

HONG KONG EXCHANGES AND CLEARING LIMITED

# Quick Reference

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HKATS Risk Functions (PTRM)

Derivatives Trading, Market Division

## Preface

Quick Reference for HKATS Risk Functions GUI (“PTRM GUI”) was created to provide Risk Limit Managers and Trading Units the necessary information for PTRM GUI operations in the case of an emergency situation requiring immediate action. This Quick Reference is also an overview highlighting the answers to frequently-asked questions received from the Participants ever since the launch of the PTRM GUI in April 2016.

Assuming that the readers of this document are reasonably familiar with the PTRM GUI operations, this document is designed to be as succinct as possible so that Participants’ Risk Limit Managers and Trading Units may use this as a desktop companion. New users of the PTRM GUI are recommended to reference the HKATS Risk Functions User’s Guide for a more comprehensive description on the GUI operations and behaviors.

The following scenarios will be highlighted:

- Part 1a: Your emergency contact on PTRM GUI matters
- Part 1b: To login PTRM GUI
- Part 2: To change risk limits immediately
- Part 3: To unblock a Pre-Trade Limit Group (PTLG) after a limit breach by an At-Trade risk check (Order Rate and Intraday Exposure Check)
- Part 4: To stop a PTLG from trading for the rest of the day/ for an extended period of time and to unblock it
- Part 5: Codes of Product Types commonly used for preparing the .csv file regarding uploading Maximum Order Size Limit setting

- *Derivatives Trading, Markets Division* -

**Part 1a:      Your Emergency Contact On PTRM GUI Matters**

For all PTRM GUI related matters, please contact HKATS Hotline at (852) 2211 6360. Users must report to HKATS Hotline after the use of any Emergency Buttons.

**Part 1b:      To Login To The PTRM GUI**

Risk Limit Managers and Trading Units are required to log into the PTRM GUIs through exchange-assigned gateways and ports. Every PTRM GUI login ID will have only one set of gateways and ports assigned. To access the primary PTRM gateway, simply type the URL below into the address bar of Chrome installed in the PTRM GUI-dedicated PC:

https://pgenrgw**XXX**.hkex.com.hk:**YYYY**/grx


Where    **XXX**      =    001 or 002  
          **YYYY**     =    8090, 8091, 8092 or 8093

Please remember the gateway number (**XXX**) and port number (**YYYY**) assigned to your PTRM GUI login ID and login only with the prescribed gateway and port.

Highlights of useful references in HKATS Risk Functions User’s Guide related to Part 1a and Part 1b	
Page No.	Description
P.9 – P.13	Login Procedures
P.88 – P.89	Section 5: Best Practice
P.90 – P.92	Contingency Measures

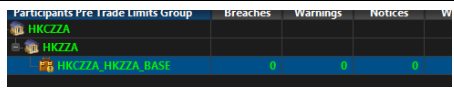


Remarks: Reference made to the page numbers above could change due to periodical updates by the Exchange

## **Part 2: To Change Risk Limits Immediately**

You may be required to make changes on risk limits for a PTLG despite already having set the limits due to changes in your risk policies. All changes to existing risk limits are designed to be effective immediately. It is important for users to save the changes for their new risk limits after any manual modifications with the use of the save button  (located on the top right hand corner of the PTRM GUI).

Users are reminded to observe the following steps when modifying an existing risk limit:

1. Highlight the correct PTLG
2. Go to the correct risk limit field
3. Type your new risk limit into the risk limit field
4. Save any change(s) by clicking the Save Button and confirm your change(s)

<b>Example - To change the Gross Futures Limit of the PTLG, HKCZZA_HKZZA_BASE, from 120,000,000 HKD into 200,000,000 HKD</b>		
Step 1	Highlight "HKCZZA_HKZZA_BASE"	
Step 2	Go to "Gross Futures Limit" under the Intraday Exposure Check Tab	
Step 3	Input "200,000,000" to replace the existing Gross Futures Limit 120,000,000	
<b>Caution: Make sure all the readings of the "Utilization %" counters are under 100% after you input a new limit. Saving changes over 100% will immediately block your PTLG (Similarly, setting the Order Rate Limit at 0 will immediately block your PTLG)</b>		
Step 4	Click the "Save Button" and confirm your change	

