Alpha Quant Financial Technology Limited

AQTech – User Manual for Algo-Trading

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A) INTRODUCTION 產品簡介

Features 產品特點:

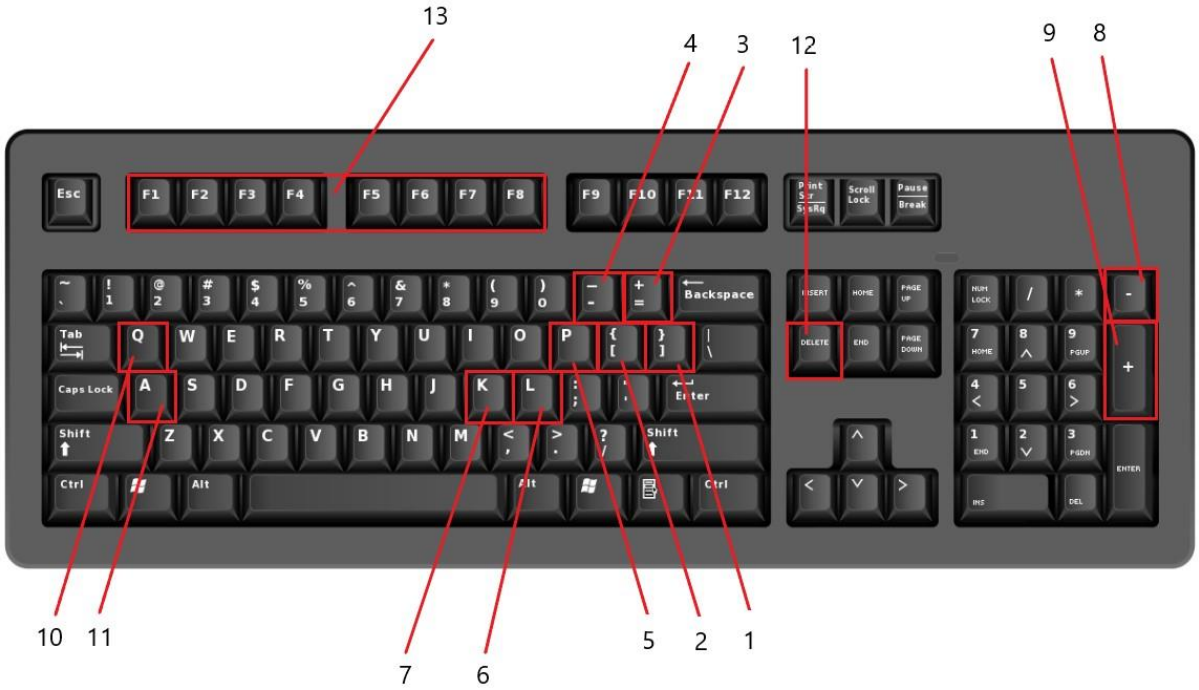
The following lists the feature of this API:

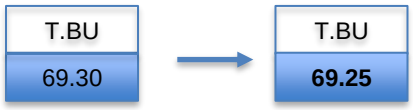
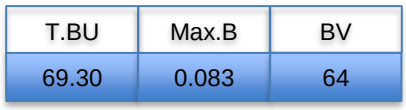
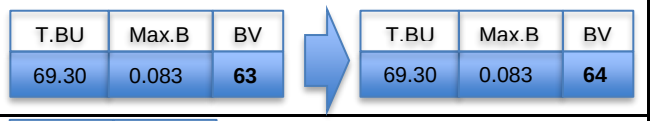
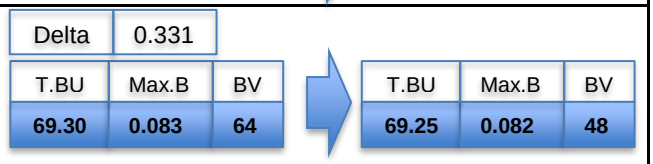
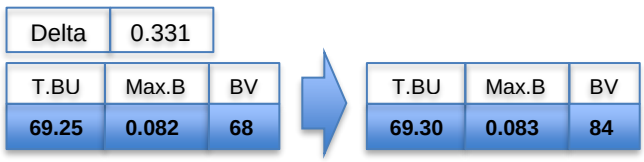
此產品的特點如下:

- Multiple Buy in one row - 可以多次「買入」
- Multiple entry for one warrant - 多行操作
- Enable both “Buy” order and “Sell” order at one time - 可以同時設置「買入」「賣出」指令
- Current Micro-price for quick reference - 提供即時股票價格以及股票買入賣出股數比例
- Real time warrants data (delta, Bid-Ask etc.) - 實時提供窩輪資訊 (如對沖值,買賣價差等)
- Self-Update function - 自動更新

B) FUNCTION KEYS 基本功能

Keyboard Inputs 快捷鍵:

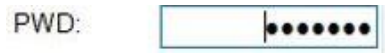


Index	Keys 按鍵	Functions 功能	Example/Remarks 例子/補充
1	}]	Outputs **Ask** price of stock/warrant 輸出現時股票/窩輪的賣價	Bid 69.25 (36%) Ask **69.3** (64%)
2	{ [	Outputs **Bid** price of stock/warrant 輸出現時股票/窩輪的買價	Bid **69.25** (36%) Ask 69.3 (64%)
3	+ =	Increases the price by one price unit 把方格內的價格增加一個價位	
4	— -	Decreases the price by one price unit 把方格內的價格減少一個價位	
5	P	Outputs current stock price, current warrant price and volume 輸出現時股票/窩輪的價格及買賣股比	69.3(64%) Press “P” 
6	L	Increase XV/NV by 10 把買價比/賣價比增加 10	Click on the stock price first, then press “L”
7	K	Decrease XV/NV by 10 把買價比/賣價比減少 10	Click on the stock price first, then press “K” 
8	— -	Reduces the current set-up by 1 warrant ‘s delta 把價格設定減少一個對沖值	
9	+	Increases the current set-up by 1 warrant ‘s delta 把價格設定增加一個對沖值	
10	Q	Move up the selected row 將所選列上移一行	
11	A	Move down the selected row 將所選列下移一行	

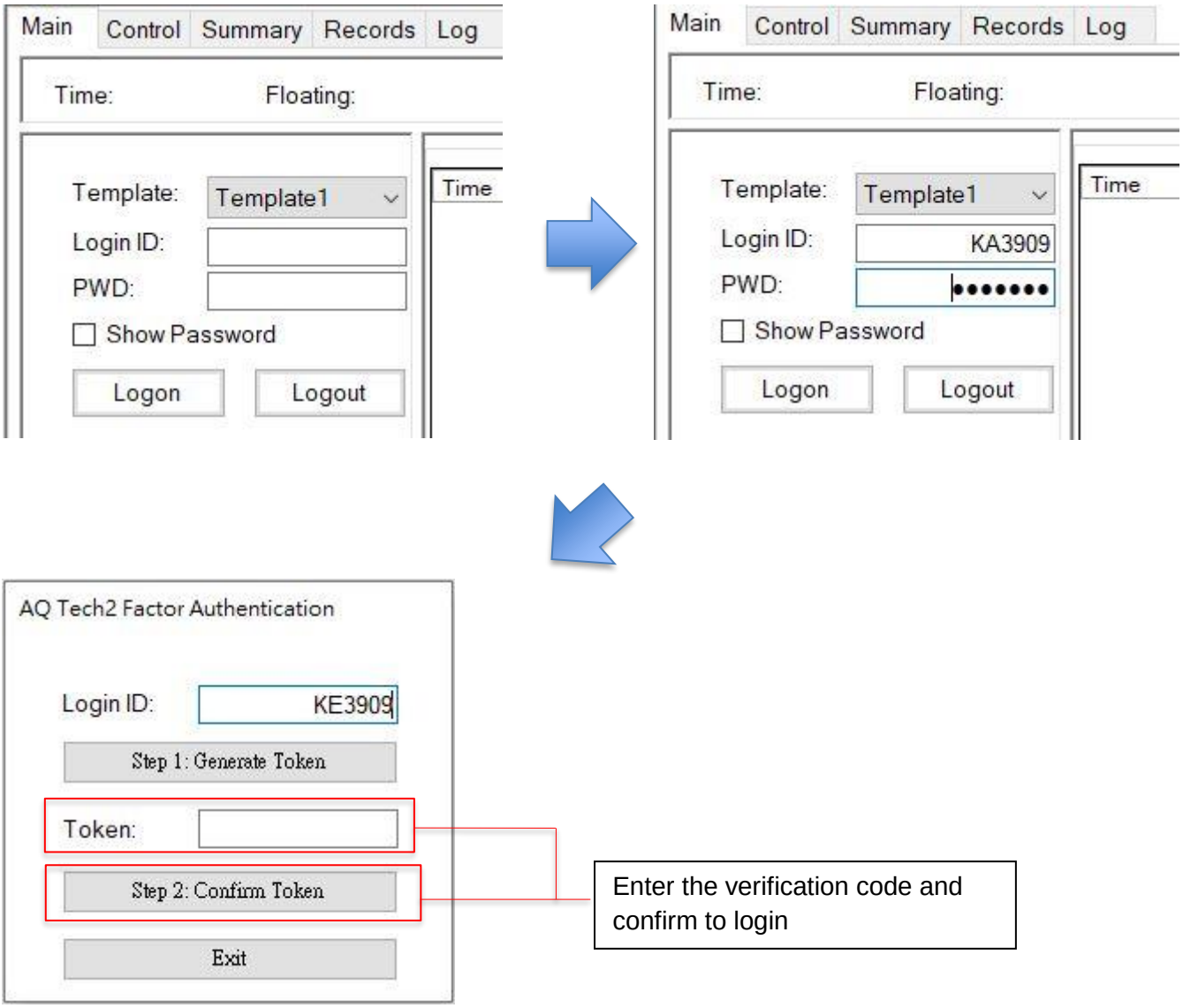
12		Delete the selected row 將所選列刪除	
13		Change volume of the selected row 更改所選列的交易股數	F1 refers to 100K , F2 refers to 200K, … , F8 refers to 800K

