



HKEx
香港交易所

**Market Rehearsal
For
Pre-Trade Risk Management System
In Derivatives Market**

Information Package

for

HKCC and SEOCH Participants

Table of Content

1. INTRODUCTION	2
2. OBJECTIVES AND SCOPE	2
2.1 TEST OBJECTIVES	2
2.2 SCOPE	2
3. IMPORTANT NOTES TO CPS.....	3
3.1 TECHNICAL SETUP FOR THE MR	3
3.2 PREPARATION AND EXECUTION OF THE MR	3
4. SCHEDULE AND ARRANGEMENT.....	5
4.1 OVERVIEW	5
4.2 SCHEDULE AND TIMETABLE	6
4.3 USER ID AND LOGIN PASSWORD	9
4.4 TEST ENVIRONMENT.....	9
4.5 TRANSACTIONS TO BE EXECUTED	9
4.6 PRE-TEST ARRANGEMENT	10
4.7 POST MR ARRANGEMENT	10
4.8 MR CONFIRMATION	10
5. COMMUNICATION CHANNELS	10
6. HELP DESK	10
7. TYPHOON AND RAINSTORM ARRANGEMENT.....	11
TYPHOON ARRANGEMENT.....	11
RAINSTORM ARRANGEMENT	11
<i>APPENDIX A: Checklist for Market Rehearsal</i>	<i>12</i>
<i>APPENDIX B: Report Verification for Market Rehearsal</i>	<i>14</i>
<i>APPENDIX C: Hardware and Software Specification & Access to PTRM GUI.....</i>	<i>15</i>
<i>APPENDIX D: Detailed Rundown for Exchange Participants and the Risk Limit Manager.....</i>	<i>21</i>
<i>APPENDIX E: Sample PTRM Reports</i>	<i>31</i>

1. Introduction

With the increasing risks to market integrity posed by the electronic trading, Hong Kong Exchanges and Clearing Limited (“HKEx”) plans to introduce Pre-Trade Risk Management (“PTRM”) System in the derivatives market, tentatively in the second quarter of 2016.

A new PTRM System will be integrated as a part of the Hong Kong Futures Automated Trading System (“HKATS”). HKEx will arrange a Market Rehearsal (“MR”) on Saturday, 30 January 2016, to allow both Exchange and Clearing Participants (“Participants”) to rehearse their operation procedures with the new PTRM System and provide an opportunity for Participants to familiarize with the new PTRM System and contingency procedures under emergency. The MR simulates the conditions on the integration of the new PTRM System with the derivatives trading and clearing systems. Besides, the MR also facilitates Participants to verify the PTRM Audit and Utilization Reports.

This Information Package is designed to assist Clearing Participants (“CPs”) in planning and preparing for the MR. CPs should read this Information Package carefully and make all necessary preparations before participating in the MR. A copy of this document should also be passed to their IT support or system vendors to ensure the availability of proper technical support before and during the MR.

2. Objectives and Scope

2.1 Test Objectives

The main objective of the MR is to provide an opportunity for Participants to familiarize with the functions of PTRM by the user interface (“PTRM GUI”), the contingency procedures under emergency and to verify the PTRM Audit and Utilization Reports.

2.2 Scope

The MR will consist of three parts:

- Part A: Execute PTRM control activities
- Part B: Report Verification
- Part C: Simulation of Clearing

Part A: Execute PTRM control activities

- Participants should coordinate with the Risk Limit Manager¹ to execute the test script prescribed in Appendix D

Part B: Report Verification

- A list of DCASS, CCMS and PTRM reports as per Appendix B will be distributed to Participants via e-mail. **Participants are required to verify the PTRM Audit and PTRM Utilization reports** for activities with PTRM control conducted in the MR

¹ The Risk Limit Manager is a person being assigned or authorized by the Participant to define, maintain and monitor the PTLGs and their corresponding risk limits. The Risk Limit Manager can also execute emergency PTRM functions (e.g. block/ unblock of a PTLG, mass order cancellation and Kill Switch) during market open.

Part C: Simulation of Clearing (optional)

DCASS online session is available during the MR for CPs to:

- perform post-trade activities, such as trade rectification, give-up / take-up, average price trades and position transfer, if applicable
- perform various DCASS online enquiries (such as enquiries via Trade History Window, Holding Give-up Window and Account Position Window)
- **CCMS online will NOT be available during the MR**

3. Important Notes to CPs

3.1 Technical setup for the MR

a) CPs should note the following technical arrangements before, during and after the MR

Before the MR, on Friday, 29 January 2016

To facilitate the preparation of the MR, on the night before the MR, i.e. Friday, 29 January 2016, CPs must ensure:

- The DCASS Server is powered **ON**
- All windows accounts at DCASS Servers are logged out
- DCASS Server users are logged out
- The 'dcassadmin' accounts on DCASS Servers are active
- at least 4GB free disk space is available in C drive of each DCASS Server

Similarly, both the DCASS Servers and the NGs (if applicable) should remain switched on after the MR for HKEx to resume the production setup.

b) A dedicated computer workstation in place for PTRM GUI connection that meets the minimum configuration as per Appendix C

On Saturday, 30 January 2016, after the MR (10:30 p.m. - 00:30a.m.)

- Each CP will be notified by e-mail when its production DCASS Server is ready for verification. CPs should perform connectivity verification, as follows:
 - i) Login the DCASS Client Terminal
An error message, “**The Genium workstation server is not connected to OMnet.**”, will be displayed. This is normal system behavior when CPs log in to DCASS Client Terminals during non-business day. CPs should click ‘**OK**’ to proceed to log in.
 - ii) Verify the availability of production reports / files
 - iii) Send e-mail to HKEx for DCASS production connectivity confirmation

3.2 Preparation and Execution of the MR

CPs should note the following arrangements for the preparation and execution of the MR:

i) **CPs are required to login DCASS via their DCASS Client Terminals / OAPI**

programs and PTRM System by PTRM GUI, where applicable, at 10:15 a.m. promptly to start the MR on time.

- ii) CPs shall use their existing means (i.e. DCASS Client Terminals and/or OAPI programs, via Network Gateways (“NG”) and/or Central Gateways (“CG”)) to access DCASS during the MR. CPs are reminded that ALL testing reports/files for DCASS, CCMS and PTRM System will be delivered by HKEx on or before Monday, 1 February 2016 via e-mail. **CPs should not use these testing reports/files for production use.** These testing reports/files shall be handled separately so as to avoid misusing them for normal business on the next business day on Monday, 1 February 2016.
- iii) **Staff of CPs must have experience in conducting DCASS related activities for their daily business operations, and shall use the production user ID as of 7 November 2015 and PTRM GUI login ID² provided by HKEx with the testing password “hkextesting”³ to access DCASS and PTRM System during the MR.** Besides, CPs should ensure the participating staff members have appropriate user function access right to perform the required clearing activities at DCASS during the MR. **CPs’ DCASS Administrators are not encouraged to change the users function access during the MR because it will take time to take effect.**
- iv) CPs should ensure that they have access to the e-mail of the designated contact persons for the MR in order to obtain emergency messages from HKEx during the MR.
- v) For those CPs who are using vendor-developed OAPI programs, please communicate with the system vendor to ensure that their OAPI programs will be available during the MR.
- vi) CPs should refer to the Checklist in Appendix A for the action items to be performed before, during and after the MR. In order to achieve the testing objectives, participating users should familiarize themselves with the requirements and procedures prior to the MR.
- vii) CPs should have the system administrator ID(s) and password(s) of their internal systems ready throughout the MR in case technical trouble-shooting is required.
- viii) CPs are recommended to maintain a proper audit trail in respect of each transaction input during the MR in accordance with the policy currently adopted by them. The Responsible Officer or his/her designate of each participating CP should be present during the MR to supervise the testing process and to be responsible for relaying any issues arising during the MR to HKEx.
- ix) **CPs⁴ shall coordinate with their Risk Limit Manager who conducts Market Rehearsal to maintain a proper audit trail in respect of each transaction or activities in the MR with PTRM control in order to verify the PTRM reports.**
- x) Participants shall fill in and return the “Market Rehearsal Confirmation Form” in [Appendix C2](#) of Information Package for Participants (HKATS) to HKEx through fax or email **at or before 4:00 p.m. on Wednesday, 3 February 2016.**

² HKEx will send login ID for PTRM GUI to each Participant via e-mail prior the MR.

³ This testing password will only be applicable during the Test.

⁴ GCP should coordinate with the staff of their associated NCP who conduct Market Rehearsal for HKATS to maintain a proper audit trail for their verification of PTRM reports

4. Schedule and Arrangement

4.1 Overview

The MR will be held on Saturday, 30 January 2016. During the MR, trades executed via HKATS will be transmitted to and captured by DCASS, which CPs can choose to perform post-trade activities. Activities with PTRM control conducted in PTRM System during the MR will be recorded in the PTRM reports.

4.2 Schedule and Timetable

Part A: Simulation of Clearing

The MR will be conducted on Saturday, 30 January 2016. CPs are requested to ensure their DCASS Client Terminals and/or OAPI programs, where applicable, will be available during the MR.

