



Nasdaq Calypso

Client Custody

Version 18

Revision 8.0
April 2025
Approved

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Document History

Revision	Published	Summary of Changes
1.0	February 2024	First revision for version 18
2.0	April 2024	Updates for version 18 monthly release – Added multiple outcomes for MT564 generation, and generation of MT564 reminders
3.0	May 2024	Updates version 18 monthly release – Added static data filters for MT564 generation and AUTO_CANCEL action to CA_NOTIFICATION workflow.
4.0	July 2024	Updates for version 18 monthly release – Added domain value messageAllowedTemplates.REMIND for MT564 message generation
5.0	September 2024	Updates for version 18 monthly release – Added integration of MT103 and MT202 messages.
6.0	November 2024	Updates for version 18 monthly release – Added CheckLegalAgreement workflow rule.
7.0	February 2025	Updates for version 18 monthly release – Updated Use of Account Attribute Client and Custody Book.
8.0	April 2025	Updates for version 18 monthly release – Added Foreign Currency Funding (MT200 and MT210 integration)

This document describes the setup requirements for managing Client Custody.

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Configuration

1.1 Initial Setup

1.1.1 Environment properties

Please set the following environment properties:

MIRROR_WORKFLOW=false

USE_CALL_ACCOUNT=false

CUSTODY_CONTEXT=false

1.1.2 Domain Values

Enable Client Account Management

The following values in domain “ProcessingConfig” enable the creation of specific trade transfer rules for the client account when the trade key ClientAccount is filled.

ETDClearing.ClearingAccountTransferGeneration=true

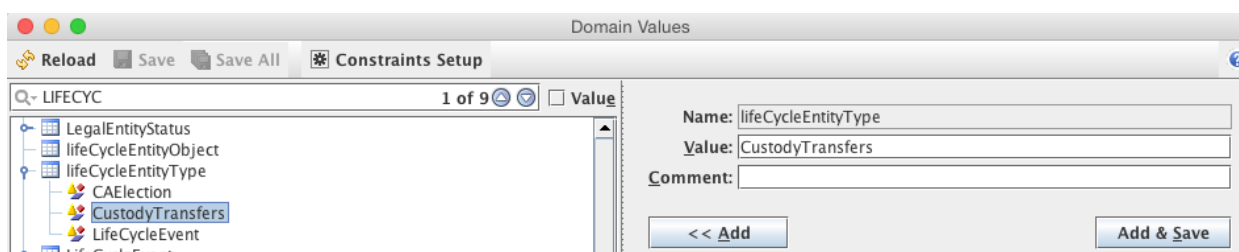
Custody.IsActive=true

ETDClearing.SecurityTransferGeneration=false

Enable Lifecycle Transfer Management

This property enables the settlement chain of the transfer to be completed. It applies the settlement from none custody transfer (PO acts in its name) to custody transfer (PO acts in the name of the client), from there to the client account itself.

It is an option for the lifecycleEngine that needs to be up to grant the synchronicity of the transfers.



Description

CALIMAX sells to Bancomer \$100,000 MX0MGO00003

Trade Browser / Trade Browser																
Report Data View Export Market Data Process Utilities Help																
Criteria																
Internal Reference	Trade Id	Trade Type	Market Place	Market Type	Book	Trade Date	Trade Settle Date	ISIN	Nominal	Trade Price	Yield	Trade Accrual	SettlementAmount	Settle Cur.	Client	ClientAccount
Internal Reference: 159430																
159430	159430	Buy	OTC	Secondary	SALES BANCOMER	Apr 13, 2016 12:24 PM	04/18/2016	MXOMG000003	100,000.00	125.198995%	4.0000000%	1,977.78	(127,176.77)	MXN		
159430	159431	Sell	OTC	Secondary	Client Bancomer	Apr 13, 2016 12:24 PM	04/18/2016	MXOMG000003	(100,000.00)	125.198995%	4.0000000%	1,977.78	127,176.77	MXN	CALIMAX	CALIMAX @BANCOMER
															CounterParty	CALIMAX
															CounterParty	BANCOMER