C) INTERFACE 操作介面

Login & Two Factor

Button	Description	Example/Remarks
	Enter Account number	
	Enter Password	
	Choose templates to be used after login	
	Show/Hide Password	
	Logon	Repeated Logon will kick out the current one
	Verification code will send to user's email when pressed	Few seconds after button pressed
	Type in the token received	
	Confirms the verification code to login	

Sample 系統截圖


Main
Control
Summary
Records
Log
Time:
Floating:
Template:
Template1
Login ID:
PWD:
Show Password
Logon
Logout
Time
KA3909
AQ Tech2 Factor Authentication
KE3909
Step 1: Generate Token
Token:
Step 2: Confirm Token
Exit
Enter the verification code and confirm to login

Columns

Columns	Description	Example
Vol(K)	Input Trading Volume (K) 輸入交易股數 (千股)	10 means 10K 1000 means 1M
CurU	Showing Current Price and Ratio 提供現時股價及買賣股數比例	231.2(10%) 231.4(90%)
SV	Additional Condition applied to the original Sell Order when $XV \leq \frac{Bid\ Size}{Ask\ Size+Bid\ Size} \times 100$ for calls and $XV \geq \frac{Ask\ Size}{Ask\ Size+Bid\ Size} \times 100$ for puts 設定「沽出指令」的買入/賣出股數比例參數	CurU: 310.4(80%) T.BU: 310.4 Max.B: 0.153 NV: 30 Buy Order will trigger when **CurU > 310.4 (30%) (e.g. 310.4 (29%))**
Min.S	Sell order would be sent only when the **current Bid of the warrant ≥ price in Min.S** 容許「沽出指令」時成交的最低價格 只有當窩輪的買價不低於 Min.S 時，系統才會送出「沽出指令」	Warrant Bid: 0.152 Warrant Ask: 0.154 Min.S: 0.150 ✓ Min.S: 0.154 ✘
T.SU	Price Trigger to sell 設定「沽出指令」的**股票**價格	Press "P" T.SU: 69.25 → T.SU: 0
T.BU	Price Trigger to buy 設定「買入指令」的**股票**價格	Press "P" T.BU: 0 → T.BU: 69.30
Max.B	Buy order would be sent only when the **current Ask of the warrant ≤ price in Max.E** 容許「買入指令」時成交的最高價格 只有當窩輪的賣價不低於 Max.E 時，系統才會送出「買入指令」	Warrant Bid: 0.152 Warrant Ask: 0.154 Max.B: 0.154 ✓ Max.B: 0.153 ✘