Execution Date: 30 January 2016 (Saturday)

System Date: 30 January 2016 (Saturday)

TESTING TIME		DCASS PROCESSING	REMARKS
FROM	TO		
DCASS on-line T session – for clearing T trades on Saturday, 30 January 2016			
10:15	10:45	Perform DCASS connectivity Perform PTRM connectivity via Primary Site Gateway	<ul style="list-style-type: none"> CPs login DCASS Client Terminals and/or DCASS OAPI programs by using production user IDs as of 7 November 2015 and PTRM GUI login ID⁵ provided by HKEx with testing password “hkextesting”
10:45		DCASS online session ready	<ul style="list-style-type: none">
10:45	11:15	T Session Pre-Open / Pre-Market Activities	<ul style="list-style-type: none">
11:15	13:30	T Session Market Open (all products except stock options/futures markets)	<ul style="list-style-type: none">
11:30	13:00	T Session Market Open for Stock options & futures markets	<ul style="list-style-type: none">
11:15	12:00	Maximum Order Size Check	<ul style="list-style-type: none"> Participants are required to set the Max Order Size in the PTRM System for their PTLG Refer to Section 1-5 of Appendix D for test script and Appendix E for sample result on the pre-defined test cases in PTRM reports
12:00	12:30	Maximum Order Rate Check	<ul style="list-style-type: none"> Participants are required to set the Order Rate Limit and unblock in the PTRM System for their PTLG Refer to Section 1-6 of Appendix D for test script and Appendix E for sample result on the pre-defined test cases in PTRM reports

⁵ PTRM GUI login ID had been sent to Participants via email prior the Test

**Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SECH Participants**

TESTING TIME		DCASS PROCESSING	REMARKS
FROM	TO		
12:30	13:00	Maximum Intraday Exposure Check	<ul style="list-style-type: none"> Participants are required to set the Gross/Net Futures/Options Limit and unblock in the PTRM System for their PTLG Refer to Section 1-7 of Appendix D for test script and Appendix E for sample result on the pre-defined test cases in PTRM reports
13:00	13:30	Emergency Buttons	<ul style="list-style-type: none"> Participants are required to unstop / unblock in the PTRM System for their PTLG Refer to Section 1-8 of Appendix D for test script and Appendix E for sample result on the pre-defined test cases in PTRM reports
13:30	14:15	Market failover from primary data centre to the secondary data centre	<ul style="list-style-type: none"> Participants should logout from DCASS and PTRM System
14:15	14:25	Perform DCASS connectivity Perform PTRM connectivity via Secondary Site Gateway	<ul style="list-style-type: none"> CPs login DCASS Client Terminals and/or DCASS OAPI⁶ programs by using production user IDs as of 7 November 2015 and PTRM GUI login ID provided by HKEx with testing password “hkextesting”
14:25	14:45	T Session Pre-Open / Pre-Market Activities	<ul style="list-style-type: none">
14:45	16:00	T Session Market Open	<ul style="list-style-type: none">
15:35	16:00	PTRM Contingency – Disable PTRM System by HKEx	<ul style="list-style-type: none">
16:00		Market Close DCASS online T Session Close	<ul style="list-style-type: none"> Participants should logout from DCASS and PTRM

Note:

- Refer to Appendix D for the detailed rundown of PTRM System for Exchange Participants and the Risk Limit Manager
- Refer to Appendix E for the sample result of PTRM reports
- GCPs are required to set the Max Order Size, Order Rate Limit, Gross/Net Futures/Options Limit and perform emergency actions e.g. stop, unstop for their NCPs’ Pre-Trade Limit Group (“PTLG”)

⁶ For NG connections, re-login to DCASS OAPI programs through the same NGs. For CG connections, re-login to DCASS OAPI programs through the secondary CGs.

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

Post-Test Health Check on 30 January 2016 (Saturday)			
22:30	00:30	DCASS online session available for CPs to perform connectivity test	<ul style="list-style-type: none"> CPs must login via DCASS Client Terminals and OAPI programs by using current production user IDs and passwords and ensure a Message, “The Genium workstation server is not connected to OMnet.”, will be displayed [Please note: This is a normal system behaviour when CPs login DCASS on a non-business day]
Report Verification on 1 February 2016 (Monday)			
Before	17:00	Each Participants receives a set of DCASS, CCMS and PTRM reports which generated after the MR, from HKEx via e-mail	<ul style="list-style-type: none"> Participants to verify the set of DCASS, CCMS and PTRM reports received from HKEx via e-mail against the activities performed during the MR and the PTRM related activities performed by PTRM GUI. Refer to Appendix D for the detailed rundown of PTRM GUI
Submission of Market Rehearsal Confirmation Form on 3 February 2016 (Wednesday)			
Before	16:00	Complete and submit the duly signed Market Rehearsal Confirmation Form to HKEx via fax or e-mail	<ul style="list-style-type: none"> Refer to Appendix C2 of Information Package for Participants (HKATS) for the Market Rehearsal Confirmation Form

Part B: Report Verification

i) PTRM reports

Two PTRM reports will be sent to each participating Participants:

- the PTRM Audit report shows the activities with PTRM control managed by the Risk Limit Manager during the MR; and
- the PTRM Utilization report shows the maximum utilization of each type of limit in the MR

ii) DCASS Reports

A set of day-end DCASS reports will be sent to each participating CP via e-mail (please refer to Appendix B for the list of DCASS reports to be distributed).

iii) CCMS reports:

A set of day-end processing results of CCMS reports with NIL opening collateral balance will be sent to each participating CP via e-mail (please refer to Appendix B for the list of DCASS reports to be distributed).

CPs should verify the PTRM reports by reconciling them against their activities performed in the MR (please refer to Appendix E for the sample result of PTRM reports).

4.3 User ID and Login Password

CPs should use their **DCASS production user IDs as of 7 November 2015 and testing password “hkextesting”** to access DCASS via DCASS Client Terminals/OAPI programs during the MR.

Participants should use the PTRM GUI login ID(s) and password “hkextesting” to access the PTRM System.

4.4 Test Environment

When Participants login DCASS and PTRM, they will be simulating production operation as if 30 January 2016 is a normal business day. HKEx will prepare a clean environment for the MR.

4.5 Transactions to be Executed

CPs may execute post-trade transactions via DCASS Client Terminals and/or OAPI programs during the MR. There will be **NO** access to CCMS during the MR.

Participants should execute the test script prescribed in Appendix D for the PTRM related functions, e.g. Set the Max Order Size, Order Rate Limit, Gross/Net Futures/Options limit and execute emergency buttons.

4.6 Pre-Test Arrangement

CPs should ensure their BOS are ready for supporting the activities for clearing.

If CPs would use their production BOS to perform the MR, they should ensure their production BOS data are properly backed up before the MR. Data restore procedures should also be prepared and verified before the MR so that production data can be restored to their production BOS upon completion of the MR. CPs should arrange where appropriate data backup arrangement with their IT support or BOS vendor before the MR, if such procedures required.

4.7 Post MR Arrangement

CPs are reminded **NOT TO TURN OFF** their DCASS Servers and NG (if applicable) after the MR.

CPs with OAPI programs are reminded to do clean-up and make sure that their OAPI programs used in the MR has been resumed to production image and ready for normal business activities on the next business day (Monday, 1 February 2016).

4.8 MR Confirmation

All participated Participants are requested to complete and return the “**Market Rehearsal Confirmation Form**” as per [Appendix C2](#) of Information Package for Participants (HKATS) to HKEx by fax or email **at or before 4:00 p.m. on Wednesday, 3 February 2016.**

5. Communication Channels

Under normal situation, HKEx will communicate with the designated contact persons of the Participants during the MR via e-mail and/or phone calls.

In the event of cancellation or postponement of the MR if contingency happened two hours before the MR starts (i.e. **8:15 a.m. on 30 January 2016**) due to unexpected situations, HKEx will inform Participants of the ad-hoc arrangements via e-mail and/or phone calls.

Participants should ensure that their designated contact persons for the MR are reachable during the prescribed time and the relevant e-mail and mobile phone numbers submitted to HKEx must be accurate.

6. Help Desk

For any queries during the preparation and execution of the MR, CPs can contact **Derivatives Clearing Operations at 2211-6932** for assistance.

7. Typhoon and Rainstorm Arrangement

Typhoon Arrangement

- i) If Typhoon Signal Number 8 or above is hoisted and remained in effect at 8:15 a.m. on the MR day, or the HK observatory pre-announced at or before 8:15 a.m. that Typhoon Signal Number 8 or above will be hoisted at or before 12:00 noon on 30 January 2016, the MR will be cancelled. HKEx will notify Participants the revised schedule at a later stage.
- ii) If Typhoon Signal Number 8 or above is hoisted after 10:15 a.m., the MR will be terminated 15 minutes after Typhoon Signal Number 8 or above is hoisted.

Rainstorm Arrangement

- i) If Black Rainstorm Warning is issued and remained in effect at 8:15 a.m. on the MR day, the MR will be cancelled. HKEx will notify Participants the revised schedule at a later stage.
- ii) If Black Rainstorm Warning is issued during MR, the MR will proceed as scheduled.

APPENDIX A: Checklist for Market Rehearsal

ITEMS TO BE CHECKED		✓
(A) Before the MR		
1	Have you read and understood this document (“ Market Rehearsal For Pre-Trade Risk Management System In Derivatives Market – Information Package for HKCC and SEOCH Participants ”)?	
2	Have you (if necessary) passed this document to your internal IT support team or system vendor and ensured that they would make follow-up action?	
3	Have you ensured that the participating users have experience in conducting DCASS related activities and have appropriate user function access to perform the required activities in DCASS and/or your internal systems during the MR?	
4	For CPs with vendor-developed OAPI programs, have you communicated with your IT/vendors to ensure the OAPI programs have a valid business date and clearing date set up?	
5	For connecting your OAPI programs in the MR, have you ensured that proper procedures are in place to switch to testing environment without affecting the existing production OAPI programs, and that restore procedures are in place?	
6	Have you established appropriate procedures to restore your production version of internal system / OAPI upon completion of the MR and verification control to ensure system readiness for normal business operations on the following Business Day, i.e. Monday, 1 February 2016?	
7	Have you arranged IT and/ or system vendor support with appropriate system administration ID during the MR in case there is any technical problem?	
8	Have you communicated with your trading department to input original trades for your testing during the T Sessions of 30 January 2016 (Saturday), if applicable?	
9	Have you set valid Clearing Dates for the BOS and / or OAPI programs which will be used for the MR i.e. 30 January 2016 for trades/post-trades processed during Clearing (T) session?	
10	Since the schedule of the MR is very tight and there is no buffer for extension, have you reminded your staff responsible for MR to perform connectivity test promptly at 10:15 a.m. on 30 January 2016?	
(B) On 30 January 2016, before executing test cases and during the MR		
1	Have your designated contact persons of the MR already logged in their e-mail accounts to obtain announcement during the MR?	
2	Have you performed all required activities?	
3	Have you successfully tested your internal operation procedures and BOS?	
(C) After the MR		
1	Have you cleaned up all testing data in your OAPI programs and BOS, if applicable?	

