

Nasdaq Calypso HSBC Interface

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Document History

Revision	Published	Summary of Changes
1.0	Jun 2015	New Document
2.0	Jul 2015	Release Notes 2.12.0
3.0	Aug 2015	Added section 2.2.2, edited section 2.2.3 and Release Notes 2.13.0
4.0	Aug 2015	Release Notes for 2.13.2
5.0	Aug 2015	Release Notes for 2.14.0
6.0	October 2021	Release Notes are now provided in the PBFA Module Release Notes, and Core Calypso Monthly Release Notes.
7.0	February 2022	Updated for version 5.0.0, 5.0.1, 5.0.2, 5.0.3 Technical release only – Version 17.0 compatibility

This document describes the interface between HSBC and Calypso.



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Introduction

The Calypso HSBC Interface runs as a Scheduled Task in Calypso. This is typically configured to run as an End of Day (EOD) process. The interface uses the HSBC CSV specification and transfers files to HSBC using FTP.

Only the activity for the day is sent to HSBC, excluding any intra-day activity which can be eliminated. For e.g., multiple amends during a day are sent as a single amend to HSBC.

The following sections in this document will help the users to configure HSBC & trades will be reported in the manner as specified by the client.



Interface Design

2.1 Scope

Products supported by the interface include the following:

- Bond
- Equity
- Repo

2.2 Functional Analysis

The new exchange functionality consists of just one scheduled task (INTERFACE_FEED), which exports trade data to HSBC.

2.2.1 Assumptions

- User has the valid credentials to update data to HSBC. This information must be provided in the appropriate fields in the scheduled task configuration.
- All data uploaded to HSBC is in CSV format.
- All communication with HSBC is done over FTP.
- User has datauploader jar in CLASSPATH. This should already be present in the package delivered. Note that if Uploader is used for some other purpose (other than HSBC), it needs to be licensed separately.

List of jars required in the CLASSPATH:

- cal-upload.jar
- datauploader-xxx.jar
- edtftpj-pro-xxx.jar
- sjsxp-xxx.jar
- pbfa-xxx.jar

2.2.2 Amendments

Trade amendments are reported as two rows in the HSBC interface. One row cancels the old trade, with all details of the trade as they were when it was cancelled and the other row effectively creating a new trade with the latest trade details (post-amendment).

However, not all changes to a trade are considered as an amendment in the context of this interface. Only changes to one (or more) of the following fields of a trade are considered to be amendments.

- Trade Date
- Settlement Date



- Nominal
- Currency
- Principal
- Counterparty / SDIs

2.2.3 Configuration

All the domain values and mapping types are inserted in the database by running Execute SQL.

After these pre-requisites are available, you can proceed with Calypso Configuration. This typically involves:

• Calypso Diary Engine:

The Calypso Diary Engine needs to be setup and running as part of the Engine server.

Also, the Calypso scheduler should be running for the execution of Scheduled Tasks.

Reports need to be configured with appropriate templates (supplied as part of Calypso HSBC interface).

• Setting the environment property "SET_XFER_ENTEREDDATE" to "true".

2.2.4 Import Report Template

Configure Report Window from the Main Entry Configurator as follows.

🥖 MainEntry Customizer		x
Menu Bar Favorites		
田·圖 Market Data 田·圖 Pricing	Name: HSBCTrade	
田島 Trade 田島 Position & Risk	Action: reporting.ReportWindow\$HSBCTrade	
E Reports	Icon:	

Launch the Report window.