BV	Entry Volume : Additional Condition aplied to the original Buy Order when $NV \geq \frac{Ask\ Size}{Ask\ Size+Bid\ Size} \times 100$ for calls and $NV \leq \frac{Bid\ Size}{Ask\ Size+Bid\ Size} \times 100$ for puts 設定「沽出指令」的買入/賣出股數比例參數	CurU 310.2(20%) XV: 10 / Min.S: 0.153 / T.SU: 310.2 Sell Order will trigger when **CurU < 310.2 (10%) (e.g. 310.2 (5%))**
T.B	Once Activated, the button would turn green, meaning it's now ready to buy Also displays the **current Bid** of the warrant 點擊後按鈕會轉為綠色表示「買入指令」已啟動	Warrant Bid: **0.152** / Warrant Ask: 0.154 T.B / B → Click → T.B / B
T.S	Once Activated, the button would turn green, meaning it's now ready to sell Also displays the **current Ask** of the warrant 點擊後按鈕會轉為綠色表示「賣入指令」已啟動	Warrant Bid: 0.152 / Warrant Ask: **0.154** T.S / B → Click → T.S / S
FS	Selling directly if current warrant price ≥ price set in Min.S Also displays the **current Bid** of the warrant 點擊按鈕後，如果現時窩輪的**買價不少於 Min.S** 將**直接沽出全部股數**的窩輪 另外按鈕會顯示窩輪的**買價**	Warrant Bid: **0.152** / Warrant Ask: 0.154 FS: 0.152 Min.S: 0.150 ✓ / Min.S: 0.154 ✗
FB	Buying directly if current warrant price≤ price set in Max.E Also displays the **current Ask** of the warrant 點擊按鈕後，如果現時窩輪的**賣價不多於 Max.E** 將**直接買入已設定股數**的窩輪 另外按鈕會顯示窩輪的**賣價**	Warrant Bid: 0.152 / Warrant Ask: **0.154** FB: 0.152 T.BU: 0.154 ✓ / T.BU: 0.153 ✗

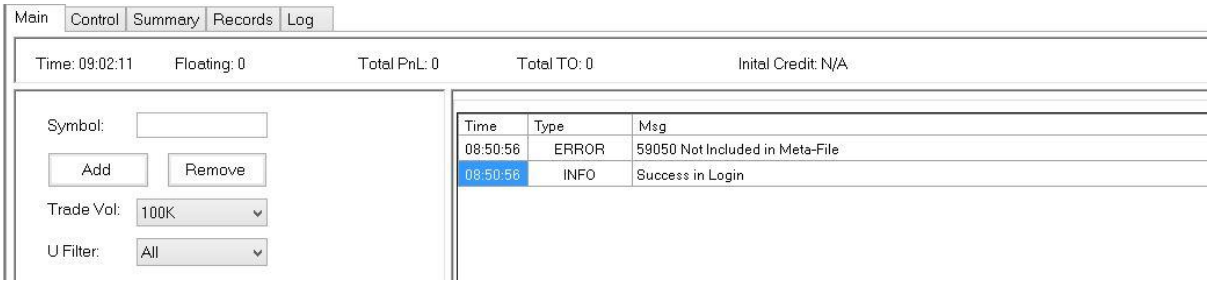
AP AS	**When Enabled, automatically sell** once the **Bid price of warrant ≥ AP** Input a number on AP then click AS 點擊按鈕後，如果現時窩輪的**賣價不少於 AP** 將**自動直接沽出全部所有股數**的窩輪 請於 AP 欄設定數值，然後點擊 AS 啟動/關閉功能	AP | Cost 0.155 | AS | 0.153 Meaning Sell directly when Bid Price ≥ 0.155 AS → Click → AS
Cost	Avg. Buying cost of warrant 顯示平均買入價	Cost | Cost | Cost 0.149 | 0.144 | 0.1455
Pos	Total Amount of the holding warrant 顯示持有股數	Pts | Pts | Pts 200K | 1M | 300K
PnL	Floating PnL of the holding warrant 顯示帳面盈虧 Red – Losing , Green – Winning, Yellow – Neutral 紅色代表虧損,綠色代表盈利,黃色代表中性	PnL | PnL | PnL -900 | 1500 | 0
BS AS	Display the **current Bid Size and Ask Size of the warrant** 顯示現時**窩輪的買賣股數**	BS | AS 3.00M | 3.00M

Other Functions

Main

Button	Description	Example/Remarks
Symbol:	Enter warrant number to Add/Remove warrant 輸入窩輪號碼作增加/刪除之用	
Add	Add warrant to trade list 將窩輪加到清單	
Remove	Remove warrant from trade list 將窩輪從清單中刪除	
U Filter: All	Show the warrant with chosen underlying 只顯示已選正股的相應行	
Trade Vol: 100K	Change Vol of **all the warrants on the list** 設定**窩輪清單內全部窩輪的交易股數**	100,200,300,500,800,1000
Total PnL: 0	Show Floating, Total PnL, Total Turnovers(T/O) and Credits	
Time Type Msg	Shows system message such as order filled, rejected, errors etc.	