Highlights of useful references in HKATS Risk Functions User's Guide related to Part 2	
Page No.	Description
P.46 - P.79	Section 3: Risk Limit Setting

**Part 3: To Unblock A Pre-Trade Limit Group (PTLG) After A Limit Breach By An At-Trade Risk Check**

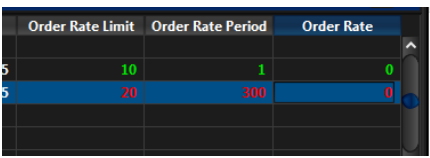

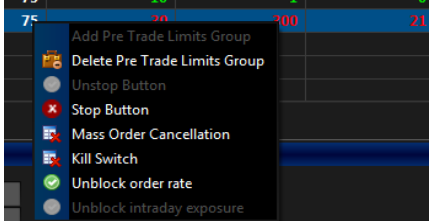
To unblock a PTLG that has been blocked by either one of the At-Trade risk checks:


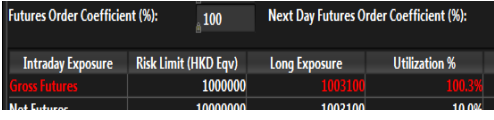
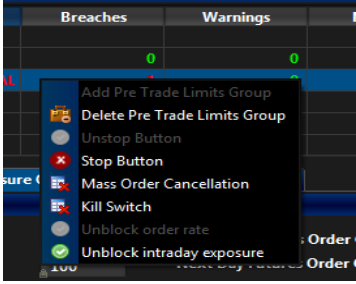
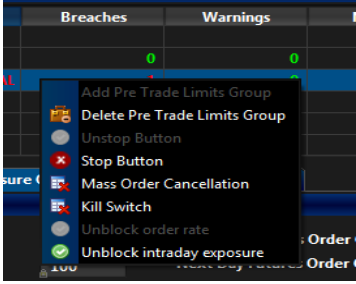
- Maximum Order Rate Check
- Maximum Intraday Exposure Check

For the purpose of resuming order inputs, users are reminded to observe the risk consumption reading of the respective risk counter (at the moment of unblock) is smaller than the corresponding risk limit breached.

General steps to unblock a PTLG after a breach on the limit of an At-Trade risk check:

1. Open the Emergency Button Menu to unblock by choosing either “Unblock order rate” or “Unblock intraday exposure” if the existing reading for the At-Trade risk counter is smaller than the original At-Trade limit.
2. Increase the original At-Trade limit to a level that is greater than the current reading of the At-Trade rate risk counter (Please refer to Part 1 on how to change risk limits immediately). Afterwards, right click the blocked PTLG and open the emergency Button Menu to unblock by choosing either “Unblock order rate” or “Unblock intraday exposure” if the existing reading for the At-Trade risk counter is greater than the original At-Trade risk limit.

Example 1 - To unblock after a breach has been caused by Order Rate Check		
Step 1	Check if the readings of the order rate risk counter of the blocked PTLG are smaller than the original limit. If yes, go to Step 3 directly	
Step 2	If not, modify the order rate limit to a level higher than the existing reading of the order rate risk counter	
Step 3	Open the Emergency Button Menu by right-clicking the blocked PTLG	
Step 4	Click the “Unblock order rate” Button to unblock	