🔀 HSBCTrade F	Report (16/0	06/15 05:17:04)									_ 🗆 🗙
Report Data	View Exp	oort Market Da	ta Utilities	Help							
🖬 🖳 🎯											
Criteria											
Criteria											_ +¤ ×
Template D	escription]						🔲 Undo Date			
Trade	Start		•	End	+ -	•		Trade Filter	ALL 🔻		
Settle	Start		•	End	+ -	•		SD Filter		 Sec Code BB_C 💌	
Process	Start		•	End	+ -	•		Filter Set			
Maturity	Start		•	End	+ -	•	🔲 Open	Currency			
Trade Id	ID 🔻							Product Family			
Trade Attribute		•	Contains					Product Type			
Buy/Sell		-	Max Ro					Product Id			
Bundle	Id							Books			
CP role:	ALL							Status			
Processing	Org		Include Cl	nild Legal Entities				Action			



Choose **Utilities > Import Template** and select the template file located at "resources/calypso/mapping/HSBC/PBFATrade_HSBC_Final.xml".

🛃 Open			X
Look <u>i</u> n:	📜 hsbc	👻 🧊 🔁	⊡ -
Recent Items	PBFATrado	e_HSBC_Final.xml	
Desktop My			
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Template imported.

	ac nepon	(10/00/1	5 05.17.04)								
Report Da	ita View	Export	Market Da	ta Utilities	Help						
	J										
📑 Criteria											
Criteria											– + ×
Templa	te Descript	ion						Undo Date			
Trad	e Start			•	End	+ -	-	Trade Filter	ALL	•	
Settl	e Start			-	End	+ -	-	SD Filter			Sec Code BB_C 🔻
Proces	s Start			•	End	+ -	-	Filter Set			
Maturit	y Start			•	End	+ -	🕶 🔲 Open	Currency			
Trade I	d ID	•						Product Family	Bond,Repo,Equity		
Trade Attribut	e		•	Contains				Product Type			
Buy/Se	:II [-	Max Ro				Product Id			
Bundle		Id 🔻						Books			
CP (role: ALL							Status	VERIFIED, CANCELED		
Proces	sing Org			Include Ch	nild Legal Entities			Action			

2.2.5 Exporting - Scheduled Task (INTERFACE_FEED)

- This Scheduled task uploads the Trade Report Data to HSBC.
- This task will be used with a trade filter to filter the trades that will be sent.
- Trades can also be filtered by passing dates as described below.
- If using scheduled task, create the trade filter first and then use it from the Scheduled Task Window and save that task.

The scheduled task will use the following attributes to describe where and how the xml file will be sent.



Attribute	Description
Interface Name	Always "HSBC"
Instance	A human-readable name to uniquely identify the task. This is particularly useful when you have multiple scheduled tasks to configure.
Output Folder	C:\Test (To generate Temp Files to Send to HSBC)
Output File Name	Set the prefix for the output file name. Usually "hsbc_feed_".
Report Type	Always "HSBCTrade"
Template Name	Name of the Template
Start Date	 Start Date Empty when Using Trade Filter (or) for trades created today.
End Date	End Date -> Empty when Using Trade Filter (or) for trades created today.
TransportType	FTP
HostName	Host Name
UserName	Login Name
Password	Login Password
Destination	Destination url
Load Type	<leave blank=""></leave>
Proxy Type	DIRECT

Output File Name

The transformed files will be saved in the output directory specified in the scheduled task attribute "Output Folder" having the file name prefix specified in the scheduled task attribute "Output File Name".

Output Folder	C:\hsbc-output
Output File Name	hsbc_feed_
Report Type	HSBCTrade

The resultant file name will have the "<prefix_specified><timestamp>.xml". For example, with the above configuration, one of the files generated would look like "hsbc_feed_20150123064759.xml".

Below screenshot shows the scheduled task window showing the INTERFACE_FEED scheduled task.

🥖 Scheduled Task Definit	ion & Sched	uling										
Scheduled Task Definitions & Schedules												
Scheduled Tasks can be to decide when each task	defined and so k is executed	heduled for execution be	low. In the first table defi	ine your scheduled tasks	and use the second panel							
Task Definitions												
📑 New Task 📑 New Chain 📇 Clone 🗔 Delete 🜔 Run 🗞 Refresh 🕦 Info												
External Reference	ID	Туре	Trade Filter	Processing Org	Description							
hsbc-feed	8620	INTERFACE_FEED			÷							
Schedule	Schedule Image: Construction of the second secon											
Trigger Name	Task Externa	Refer Task ID	Schedule	Execute On Holida	ays Holiday Types							
HSBC-Trigger-1	hsbc-feed	8620	Every day at 07:0	00 A false								



Any errors during execution of the INTERFACE_FEED scheduled task can be viewed from the task station. The task station displays all the validation errors that occurred while sending the trades to HSBC.