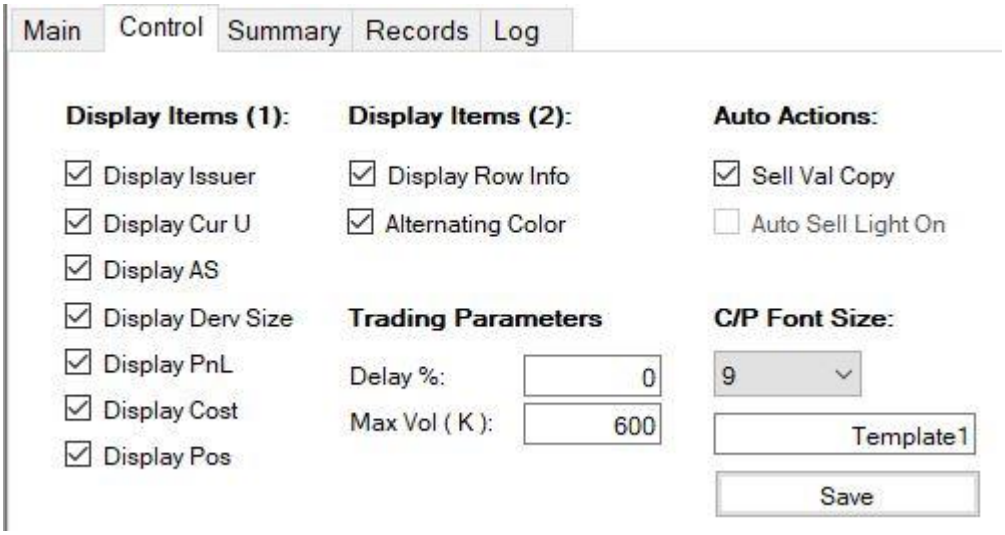
Sample 系統截圖:



Control

Button	Description	Example/Remarks
Display Items (1): **Display Items (2):**	Select to display/hide the columns, color settings etc. 選擇顯示/隱藏相應欄, 介面顏色	
Delay %: 0	Automatcally Adjust XV once Buy order is completed $XV = 100 - NV - Delay\%$ 自動調低賣出時侯的股數比例參數	
Max Vol (K): 600	Set Limit sizes for each row 設定最大交易股數限制	Default 600K
☑ Sell Val Copy	Copy the triggered price to TSU, Min.S and SV 買入時，將買入設定複製到賣出設定	
☐ Auto Sell Light On	Automatically enables sell after buy order filled 「買入」成功後自動亮起「賣出」按鈕	
C/P Font Size: 9	Adjust Font Size 更改字體大小	From 9 to 11
Template1 Save	Save current layout 將現在介面儲存	Template file will be saved in AQtech\Config

Sample

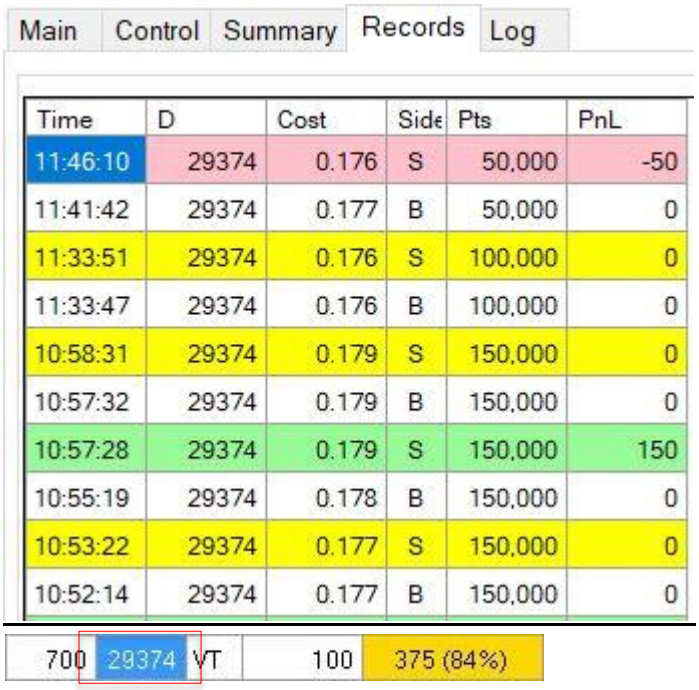


Summary 交易紀錄總結:

U	D	Pts	Cost	F.PnL	PnL	Turnover
700	16625	0	0	0	-10	3130
2318	28832	0	0	0	60	3640
700	29374	0	0	0	470	751K
700	59157	0	0	0	550	61K
2318	29465	0	0	0	-350	90K

Displays PnL, Turnover by warrants 顯示每一窩輪的損益,成交金額.

