULTS> tab, to display the stress test result
- 2. Click the "Export" $\stackrel{*}{=}$ button to download the simulation results as a CSV file

Sample screen:

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Total STV	66,33	0,904				•		NA KARANA KARANA
3 rows 🛓						Defined settings	Timestamp of the	
PRODUCT AREA	MARKET	SCENARIO ID	CURRENCY	STV	EUL		simulation	
нк	HKMK	IDIO	HKD	64,735,743	125,262,696			
CN	MAMK		HKD	793,597	-4,866,174			
CN	SZMK		HKD	801,564	-4,937,874			

Sample exported results (open with Excel):

	File Hor	ne Inser	t Page Lay	out For	mulas Dat	ta Revie	w View										\$	() — @ S
	* [Calibri	× 11 ·	A A	= = =	≫	Wrap Text	G	eneral	Ŧ	S alaria Salaria			- 3	<	Σ AutoSum ·	27 🕅	
Pa	ste 🛷	B <i>I</i> <u>U</u>	• 🖽 • 🗳	• <u>A</u> •	E 2 3	##	🐏 Merge & Center	- \$	- % ,	00. 0 0.€ 00.	Conditional Formatting	Format (as Table * Sty	ell In les *	sert Dele	te Format	Q Clear ▼	Sort & Find Filter ▼ Sele	l& ct ▼
Clip	board 🕞		Font	E.		Alignmen	t	G.	Number	G.		Styles		Cel	s	Ed	iting	
	E17 • 6 fr																	
	А	В	С	D	E	F	G	н	1	J	K	L	М	N	0	Р	Q	R
1	Product ar	ea Market	Scenario ID	Currency	STV	EUL												ſ
2	нк	HKMK	IDIO	HKD	64,735,743	125,262,6	96											
3	CN	MAMK		HKD	793,597	-4,866,1	74											
4	CN	SZMK		HKD	801,564	-4,937,8	74											
5																		

Description of fields:

Field	Description
PRODUCT AREA	 Display the location of the market, i.e. HK – Hong Kong
MARKET	 Displays the market code, i.e. HKMK – Hong Kong market
SCENARIO ID	 Scenario of the stress test, e.g. IDIO – idiosyncratic, being the scenario that resulted in the worst case stress test value
CURRENCY	HKD – Hong Kong dollar
STV	 Stress test value¹ of the portfolios
EUL	 Expected Uncollateralized Loss EUL estimation will use both actual collateral on hand and required collateral requirement calculated from margin simulation. If interested in this number, you should select "Margin and stress test" as the type of simulation in <enter trade=""> tab</enter>
	Applicable to simulation with no hypothetical trade only

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¹ Please refer to the Stress Test Value Calculation Guide available on <u>HKEX website</u>.