User Marrie	calypso_use	er	calypso_user	•	Config Name	e Default	
Start Days	0	End Days	2	Filter			
Date Type	TaskDatetin	ne 🔻					
Books				Book Attrs			
Inherit							
		Merge To Grou	Jp	Duplicate To	User	Duplicate	e To Group
Tab Name Event Class Event Types All Clear olor Set Remove Priority	HSBC Exception EX_INFOR EX_INTERI	MATION ACE_EXCEPTION	 >> < 	List of Define Messages In Pay/Rec Msg Held Messag Edited Messa Nacked Pay/ Nacked Confi Messages Au Confirm Mat Other Excep Credit Event DTCC Confir DTCC Allege Pending Inco Alleged FX C Alleged Sec 1	ed Tabs valid Contact g for Man Rele- les ages Auth Que Rec Messages firm waiting Respor ching Actions tions : Monitor m Monitor d ming SWIFT C confirms Settlements ment Message	ase sue s nse E Confirms	Up Down

The below is the screenshot of task station displaying the errors:

@ root	Trade with Nacked Con From 06/10	out SDE [5] Trade firm Messages Awa /2015 To 06/25/2015	with SDI changed iting Response	Trade in Auth Queue Transfers for S Confirm Matching Actions Other Exception	DI Assigned ns [5] Credit I	SDI Assign Auth Queue Event Monitor DTCC Co	Transfers in Netting Queue nfirm Monitor DTCC Allege	Messages Invalid Contact d Pending Incoming SWIFT Con	Pay/Rec Msg fo firms Alleged	r Man Release Held Messages FX Confirms Alleged Sec Settlements	Edited Messages Auth Queue Off Limit Payment Messages	Nacked Pay,Rec Messages 8 Quintilion [9] HSBC [9
	Task Id	Trade Id	Status	Date & Time	Book	Task Status	Task Owner	Comment	Priority	User Comment	Object Id	Object Class Name
		82821	0	6/19/15 6:23:11.524 AM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	9120	c
		82820	0	6/19/15 6:22:40.562 AM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	9120	1
		80323	0	6/14/15 10:21:21.751 PM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	14120	1
		80322	0	6/14/15 10:19:35.112 PM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	14120	1
		82322	0	6/19/15 6:16:13.286 AM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	9120	
		80321	0	6/14/15 10:11:24.317 PM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	14120	
		82321	0	6/19/15 6: 12:23.479 AM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	9120	1
		80320	0	6/14/15 10:11:05.120 PM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	14120	1
		82320	0	6/19/15 6: 12:06.280 AM PDT		NEW		INTERFACE_FEED failed	NORMAL	[missing property FILE_FORMAT]	9120	1



2.3 Configure HSBC Interface Properties File

Please configure interface.properties (available under resources directory). The sample file supplied should already be preconfigured for HSBC, but you may need to copy the configuration if you already have a setup for some other interface

Note that you can leave the ENCRYPTION parameters blank if you want to test without encryption.

Also note that the text in **bold HSBC** has to match the "Interface Name" attribute in the Scheduled Task setup (section 2.2.4 above).

HSBC_ENCRYPTION_TYPE= HSBC_ENCRYPTION_KEY= HSBC_MERGE=true HSBC_FILE_FORMAT=CSV HSBC_XSLTS=HSBC_MT540_MT542.xslt HSBC_DATE_FORMAT=DATE,yyyyMMDD,None,-HSBC_SEND_EMPTY_FILES=