Example 2 - To unblock after a breach has been caused by Intraday Exposure Check																						
Step 1	Check if the readings of the Intraday Exposure risk counter of the blocked PTLG are smaller than the original limit. If yes, go to Step 3 directly	 <table border="1"> <thead> <tr> <th>Intraday Exposure</th> <th>Risk Limit (HKD Eqv)</th> <th>Long Exposure</th> <th>Utilization %</th> </tr> </thead> <tbody> <tr> <td>Gross Futures</td> <td>1000000</td> <td>644850</td> <td>64.5%</td> </tr> <tr> <td>Net Futures</td> <td>1000000</td> <td>644850</td> <td>64.5%</td> </tr> </tbody> </table>	Intraday Exposure	Risk Limit (HKD Eqv)	Long Exposure	Utilization %	Gross Futures	1000000	644850	64.5%	Net Futures	1000000	644850	64.5%								
Intraday Exposure	Risk Limit (HKD Eqv)	Long Exposure	Utilization %																			
Gross Futures	1000000	644850	64.5%																			
Net Futures	1000000	644850	64.5%																			
Step 2	If not, modify the intraday exposure limit to a level higher than the current reading of the order rate risk counter	 <table border="1"> <thead> <tr> <th colspan="2">Futures Order Coefficient (%):</th> <th colspan="2">Next Day Futures Order Coefficient (%):</th> </tr> </thead> <tbody> <tr> <td colspan="2">100</td> <td colspan="2">100</td> </tr> <tr> <th>Intraday Exposure</th> <th>Risk Limit (HKD Eqv)</th> <th>Long Exposure</th> <th>Utilization %</th> </tr> <tr> <td>Gross Futures</td> <td>1000000</td> <td>1003100</td> <td>100.3%</td> </tr> <tr> <td>Net Futures</td> <td>1000000</td> <td>1003100</td> <td>100.3%</td> </tr> </tbody> </table>	Futures Order Coefficient (%):		Next Day Futures Order Coefficient (%):		100		100		Intraday Exposure	Risk Limit (HKD Eqv)	Long Exposure	Utilization %	Gross Futures	1000000	1003100	100.3%	Net Futures	1000000	1003100	100.3%
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Step 3	Open the Emergency Button Menu by right-clicking the blocked PTLG																					
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**Note:**

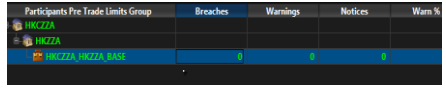

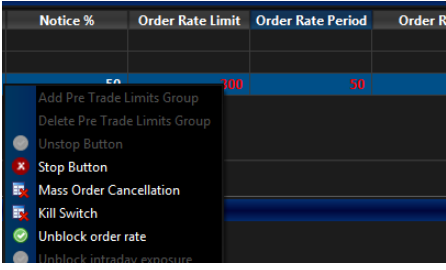
1. The reading of an order rate counter will decrease with time after a PTLG has been blocked and shall be reset to 0 with a modification to the order rate period
2. The reading of an intraday exposure risk counter will decrease upon an order cancellation by the respective PTLG depending on the “Order Coefficients” that have been set
3. The last reading of an intraday exposure risk counter can be bigger than corresponding intraday exposure risk limits upon a breach depending on the order size of the last order that led to the breach

Highlights of useful references in HKATS Risk Functions User’s Guide related to Part 3	
Page No.	Description
P.50	3.1.2 Unblock an Order Rate Breach
P.59	3.2.4 Unblock Intraday Exposure

**Part 4: To Stop A PTLG From Trading For The Rest Of The Day/ For An Extended Period Of Time And To Unstop It**

Users can press the Stop Button in the Emergency Button Menu to stop a PTLG from inputting any further orders. The Stop Button and Unstop Buttons can be used to halt and resume intraday trading from the PTLG, respectively.

A stopped PTLG will automatically be unstopped by the system on the next business day. If the user intends to stop a PTLG from trading for an extended period of time, he or she can set any one of the aforementioned AT-Trade risk limits at 0. This will block the respective PTLG immediately and will continue to do so at the start of every business day until user resumption.