Transfers																
Report Data View Export Window																
Filter	Book	Xfer Their Role	Transfer Id	Transfer Type	ISIN	Xfer Product Type	GL Account	Nominal (Par)	Money Amount	SettleCurrency	Xfer Pay/Rec	Value Date	Netting Type	Ti	Details	
	Book: Client Bancomer	Xfer Their Role: Client														
	Client Bancomer	Client	104830	SECURITY	MXOMG000003	Bond	CALIMAX @BANCOMER	100,000.00	0.00	MXN	RECEIVE	04/18/2016	None	VE		
	Client Bancomer	Client	104831	PRINCIPAL	MXOMG000003	Bond	CALIMAX @BANCOMER	-0.00	(127,176.77)	MXN	PAY	04/18/2016	None	VE		
								100,000.00	(127,176.77)							
	Book: Client Bancomer	Xfer Their Role: CounterParty														
	Client Bancomer	CounterParty	104828	SECURITY	MXOMG000003	Bond	020132099	(100,000.00)	0.00	MXN	PAY	04/18/2016	None	VE		
	Client Bancomer	CounterParty	104829	PRINCIPAL	MXOMG000003	Bond	LND.THIRDPARTY.MXN.146709	0.00	127,176.77	MXN	RECEIVE	04/18/2016	None	VE		
								(100,000.00)	127,176.77							
	Book: SALES BANCOMER	Xfer Their Role: CounterParty														
	SALES BANCOMER	CounterParty	104826	SECURITY	MXOMG000003	Bond	020136502	100,000.00	0.00	MXN	RECEIVE	04/18/2016	None	VE		
	SALES BANCOMER	CounterParty	104827	PRINCIPAL	MXOMG000003	Bond	LND.PROPRIETARY.MXN	-0.00	(127,176.77)	MXN	PAY	04/18/2016	None	VE		
								100,000.00	(127,176.77)							

Transfer Chain

- PRINCIPAL settles PRINCIPAL only
- INTEREST settles INTEREST only
- SECLENDING_FEE settles SECLENDING_FEE only
- SECURITY settles SECURITY and any other transfers that is not part of the previous list (PRINCIPAL, INTEREST and SECLENDING_FEE)

Actions Maintained

- SETTLE
- PARTIAL_SETTLE
- SPLIT

Parent/Child

- The Transfers coming from book with attribute Custody Book set to true are always children of the other transfer
- The client transfer is always a child of the Settlement movement

From previous screen:

Xfer 104826 is the parent of 104828 that is the parent of 102830 such as:

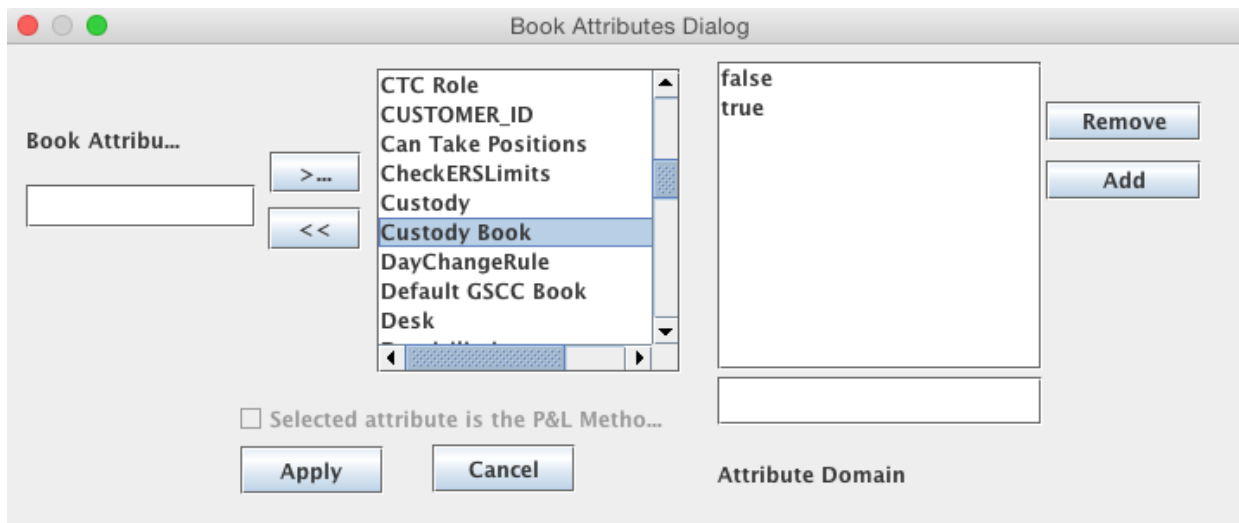
Actions (SETTLE,SPLIT...) on 104826 will be applied also on 104828

Actions (SETTLE,SPLIT...) on 104828 will be applied also on 104830

1.1.3 Custody Book

All client trades must be captured with a book having book attribute Custody Book = true.

This attribute is mandatory to identify a trade from client perspective with no settlement or financial risk from the PO's view.



