Market Rehearsal
for
HKATS Risk Functions (PTRM GUI)
in Derivatives Market

(30 January 2016)

Information Package
for
Participants (HKATS)

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1. Introduction

In response to the risks posed by increasing electronic trading activities, Hong Kong Exchanges and Clearing Limited ("HKEx") plans to introduce a new PTRM system, complementary to participants' own PTRM tool, to facilitate their own pre-trade risk management needs. Tentatively, the PTRM system will be launched in the second quarter of 2016 and will be named as **HKATS Risk Functions**.

HKEx will arrange a Market Rehearsal ("the Rehearsal") on Saturday, 30 JANUARY 2016, to allow both Exchange and Clearing Participants ("Participants") to rehearse their operational procedures with the new PTRM System. The Rehearsal provides an opportunity for Participants to familiarise with the new PTRM functions and reports provided by the PTRM system and contingency procedures under emergency situations. The Rehearsal simulates the conditions on the integration of the new PTRM system with the derivatives trading and clearing systems.

Participants are required to:

1) Perform PTRM functions with the User Interface provided by HKEx ("PTRM GUI" will be used to refer to this User Interface)
2) Input trades into HKATS to test the PTRM functions
3) Familiarise themselves with the PTRM system behaviour during site failover
4) Familiarise themselves with the PTRM system behaviour during HKEx disabling the PTRM functions
5) Verify the PTRM activities which have been conducted by using the PTRM Audit and Utilization reports

Detailed rundown for trade input and verification of related PTRM behaviour can be found in Appendix B. Participants should coordinate with the Risk Limit Manager[1] to execute the test script prescribed.

Participants should read this Information Package carefully and make all necessary preparations before participating in the Rehearsal. **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 Rehearsal.**

The results of the Rehearsal will be reviewed in detail. Participants who join the Rehearsal are required to return their confirmation forms in Appendix C1 and C2 within one hour after the Rehearsal and on or before 4:00 p.m. on Wednesday 3 February 2016 respectively.

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[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.

2. Scope and Objectives

2.1 Rehearsal Objectives

1) The main objective of the Rehearsal is to provide an opportunity for Participants to familiarise with the PTRM GUI, the contingency procedures under emergency situations and verify the PTRM activities which have been conducted by using the PTRM Audit and Utilization reports

2.2 Scope

The scope of the Rehearsal includes:

- Network connectivity
- PTRM GUI functions
- Site failover and resumption of day session
- Disable PTRM functions by HKEx during trading hours

2.2.1 Network Connectivity

Participants should ensure network connectivity to HKEx is in good order before the Rehearsal. Participants should be able to login PTRM GUI, HKATS and DCASS and perform corresponding functions via their participant circuits during the Rehearsal.

2.2.2 PTRM GUI Functions & Reports

PTRM GUI users are required to test the following 3 risk checks and 4 emergency buttons:

Risk Checks
1) Maximum Order Size Check
2) Maximum Order Rate Check
3) Maximum Intraday Exposure Check

Emergency Buttons
1) Stop Button
2) Unstop Button
3) Mass Order Cancellation Button
4) Kill Switch Button

Participants are required to input orders in HKATS and perform PTRM functions in PTRM GUI as stated in the Detailed Rundown (Appendix B), keep record of the PTRM activities which have been conducted in order to verify the PTRM Audit and Utilization reports.

2.2.3 Site Failover and Resumption of Day Session

A site failover session is arranged to test whether Participants' system can connect and run smoothly after transition from primary data centre to secondary data centre by HKEx under emergency situation.

After site failover, Participants are required to re-logon to PTRM system by using secondary PTRM Gateway and re-logon to HKATS by using the Network Gateway or the designated secondary Central Gateway. Participants should note that their order books will be emptied after the failover.

A 20-min Pre-Market Opening session will be available for Hang Seng Index Futures, Mini-Hang Seng Index Futures and H-Shares Index Futures before the market open after site failover.

A 10-min Pre-Market Activity session will be available for other derivatives markets before the market open after site failover.

Participants are required to input prescribed number of orders and transactions into HKATS and DCASS to simulate the situation and verify the entries after the failover.

2.2.4 Disable PTRM Functions by HKEx during Trading Hours

In an unlikely event of a failure in the PTRM system, HKEx has the ability to disable all the PTRM Functions while still allowing trading to continue in HKATS.
Under this scenario, Participants shall continue to use their own internal pre-trade risk management. All PTRM GUI users will be logged out from the PTRM system and Participants shall receive announcement from HKEx regarding the contingency arrangement of disabling the PTRM system. Participants should review their operational procedures and devise their contingency plans deemed appropriate.

3. Compliance

In order to achieve the Rehearsal objectives, it is imperative that Participants follow the Rehearsal Checklist and Detailed Rundown as stipulated in Appendix A and Appendix B respectively. This will facilitate the Exchange staff to monitor the activities during the Rehearsal and provide a seamless flow of operations with the help of the Rehearsal Checklist and Detailed Rundown. In particular, staff of Participants who will be involved in the Rehearsal should familiarise themselves with the requirements and procedures prior to the Rehearsal.

In addition, it is advisable to maintain a proper audit trail in respect of each transaction input during the Rehearsal in accordance with the policy currently adopted by the Participants. A Responsible Officer or his/her designate of each participating Participant should be present during the Rehearsal to supervise the process and to be responsible for relaying any issues arising during the Rehearsal to the

Exchange. If this arrangement is not practicable (e.g. the Responsible Officer will be out of town during the Rehearsal), the participating Participant should arrange an appropriate senior staff to assume the role of Responsible Officer. In any event, it is recommended that internal communications such as internal briefing should be held by each Participant prior to the Rehearsal to ensure that (1) staff involved fully understand all the requirements and procedures and (2) proper arrangements have been put in place by the Participants to comply with the requirements.

4. Participants Requirements

In order to be ready for the Rehearsal, all Participants have to meet the following requirements:

1. A dedicated PC 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

2. Network settings for PTRM GUI connection are configured according to Appendix D;

3. At least one Genium INET Trading workstation or one OAPI application ready for order input in HKATS;

4. Trading Workstation version 1.24.7.229 installed for Participants who wish to participate through Genium INET Trading Workstation;

5. Certified OAPI applications ready for Participants who wish to participate through their OAPI applications;

6. Participants' staff who will take part in the Rehearsal must have been trained and accredited in the operation of HKATS and the Genium INET Trading workstation; and

7.   EP shall also assign staff(s) who attended "**Practice Sessions on Pre-Trade Risk Management (PTRM) System in Derivatives Market"** to take part in the Rehearsal for PTRM GUI operations.

8.   Please refer to Appendix F for more details about Internet Explorer and JAVA.

5. Do's and Don'ts

Do's

1.   Login to the PTRM system HKATS as early as possible after 10:15 a.m. on day of the Rehearsal;

2.   Ensure that the proper version of Genium INET Trading workstation (1.24.7.229)/OAPI is used for the Rehearsal;

3.   Ensure that the Checklist (Appendix A) of the Rehearsal is properly followed;

4.   Ensure proper communication channel between the Exchange and trading operation before the Rehearsal.

5.   Fill in and return the confirmation form to the Exchange through fax or email within one hour after the end of the Rehearsal.

Don'ts

1.   Do not reboot or shut down your dedicated PC for PTRM GUI or Genium INET Trading workstation even if it appears to be "hanging". Please call the HKATS Hotline (2211-6360) immediately in this regard; and

2.   Do not attempt to rectify the problem by closing any window, terminating any application programs, etc. Any such attempt would complicate rather than assist the problem diagnosis.

6. Help Desk

The Exchange Help Desk will respond to all Participants' inquiries during the Rehearsal. Detail is as follows:

HKATS Hotline: 2211-6360

7. Market Rehearsal

7.1   Date and Time Table

The system date will be set as 30th January 2016. HKATS Participants are requested to make available a dedicated PC for PTRM GUI connection and at least one Genium INET workstation or one OAPI application per participated network gateway or central gateway in order to take part in the Rehearsal.