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

ITEMS TO BE CHECKED		✓
2	Have you ensured that your OAPI programs have been restored to production after completing the MR?	
3	Have you reset your OAPI login password for normal business activities on the coming Monday, 1 February 2016, if applicable?	
4	Have you submitted the “ Market Rehearsal Confirmation Form ” (Appendix C2 of Information Package for Participants (HKATS)) to HKEx at or before 4:00 p.m. on Wednesday, 3 February 2016?	

APPENDIX B: Report Verification for Market Rehearsal

Report Distribution / Files Verifications

Participants will receive the following day-end reports / data files via email after the MR on Monday, 1 February 2016:

PTRM Report⁷		Report	Data File
	PTRM Audit Report		√
	PTRM Utilization Report		√
CCMS Report		Report	Data File
<i>Clearing Reports and Data Files (Clearing Date: 30 January 2016)</i>			
CCMPY02	Posting/Collateralisation Result Report	√	
CCMMV01	Participant Collateral Account Movement Report	√	
CCMCA02	Collateral Account Balance Report	√	
CCMDS01	Statement of Collateral Account	√	√
CCMIR02	Collateral Parameters Information List	√	
DCASS Report		Report	Data File
<i>Clearing Reports and Data Files (Clearing Date: 30 January 2016)</i>			
TP001	Position Details	√	√
TP002	Position Summary	√	
TP003	Position Movement Details		√
TP004	Daily Trading Statement	√	√
TP005	Fees & Variation	√	
TP006	Transaction Fee Summary	√	√
TP010	Deliveries Details		√
TP012	Give-up / Take-up Summary	√	√
<i>Risk Management Reports and Data Files (Clearing Date: 30 January 2016)</i>			
RP003	Margin Summary	√	
RP004	Greeks	√	
RP005	Theoretical Options Pricing Parameters	√	
RP006	Series Prices	√	√
RP007	Position Data File		√
RP009	Series Greeks Data File		√
RP010	Net Margin Summary	√	
RP011	Net Position Data File		√
RPF	Risk Parameters File		√

⁷ Participants are required to verify the PTRM Audit and Utilization Reports according to the activities with control by PTRM conducted in the MR by Risk Limit Manager, GCPs are required to verify the PTRM Audit and Utilization Report according to the activities with control by PTRM conducted in the MR together with their associated NCPs

APPENDIX C: Hardware and Software Specification & Access to PTRM GUI

a) Hardware and Software Configuration Requirements for PTRM GUI

A dedicated computer workstation in place for PTRM GUI connection that meets the minimum configuration as communicated to Participants;

PTRM GUI Specifications	
Processor	Intel Core i3-550 3.2GHz or higher
RAM	4GB
Storage	10GB
Network adapter	100Mbps full-duplex
Monitor	1280 x 1024 resolution
OS	Microsoft Windows 7 (64 bit)
Layered software	JAVA 1.6 or Higher
	See Java System Requirements: http://java.com/en/download/help/sysreq.xml
	Anti-virus software
Supporting Browser	Windows Internet Explorer (IE) 8 or above
Bandwidth Usage	Consume less than 1Mbps (Per GUI Connection) of existing SDNET/2 or HKEx Service Network circuits

b) How to access to PTRM GUI

In order to get access to the PTRM GUI, Participants should ensure to update the host tables of the computer workstation for PTRM GUI connection and follow the network connection details below.

Network connection details

IP addresses	
SDNET2	(existing) 172.xxx.xxx.1 - 5 and 172.xxx.xxx.21- 25 or 10.xxx.xxx.1 - 5 and 10.xxx.xxx.21- 25
	(new) 172.xxx.xxx.26 - 30 or 10.xxx.xxx.26 - 30
HSN	Existing IP addresses assigned can be used for GUI connection

Default Gateway	
SDNET2	172.xxx.xxx.254 or 10.xxx.xxx.254
HSN	10.119.xxx.254

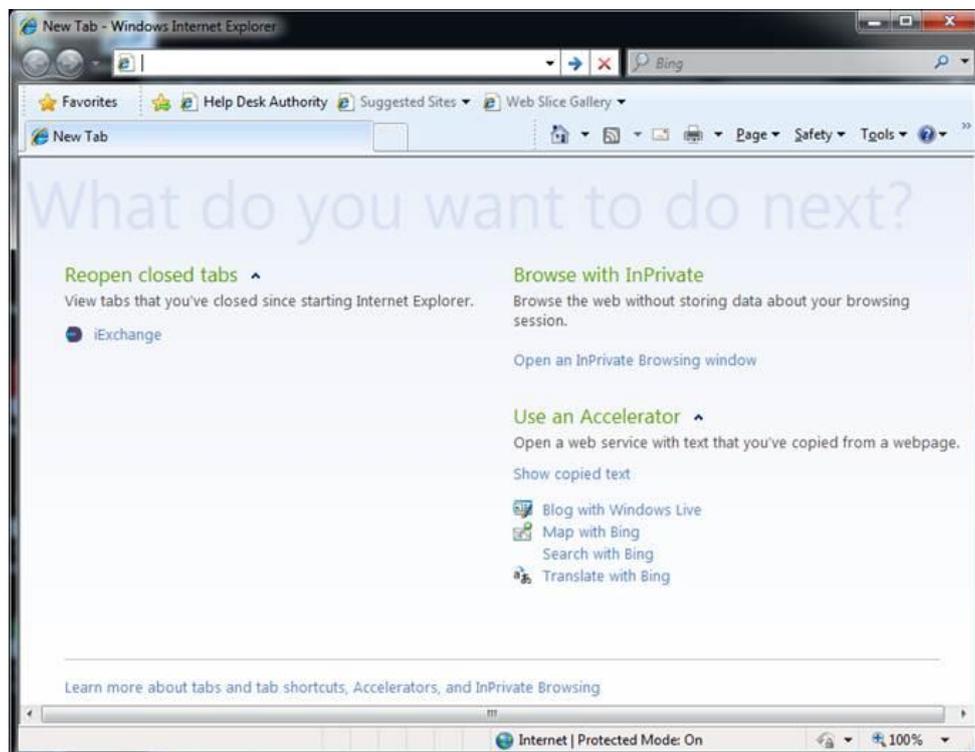
Information for updating host table:	
10.151.14.101 pgenrgw001.hkex.com.hk	pgenrgw001 PGENRGW001
10.151.14.102 pgenrgw002.hkex.com.hk	pgenrgw002 PGENRGW002
10.152.14.101 sgenrgw001.hkex.com.hk	sgenrgw001 SGENRGW001
10.152.14.102 sgenrgw002.hkex.com.hk	sgenrgw002 SGENRGW002

URL to access PTRM GUI

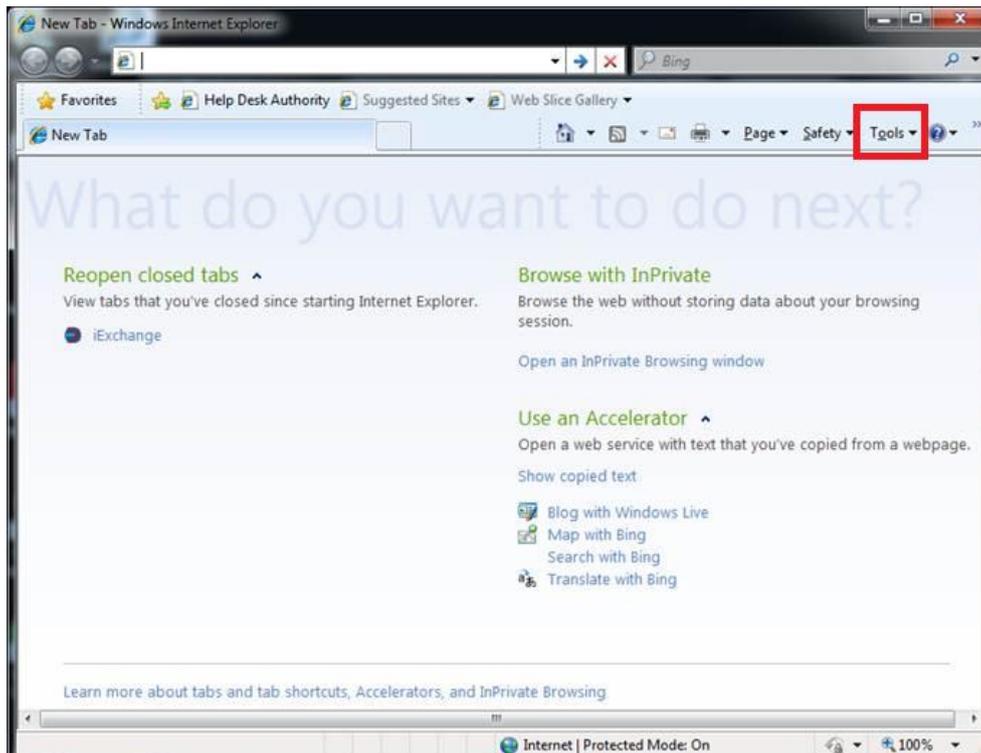
Web Server Gateway for PTRM GUI Connection	IP Address	Port Number	URL	Remarks
PGENRGW001	10.151.14.101	8090 to 8093	https://pgenrgw001.hkex.com.hk:8090/grx https://pgenrgw001.hkex.com.hk:8091/grx https://pgenrgw001.hkex.com.hk:8092/grx https://pgenrgw001.hkex.com.hk:8093/grx	Primary Site Gateway
PGENRGW002	10.151.14.102	8090 to 8093	https://pgenrgw002.hkex.com.hk:8090/grx https://pgenrgw002.hkex.com.hk:8091/grx https://pgenrgw002.hkex.com.hk:8092/grx https://pgenrgw002.hkex.com.hk:8093/grx	Primary Site Gateway
SGENRGW001	10.152.14.101	8090 to 8093	https://sgenrgw001.hkex.com.hk:8090/grx https://sgenrgw001.hkex.com.hk:8091/grx https://sgenrgw001.hkex.com.hk:8092/grx https://sgenrgw001.hkex.com.hk:8093/grx	Secondary Site Gateway
SGENRGW002	10.152.14.102	8090 to 8093	https://sgenrgw002.hkex.com.hk:8090/grx https://sgenrgw002.hkex.com.hk:8091/grx https://sgenrgw002.hkex.com.hk:8092/grx https://sgenrgw002.hkex.com.hk:8093/grx	Secondary Site Gateway