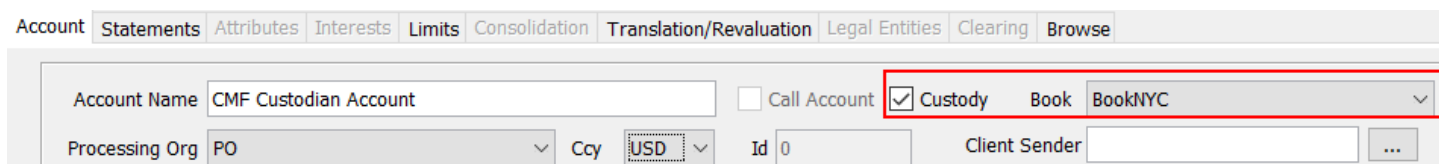
The screenshot shows the 'Book Attributes Dialog' window. On the left, there is a 'Book Attrib...' label and a text input field. Below it are two buttons: '> ...' and '<<'. A list of attributes is displayed in the center, with 'Custody Book' selected. To the right of the list is a large text area containing 'false' and 'true'. Below this are 'Remove' and 'Add' buttons. At the bottom left, there is a checkbox labeled 'Selected attribute is the P&L Metho...' and 'Apply' and 'Cancel' buttons. At the bottom right, there is a label 'Attribute Domain'.

The system allows one book or multiple books per Processing Org depending on environment property ALLOW_MULTIPLE_CUSTODY_BOOK.


If ALLOW_MULTIPLE_CUSTODY_BOOK= false, only one book is authorized per PO. The book is linked to the client by the PO defined on the client account, provided Custody Book = true.

If ALLOW_MULTIPLE_CUSTODY_BOOK= true, it is possible to define a book per client account.

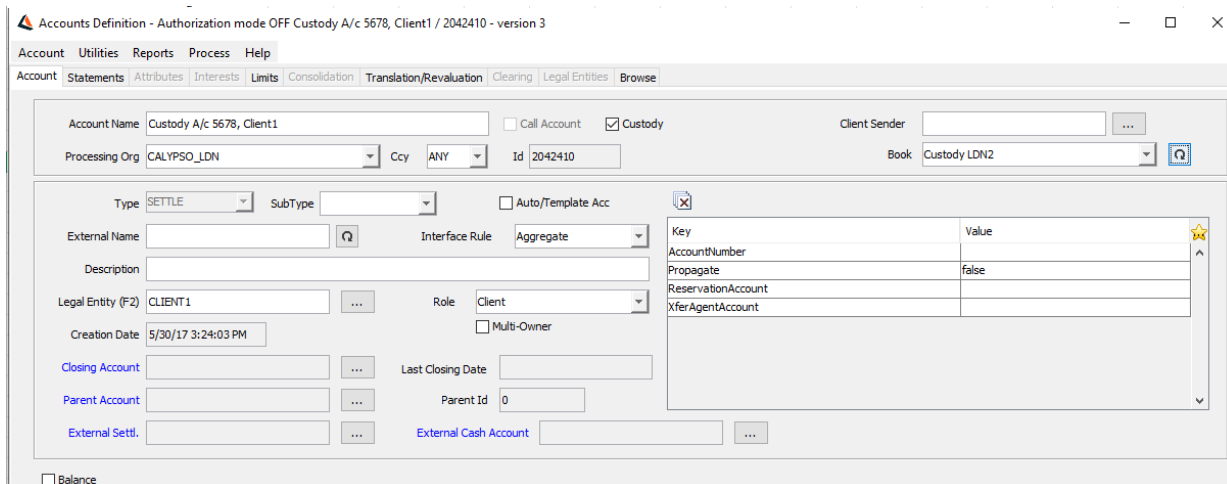
On the Account window, check the "Custody" checkbox to select a book from the Book field. It only shows books where book attribute Custody Book = true.



The screenshot shows the 'Account' window with various tabs: 'Account', 'Statements', 'Attributes', 'Interests', 'Limits', 'Consolidation', 'Translation/Revaluation', 'Legal Entities', 'Clearing', and 'Browse'. The 'Attributes' tab is active. It shows fields for 'Account Name' (CMF Custodian Account), 'Call Account' (unchecked), 'Custody' (checked), 'Book' (BookNYC), 'Processing Org' (PO), 'Ccy' (USD), 'Id' (0), and 'Client Sender'.