The time table and tasks which Participants are expected to do are as follows:

Date: 30th January 2016			
SESSION	**PHASES**	**TIME FRAME**	**TASKS**
Login to the PTRM system & HKATS		10:15 – 10:45	Refer to Section 1-1 of Appendix B
Day Session ~ Pre-Market Opening Period (HSI, MHI & HHI Futures only)	Pre-Opening	10:45 – 11:11	Refer to Section 1-2 of Appendix B
	Pre-Open Allocation	11:11 – 11:13	Refer to Section 1-3 of Appendix B
	Open Allocation	11:13 – 11:15	Refer to Section 1-4 of Appendix B
Day Session ~ Open Trading Session All Products except Stock options/futures For Stock options/futures	Open	11:15 – 13:30 11:30 – 13:30	Refer to Section 1-5 - 1.8 of Appendix B
Market Failover Takes Place	Site Failover	13:30 – 14:25	Refer to Section 2-1 of Appendix B
Day Session ~ Pre-Market Opening Period (HSI, MHI & HHI Futures only)	Pre-Opening	14:25 – 14:41	Refer to Section 2-2 of Appendix B
	Pre-Open Allocation	14:41 – 14:43	Refer to Section 2-3 of Appendix B
	Open Allocation	14:43 – 14:45	Refer to Section 2-4 of Appendix B
Day Session ~ Pre-Market Activity (All Markets other than HSI, HHI, MHI Futures only)	Pre-Market Activity	14:35 – 14:45	Refer to Section 2-2-1 of Appendix B
Day Session ~ Open Trading Session	Open	14:45 – 15:35	Refer to Section 2-5 of Appendix B
Day Session ~ Open Trading Session Disable Risk Functions	Open	15:35 – 16:00	Refer to Section 2-6 of Appendix B
End of Rehearsal		16:00	Fax or email Confirmation Form (Appendix C1) to HKEx before 17:00
SESSION	**PHASES**	**TIME FRAME**	**TASKS**
Optional Post-Rehearsal Health Check		22:30 – 00:30	Refer to Section 3-1 of Appendix B
PTRM Reports will be sent by Email		1st February 2016 (Monday)	Refer to of Appendix C2
Result Confirmation of PTRM Reports		3rd February 2016 (Wednesday)	Fax or email Confirmation Form (Appendix C2) to HKEx before 16:00

7.2   Rehearsal Checklist and Rehearsal Detailed Rundown

All users participating in the Rehearsal are required to perform all action items detailed in the Rehearsal Checklist and Rehearsal Detailed Rundown. Please refer to Appendix A and Appendix B for details.

7.3   PTRM GUI, HKATS Logon ID & Password

Each Participant will use the production HKATS username as in the production environment as at 7th November 2015 and temporary password of "**hkextesting**" to login HKATS to perform the Rehearsal. Each HKATS username will have the same trading rights as in the production environment as at the same date.

Each Participant will receive logon ID(s) for PTRM GUI connection before the Rehearsal. The corresponding password(s) will be reset by HKEx into "**hkextesting**".

Participants are advised to arrange sufficient time to perform and complete connectivity procedures before the start of trading session of Rehearsal.

7.4   Verification of Software Version 1.24.7.229

For Participants using Genium INET Trading workstation, they are requested to verify the correctness of the software for Genium INET by taking the following steps:

1.   Login to HKATS;

2.   Press the [Help] of the menu bar and select [About Trading Workstation];

3.   Confirm Software Version: 1.24.7.229

7.5 Order Placement Guidelines

The following guidelines should be followed strictly during the Rehearsal:

GUIDELINE	LOWER LIMIT	UPPER LIMIT
Valid Price Range		
HSI & MHI Futures contract	22000	25000
HHI & MCH Futures contract	11000	14000
CHH Futures contract	4500	5500
RMB Currency Futures contract	6.2000	6.6000
Dividend Futures contract	300.00	800.00
HSI Volatility Index Futures contract	10.00	30.00
BRICS Futures:		
IBOVESPA Futures contract	45000	60000
MICEX Index Futures contract	1200.00	2000.00
S&P BSE Sensex Index Futures contract	25000	35000
FTSE/JSE Top40 Futures contract	40000	50000
Stock Futures contract	0.01	199.99
Stock Options contract	0.01	199.99
HIBOR Futures contract	80.00	100.00
London Aluminium Mini Futures contract	10000	13000
London Copper Mini Futures contract	33000	43000
London Zinc Mini Futures contract	11000	14000
Number of contracts per order (all markets)	1	50

Participants are advised to follow the guidelines throughout the Rehearsal.

7.6 Rehearsal Evaluation

All Participants are requested to fill in the Confirmation Form that is set out in Appendix C1 and C2; and return them to the Exchange by fax or email before the prescribed deadline upon the completion of the Rehearsal. Only **ONE** of each confirmation form is required for each Participant.

#	Rehearsal Date	Deadline for Returning Confirmation Form
Rehearsal	30th January 2016	30th January 2016 17:00 (Appendix C1) 3rd February 2016 16:00 (Appendix C2)

8. Typhoon and Black Rainstorm Arrangement

8.1   Typhoon Arrangement

1. If Typhoon Signal No. 8 or above remains hoisted at 8:15 a.m. or the HK Observatory pre-announce at or before 8:15 a.m. that Typhoon Signal No. 8 or above will be hoisted at or before 12:00 noon on the Rehearsal day, the Rehearsal will be cancelled and will not be resumed for the rest of the day.

2. In case Typhoon Signal No. 8 or above is issued after 10:15 a.m. on the Rehearsal day, the Rehearsal will be terminated 15 minutes thereafter.

8.2   Black Rainstorm Arrangement

1. If Black Rainstorm Warning remains in effect at 8:15 a.m. on the Rehearsal day, the Rehearsal will be cancelled and will not be resumed for the rest of the day.

2. In case Black Rainstorm Warning is issued during the Rehearsal, all activities will continue as normal.

9. EP Communication Channels

During the Rehearsal, HKEx will communicate with Participants via the Market Messages Window on HKATS.

APPENDIX A: Rehearsal Checklist

Items to be checked	✓
(A) *Before the Rehearsal*	
1 Have you read and understood this document ("Market Rehearsal for HKATS Risk Functions (PTRM GUI) in Derivatives Market")?	
2 Have you configured the network settings and set up the host table for PTRM GUI connection correctly	
3 Have you arranged a staff who had attended "**Practice Sessions on Pre-Trade Risk Management (PTRM) System in Derivatives Market"** to operate the PTRM GUI during the Rehearsal?	
4 Have you passed this document to your **internal IT support team and/or system vendor** and ensured that they would make follow-up action (if necessary)?	
5 Have you received PTRM GUI Logon ID(s) and temporary password (reset to "hkextesting") from HKEx?	
6 Have you ensured that the HKATS username (as at 7th November 2015) and temporary password (reset to "hkextesting") are ready for use in the Rehearsal?	
7 If you would connect your HKATS OAPI in the Rehearsal, have you completed the certification process and the PTRM OAPI Verification Test?	
8 Have you discussed with your Clearing Operations team about the coordination in preparation and execution of the Rehearsal?	
9 Have you communicate with Risk Limit Manager (or other responsible personnel) to maintain a proper audit trail in respect of each transaction input during the Rehearsal?	
(B) *After the Rehearsal*	
1 Have you submitted the Rehearsal Confirmation Form (Appendix C1) before 17:00 on 30 January 2016?	
2 Have you submitted the Rehearsal Confirmation (PTRM Report) Form (Appendix C2) before 16:00 on 3 February 2016?	

APPENDIX B: Market Rehearsal Detailed Rundown

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
30th January 2016					
1-1 Login	**10:15**	**10:45**	• **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	**[PTRM GUI]** • 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. **[HKATS]** • Verify if the Information Feed Status window shows <u>Online</u> after logon to HKATS.	**Refer to Appendix D for login procedure** **Keep record for the verification of the PTRM Audit and Utilization Reports**
	10:45		**Pre-market Opening**	• Applies to Participants who have trading right in HSI, MHI & HHI futures markets	
1-2 Pre-Open	**10:45**	**11:11**	• Enter 5 AO orders (either buy or sell) in HSIG6 during PREOPEN • Enter 2 limit orders (either buy or sell) at a price of 24000 in HSIG6 during PREOPEN • No action is required for Participants with stock options trading right only	**[PTRM GUI]** • Order Rate and Long/ Short Exposure should be updated accordingly in "Maximum Order Rate Check" and "Intraday Exposure Check". **[HKATS]** • Order information updated in Order Book window. [BO5]	**Keep record for the verification of the PTRM Audit and Utilization Reports**
1-3 Pre-Open Allocation	**11:11**	**11:13**	**No Action required**	• Nil	
1-4 Open Allocation	**11:13**	**11:15**	**No Action required**	**[PTRM GUI]** • Long/ Short Exposure should be updated accordingly in "Intraday Exposure Check". **[HKATS]** • Orders matched during PAUSE will be updated in Clearing Trades [BD6] and Ticker windows. [BD70]	**Keep record for the verification of the PTRM Audit and Utilization Reports**

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
Open	**11:15** **11:30**		**Market Open for** **all Products except Stock** **options/futures** **Market Open** **for Stock options/futures**	**Observations** 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**	**[Maximum Order Size Check]** **Requirement:** • 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 • **At PTRM GUI**, change *Max Order Size* 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 HSIG6 • The order is rejected • Enter a limit order (either bid at 23800 or ask at 23900) of 30 lots or lower in HSIG6 **Requirement for Participants with stock options trading right only:** • 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 • **At PTRM GUI**, change Max Order Size 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	**[PTRM GUI]** • Breaches in Maximum Order Size Check <u>WILL NOT</u> put the Base PTLG into a blocked state. • Order size of HSIG6 and HEX210.00B6 which is lower or equal to 30 can still be entered **[HKATS]** • The following message shall be received: **"User has exceeded max. order size limit [-850008]"**	**GCPs are required to set the Max Order Size for their NCPs** **Refer to Appendix E for PTRM functions guideline** **Keep record for the verification of the PTRM Audit and Utilization Reports**