How to login PTRM GUI

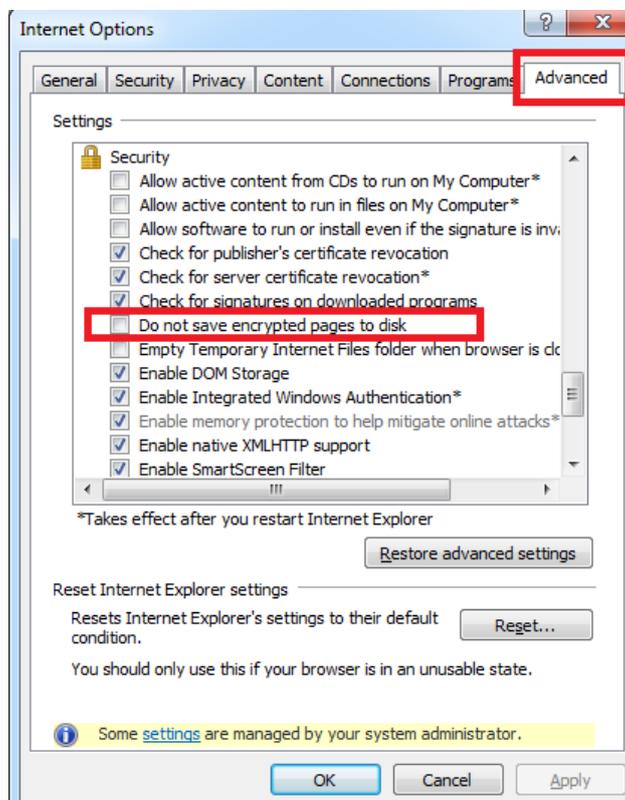
Step 1: Open Internet Explorer



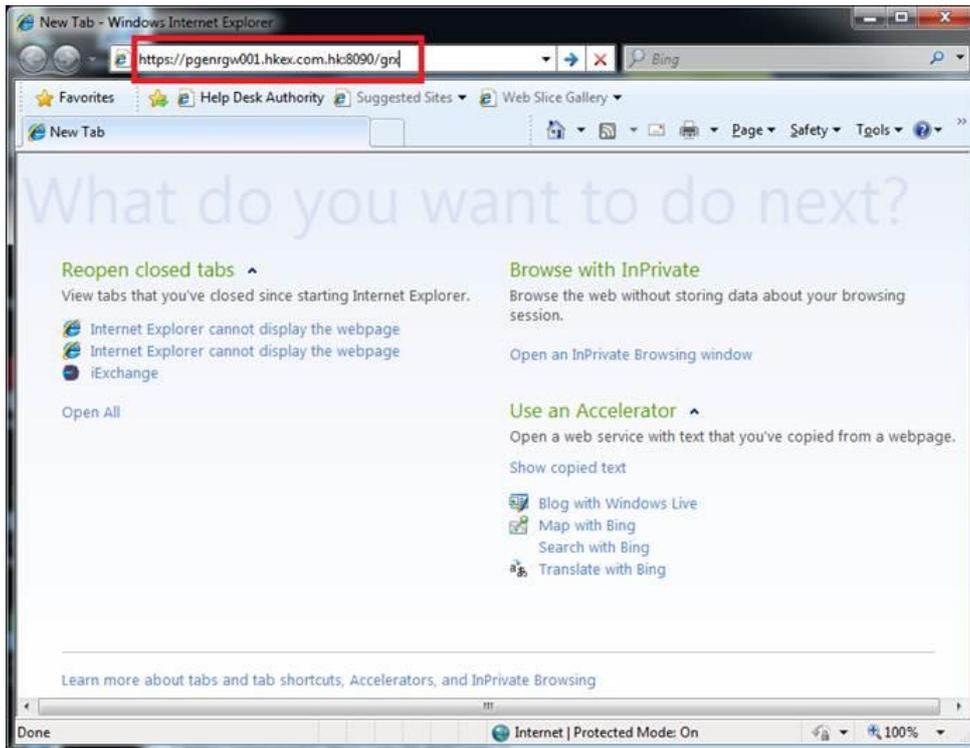
Step 2: Select “Tools”, choose “Internet Options”



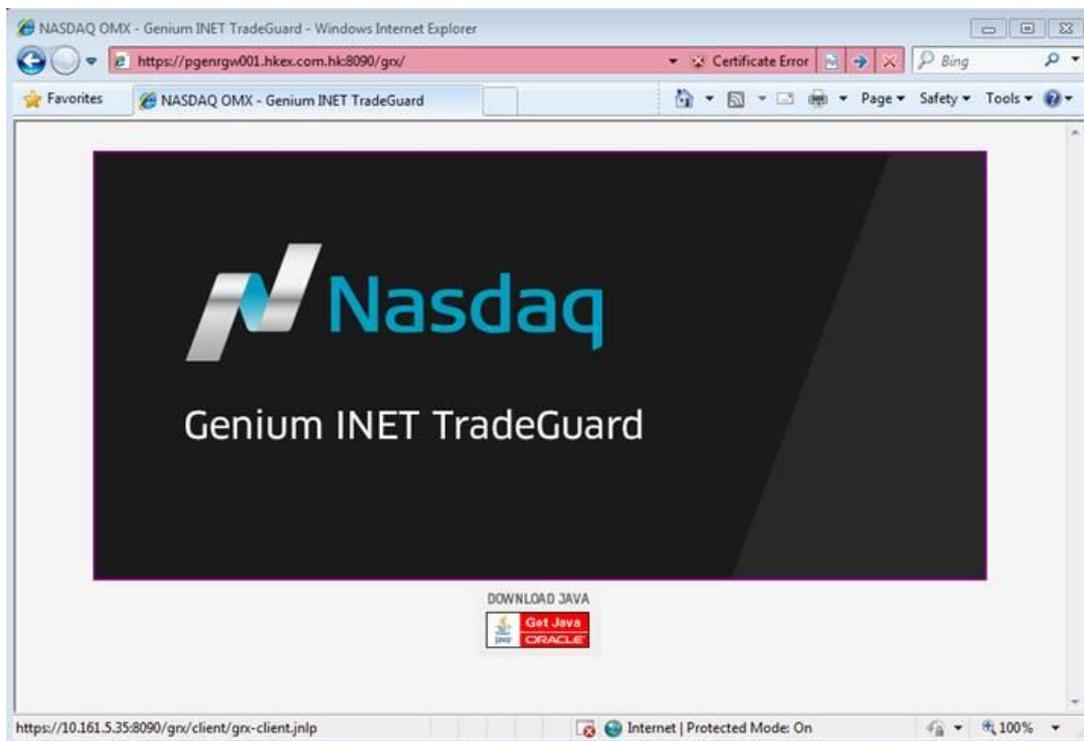
Step 3: Select “Advanced”, uncheck the box “Do not save encrypted pages to disk” under “Security”, and then press “OK” to save the setting



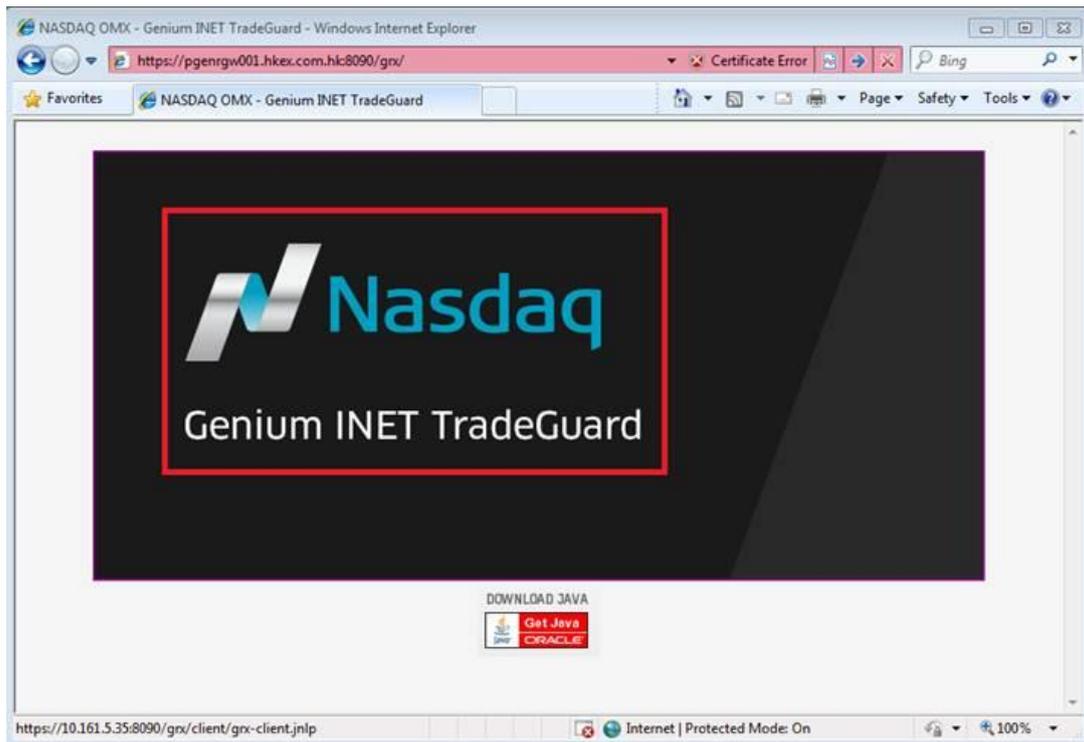
Step 4: Enter the URL in the Internet Explorer as provided, for example:
<https://pgenrgw001.hkex.com.hk:8090/grx>