When "Custody" checkbox is selected and ALLOW_MULTIPLE_CUSTODY_BOOK= true, a 'Dispatch' button indicated by round arrow  is added for the custody book selection:

- If the client already has an account for particular PO, the existing custody book is selected.
- If new client, the window will select custody book with the least number of client accounts linked to it, from the list of all custody books of the PO.



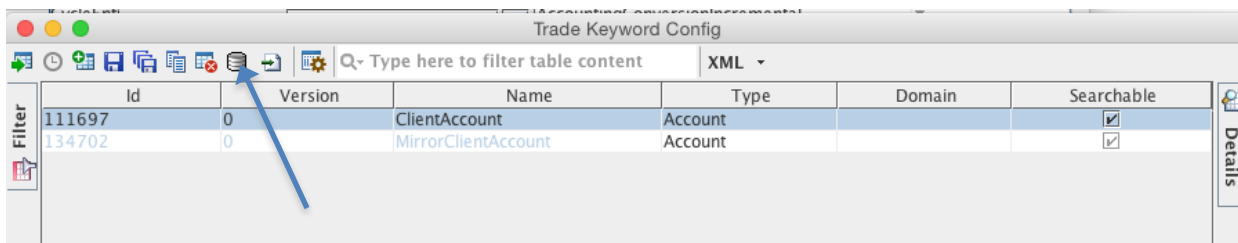
1.1.4 Client Account Trade attributes

From the Calypso Navigator, navigate to **Configuration > System > Keywords & Attributes > Trade Keyword** (menu action `core.keyword.TradeKeywordConfigWindow`).

ClientAccount is the client account at the PO on a client trade. Book must be type custody.

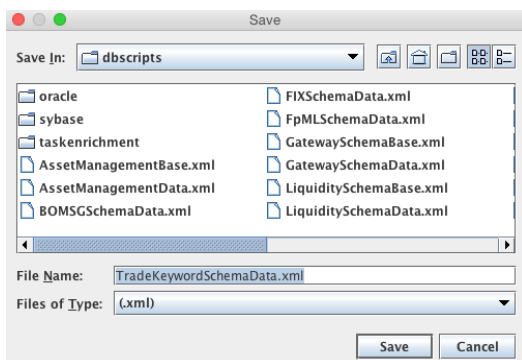
MirrorClientAccount is the client account at the PO on a PO trade. Mirror Book must be type custody.

CashSettlement indicates if the client exchanges cash with this trade or expect a FOP delivery.