Section	Time		Action	Expected Results/Observations	Remarks
1-6 Open	**12:00**	**12:30**	**[Maximum Order Rate Check]** **Requirement:** • **At PTRM GUI**, change *Order Rate Limit* of Base PTLG into 1 then **save changes** • **At PTRM GUI**, change *Order Rate Period* 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 HSIG6 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' **Requirement for Participants with stock options trading right only:** • **At PTRM GUI**, change *Order Rate Limit* of Base PTLG into 1 then **save changes** • **At PTRM GUI**, change *Order Rate Period* 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'	**[PTRM GUI]** • Breaches in Maximum Order Rate Check <u>WILL</u> put the Base PTLG into a blocked state **[HKATS]** • The following message shall be received: **"User has breached order rate limit [-850004]"**	**GCPs are required to set the Order Rate Limit and unblock for their NCPs** **Refer to Appendix E for PTRM functions guideline** **Keep record for the verification of the PTRM Audit and Utilization Reports**

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
1-7 Open	**12:30**	**13:00**	**[Maximum Intraday Exposure Check]** **Requirement:** • **At PTRM GUI**, change "*Gross Futures*" limit of Base PTLG into 0 then **save changes** • 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 • **To unblock**, raised the "*Gross Futures*" limit back into 100,000,000 then **save changes** • Right click on the Base PTLG then choose 'Unblock intraday exposure' **Requirement for Participants with stock options trading right only:** • **At PTRM GUI**, change "*Gross Options*" limit of Base PTLG into 0 then **save changes** • 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 • **To unblock**, raised the "*Gross Options*" limit back into 100,000,000 then **save changes** • Right click on the Base PTLG then choose 'Unblock intraday exposure'	**[PTRM GUI]** • Breaches in Maximum Intraday Exposure Check <u>WILL</u> put the Base PTLG into a blocked state **[HKATS]** • The following message shall be received: **"User has breached an intraday exposure limit [-850006]"**	**<u>GCPs</u> are required to set the Gross Futures/ Options limit and unblock for their NCPs** **Refer to Appendix E for PTRM functions guideline** **Keep record for the verification of the PTRM Audit and Utilization Reports**

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
1-8 Open	**13:00**	**13:30**	**[Emergency Buttons]** **Requirement:** • Enter a limit order (either bid at 23800 or ask at 23900) of 1 lot in HSIG6 • **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 HSIG6, 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 HSIG6, 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 HSIG6 • **At PTRM GUI**, right click on the Base PTLG then choose "Stop" • **DO NOT UNBLOCK THE BASE PTLG** **Requirement for Participants with stock options trading right only:** • 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**	**[PTRM GUI]** • 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" **[HKATS]** • The following message shall be received: **"User is in a blocked pre trade risk state [-850002]"**	**GCPs are required unstop / unblock for their NCPs** **Refer to Appendix E for PTRM functions guideline** **Keep record for the verification of the PTRM Audit and Utilization Reports**
	13:30	**14:15**	**(Logout PTRM system and HKATS)** **Market failover takes place and markets will be paused**	All applications will be logged out from the PTRM system, Genium HKATS and DCASS	

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
2-1 Login	**14:15**	**14:25**	• **Re-login to HKATS by using the HKATS username and password "hkextesting"** **(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 • **Login the PTRM system** 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)**	**[PTRM GUI]** • Since the order book is emptied, all risk consumption held for outstanding orders shall be released in Maximum Intraday Exposure Check • **The Base PTLG should be blocked** ***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** **[HKATS]** • 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**	• **At PTRM GUI**, right click on the Base PTLG then choose "Unstop" • Enter 5 AO orders (either buy or sell) in HSIG6 during PREOPEN • Enter 2 limit orders (either buy or sell) at a price of 24000 in HSIG6 during PREOPEN	**[PTRM GUI]** • 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" **[HKATS]** • 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**		• **For markets other than HSI, HHI and MHI Futures** • **No Action required**	• Nil	
2-3 Pre-Open Allocation	**14:41**	**14:43**	• **No Action required**	• Nil	

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
2-4 Open Allocation	**14:43**	**14:45**	• **No Action required**	**[PTRM GUI]** • Long/ Short Exposure should be updated accordingly in "Intraday Exposure Check". **[HKATS]** • Orders matched during PAUSE will be updated in Clearing Trades [BD6] and Ticker windows. [BD70]	**Keep record for the verification of the PTRM Audit and Utilization Reports**
Open	**14:45**		**Market Open**		

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
2-5 Open	**14:45**	**15:35**	**Requirement:** • Enter a limit order of 30 lots (either bid at 23800 or ask at 23900) in HSIG6 • Execute 2 order transactions with 1 lot each in HSIG6 in 15 mins • **At PTRM GUI**, right click on the Base PTLG then choose "Stop Button" • **DO NOT UNBLOCK THE BASE PTLG AT THIS STAGE** **Requirement for Participants with stock options trading right only:** • 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 • **At PTRM GUI**, right click on the Base PTLG then choose "Stop Button" • **DO NOT UNBLOCK THE BASE PTLG AT THIS STAGE**	<u>**Observations**</u> **[PTRM GUI]** • Correct updates in the PTRM GUI **[HKATS]** • '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]	**Keep record for the verification of the PTRM Audit and Utilization Reports**
	15:35		<u>**Risk Functions Disabled by HKEx**</u>		**Please note: PTRM Audit and Utilization reports will capture all activities even after the disabling of Risk Function**

SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
2-6 Open	**15:35**	**16:00**	**[PTRM Contingency – Risk Functions Disabled by HKEx]** **Requirement:** At 15:35 • HKEx disables the PTRM system At 15:45 • 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 **Requirement for Participants with stock options trading right only:** At 15:35 • HKEx disables the PTRM system At 15:45 • 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	**[PTRM GUI]** • 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 ***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** **[HKATS]** • 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]	**Keep record for the verification of the PTRM Audit and Utilization Reports**
Close	**16:00**		**Market Close**	• "TSS' field of Price Information window changes to CLOSE_TODAY for instruments with AHFT session. Other instruments changes to CLOSE.	
	16:00		**Rehearsal End** • **Logout HKATS** • **Logout PTRM GUI** • **Fax or email Confirmation Form (Appendix C1) to HKEx before 17:00**		
SECTION	TIME		ACTION	EXPECTED RESULTS/OBSERVATIONS	REMARKS
3-1	**22:30**	**00:30**	**Optional Post-Rehearsal Health Check** • Participants may login HKATS production network for confirmation of system healthiness	• Exchange Participants are encouraged to join this optional session. • Verify if the information feed status shows <u>Online</u> after logon to HKATS.	

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

APPENDIX C1: Confirmation Form – Market Rehearsal for HKATS Risk Functions (PTRM GUI) in Derivatives Market on 30th January 2016 (Saturday)

To: HKEx – Derivatives Trading
(Fax No: 2509-0724 / 2877-0017)
(Email: clicksupport@hkex.com.hk)

Participant
(Mnemonic and Name)

Mnemonic   Name

Participating User
(Name and Signature)   **Tel:**

Responsible Officer
or Designate
(Name and Signature)

Participants are requested to complete this form and fax to HKEx by 17:00 on 30th January 2016 (Saturday). The form should be completed by the individual(s) who took part in the Rehearsal and reviewed by a Responsible Officer or his/her designate. The evaluation will assist the Exchange to confirm the status of the PTRM system of HKATS. Participants' cooperation will be much appreciated.

☐　We confirm that the Rehearsal has been **conducted successfully**.

☐　We encountered the following problem(s) during the Rehearsal:

_____

_____

Personal Information Collection Statement

"Personal Data" in this statement has the same meaning as "personal data" in the Personal Data (Privacy) Ordinance, Cap 486 of the Laws of Hong Kong ("PDPO").

The personal data collected on this form will be used solely for the purpose of the Market Rehearsal and be retained for such period as may be necessary for our verification and record purposes.

Please refer to the HKEx's Privacy Policy Statement which is available on the HKEx website (www.hkex.com.hk) for further details.

APPENDIX C2: Confirmation Form - Market Rehearsal for Pre-Trade Risk Management (PTRM) System Reports in Derivatives Market on Saturday, 30th January 2016

Participants who have participated in the Market Rehearsal are required to complete and return this Confirmation Form to HKEx via fax or email <u>at or before 4:00 p.m. on 3 February 2016 (Wednesday)</u>. The form should be completed by the staff who participated in the MR and reviewed by a Responsible Officer.

To: **Hong Kong Exchanges and Clearing Limited**   **DCASS Hotline: 2979-7222**
                                                                                                      Fax: 2579-0136 / 2579-0085
                                                                                                      Email: dcassoapi@hkex.com.hk

Participant Information		
Participant Full Name		Customer Code (HKATS / DCASS)
Participating User	Phone No.	E-mail Address

Completion of Market Rehearsal for PTRM System *(please tick appropriate box below)*
1. ☐   We have participated in and successfully verified the PTRM reports
2. ☐   We did **<u>NOT</u>** successfully verify the PTRM reports due to the following reason(s): _____ _____

Responsible Officer with
Company Chop   :   _____   Date   :   _____

Name of Signatories   :   _____

Thank you for completing the Confirmation Form.