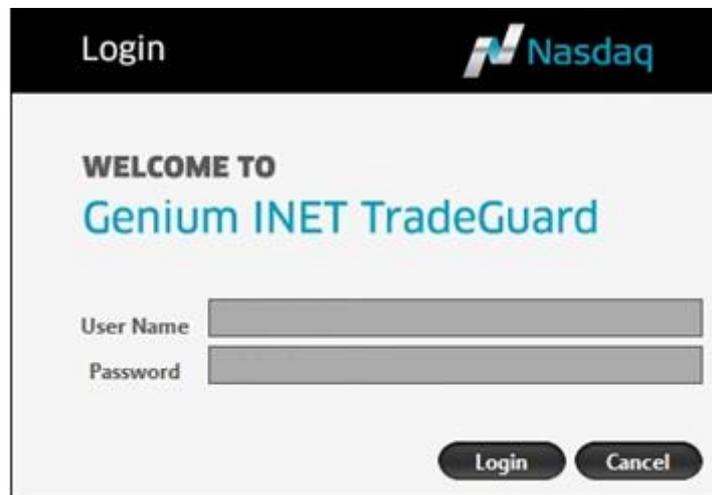
Step 5: After inputting the URL, you should be able to reach the web page and see the screen below



Step 6: Click on the icon of Nasdaq (Genium INET TradeGuard)

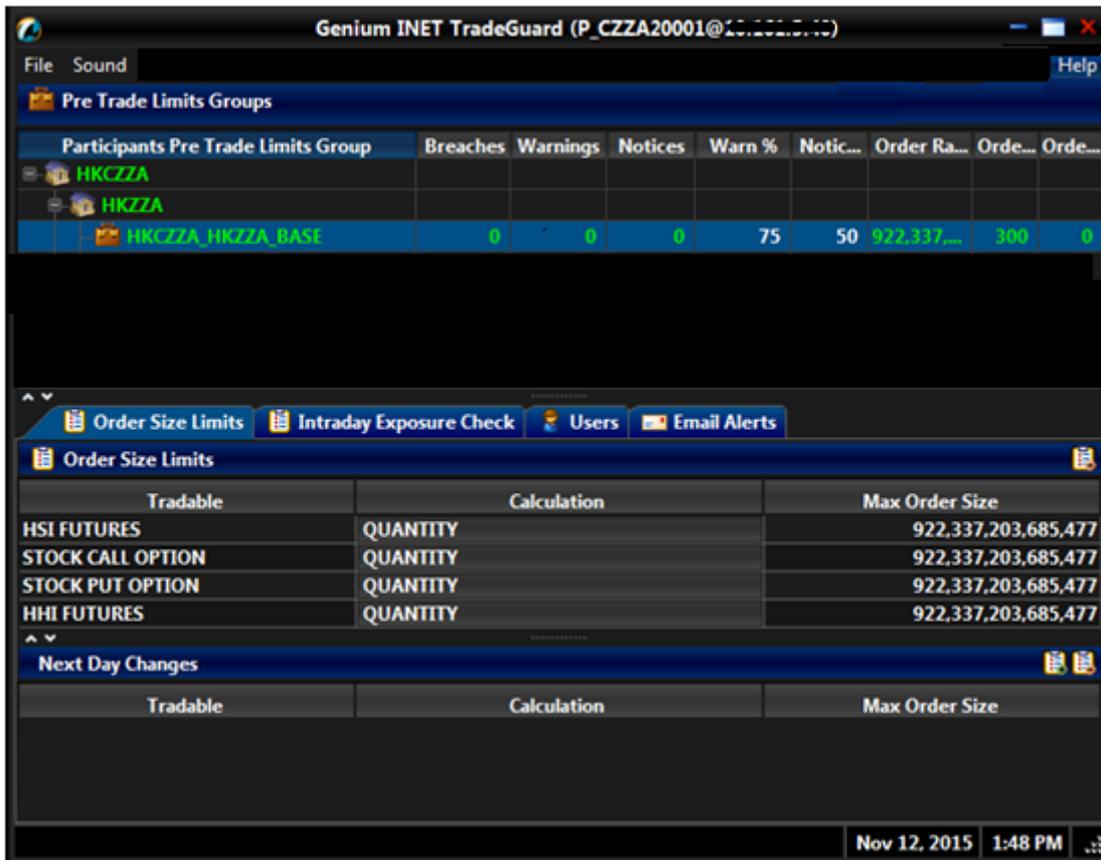


Step 7: After clicking the icon, you will see the login window

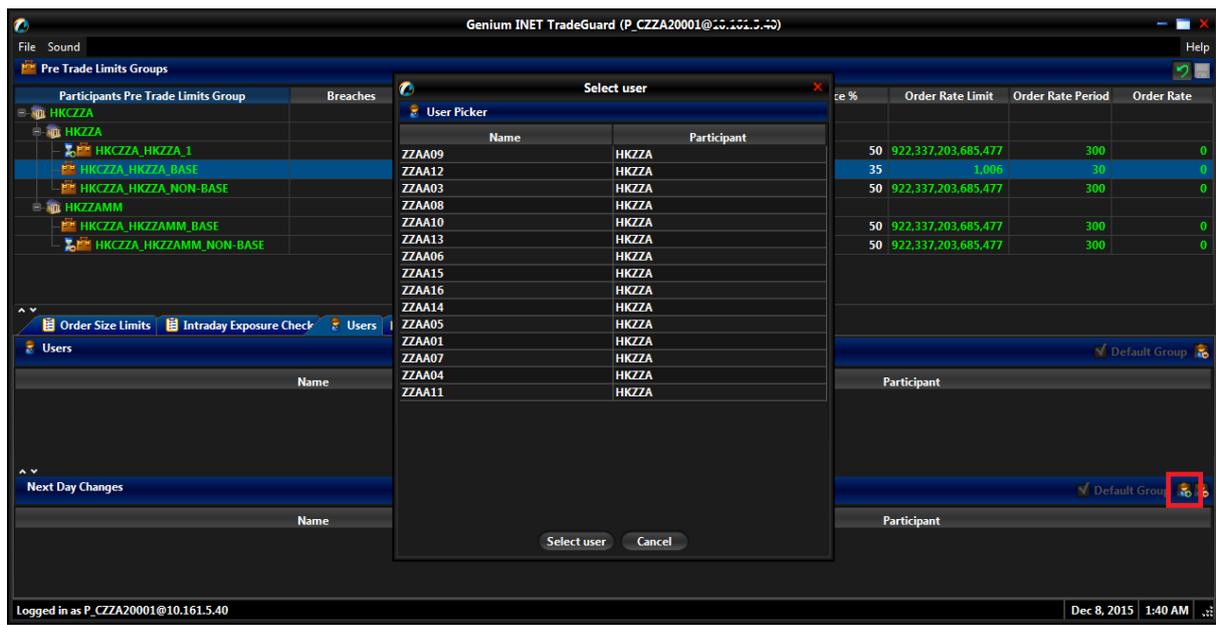


Step 8: Enter one of the PTRM GUI login IDs in the User Name field and enter the password: “hkextesting”. Then press login.

Step 9: If the logon is successful, you will see your PTRM settings for your company. Sample screen as below:



Step 10: Users in Base PTLG can be found on the “User Picker List” after pressing 



APPENDIX D: Detailed Rundown for Exchange Participants and the Risk Limit Manager

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
30th January 2016					
1-1 Login	10:15	10:45	<ul style="list-style-type: none"> Login PTRM system by using the PTRM GUI logon ID(s) and password “hkextesting” Login HKATS by using the HKATS username as of 7th November 2015 and password “hkextesting” Open the Information Feed Status window after finishing logon 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Verify if all the HKATS usernames with order placement functions are grouped under the Base Pre-Trade Limit Group (Base PTLG). Check all risk limits set by HKEx are at their maximum values “922,337,203,685,477” with Order Coefficients set at 100% for this Rehearsal. <p>[HKATS]</p> <ul style="list-style-type: none"> Verify if the Information Feed Status window shows <u>Online</u> after logon to HKATS. 	<p>Refer to Appendix D for login procedure</p> <p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
	10:45		<u>Pre-market Opening</u>	<ul style="list-style-type: none"> Applies to Participants who have trading right in HSI, MHI & HHI futures markets 	
1-2 Pre-Open	10:45	11:11	<ul style="list-style-type: none"> Enter 5 AO orders (either buy or sell) in HSI6 during PREOPEN Enter 2 limit orders (either buy or sell) at a price of 24000 in HSI6 during PREOPEN No action is required for Participants with stock options trading right only 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Order Rate and Long/ Short Exposure should be updated accordingly in “Maximum Order Rate Check” and “Intraday Exposure Check”. <p>[HKATS]</p> <ul style="list-style-type: none"> Order information updated in Order Book window. [BO5] 	<p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
1-3 Pre-Open Allocation	11:11	11:13	<u>No Action required</u>	<ul style="list-style-type: none"> Nil 	
1-4 Open Allocation	11:13	11:15	<u>No Action required</u>	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Long/ Short Exposure should be updated accordingly in “Intraday Exposure Check”. <p>[HKATS]</p> <ul style="list-style-type: none"> Orders matched during PAUSE will be updated in Clearing Trades [BD6] and Ticker windows. [BD70] 	<p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>

**Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants**

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
Open	11:15 11:30	<u>Market Open for all Products except Stock options/futures</u> <u>Market Open for Stock options/futures</u>	<u>Observations</u> TSS' field of Price Information window changes to OPEN after market open. (OPEN_DPL for HSI futures, HHI futures and MHI futures).		
1-5 Open	11:15 11:30	12:00 12:00	<p>[Maximum Order Size Check] Requirement:</p> <ul style="list-style-type: none"> Enter a limit order (either bid at 23800 or ask at 23900) of 20 lots in HSI6 Execute 2 order transactions with 1 lot each in HSI6 <u>At PTRM GUI</u>, change <i>Max Order Size</i> of "HSI FUTURES" into 30 lots then save changes Enter a limit order (either bid at 23800 or ask at 23900) of 31 lots in HSI6 The order is rejected Enter a limit order (either bid at 23800 or ask at 23900) of 30 lots or lower in HSI6 <p>Requirement for Participants with stock options trading right only:</p> <ul style="list-style-type: none"> Enter a limit order (either bid at 8.00 or ask at 9.00) of 20 lots in HEX210.00B6 Execute 2 order transactions with 1 lot each in HEX210.00B6 <u>At PTRM GUI</u>, change <i>Max Order Size</i> of "STOCK CALL OPTION" into 30 lots then save changes Enter a limit order (either bid at 8.00 or ask at 9.00) of 31 lots in HEX210.00B6 The order is rejected Enter a limit order (either bid at 8.00 or ask at 9.00) of 30 lots or lower in HEX210.00B6 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Breaches in Maximum Order Size Check <u>WILL NOT</u> put the Base PTLG into a blocked state. Order size of HSI6 and HEX210.00B6 which is lower or equal to 30 can still be entered <p>[HKATS]</p> <ul style="list-style-type: none"> The following message shall be received: "User has exceeded max. order size limit [-850008]" 	<p>GCPs are required to set the Max Order Size for their NCPs</p> <p>Refer to Appendix E for PTRM functions guideline</p> <p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
1-6 Open	12:00 12:30	<p>[Maximum Order Rate Check]</p> <p>Requirement:</p> <ul style="list-style-type: none"> • <u>At PTRM GUI</u>, change <i>Order Rate Limit</i> of Base PTLG into 1 then save changes • <u>At PTRM GUI</u>, change <i>Order Rate Period</i> of Base PTLG into 240 then save changes • Enter 3 limit order consecutively (either bid at 23800 or ask at 23900) of 1 lot each in HSI6 within 240 seconds • The last order is rejected • Base PTLG is blocked • To unblock, raised the Order Rate Limit back into 1,000 then save changes • Right click on the Base PTLG then choose 'Unblock order rate' <p>Requirement for Participants with stock options trading right only:</p> <ul style="list-style-type: none"> • <u>At PTRM GUI</u>, change <i>Order Rate Limit</i> of Base PTLG into 1 then save changes • <u>At PTRM GUI</u>, change <i>Order Rate Period</i> of Base PTLG into 240 then save changes • Enter 3 limit order consecutively (either bid at 8.00 or ask at 9.00) of 1 lot each in HEX210.00B6 within 240 seconds • The last order is rejected • Base PTLG is blocked • To unblock, raised the Order Rate Limit back into 1,000 then save changes • Right click on the Base PTLG then choose 'Unblock order rate' 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> • Breaches in Maximum Order Rate Check <u>WILL</u> put the Base PTLG into a blocked state <p>[HKATS]</p> <ul style="list-style-type: none"> • The following message shall be received: <p>“User has breached order rate limit [-850004]”</p>	<p>GCPs are required to set the Order Rate Limit and unblock for their NCPs</p> <p>Refer to Appendix E for PTRM functions guideline</p> <p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOC Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
1-7 Open	12:30 13:00	<p>[Maximum Intraday Exposure Check] Requirement:</p> <ul style="list-style-type: none"> • <u>At PTRM GUI</u>, change “<i>Gross Futures</i>” limit of Base PTLG into 0 then <u>save changes</u> • Base PTLG is blocked • Enter a limit order (either bid at 23800 or ask at 23900) of 1 lot in HSIG6 • The order is rejected • <u>To unblock</u>, raised the “<i>Gross Futures</i>” limit back into 100,000,000 then <u>save changes</u> • Right click on the Base PTLG then choose ‘Unblock intraday exposure’ <p>Requirement for Participants with stock options trading right only:</p> <ul style="list-style-type: none"> • <u>At PTRM GUI</u>, change “<i>Gross Options</i>” limit of Base PTLG into 0 then <u>save changes</u> • Base PTLG is blocked • Enter a limit order (either bid at 8.00 or ask at 9.00) of 1 lot in HEX210.00B6 • The order is rejected • <u>To unblock</u>, raised the “<i>Gross Options</i>” limit back into 100,000,000 then <u>save changes</u> • Right click on the Base PTLG then choose ‘Unblock intraday exposure’ 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> • Breaches in Maximum Intraday Exposure Check <u>WILL</u> put the Base PTLG into a blocked state <p>[HKATS]</p> <ul style="list-style-type: none"> • The following message shall be received: “User has breached an intraday exposure limit [-850006]” 	<p><u>GCPs</u> are required to set the Gross Futures/ Options limit and unblock for their NCPs</p> <p>Refer to Appendix E for PTRM functions guideline</p> <p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>

**Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants**

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
1-8 Open	13:00	13:30	<p>[Emergency Buttons]</p> <p>Requirement:</p> <ul style="list-style-type: none"> Enter a limit order (either bid at 23800 or ask at 23900) of 1 lot in HSI6 At PTRM GUI, right click on the Base PTLG then choose “Kill Switch” Base PTLG is blocked and check the relevant order book, all outstanding orders shall be cancelled Enter a limit order (either bid at 23800 or ask at 23900) of 1 lot in HSI6, order rejected To unblock, right click on the Base PTLG then choose “Unstop” Enter a limit order (either bid at 23800 or ask at 23900) of 1 lot in HSI6, order should be found in order book At PTRM GUI, right click on the Base PTLG then choose “Mass Order Cancellation” Check the relevant order book, all outstanding orders shall be cancelled Enter 2 limit orders (either bid at 23800 or ask at 23900) of 1 lot in HSI6 At PTRM GUI, right click on the Base PTLG then choose “Stop” DO NOT UNBLOCK THE BASE PTLG <p>Requirement for Participants with stock options trading right only:</p> <ul style="list-style-type: none"> Enter a limit order (either bid at 8.00 or ask at 9.00) of 1 lot in HEX210.00B6 At PTRM GUI, right click on the Base PTLG then choose “Kill Switch” Base PTLG is blocked and check the relevant order book, all outstanding orders shall be cancelled Enter a limit order (either bid at 8.00 or ask at 9.00) of 1 lot in HEX210.00B6, order rejected To unblock, right click on the Base PTLG then choose “Unstop” Enter a limit order (either bid at 8.00 or ask at 9.00) of 1 lot in HEX210.00B6, order should be found in order book At PTRM GUI, right click on the Base PTLG then choose “Mass Order Cancellation” Check the relevant order book, all outstanding orders shall be cancelled Enter 2 limit orders (either bid at 8.00 or ask at 9.00) of 1 lot in HEX210.00B6 At PTRM GUI, right click on the Base PTLG then choose “Stop” DO NOT UNBLOCK THE BASE PTLG 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> At PTRM GUI, the Base PTLG should be blocked after execute “Kill Switch” and no outstanding orders should be found in order book At PTRM GUI, the Base PTLG should be unblocked after execute “Unstop” At PTRM GUI, all outstanding orders shall be cancelled after execute “Mass Order Cancellation” At PTRM GUI, the Base PTLG should be blocked after execute “Stop” <p>[HKATS]</p> <ul style="list-style-type: none"> The following message shall be received: “User is in a blocked pre trade risk state [-850002]” 	<p>GCPs are required unstop / unblock for their NCPs</p> <p>Refer to Appendix E for PTRM functions guideline</p> <p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
	13:30	14:15	<p>(Logout PTRM system and HKATS)</p> <p>Market failover takes place and markets will be paused</p>	<p>All applications will be logged out from the PTRM system, Genium HKATS and DCASS</p>	

**Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants**

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
2-1 Login	14:15	14:25	<ul style="list-style-type: none"> <u>Re-login to HKATS by using the HKATS username and password "hkextesting"</u> (Users connect via NG should continue to connect via the same NG after the failover. Users connect via CG should connect via the secondary CG) Open the Information Feed Status window after finishing logon Order book should be empty Verify all trade details executed before the failover <u>Login the PTRM system</u> by using the PTRM GUI logon ID(s) and password "hkextesting" (Users has to connect via the secondary gateway of the PTRM system after the failover) 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Since the order book is emptied, all risk consumption held for outstanding orders shall be released in Maximum Intraday Exposure Check <u>The Base PTLG should be blocked</u> <p><u>*Should the Base PTLG have been left in an "unblock" state before the failover, it is normal the Base PTLG remains in an "unblock" state after the failover</u></p> <p>[HKATS]</p> <ul style="list-style-type: none"> Verify if the Information Feed Status shows <u>Online</u> after logon to HKATS All trade details are reloaded in the Clearing Trades window [BD6] 	Keep record for the verification of the PTRM Audit and Utilization Reports
2-2 Pre-Opening	14:25	14:41	<ul style="list-style-type: none"> <u>At PTRM GUI</u>, right click on the Base PTLG then choose "Unstop" Enter 5 AO orders (either buy or sell) in HSI6 during PREOPEN Enter 2 limit orders (either buy or sell) at a price of 24000 in HSI6 during PREOPEN 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> At PTRM GUI, the Base PTLG should be unblocked after execute "Unstop" Order Rate and Long/ Short Exposure should be updated accordingly in "Maximum Order Rate Check" and "Intraday Exposure Check" <p>[HKATS]</p> <ul style="list-style-type: none"> Order information updated in Order Book window [BO5] 	Keep record for the verification of the PTRM Audit and Utilization Reports
2-2-1 Pre-Market-Activity	14:35		<ul style="list-style-type: none"> <u>For markets other than HSI, HHI and MHI Futures</u> <u>No Action required</u> 	<ul style="list-style-type: none"> Nil 	
2-3 Pre-Open Allocation	14:41	14:43	<ul style="list-style-type: none"> <u>No Action required</u> 	<ul style="list-style-type: none"> Nil 	