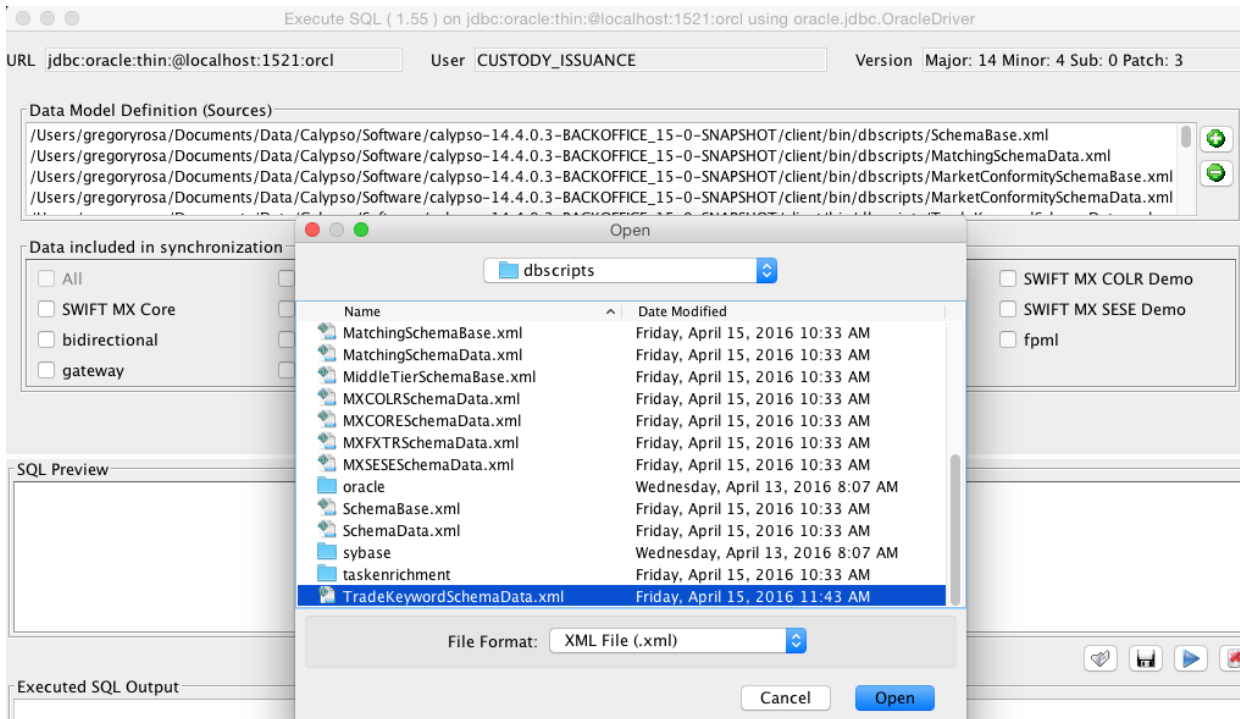


Id	Version	Name	Type	Domain	Searchable
111697	0	ClientAccount	Account		<input checked="" type="checkbox"/>
134702	0	MirrorClientAccount	Account		<input checked="" type="checkbox"/>

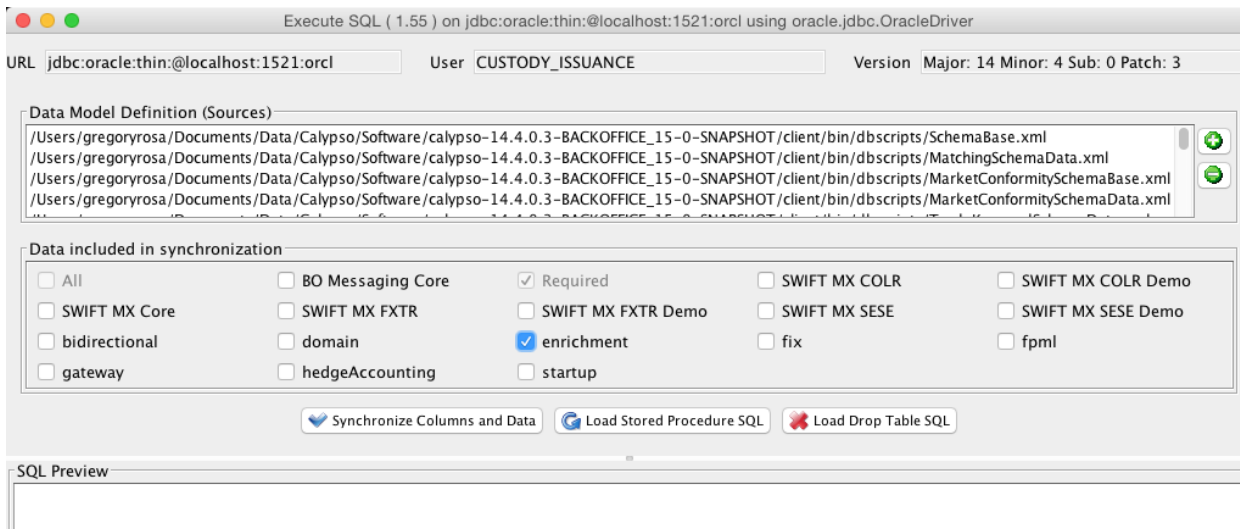
After the creation of the previous entries, the DB needs to be changed. Click on the DB icon to generate an xml file for the Execute SQL process



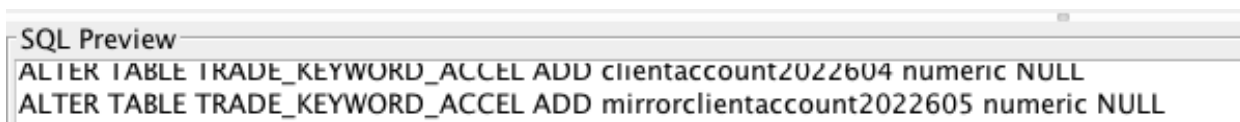
Ensure the file is selected under the Data Model Definition



Select the enrichment option to synchronize the keyword change with the DB.

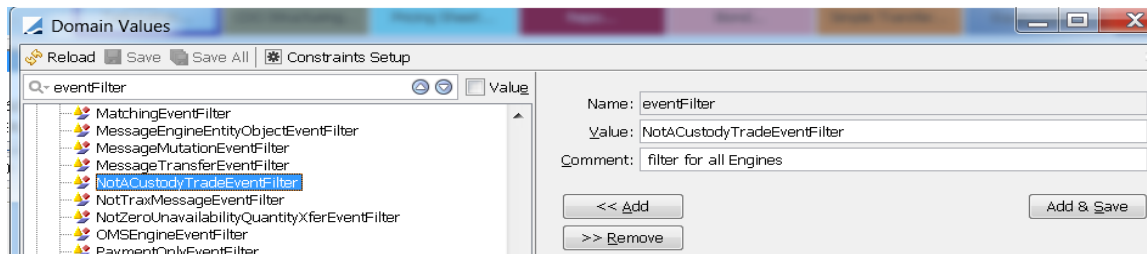


Some SQL statements will be created to alter/create Trade_Keyword_Accel table.