Appendix D: How to access to PTRM GUI

<u>Network connection details</u>

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

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

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

Login Procedures

Step 1: Open Internet Explorer
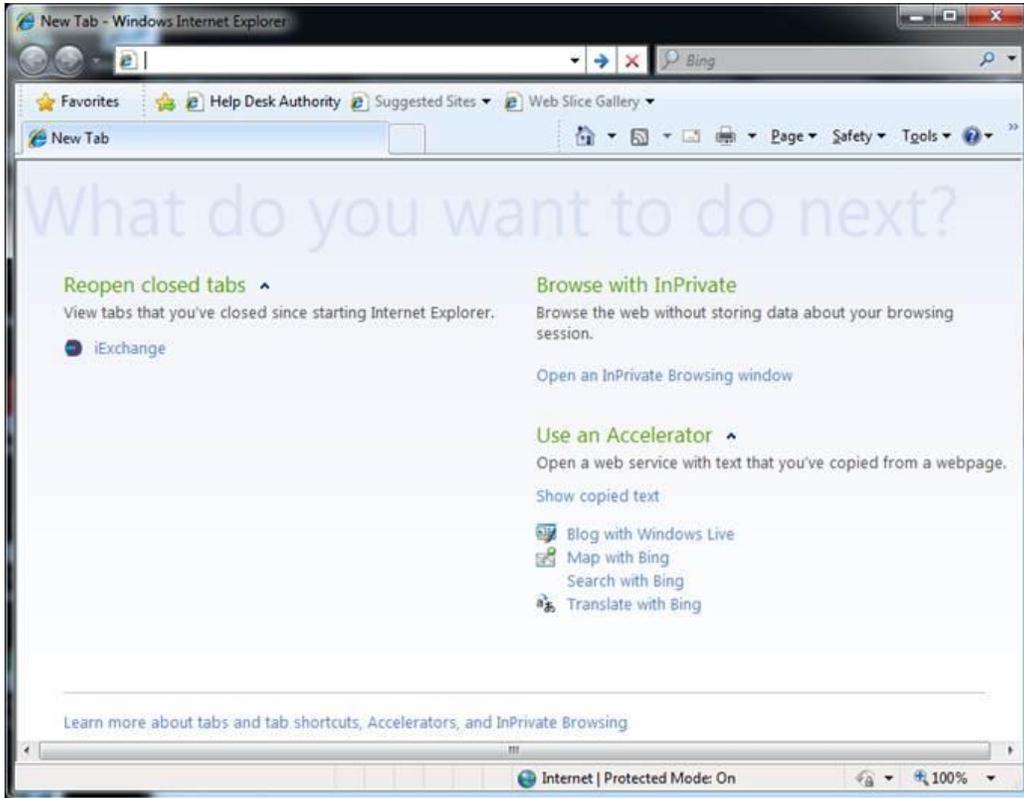
Step 2: Select "Tools", choose "Internet Options"
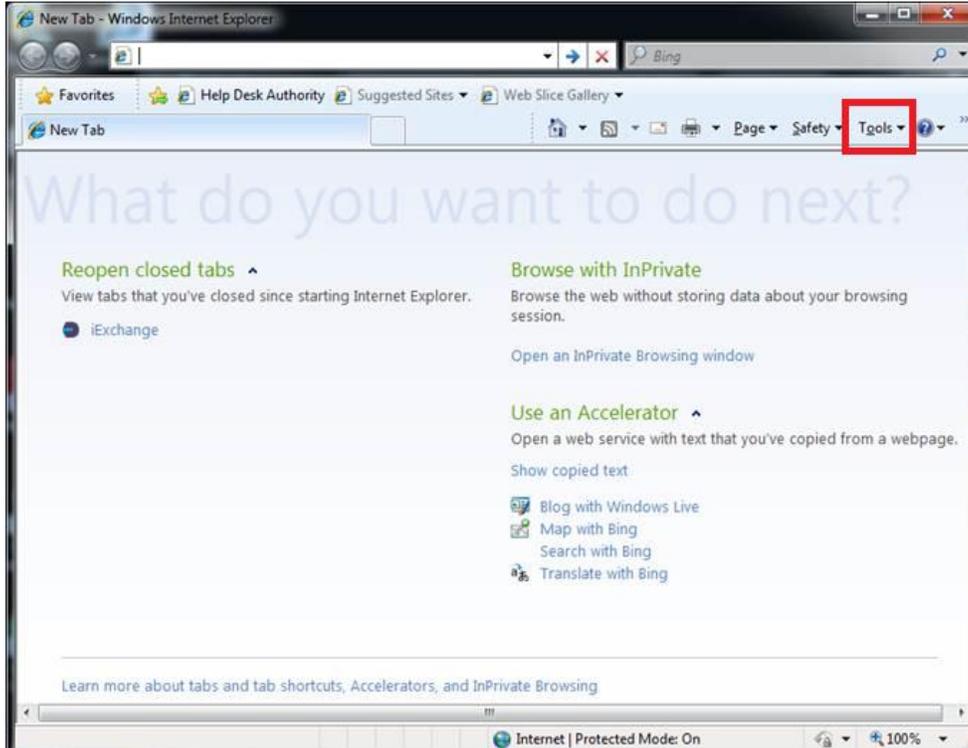
Step 3: Select "Advanced", uncheck the box "Do not save encrypted pages to disk" under "Security", and then press "OK" to save the setting
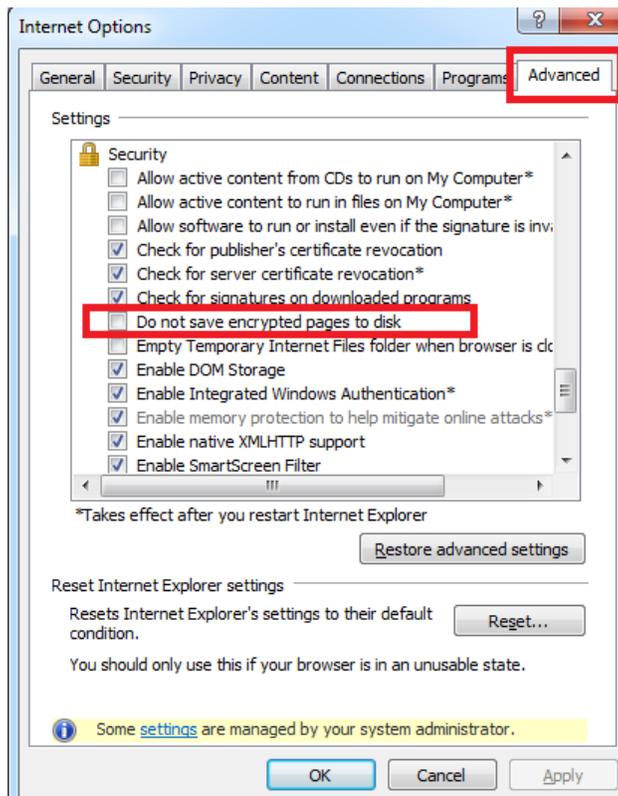
Step 4:   Enter the URL in the Internet Explorer as assigned by HKEx, for example:

<div align="center">

https://pgenrgw001.hkex.com.hk:8090/grx

</div>
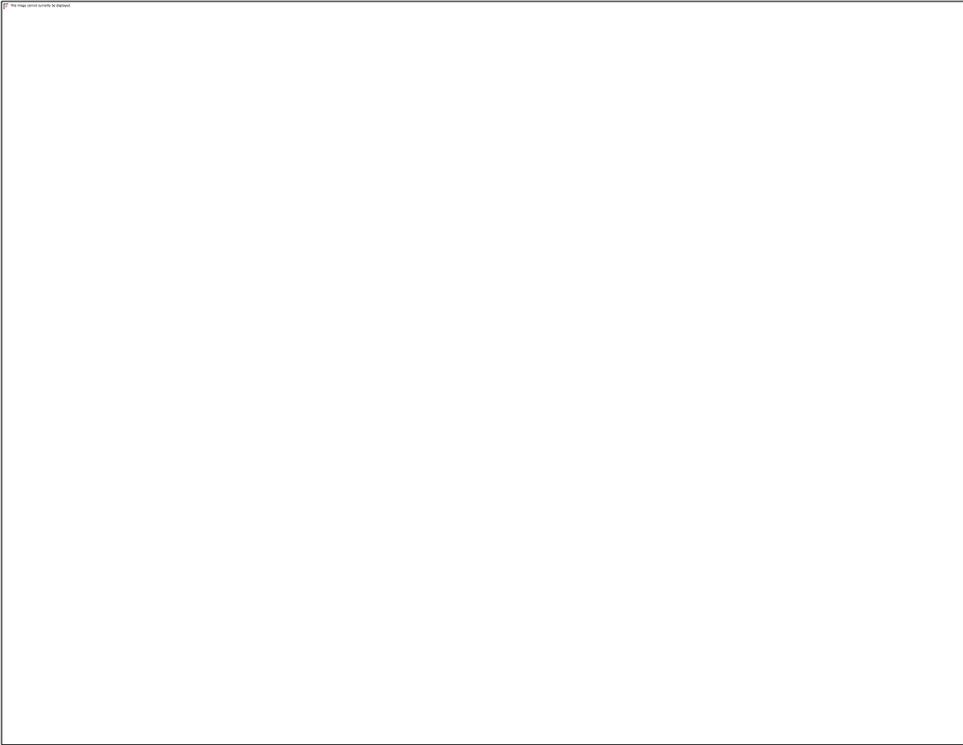
Step 5:   After inputting the URL, you should be able to reach the web page and see the screen below:
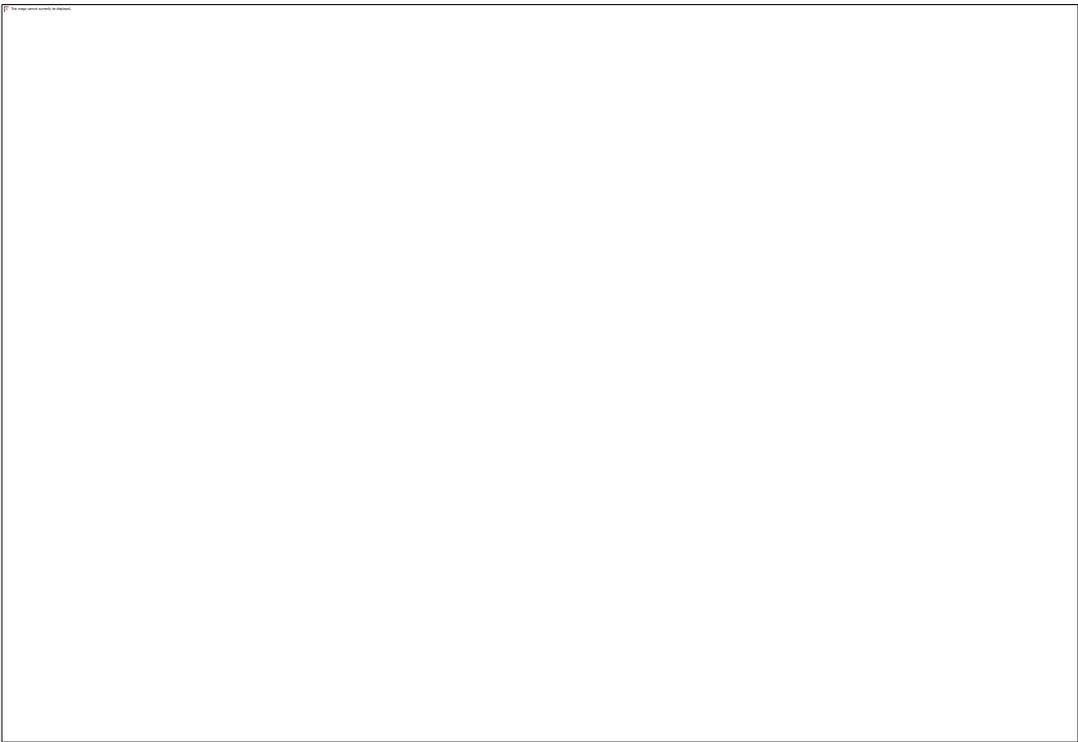
Step 6:   Click on the icon of Nasdaq (Genium INET TradeGurard)

Step 7:   After clicking the icon, you will see the login window
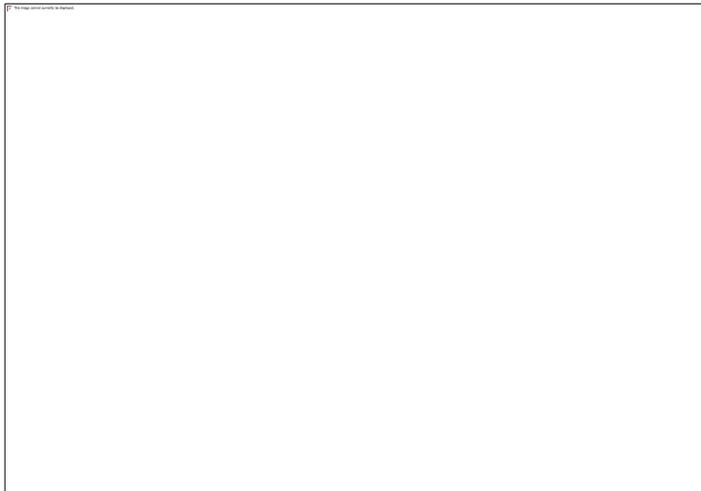
Step 8:   Enter the PTRM GUI login IDs correspond to the assigned hostname and port
              in the User Name field and enter the password: hkextesting .Then press login.

Step 9: If the logon is successful, you will see your PTRM settings for your company. Sample screen as below:
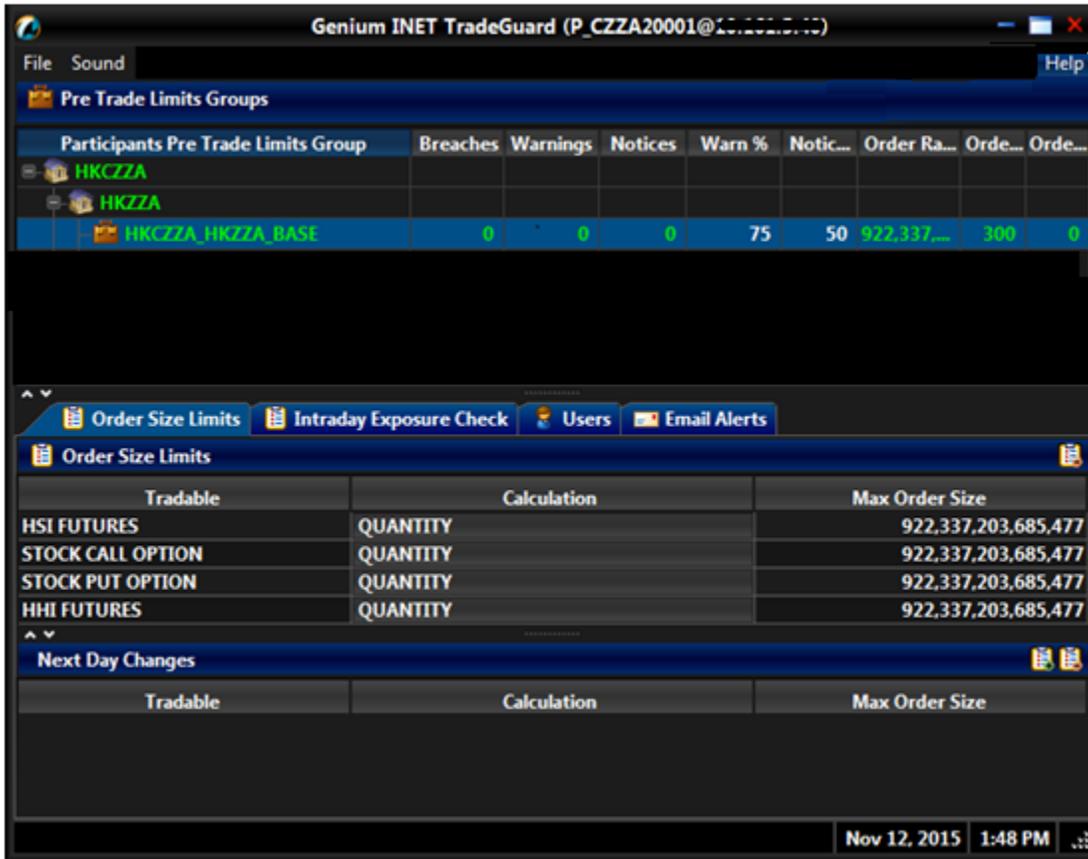
Step 10: Users in Base PTLG can be found on the "User Picker List" after pressing
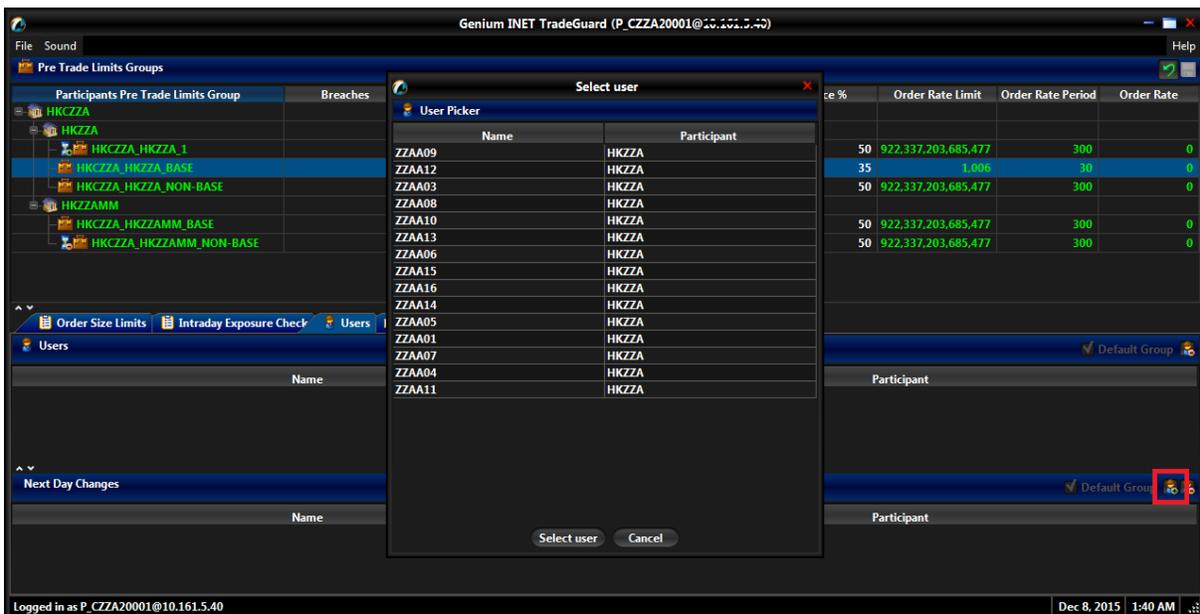
Appendix E: Supplement to PTRM Functions