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
2-4 Open Allocation	14:43	14:45	<ul style="list-style-type: none"> <u>No Action required</u> 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> Long/ Short Exposure should be updated accordingly in “Intraday Exposure Check”. <p>[HKATS]</p> <ul style="list-style-type: none"> Orders matched during PAUSE will be updated in Clearing Trades [BD6] and Ticker windows. [BD70] 	<p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
Open	14:45		<u>Market Open</u>		

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS	
2-5 Open	14:45	15:35	<p>Requirement:</p> <ul style="list-style-type: none"> • Enter a limit order of 30 lots (either bid at 23800 or ask at 23900) in HSI6 • Execute 2 order transactions with 1 lot each in HSI6 in 15 mins • <u>At PTRM GUI</u>, right click on the Base PTLG then choose “Stop Button” • <u>DO NOT UNBLOCK THE BASE PTLG AT THIS STAGE</u> <p>Requirement for Participants with stock options trading right only:</p> <ul style="list-style-type: none"> • Enter a limit order (either bid at 8.00 or ask at 9.00) of 30 lots in HEX210.00B6 • Execute 2 order transactions with 1 lot each in HEX210.00B6 in 15 mins • <u>At PTRM GUI</u>, right click on the Base PTLG then choose “Stop Button” • <u>DO NOT UNBLOCK THE BASE PTLG AT THIS STAGE</u> 	<p>Observations</p> <p>[PTRM GUI]</p> <ul style="list-style-type: none"> • Correct updates in the PTRM GUI <p>[HKATS]</p> <ul style="list-style-type: none"> • ‘TSS’ field of Price Information window changes to OPEN after market opens. (OPEN_DPL for HSI futures, HHI futures and MHI futures) • Order information updated in Order Book window • Price Depth window updated in real-time • Order to be shown in Order Depth window after pressing the “Update” button • Clearing Trades window updated accordingly [BD6] • Price Information window updated accordingly [BD2] 	<p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
	15:35		<u>Risk Functions Disabled by HKEx</u>	<p>Please note: PTRM Audit and Utilization reports will capture all activities even after the disabling of Risk Function</p>	

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
2-6 Open	15:35 16:00	<p>[PTRM Contingency – Risk Functions Disabled by HKEx]</p> <p>Requirement:</p> <p><u>At 15:35</u></p> <ul style="list-style-type: none"> • HKEx disables the PTRM system <p><u>At 15:45</u></p> <ul style="list-style-type: none"> • Enter a limit order (either bid at 23800 or ask at 23900) of 20 lots in HSIG6 • Execute 2 order transactions with 1 lot each in HSIG6 <p>Requirement for Participants with stock options trading right only:</p> <p><u>At 15:35</u></p> <ul style="list-style-type: none"> • HKEx disables the PTRM system <p><u>At 15:45</u></p> <ul style="list-style-type: none"> • Enter a limit order (either bid at 8.00 or ask at 9.00) of 20 lots in HEX210.00B6 • Execute 2 order transactions with 1 lot each in HEX210.00B6 	<p>[PTRM GUI]</p> <ul style="list-style-type: none"> • All PTRM GUI login sessions will be forced logged out • Orders can be entered into HKATS even though Base PTLG is previously in blocked state <p><u>*Should the Base PTLG have been left in an “unblock” state before HKEx disabling the risk functions, Participants need only to verify that they can place orders into HKATS</u></p> <p>[HKATS]</p> <ul style="list-style-type: none"> • Participants shall receive announcement by HKEx regarding the contingency arrangement of <u>disabling</u> the PTRM system through the Market Message window [BI81] • Order Book [BO5] and Clearing Trades updated [BD6] 	<p>Keep record for the verification of the PTRM Audit and Utilization Reports</p>
Close	16:00	<u>Market Close</u>	<ul style="list-style-type: none"> • “TSS” field of Price Information window changes to CLOSE_TODAY for instruments with AHFT session. Other instruments changes to CLOSE. 	
	16:00	<p align="center"><u>Rehearsal End</u></p> <ul style="list-style-type: none"> • Logout HKATS • Logout PTRM GUI • <u>Fax or email Confirmation Form (Appendix C1) to HKEx before 17:00</u> 		
SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
3-1	22:30 00:30	<p><u>Optional Post-Rehearsal Health Check</u></p> <ul style="list-style-type: none"> • Participants may login HKATS production network for confirmation of system healthiness 	<ul style="list-style-type: none"> • Exchange Participants are encouraged to join this optional session. • Verify if the information feed status shows <u>Online</u> after logon to HKATS. 	

*Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants*

SECTION	TIME	ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
3-2	1 st February 2016	<u>PTRM Reports distributed to Clearing Participants by emails</u>	Verify the following 2 PTRM reports: 1) PTRM Audit Report 2) PTRM Utilization Report	<u>NCPs will not receive the 2 reports</u>
3-3	3 rd February 2016	<u>Fax or email Confirmation Form (Appendix C2) to HKEx before 16:00</u>		<u>NCPs are not required to return the confirmation form</u>

APPENDIX E: Sample PTRM Reports

Assumed Exchange Participant code ABC, Clearing Participant code CAB

Add PTLG in PTRM GUI

ref.	Action	Field in PTRM GUI	Value	Intraday / Next Day
1	Add	Pre Trade Limits Group	HKCABC_CABC_1	Next Day
2	Add	Default Group		Next Day
3	Add	Order Rate Limit	80	Next Day
4	Add	Order Rate Period	250	Next Day
5	Add	Futures Order Coefficient (%)	95	Next Day
6	Add	Options Order Coefficient (%)	95	Next Day
7	Add	Gross Futures	9000000	Next Day
8	Add	Net Futures	9000000	Next Day
9	Add	Gross Options	9000000	Next Day
10	Add	Net Options	9000000	Next Day
11	Add	Notice %	60	Next Day
12	Add	Warn %	85	Next Day
13	Add	Generate Email on Breach	TRUE	Next Day
14	Add	Generate Email on Warning	TRUE	Next Day
15	Add	Generate Email on Notice	TRUE	Next Day
16	Add	Users	ABC1234	Next Day
17	Add	Email Alerts	abcabc@hkex.com.hk	Next Day
18	Add	Max Size (HHIC)	4500000	Next Day
19	Add	Max Size (MCHCALL)	4500000	Next Day

Expected result displayed in PTRM Audit Report - Add PTLG in PTRM GUI

ref.	Timestamp	Exchange Participant	Trading Member	PTLG	Category	User	Action	Effective	Item	Old Value	New Value	Event Level	Event Risk Type	Event Order ID	Event Side	Event OrderBookID	Reject Code
1	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	PTLG	null	HKCABC_HKABC_1						
2	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Default Group	null	FALSE						
3	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Order Rate Limit	null	80						
4	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Order Rate Period	null	250						
5	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Fut Coeff	null	95						
6	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Opt Coeff	null	95						
7	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Gross Fut Limit	null	9000000						
8	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Net Fut Limit	null	9000000						
9	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Gross Opt Limit	null	9000000						
10	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Net Opt Limit	null	9000000						
11	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Notification %	null	60						
12	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Warning %	null	85						
13	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Breach Emails	null	TRUE						
14	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Warning Emails	null	TRUE						
15	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Notice Emails	null	TRUE						
16	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	User	null	ABC1234						
17	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Email	null	abcabc@hkex.com.hk						
18	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Max Size (HHIC)	null	4500000						
19	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Max Size (MCHCALL)	null	4500000						

Change / Remove parameters in PTRM GUI

ref.	Action	Field in PTRM GUI	Value	Intraday / Next Day
1	Change	Pre Trade Limits Group	HKCABC_HKABC_1	Next Day
2	Change	Futures Order Coefficient (%)	90	Next Day
3	Change	Options Order Coefficient (%)	90	Next Day
4	Change	Generate Email on Breach	untick	Next Day
5	Change	Generate Email on Warning	untick	Next Day
6	Change	Generate Email on Notice	untick	Next Day
7	Change_add	Users	ABC1234	Next Day
8	Change_remove	Users	ABC2345	Next Day
9	Change_remove	Email Alerts	abcd@hkex.com.hk	Next Day
10	Change	Max Size (HHIP)	68686868	Next Day
11	Change	Max Size (MCHPUT)	7777777	Next Day
12	Change_remove	Max Size (HHIC)		Next Day
13	Change_remove	Max Size (MCHCALL)		Next Day
14	Change	Order Rate Limit	77	Intraday
15	Change	Order Rate Period	222	Intraday
16	Change	Gross Futures	860000	Intraday
17	Change	Net Futures	860000	Intraday
18	Change	Gross Options	860000	Intraday
19	Change	Net Options	860000	Intraday
20	Change	Notice %	62	Intraday
21	Change	Warn %	88	Intraday
22	Change	Max Size (LRAFUT)	123456789	Next Day
23	Change_remove	Max Size (MCHPUT)		Next Day

Expected result displayed in PTRM Audit Report - Change / Remove parameters in PTRM GUI

ref.	Timestamp	Exchange Participant	Trading Member	PTLG	Category	User	Action	Effective	Item	Old Value	New Value	Event Level	Event Risk Type	Event Order ID	Event Side	Event OrderBookID	Reject Code
1	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	PTLG	HKCABC_HKABC_1	HKCABC_HKABC_1						
2	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	Fut Coeff	95	90						
3	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	Opt Coeff	95	90						
4	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	Breach Emails	TRUE	FALSE						
5	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	Warning Emails	TRUE	FALSE						
6	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Next Day	Notice Emails	TRUE	FALSE						
7	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	User	null	ABC1234						
8	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	User	ABC2345	null						
9	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Email	abcd@hkex.com.hk	null						
10	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Max Size (HHIP)	null	68686868						
11	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Max Size (MCHPUT)	null	7777777						
12	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Max Size (HHIC)	4500000	null						
13	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Max Size (MCHCALL)	4500000	null						
14	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Order Rate Limit	80	77						
15	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Order Rate Period	250	222						
16	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Gross Fut Limit	9000000	860000						
17	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Net Fut Limit	9000000	860000						
18	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Gross Opt Limit	9000000	860000						
19	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Net Opt Limit	9000000	860000						
20	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Notification %	60	62						
21	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Update	Intraday	Warning %	85	88						
22	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Insert	Next Day	Max Size (LRAFUT)	null	123456789						
23	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Max Size (MCHPUT)	922337203685477	null						