1.1.5 Accounting Engine Filter

The following engine filter is available: NotACustodyTradeEventFilter



It acknowledges the PSEventTrade with a book type custody. Its main usage is for the accounting engine if no accounting from the client perspective is required.

Engine Configuration

Unable to edit a running engine. Displaying in read-only mode.

Engine Name: AccountingEngine	Engine ID: 4	Max Queue Size: ?	Max Batch Size: ?																						
Engine Class: com.calypso.engine.accounting.AccountingEngine	Number of Threads: ?	Event Pool Policy: ?	Pricing Environment: ?																						
Display Name: Accounting Engine	Application Type: EngineServer	Save settle position changes: ?																							
Description:		Configuration attributes																							
Persisted Event Configuration: PSEventAccountBilling PSEventAggLiquidatedPosition PSEventArray PSEventBalanceReclassification PSEventFXPositionValuation		<table border="1"> <thead> <tr> <th>Attribute Name</th> <th>Attribute Value</th> </tr> </thead> <tbody> <tr><td>ACCENGINE_BKHOLIDAYS</td><td>False</td></tr> <tr><td>ACCENGINE_INVALID_LOGIC</td><td>true</td></tr> <tr><td>ACCENGINE_USEBUSINESSDATE</td><td>true</td></tr> <tr><td>BALANCE_MODE</td><td></td></tr> <tr><td>CALC_BALANCE_POSITION_FXAMOUNTS</td><td></td></tr> <tr><td>CLASS_NAME</td><td></td></tr> <tr><td>DISPLAY_NAME</td><td></td></tr> <tr><td>DataType</td><td></td></tr> <tr><td>EVENT_ORDER</td><td></td></tr> <tr><td>EXCLUDE_STATUS</td><td></td></tr> </tbody> </table>		Attribute Name	Attribute Value	ACCENGINE_BKHOLIDAYS	False	ACCENGINE_INVALID_LOGIC	true	ACCENGINE_USEBUSINESSDATE	true	BALANCE_MODE		CALC_BALANCE_POSITION_FXAMOUNTS		CLASS_NAME		DISPLAY_NAME		DataType		EVENT_ORDER		EXCLUDE_STATUS	
Attribute Name	Attribute Value																								
ACCENGINE_BKHOLIDAYS	False																								
ACCENGINE_INVALID_LOGIC	true																								
ACCENGINE_USEBUSINESSDATE	true																								
BALANCE_MODE																									
CALC_BALANCE_POSITION_FXAMOUNTS																									
CLASS_NAME																									
DISPLAY_NAME																									
DataType																									
EVENT_ORDER																									
EXCLUDE_STATUS																									
Event Filters: AllTransfersKnownEventFilter NotACustodyTradeEventFilter NotZeroUnavailabilityQuantityXferEventFilter PaymentOnlyEventFilter SecurityClaimTransferEventFilter																									

1.2 Workflow Rules

On PSEventTrade

CheckClientAccount: To break STP if book is custody and ClientAccount is empty

CheckMirrorClientAccount: To break STP if Mirror book is custody and MirrorClientAccount is empty

CheckCustodyBook: To break STP if ClientAccount is set and the Book is not type Custody

CheckLegalAgreement: To break STP is there is no legal agreement signed with the owner of the ClientAccount.
When this rule is used on an action, the Transition Comment must be set to SIGNED.

1.3 Netting Configuration

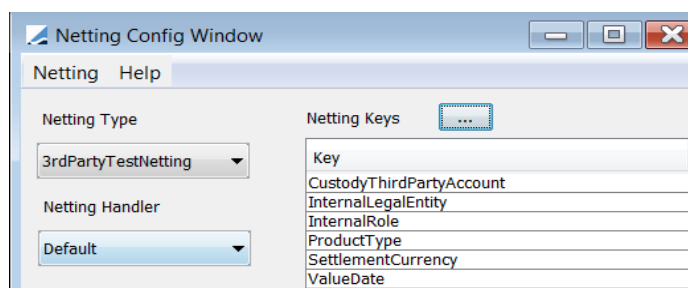
It is required to be able to net (group) transfers based on the Product, the Value Date and the proprietary & thirdparty accounts to be debited/credited. Other netting keys may be added based on the user requirements.