Section 1-5   [Maximum Order Size Check]

A.   Edit maximum order size limit of a tradable on PTRM GUI

1.   Under the "Order Size Limits" tab, click on the tradable and type the number on the "Max Order Size" column

   (HSI FUTURES)

Tradable	Calculation	Max Order Size
HHI FUTURES	QUANTITY	922,337,203,685,477
STOCK PUT OPTION	QUANTITY	922,337,203,685,477
STOCK CALL OPTION	QUANTITY	922,337,203,685,477
HSI FUTURES	QUANTITY	30

   (STOCK CALL OPTIONS)
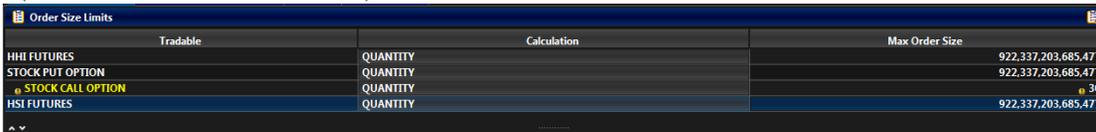
Tradable	Calculation	Max Order Size
HHI FUTURES	QUANTITY	922,337,203,685,477
STOCK PUT OPTION	QUANTITY	922,337,203,685,477
STOCK CALL OPTION	QUANTITY	30
HSI FUTURES	QUANTITY	922,337,203,685,477

2.   Save changes
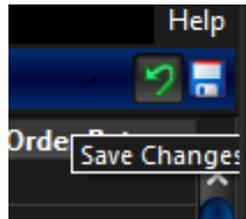
B.   [HKATS]   Rejection message when maximum order size breaches.
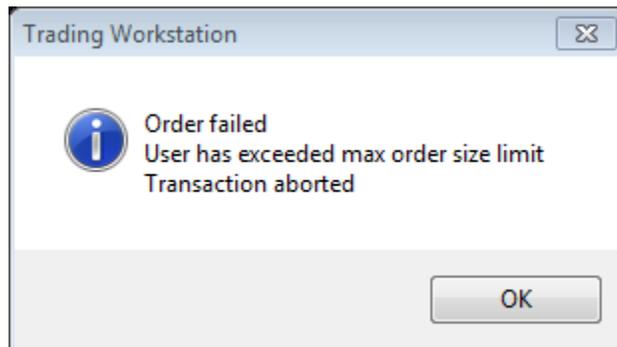
Section 1-6   [Maximum Order Rate Check]

A.   Edit maximum order rate limit of a PTLG on PTRM GUI

1.   Click on the PTLG and type the number on the "Order Rate Limit" column

Order Rate Limit	Order Rate Period	Order Rate
1	300	0

2.   Save changes
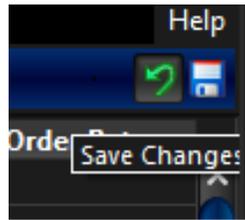
B.   [HKATS]   Rejection message when maximum order rate breaches.
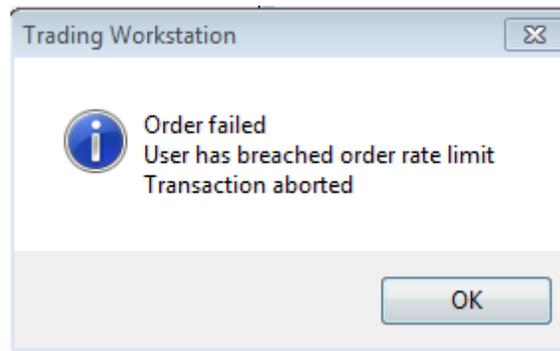
C.   [PTRM GUI] PTLG becomes red in colour when Order Rate breaches

Participants Pre Trade Limits Group	Breaches	Warnings	Notices	Warn %	Notice %	Order Rate Limit	Order Rate Period	Order Rate
HKZZAMM								
HKZZZA_HKZZAMM_BASE	1	0	0	75	50	1	300	2

D.   Unblock order rate

1.   Select the breached PTLG, right click and press "Unblock order rate"
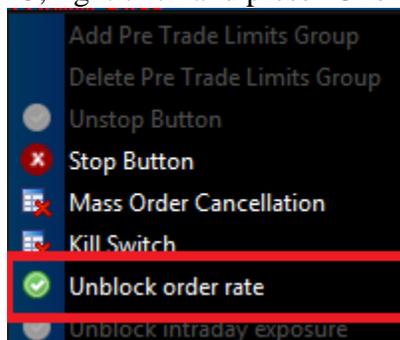
Section 1-7   [Maximum Intraday Exposure Check]

A.   Edit Intraday Exposure limits of a PTLG on PTRM GUI

1.   Under the "Intraday Exposure Check" tab, click on the Intraday Exposure limit and type the number on the "Risk Limit (HKD eqv)" column

(Gross Futures)

Intraday Exposure	Risk Limit (HKD Eqv)	Long Exposure
Gross Futures	0	0
Net Futures	922337203685477	0
Gross Options	922337203685477	0
Net Options	922337203685477	0

Options Order Coefficient (%): 100
Futures Order Coefficient (%): 100

(Gross Options)

Intraday Exposure	Risk Limit (HKD Eqv)	Long Exposure
Gross Futures	922337203685477	0
Net Futures	922337203685477	0
Gross Options	0	0
Net Options	922337203685477	0

Options Order Coefficient (%): 100
Futures Order Coefficient (%): 100

2.   Save changes
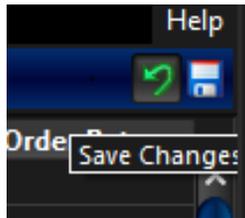
B.   [HKATS]   Rejection message when intraday exposure limit breaches.

Trading Workstation

Order failed
User has breached an intraday exposure limit
Transaction aborted

OK
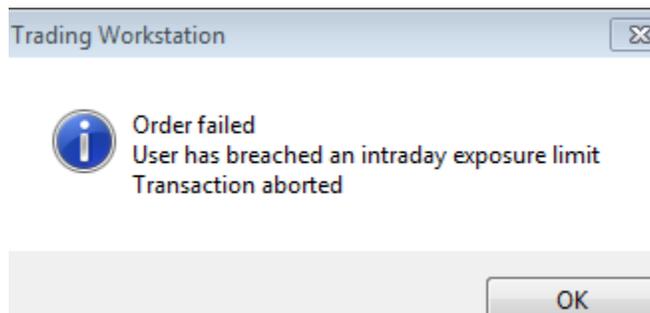
C. [PTRM GUI] PTLG becomes red in colour when intraday exposure limit breaches

D. Unblock intraday exposure

1. Select the breached PTLG, right click and press "Unblock intraday exposure"
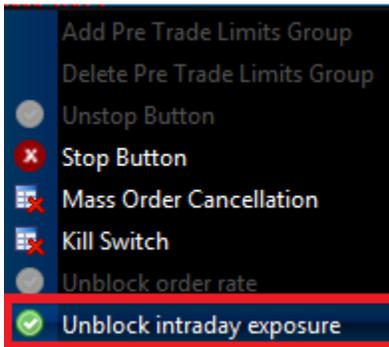
Section 1-8   [Emergency Buttons]

A.   Mass Order Cancellation + Block PTLG – Kill switch button

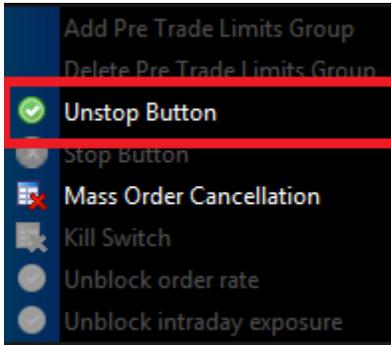1.   Right click on a PTLG and Kill switch button
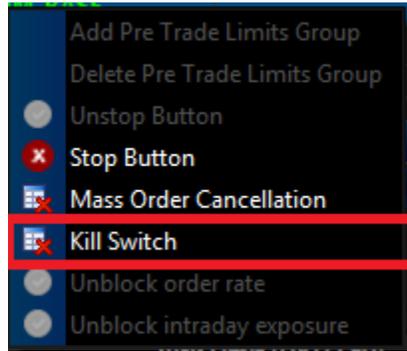
2.   Click OK when a confirmation window pops up.
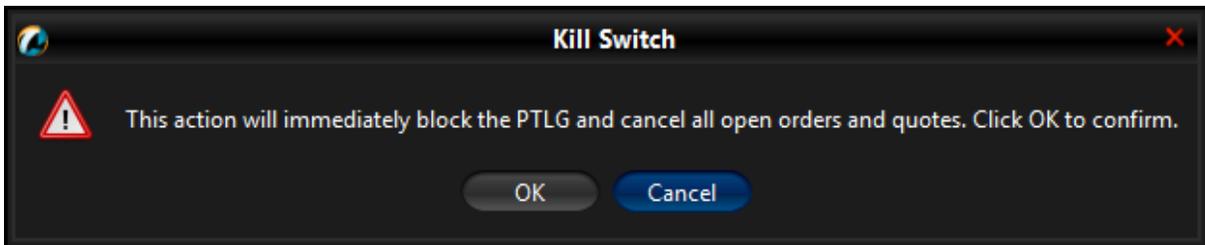
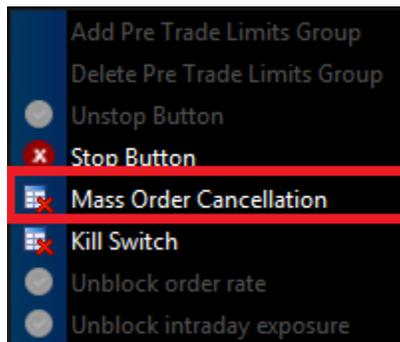*Always check the relevant order book after cancellation by PTRM GUI