Example: To stop a PTLG from trading for an extended period of time		
Step 1	Highlight the PTLG you want to stop from trading for an extended period	
Step 2	Set one of the following At-Trade risk limits to 0 and save the change to block the PTLG immediately: <ul style="list-style-type: none"> <li>Order Rate Limit</li> <li>Gross Futures Limit</li> <li>Gross Options Limit</li> <li>Net Futures Limit</li> <li>Net Options Limit</li> </ul> <p><b>We use Order Rate Limit as an example</b></p>	
Step 3	To unblock the PTLG, change the limit back to a reasonable figure then unblock by selecting either “Unblock Order Rate” or “Unblock Intraday Exposure” (depending on which limit was set at 0 before)	
Step 4	Click the “Unblock order rate” Button to unblock	

Highlights of useful references in HKATS Risk Functions User’s Guide related to Part 4	
Page No.	Description
P.79	3.6 OAPI Return Codes for HKATS Risk Functions Order Rejections
P.80 – P.87	Section 4: Emergency Buttons

**Part 5: Codes Of Product Types For Preparing The .csv File Regarding Maximum Order Size Limit Setting By File Upload**

Item	Product Type Name (Description if needed)	Product Type (Code for file upload)	Product Class (Code for file upload)
1	SI1 FUTURES (Brazil Index Futures)	SI1F	BOVFUT
2	SI2 FUTURES (India Index Futures)	SI2F	BSEFUT
3	SI3 FUTURES (South Africa Index Futures)	SI3F	SAFFUT
4	SI4 FUTURES (Russia Index Futures)	SI4F	MCXFUT
5	RCI FUTURES (CES 120 Index Futures)	RCIF	CHHFUT
6	DJI FUTURES (Dividend Futures)	DJIF	DHHFUT DHSFUT
7	HSI PUT OPTION (Hang Seng Index Options)	HSIP	HSIPUT
8	HSI CALL OPTION (Hang Seng Index Options)	HSIC	HSICALL
9	HSI FUTURES (Hang Seng Index Futures)	HSIF	HSIFUT
10	HHI PUT OPTIONS (H-Shares Index Options)	HHIP	HHIPUT MCHPUT
11	HHI CALL OPTIONS (H-Shares Index Options)	HHIC	HHICALL MCHCALL
12	HHI FUTURES (H-Shares Index Futures)	HHIF	HHIFUT MCHFUT
13	HIBOR FUTURES (Hibor Futures)	HIBF	HB1FUT HB3FUT H1SFUT H3SFUT
14	MHI PUT OPTIONS (Mini-Hang Seng Index Options)	MHIP	MHIPUT
15	MHI CALL OPTIONS (Mini-Hang Seng Index Options)	MHIC	MHICALL
16	MHI FUTURES (Mini-Hang Seng Index Futures)	MHIF	MHIFUT
17	PDT4 FUTURES (CNH - London Metal Mini Futures)	PT4F	LRAFUT LRCFUT LRNFUT LRPFUT LRSFUT



			LRZFUT
18	PT8F FUTURES (USD- London Metal Mini Futures)	PT8F	LUAFUT LUCFUT LUNFUT LUPFUT LUSFUT LUZFUT
19	CNY FUTURES (USD/CNH Futures)	CNYF	CUSFUT
20	FI02 FUTURES (EUR, JPY, AUD / CNH Futures, INR/CNH Futures, Mini USD/CNH Futures )	FI2F	CEUFUT CJPFUT CAUFUT CINFUT MCSFUT
21	FI05 FUTURES (CNH/USD Futures, INR/USD Futures)	FI5F	UCNFUT UINFUT
22	CNY PUT OPTIONS	CNYP	CUSPUT
23	CNY CALL OPTIONS	CNYC	CUSCALL
24	FXC FUTURES (Sector Index Futures)	FXCF	MOIFUT MBIFUT MPIFUT MCIFUT ITIFUT SSIFUT GTIFUT
25	VOL FUTURES (Volatility Index Futures)	VOLF	VHSFUT
26	STOCK FUTURES, DEC=2	SFU2	All Stock Futures
27	STOCK PUT OPTION	SOMP	All Stock Options Puts
29	STOCK CALL OPTOIN	SOMC	All Stock Options Calls
30	USD GOLD FUTURES	PT10F	GDUFUT
31	CNH GOLD FUTURES	PT9F	GDRFUT
32	IRON ORE FUTURES (MONTHLY CONTRACTS)	PT8F	FEMFUT
33	IRON ORE FUTURES (QUARTERLY CONTRACTS)	PT8F	FEQFUT
34	MSCI AxJ FUTURES	SI6F	MXJFUT
35	PDTB6F FUTURES (HSI & HSCEI Total Return	PDTB6F	HGTFUT