Indeed one single message, triggered by the proprietary transfer, is going to be sent to Indeval to instruct the debit of the proprietary account and the credit of the thirdparty account (case of buy by an internal client)

This kind of Netting is only applied in case of Internal Custody.

The Xfer Attribute on which the netting rule must be created is CustodyThirdPartyAccount.

Name:	XferAttributes
Value:	CustodyThirdPartyAccount
Comment:	



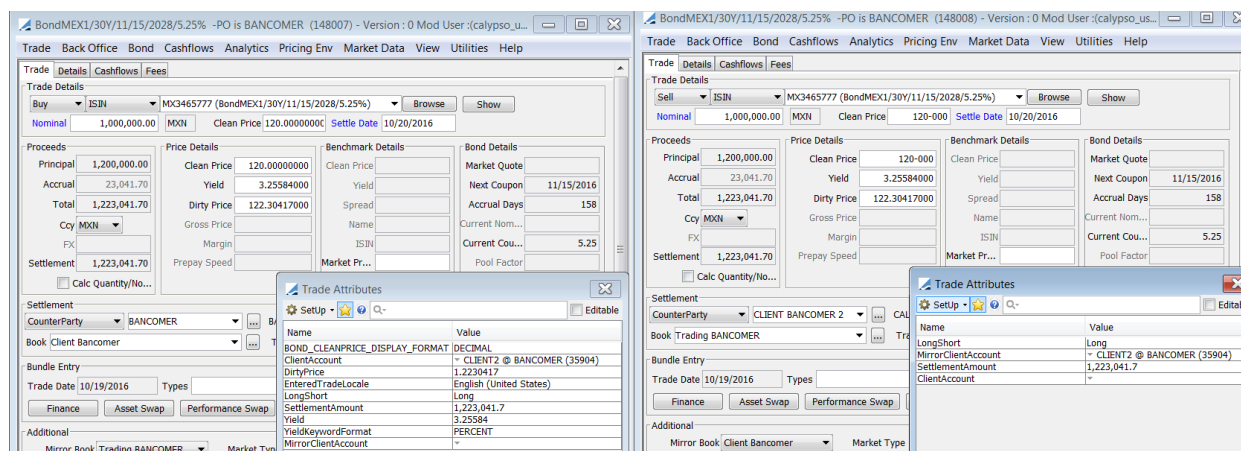
Netting Config Window

Netting Type: 3rdPartyTestNetting

Netting Handler: Default

Netting Keys:

Key
CustodyThirdPartyAccount
InternalLegalEntity
InternalRole
ProductType
SettlementCurrency
ValueDate



Trade Window (Left): BondMEX1/30Y/11/15/2028/5.25% - PO is BANCOMER (148007) - Version: 0 Mod User:(calypso_us...)

Trade Window (Right): BondMEX1/30Y/11/15/2028/5.25% - PO is BANCOMER (148008) - Version: 0 Mod User:(calypso_us...)

Trade Attributes Window (Left):

Name	Value
BOND_CLEANPRICE_DISPLAY_FORMAT	DECIMAL
ClientAccount	CLIENT2 @ BANCOMER (35904)
DirtyPrice	1.2230417
EnteredTradeLocale	English (United States)
LongShort	Long
SettlementAmount	1,223,041.7
Yield	3.25584
YieldKeywordFormat	PERCENT
MirrorClientAccount	-

Trade Attributes Window (Right):

Name	Value
LongShort	Long
MirrorClientAccount	CLIENT2 @ BANCOMER (35904)
SettlementAmount	1,223,041.7
ClientAccount	-

BO Trade Browser (148007) x

Trade ID ID 148007 SDI Transfers Messages Postings CREs Tasks Diary

Transfers

Report Data View Export Window

Is Client	GL Account	CustodyThirdPartyAccount	InternalReference	OtherAccount	ClientReference	PositionTransfer	Book	Xfer Their Role	Internal Reference	Transfer_id	Transfer Type	Bond.PROD
<input checked="" type="checkbox"/>	CLIENT2 @ BANCOMER		148007	35107			Book: Client Bancomer	Xfer Their Role: Client	148007	25028	SECURITY	MX3465777
<input checked="" type="checkbox"/>	CLIENT2 @ BANCOMER		148007	35107			Client Bancomer	Client	148007	25029	PRINCIPAL	MX3465777
							Book: Client Bancomer	Xfer Their Role: CounterParty				
<input checked="" type="checkbox"/>	020136528 THIRDPARTY NON RES		148007	35904			Client Bancomer	CounterParty	148007	25026	SECURITY	MX3465777
<input checked="" type="checkbox"/>	02013 CASH		148007	35904			Client Bancomer	CounterParty	148007	25027	PRINCIPAL	MX3465777