B.   Unblock PTLG - Unstop button

1.   Right click on a blocked PTLG and choose Unstop button

C.   Mass Order Cancellation button

1.   Right click on a PTLG and choose Mass Order Cancellation button

2.   Click OK when a confirmation window pops up.
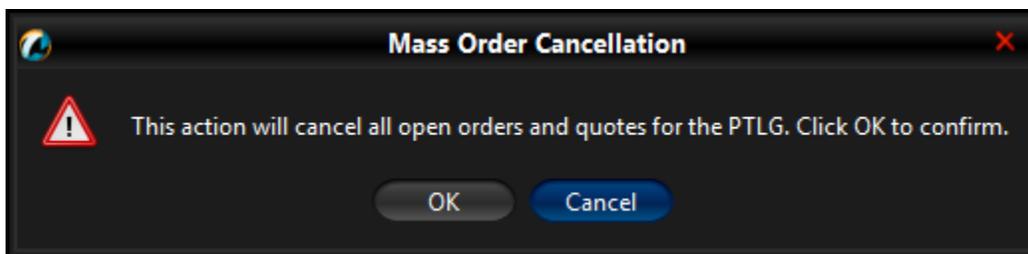
*Always check the relevant order book after cancellation by PTRM GUI

D.   Block PTLG - Stop button

1.   Right click on a PTLG and choose Stop button
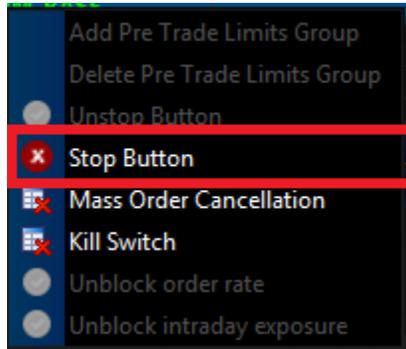
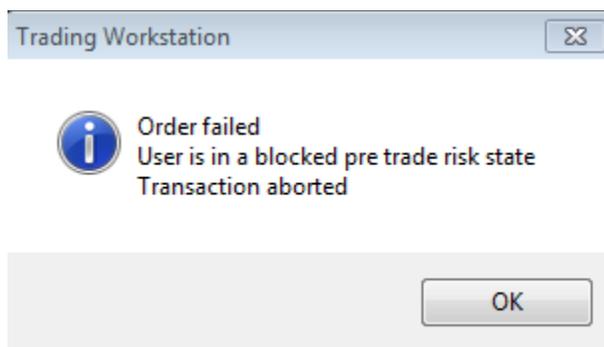2.   Click OK when a confirmation window pops up.
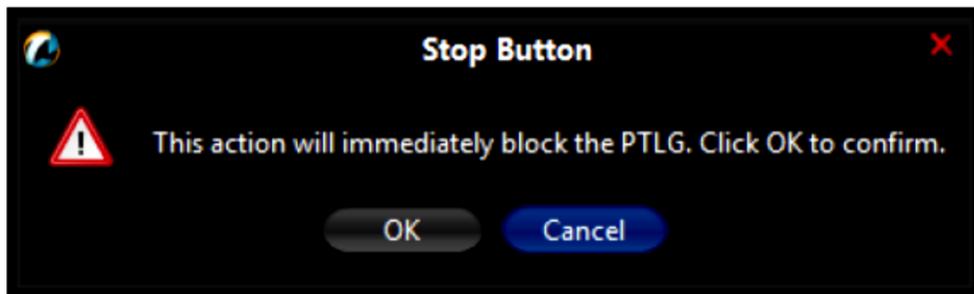
*[PTRM GUI] A cross sign on the left of the PTLG when the PTLG is blocked
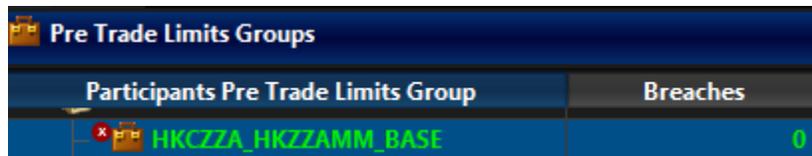
E.   [HKATS]   Rejection message when the PTLG is blocked

Appendix F: Guidelines for setting up the IE and Java
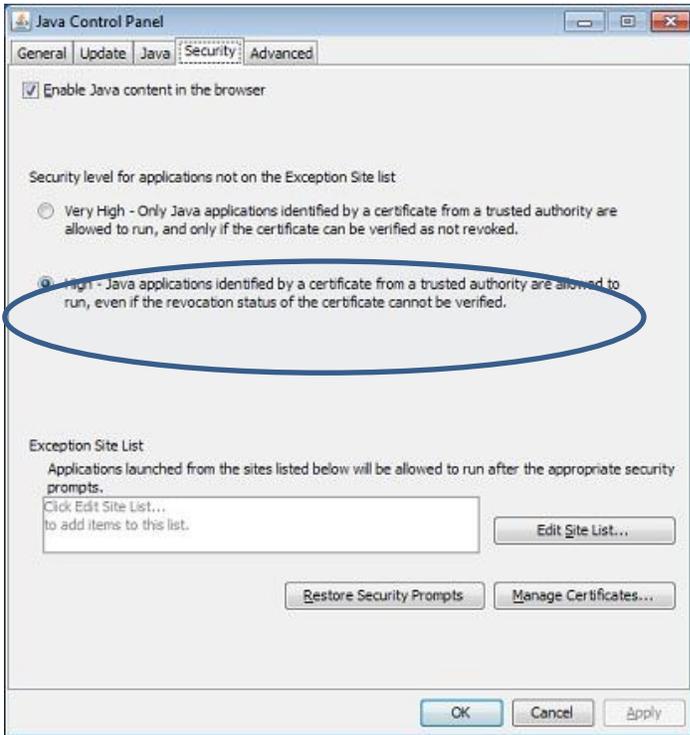
1. **Network Settings through the Java Control Panel**
   a. In the Control Panel, click Java Control Panel
   b. Click on the **General** tab.
   c. Click Network Settings
   d. Select the appropriate connection *(In general, "Use browser settings" and "Direct connection" are highly recommended)*
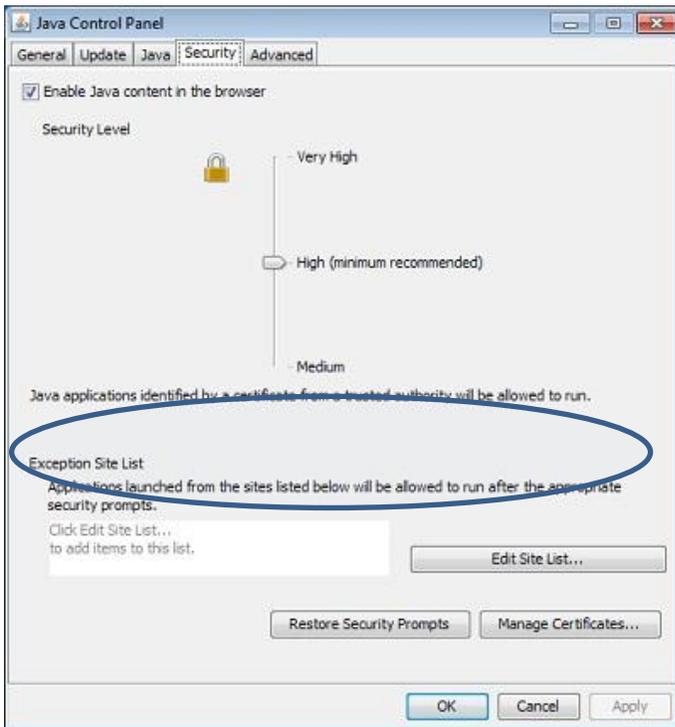   e. Click **OK** to save changes made to the Java
   f. **Click Apply**
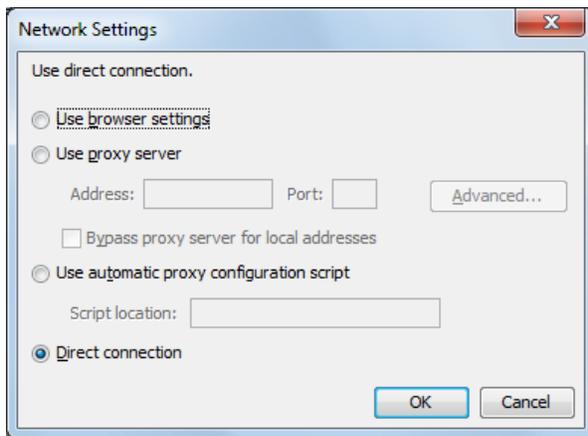
2. **Setting the Security levels through the Java Control Panel**
   a. In the Java Control Panel, click on the **Security** tab.
   b. Select the Medium or High Security level.
   c. Click **Apply**.
   d. Click **OK** to save changes made to the Java Control Panel.

