

Sep 2022

OTC Clearing Hong Kong Limited

OTC ACCOUNT SERVICES INFORMATION SYSTEM (“OASIS) WEB PORTAL USER MANUAL PART IV – OASIS MARGIN SIMULATOR PORTAL



Disclaimer

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Amendment Log

Updated Date	Document / Section	Description
November, 2014	Part IV	- Revise possible error message for invalid log in.
April 2015	Part IV	- Revise field names shown in user interface - Include simulation for margin requirement in respect of Client Clearing
April 2015	Part VI	- Revise and additional supporting values
October 2016	Part VI	- Include Trade Blotter for CCS
March 2021		- Revise for OCASS system upgrade
September 2022		- Revise for Swap Connect

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1. Interface Operation

OASIS Margin Simulator Graphical User Interface (“GUI”) allows clearing members to estimate What-if Trade/Portfolio margin requirement.

It is under “Initial Margin” tab after logging in OASIS.

- a) What-if Trade (Trade input)
- b) What-if Portfolio (Upload File)



The details of each of the above functions are set out in the following sections.

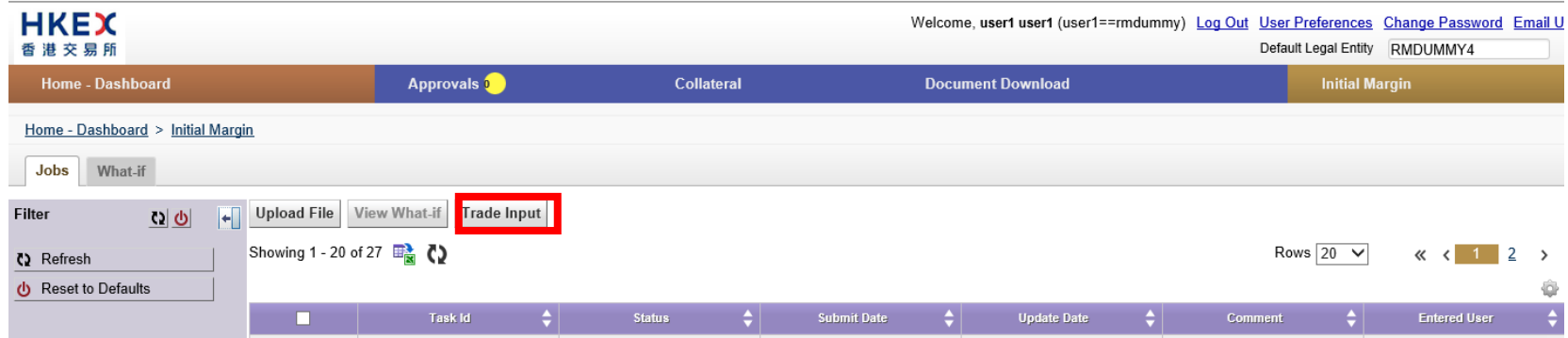
1.1. *What-if Trade*

1.1.1. *Function Descriptions*

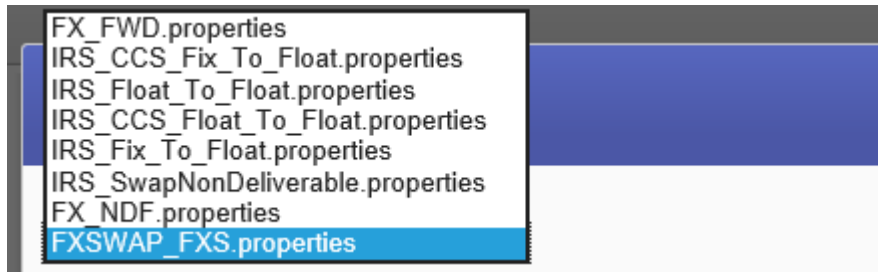
To simulate the incremental margin requirement of 1 new trade for chosen position account.