	Index)		HNTFUT HHTFUT HHNFUT
36	WK1 CALL OPTIONS (Weekly Hang Seng Index Options)	WK1C	HSWCALL
37	WK1 PUT OPTIONS (Weekly Hang Seng Index Options)	WK1P	HSWPUT
38	PDTB7 CALL OPTIONS (Weekly Hang Seng China Enterprises Index Options)	PDTB7C	HHWCALL
39	PDTB7 PUT OPTIONS (Weekly Hang Seng China Enterprises Index Options)	PDTB7P	HHWPUT
40	PDT1 FUTURES (USD Silver Futures)	PT1F	SIUFUT
41	PDT5 FUTURES (CNH Silver Futures)	PT5F	SIRFUT
42	MNOP2 FUTURES (MSCI Taiwan (USD) Index Futures)	MNOP2F	MTWFUT
43	MNOP1 FUTURES (MSCI Taiwan Net Total Return (USD) Index Futures)	MNOP1F	MWNFUT
44	MNOP1 FUTURES (MSCI Japan Net Total Return (USD) Index Futures)	MNOP1F	MJUFUT
45	MNOP1 FUTURES (MSCI India Net Total Return (USD) Index Futures)	MNOP1F	MINFUT
46	MNOP1 FUTURES (MSCI China Free Net Total Return (USD) Index Futures)	MNOP1F	MCNFUT
47	MNOP1 FUTURES (MSCI Indonesia Net Total Return (USD) Index Futures)	MNOP1F	MDNFUT
48	MNOP1 FUTURES (MSCI Australia Net Total Return (USD) Index Futures)	MNOP1F	MANFUT
49	MNOP1 FUTURES (MSCI Thailand Net Total Return (USD) Index Futures)	MNOP1F	MTNFUT
50	MNOP1 FUTURES (MSCI Malaysia Net Total Return (USD) Index Futures)	MNOP1F	MMNFUT
51	MNOP1 FUTURES (MSCI EM Asia Net Total Return (USD) Index Futures)	MNOP1F	EANFUT
52	MNOP1 FUTURES (MSCI Singapore Net Total Return (USD) Index Futures)	MNOP1F	MSNFUT
53	MNOP1 FUTURES (MSCI Vietnam Net Total Return (USD) Index Futures)	MNOP1F	MVNFUT