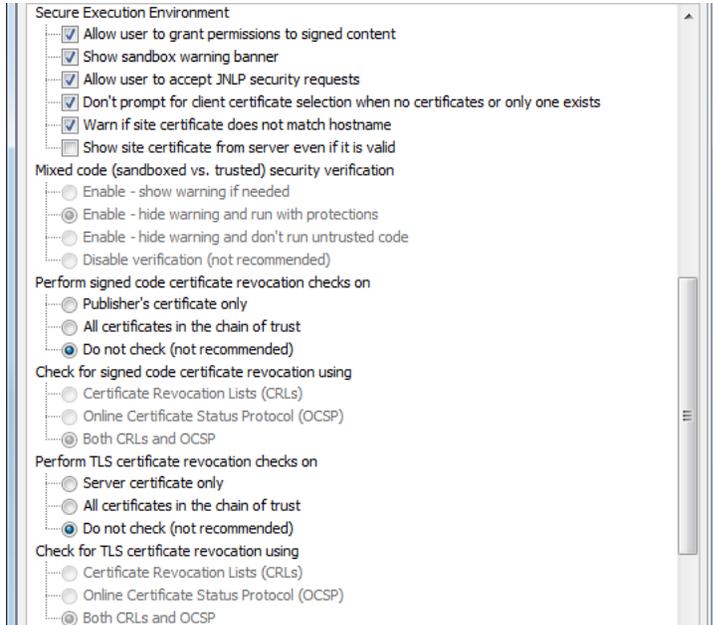*Java Control Panel - Java 8u20 and later versions*

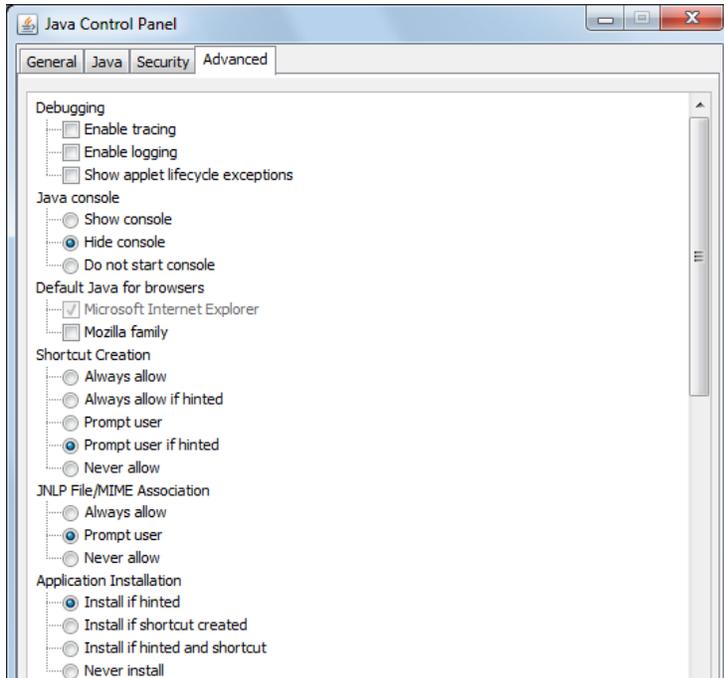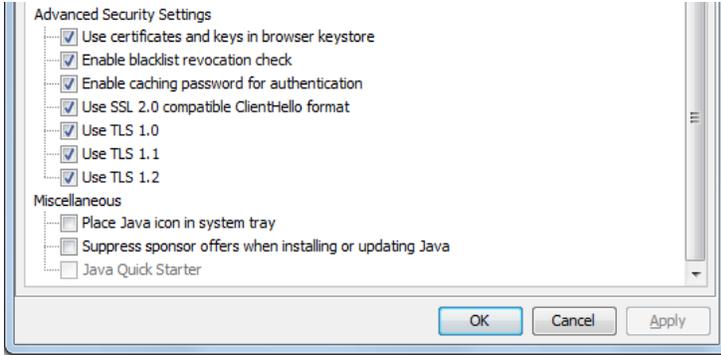*Java Control Panel - Java 7*

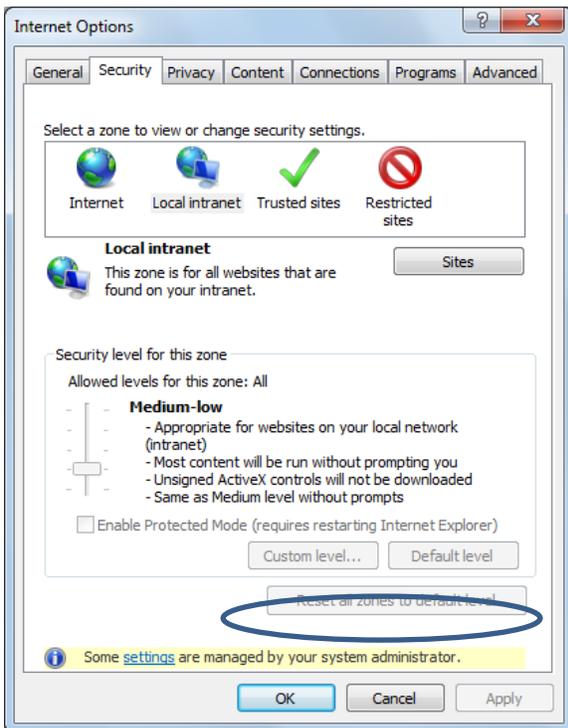### 3. Setting Advanced Settings through the Java Control Panel
   a. Please follow the below settings
   b. **Click Apply**
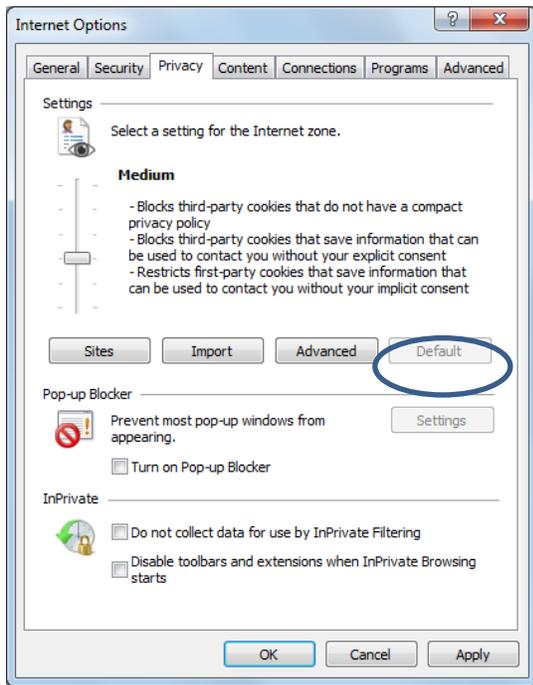
4. **Restore the Security default settings through the Internet Options for Internal Explorer**
   a. Open IE, click Tools
   b. Click Internet Options
   c. Click Security tab
   d. Click "Reset all zones to default level"
   e. Click Apply

5. Restore the Privacy default settings through the Internet Options for Internal Explorer
  a. Open IE, click Tools
  b. Click Internet Options
  c. Click Privacy tab
  d. Click "Default"
  e. Click Apply

6. Setting the Local Area Network (LAN) settings through the Internet Options for Internal Explorer
  a. Open IE, click Tools
  b. Click Internet Options
  c. Click Connections tab
  d. Click LAN settings
  e. Select the "Automatically detect settings"
  f. Click "OK"
  g. Click Apply

7. **Restore the Advanced default settings through the Internet Options for Internal Explorer**
    a.   Open IE, click Tools
    b.   Click Internet Options
    c.   Click Advanced tab
    d.   Click "Restore advanced settings"
    e.   Click Apply

8. **If you still encounter the PTRM issue, restore the Internet Explorer settings through the Internet Options for Internal Explorer**
   a. Open IE, click Tools
   b. Click Internet Options
   c. Click Advanced tab
   d. Click "Reset"
   e. Click Apply

9. **Turn off the Windows Firewall**
   a. Open Control Panel
   b. Click Windows Firewall
   c. Turn off Windows Firewall

Note:
1. The above settings are desired to reset the IE and Java to default settings which is to eliminate the customized security settings
2. If you still encounter the problem, please consult the Microsoft and Oracle vendors for further assistance.