Records 特定窩輪的交易紀錄:



Time	D	Cost	Side	Pts	PnL
11:46:10	29374	0.176	S	50,000	-50
11:41:42	29374	0.177	B	50,000	0
11:33:51	29374	0.176	S	100,000	0
11:33:47	29374	0.176	B	100,000	0
10:58:31	29374	0.179	S	150,000	0
10:57:32	29374	0.179	B	150,000	0
10:57:28	29374	0.179	S	150,000	150
10:55:19	29374	0.178	B	150,000	0
10:53:22	29374	0.177	S	150,000	0
10:52:14	29374	0.177	B	150,000	0

Trade Records of specific warrant could simply double click on the row

雙擊該窩輪號碼即看到相應單一帘的交易紀錄

D) ORDER SETUP 設置指令

Calls 認購証

Buy Order 買入指令:

1.Select the T.BU grid for the trading warrant

點擊相應窩輪的 T.BU 欄

T.BU	Max.B	BV
0	0	0

2.Press] } / P / to get the current **stock Ask**, **warrant Ask** and NV (optional)

按下] } 或者 P 來取得**現時正股賣價**、**窩輪賣價**及賣價股數比例 NV(有需要可用)

3.Adjust T.BU, Max.E and NV by numbers in NV + = / − - pressing , or direct inputting

用 + = / − - 調較 T.BU、Max.E 及 NV 欄或於 NV 欄直接輸入數字

T.BU	Max.B	BV
371.4	0.136	0

4.Activate the order by pressing T.B

點擊 T.B 啟動「買入指令」

T.B
B

Sell Order 沽出指令:

1.Select the T.SU grid for the trading warrant

點擊相應窩輪的 T.SU 欄

XV	Min.S	T.SU
0	0	0

2.Press { [/ P / to get the current **stock Bid**, **warrant Bid** and XV (optional)

按下 { [或者 P 來取得**現時正股買價**、**窩輪買價**及賣價股數比例 XV(有需要可用)

3.Adjust T.SU, Min.S and XV by pressing + = / − - or direct inputting numbers in XV

用 + = / − - 調較 T.SU、Min.S 及 XV 欄或於 XV 欄直接輸入數字

XV	Min.S	T.SU
0	0.134	371.2

4.Activate the order by pressing T.S

點擊 T.S 啟動「沽出指令」

T.S
S

Puts 認沽証

Buy Order 買入指令:

1.Select the T.BU grid for the trading warrant

T.BU	Max.B	BV
0	0	0

點擊相應窩輪的 T.BU 欄

2.Press / to get the current **stock Bid**, **warrant Ask** and NV (optional)

按下 或者 來取得**現時正股買價**、**窩輪賣價**及賣價股數比例 NV(有需要可用)

3.Adjust T.BU, Max.E and NV by numbers in NV pressing , or direct inputting

用 調較 T.BU、Max.E 及 NV 欄或於 NV 欄直接輸入數字

T.BU	Max.B	BV
371.2	0.117	0

4.Activate the order by pressing T.B

點擊 T.B 啟動「買入指令」

T.B
B

Sell Order 沽出指令:

1.Select the T.SU grid for the trading warrant

XV	Min.S	T.SU
0	0	0

點擊相應窩輪的 T.SU 欄

2.Press / to get the current **stock Ask**, **warrant Bid** and XV (optional)

按下 或者 來取得**現時正股賣價**、**窩輪買價**及賣價股數比例 XV(有需要可用)

3.Adjust T.SU, Min.S and XV by pressing or direct inputting numbers in XV

用 調較 T.SU、Min.S 及 XV 欄或於 XV 欄直接輸入數字

XV	Min.S	T.SU
0	0.116	371.4

4.Activate the order by pressing T.S

點擊 T.S 啟動「沽出指令」

T.S
S

E)OTHERS 其他

Reject Messages

Messages	Meanings
Invalid Order Price	The order price does not match the current price, The order cannot be filled and will be cancelled
Not enough credit or inventory	Not enough purchasing power
Throttle Break	Not enough throttle, please contact the broker