	Return (USD) Index Futures)		
54	MNOP1 FUTURES (MSCI Hong Kong Net Total Return (USD) Index Futures)	MNOP1F	MHKFUT
55	MNOP1 FUTURES (MSCI Philippines Net Total Return (USD) Index Futures)	MNOP1F	MPNFUT
56	MNOP2 FUTURES (MSCI Indonesia Index (USD) Futures)	MNOP2F	MIDFUT
57	MNOP1 FUTURES (MSCI Emerging Markets Net Total Return (USD) Index Futures)	MNOP1F	EMNFUT
58	MNOP2 FUTURES (MSCI Emerging Markets (USD) Index Futures)	MNOP2F	MEMFUT
59	MNOP2 FUTURES (MSCI India (USD) Index Futures)	MNOP2F	MDAFUT
60	MNOP6 FUTURES (MSCI China Free (USD) Index Futures)	MNOP6F	MCFFUT
61	MNOP2 FUTURES (MSCI Thailand (USD) Index Futures)	MNOP2F	MTHFUT
62	MNOP2 FUTURES (MSCI Malaysia (USD) Index Futures)	MNOP2F	MMYFUT
63	MNOP2 FUTURES (MSCI Philippines (USD) Index Futures)	MNOP2F	MPHFUT
64	MNOP2 FUTURES (MSCI Vietnam (USD) Index Futures)	MNOP2F	MVTFUT
65	MNOP1 FUTURES (MSCI Singapore Free Net Total Return (USD) Index Futures)	MNOP1F	MGNFUT
66	MNOP1 FUTURES (MSCI New Zealand Net Total Return (USD) Index Futures)	MNOP1F	MNZFUT
67	MNOP1 FUTURES (MSCI EM ex China Net Total Return (USD) Index Futures)	MNOP1F	MXCFUT
68	MNOP1 FUTURES (MSCI EM ex Korea Net Total Return (USD) Index Futures)	MNOP1F	MXKFUT
69	MNOP1 FUTURES (MSCI EM Asia ex China Net Total Return (USD) Index Futures)	MNOP1F	MACFUT
70	MNOP1 FUTURES (MSCI EM Asia ex Korea Net Total Return (USD) Index Futures)	MNOP1F	MAKFUT
71	MNOP1 FUTURES (MSCI EM EMEA Net Total	MNOP1F	MEEFUT

	Return (USD) Index Futures)		
72	MNOP1 FUTURES (MSCI EM LatAm Net Total Return (USD) Index Futures)	MNOP1F	MELFUT
73	MNOP1 FUTURES (MSCI Pacific Net Total Return (USD) Index Futures)	MNOP1F	MPCFUT
74	MNOP1 FUTURES (MSCI Pacific ex Japan Net Total Return (USD) Index Futures)	MNOP1F	MPJFUT
75	MNOP1 FUTURES (MSCI Taiwan 25/50 Net Total Return (USD) Index Futures)	MNOP1F	TWNFUT
76	MNOP2 FUTURES (MSCI Taiwan 25/50 (USD) Index Futures)	MNOP2F	TWPFUT
77	MNOP4 FUTURES (MSCI Singapore Free (SGD) Index Futures)	MNOP4F	MSGFUT
78	MNOP3 FUTURES (MSCI Japan (JPY) Index Futures)	MNOP3F	MJPFUT
79	MNOP3 FUTURES (MSCI Japan Net Total Return (JPY) Index Futures)	MNOP3F	MJJFUT
80	PDTB6F FUTURES (Hang Seng TECH Index Futures)	PDTB6F	HTIFUT
81	PDTB6F CALL OPTIONS (Hang Seng TECH Index Options)	PDTB6C	HTICALL
82	PDTB6F PUT OPTIONS (Hang Seng TECH Index Options)	PDTB6P	HTIPUT
83	MNOP2 CALL OPTIONS (MSCI Taiwan (USD) Index Options)	MNOP2C	MTWCALL
84	MNOP2 PUT OPTIONS (MSCI Taiwan (USD) Index Options)	MNOP2P	MTWPUT
85	MNOP6F CALL OPTIONS (MSCI China Free (USD) Index Options)	MNOP6C	MCFCALL
86	MNOP6F PUT OPTIONS (MSCI China Free (USD) Index Options)	MNOP6P	MCFPUT

**Note: The list will change according to the number of derivatives products provided in HKATS**

Highlights of useful references in HKATS Risk Functions User's Guide related to Part 5	
Page No.	Description
P.69 – P.77	3.4 Managing Risk Limits/Parameters by File Upload
P.100 – P.112	Appendix E: Example Tradable Table for Maximum Order Size Limits