Delete a PTLG in PTRM GUI

ref.	Action	Field in PTRM GUI	Value	Intraday / Next Day
1	Delete	Pre Trade Limits Group		Next Day
2	Delete	Default Group		Next Day
3	Delete	Order Rate Limit		Next Day
4	Delete	Order Rate Period		Next Day
5	Delete	Futures Order Coefficient (%)		Next Day
6	Delete	Options Order Coefficient (%)		Next Day
7	Delete	Gross Futures		Next Day
8	Delete	Net Futures		Next Day
9	Delete	Gross Options		Next Day
10	Delete	Net Options		Next Day
11	Delete	Notice %		Next Day
12	Delete	Warn %		Next Day
13	Delete	Generate Email on Breach		Next Day
14	Delete	Generate Email on Warning		Next Day
15	Delete	Generate Email on Notice		Next Day
16	Delete	User		Next Day
17	Delete	Max Size (HHIC)		Next Day
18	Delete	Max Size (MCHCALL)		Next Day

Expected result displayed in PTRM Audit Report - Delete a PTLG in PTRM GUI

ref.	Timestamp	Exchange Participant	Trading Member	PTLG	Category	User	Action	Effective	Item	Old Value	New Value	Event Level	Event Risk Type	Event Order ID	Event Side	Event OrderBookID	Reject Code
1	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	PTLG	HKCABC_HKABCGG_ABCGG1	HKCABC_HKABCGG_ABCGG1						
2	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Default Group	FALSE	null						
3	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Order Rate Limit	45	null						
4	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Order Rate Period	300	null						
5	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Fut Coeff	80	null						
6	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Opt Coeff	80	null						
7	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Gross Fut Limit	1000000000	null						
8	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Net Fut Limit	1000000000	null						
9	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Gross Opt Limit	500000000	null						
10	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Net Opt Limit	500000000	null						
11	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Notification %	68	null						
12	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Warning %	75	null						
13	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Breach Emails	TRUE	null						
14	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Warning Emails	TRUE	null						
15	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Notice Emails	TRUE	null						
16	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	User	ABCGG1297	null						
17	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Max Size (HHIC)	45	null						
18	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Ref Data	P_CABC123456	Remove	Next Day	Max Size (MCHCALL)	922337203685477	null						

Emergency Buttons performed in PTRM GUI

ref.	Action	Field in PTRM GUI	Value	Intraday / Next Day
1	Block PTLG	Right click PTLG then Stop Button		Intraday
2	Unblock PTLG	Right click PTLG then Unstop Button		Intraday
3	Cancel all orders of PTLG	Right click PTLG then Massive order cancellation		Intraday
4	Block PTLG and Cancel all orders of PTLG	Right click PTLG then Kill Switch		Intraday

Expected result displayed in PTRM Audit Report - Emergency Buttons performed in PTRM GUI

ref.	Timestamp	Exchange Participant	Trading Member	PTLG	Category	User	Action	Effective	Item	Old Value	New Value	Event Level	Event Risk Type	Event Order ID	Event Side	Event OrderBookID	Reject Code
1	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Supervisory Action	P_CABC123456		Intraday	Block PTLG								
2	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Supervisory Action	P_CABC123456		Intraday	Unblock PTLG								
3	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Supervisory Action	P_CABC123456		Intraday	Bulk Cancel								
4	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Supervisory Action	P_CABC123456		Intraday	Block PTLG								
4	20151219-hh:mm:ss.fff	HKCABC	HKABC	HKCABC_HKABC_1	Supervisory Action	P_CABC123456		Intraday	Bulk Cancel								

**Market Rehearsal for Pre Trade Risk Management (PTRM) In Derivatives Market
Information Package for HKCC & SEOCH Participants**

Expected Result based on activities on Appendix D

Action performed in CLICKS or PTRM GUI and reflects in PTRM GUI

ref. in appendix D	ref.	Action	Field in PTRM GUI
1-5	1	Change max order size in PTRM GUI	Max Size (HSIF)
1-5	2	Breached max order size then input order in CLICKS	order is rejected in CLICKS
1-6	3	Change order rate limit in PTRM GUI	Order Rate Limit
1-6	4	Change order Rate Period in PTRM GUI	Order Rate Period
1-6	5	Breached order rate then input order in CLICKS	order rate column turn red and the PTLG is blocked
1-6	6	Input order in CLICKS and the PTLG is blocked due to the breach of order rate	order is rejected in CLICKS
1-6	7	Change order rate limit in PTRM GUI	Order Rate Limit
1-6	8	Unblock the PTLG that is blocked due to breaching order rate	Right click PTLG then unbreach order rate Button
1-7	9	Change Gross Futures limit in PTRM GUI	Gross Futures
1-7	10	Input order in CLICKS and the PTLG is blocked due to the breach of margin check	gross futures buy/sell column turn red in margin tab and the PTLG is blocked
1-7	11	Change Gross Futures limit in PTRM GUI	Gross Futures
1-7	12	Unblock the PTLG that is blocked due to breaching long gross futures limit	Right click PTLG then unbreach margin check Button
1-7	13	Unblock the PTLG that is blocked due to breaching short gross futures limit	Right click PTLG then unbreach margin check Button
1-8	14	Block PTLG and Cancel all orders of PTLG	Right click PTLG then Kill Switch
1-8	15	Input order in CLICKS and the PTLG is blocked due to the kill switch is clicked	order is rejected in CLICKS
1-8	16	Unblock the PTLG that is blocked due to kill switch is clicked	Right click PTLG then Unstop Button
1-8	17	Cancel all orders of PTLG	Right click PTLG then Massive order cancellation
1-8	18	Block PTLG	Right click PTLG then Stop Button
2-2	19	Unblock PTLG	Right click PTLG then Unstop Button
2-5	20	Block PTLG	Right click PTLG then Stop Button

Expected result displayed in PTRM Audit Report

ref. in appendix D	ref.	Timestamp	Exchange Participant	Trading Member	PTLG	Category	User	Action	Effective	Item	Old Value	New Value	Event Level	Event Risk Type	Event Order ID	Event Side	Event OrderBookID	Reject Code
		120160130-11:33:36.641	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-5	2	20160130-11:33:36.641	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Max Size (HSIF)	922337203685477		30					
1-5	3	20160130-11:37:12.842	HKCABC	HKABC	HKCABC_HKABC_BASE	Reject	ABC0078		Intraday						00000000:00000000		3149730	RX_PRETRADE_MAX_ORDER_SIZE
	4	20160130-11:40:14.203	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-6	5	20160130-11:40:14.203	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Order Rate Limit	922337203685477		1					
	6	20160130-11:40:38.172	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-6	7	20160130-11:40:38.172	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Order Rate Period		300	240					
1-6	8	20160130-11:41:28.692	HKCABC	HKABC	HKCABC_HKABC_BASE	Breach	ABC0078		Intraday					BREACH	ORDER_RATE	5C5F9EB2:000157C2	BUY	3149730
1-6	9	20160130-11:41:33.693	HKCABC	HKABC	HKCABC_HKABC_BASE	Reject	ABC0078		Intraday						00000000:00000000		3149730	RX_PRETRADE_MAX_ORDER_RATE
	10	20160130-11:42:31.849	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-6	11	20160130-11:42:31.849	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Order Rate Limit		1	1000					
1-6	12	20160130-11:43:01.991	HKCABC	HKABC	HKCABC_HKABC_BASE	UnBreach	P_CABC20245		Intraday									
	13	20160130-11:50:26.142	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-7	14	20160130-11:50:26.142	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Gross Fut Limit	922337203685477		0					
1-7	15	20160130-11:51:02.542	HKCABC	HKABC	HKCABC_HKABC_BASE	Reject	ABC0078		Intraday						00000000:00000000		3149730	RX_PRETRADE_EXPOSURE
	16	20160130-11:51:34.191	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	PTLG	HKCABC_HKABC_BASE	HKCABC_HKABC_BASE						
1-7	17	20160130-11:51:34.191	HKCABC	HKABC	HKCABC_HKABC_BASE	Ref Data	P_CABC20245	Update	Intraday	Gross Fut Limit		0	100000000					
1-7	18	20160130-11:52:20.442	HKCABC	HKABC	HKCABC_HKABC_BASE	UnBreach	P_CABC20245		Intraday									
1-7	19	20160130-11:52:20.443	HKCABC	HKABC	HKCABC_HKABC_BASE	UnBreach	P_CABC20245		Intraday									
1-8	20	20160130-11:58:02.889	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Block PTLG								
1-8	21	20160130-11:58:02.889	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Bulk Cancel								
1-8	22	20160130-11:59:33.292	HKCABC	HKABC	HKCABC_HKABC_BASE	Reject	ABC0078		Intraday						00000000:00000000		3149730	RX_PRETRADE_USER_BLOCKED
1-8	23	20160130-12:00:00.092	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Unblock PTLG								
1-8	24	20160130-12:01:30.191	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Bulk Cancel								
1-8	25	20160130-12:02:58.141	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Block PTLG								
2-2	26	20160130-14:37:09.542	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Unblock PTLG								
2-5	27	20160130-14:55:04.092	HKCABC	HKABC	HKCABC_HKABC_BASE	Supervisory Action	P_CABC20245		Intraday	Block PTLG								