1.1.2. Trade input – How to Use (Step by Step)

1. Click **Trade Input** (red frame) to input a single trade



2. Select the template according to the product type:
 - IRS_*: Interest Rate Swap/Non-Deliverable Swap/Cross-Currency Swap
 - FX_NDF_*: Non-Deliverable FX Forward
 - FX_FWD_*: Deliverable FX Forward
 - FXSWAP_*: FX Swap



3. Input relevant information/data in the fields¹. All fields are mandatory. Then click “Next”.

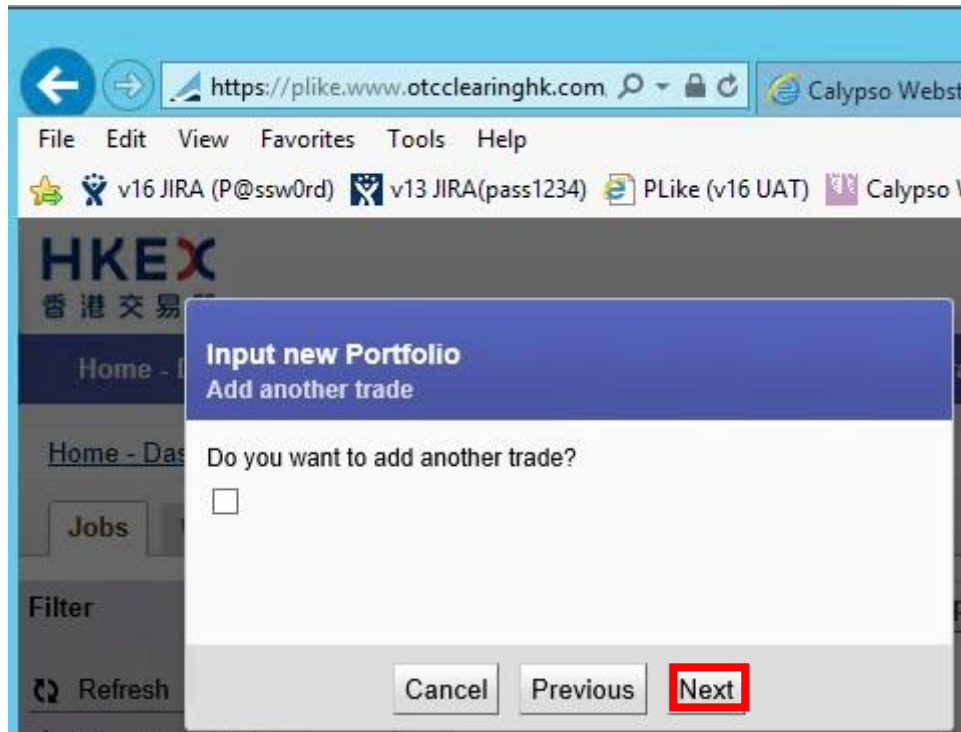
¹ Please see OTC Account Services Information System (“OASIS”) Web Portal User Manual – Part VI for the detailed information

The screenshot shows a web application interface for entering trade data. The main content area is titled "Input new Portfolio" and "Input trade". It contains the following fields and values:

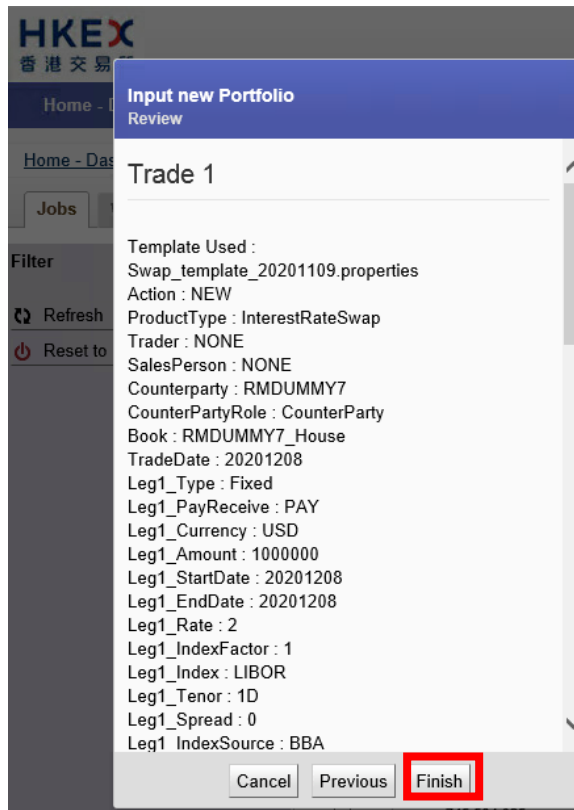
- Counterparty: RMDUMMY7
- Book: RMDUMMY7_H
- TradeDate: 08/12/20
- Leg1_Type: Fixed
- Leg1_PayReceive: PAY
- Leg1_Currency: USD
- Leg1_Amount: 1000000
- Leg1_StartDate: 08/12/20
- Leg1_EndDate: 08/12/21
- Leg1_Rate: 2
- Leg1_IndexFactor: 1
- Leg1_Index: LIBOR

At the bottom of the form, there are three buttons: "Cancel", "Previous", and "Next". The "Next" button is highlighted with a red rectangular box.

4. Check the box if you would like to add another trade. Then click "Next".



5. Review the template. Then click “Finish”.



6. Then go to “What-if” tab to view the simulation result:
 - Start IM Requirement: Initial Margin Requirement before trade input
 - IM Change: Change in Initial Margin after trade input
 - Current IM Requirement: Initial Margin Requirement after trade input
 - Start NPV: Variation Margin before trade input
 - Current NPV: Variation Margin after trade input

- NPV Change: Change in Variation Margin after trade input

Home - Dashboard Approvals 0 Collateral Document Download Initial Margin

Home - Dashboard > Initial Margin > What-if

Jobs What-if

Filter ↺ ⏻ ↔

Margin Account

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Task Id	MarginAccount	Start IM Requirement	IM Change	Current IM Requirement	Start NPV	Current NPV	NPV Change
872566364	RMDUMMY7_House	40,942,475	152,012	41,094,487	-172,077	-311,603	-139,527

1.2. What-If Portfolio

1.2.1. Function Descriptions

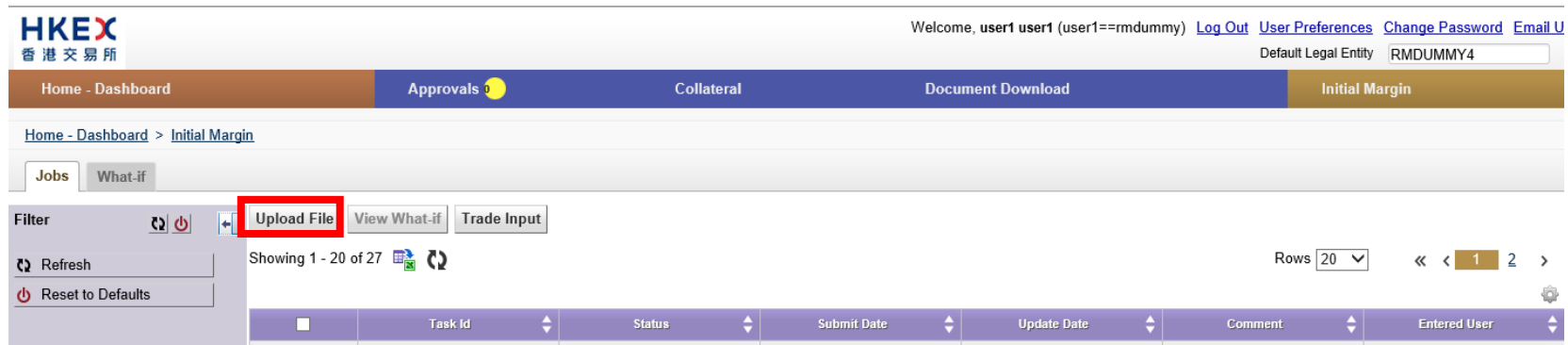
Compared with What-If trade which allows user to upload trade manually one by one, What-If portfolio function allows the user to calculate the incremental margin requirement by adding more than one trade to an existing or a new portfolio in one go.

To use this functionality a **CSV** file containing trade details and in specific format must be used. The following steps show the procedures to upload the file.

For the detailed file template and specifications to generate a CSV file for your portfolio, please refer to Part VI, Appendix 1.

1.2.2. What-If Portfolio – How to Use (Step by Step)

1. Click **Upload File** to upload a trade portfolio



2. Click **Browse** button and select the trade file to be uploaded. Uploading multiple files are allowed.

The screenshot displays the HKEX OASIS Web Portal interface. At the top, the HKEX logo and '香港交易所' are visible on the left, and 'Welcome, user1 user1' is on the right. The navigation bar includes 'Home - Dashboard', 'Approvals', 'Collateral', and 'Document Download'. The breadcrumb trail shows 'Home - Dashboard > Initial Margin'. Below this, there are tabs for 'Jobs' and 'What-if'. The main content area features a table with a 'Task Id' column and a list of values. A modal dialog box is open, titled 'backoffice.static.string.selfservice_Initial_Margin_Job_View.wizard-title-label.upload'. It contains a file input field with a 'Browse...' button highlighted by a red rectangle. At the bottom of the dialog are 'Cancel' and 'Finish' buttons.

Task Id
2,023,377,755
956,517,913
99,110,564
872,566,364
-1,095,415,138
1,762,871,834
-1,089,583,358
-1,978,512,041
-159,103,796
-1,340,849,096
-1,298,448,201
-745,584,025
1,368,383,552

3. Click **Finish** button after selecting trade file(s). Please use separate files for IRS/NDS/CCS trades, FX Spot/FX Forward/FXNDF trade, and FXSwap trades. Naming conventions of the files are as follows:
 - IRS/NDS/CCS trades: IRS_*.csv (i.e. start with "IRS_")
 - FX Spot/FX Forward trades: FX_*.csv (i.e. start with "FX_")
 - FX Swap trades: FXSWAP_*.csv (i.e. start with "FXSWAP_")



4. The screen will then display upload status.



5. Then go to “What-if” tab to view the simulation result:
- Start IM Requirement: Initial Margin Requirement before trade input
 - IM Change: Change in Initial Margin after trade input
 - Current IM Requirement: Initial Margin Requirement after trade input
 - Start NPV: Variation Margin before trade input
 - Current NPV: Variation Margin after trade input



- NPV Change: Change in Variation Margin after trade input

Home - Dashboard > Initial Margin > What-if

Jobs **What-if**

Filter
Margin Account: RMDUMMY4_House
Refresh
Reset to Defaults

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Task Id	MarginAccount	Start IM Requirement	IM Change	Current IM Requirement	Start NPV	Current NPV	NPV Change
102059960	RMDUMMY4_House	83,593,303	-18	83,593,285	-543,626	-543,568	58

1.3. What-if Trade (Participating Margin – PM requirement)

Participating Margin (PM) requirement can be simulated or approximated by using standard trade IM requirement multiplied by Inter-CCP multiplier provided by OTC Clear, assuming new portfolio.

1. Sample Inter-CCP multiplier = 0.5
2. Sample IM rates

	1Yr	2Yr	3Yr	4Yr	5Yr
CNY IRS					
Pay Fixed	1.00%	1.65%	1.93%	1.94%	1.81%
Rec Fixed	0.93%	1.47%	1.72%	1.81%	1.63%

Example: To calculate PM of Pay Fixed 1yr CNY IRS (RMB 100m):

$$\text{Participating Margin (PM)} = \text{RMB } 100\text{m} * 1\% * 0.5 * 1.2 \text{ (CNH/HKD FX)} = \text{HKD } 0.6\text{m (Approx.)}$$