Back Office Window for Trade 148008 / Internal Ref. 148007 / External Ref. 148008

BO Trade Browser (148008) x

Trade ID ID 148008 SDI Transfers Messages Postings CREs Tasks Diary

Transfers

Report Data View Export Window

Is Client	CustodyThirdPartyAccount	InternalReference	OtherAccount	ClientReference	PositionTransfer	Book	Xfer Their Role	Internal Reference	Transfer_id	Transfer Type	Bond.PRODUCT_CODE.ISIN	Xfer Produ
<input checked="" type="checkbox"/>	020132099 THIRDPARTY RES					Book: Trading BANCOMER	Xfer Their Role: CounterParty	148007	25030	SECURITY	MX3465777	Bond
<input checked="" type="checkbox"/>	020132099 THIRDPARTY RES					Trading BANCOMER	CounterParty	148007	25031	PRINCIPAL	MX3465777	Bond

1.4 Trade Open Quantity Report

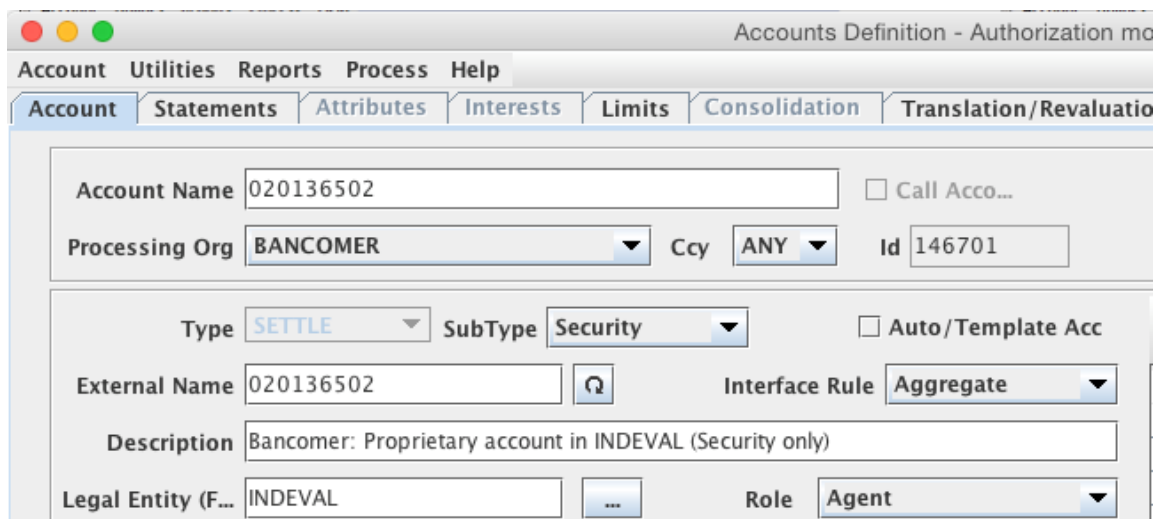
The open trades can be shown using the following menu: `reporting.ReportWindow$TradeOpenQuantity`

Process Management

2.1 Accounts

- Security accounts, 3 required:
 - One for PO own activity
 - One for resident client custody
 - One for Non resident client custody
- One Cash account: Shared by all activities
- One 'Vostro' technical account for the system to match client entries
- One Client Account

Security Principal Account



The screenshot shows the 'Accounts Definition - Authorization module' window. The 'Account' tab is selected. The form contains the following fields and values:

- Account Name:** 020136502
- Processing Org:** BANCOMER
- Ccy:** ANY
- Id:** 146701
- Type:** SETTLE
- SubType:** Security
- External Name:** 020136502
- Interface Rule:** Aggregate
- Description:** Bancomer: Proprietary account in INDEVAL (Security only)
- Legal Entity (F...):** INDEVAL
- Role:** Agent

There are also checkboxes for 'Call Acco...' and 'Auto/Template Acc' which are currently unchecked.

Security Third Party Account

They are two third-party accounts:

- One for resident
- One for none-resident

Accounts Definition - Authorization module

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation

Account Name 020132099 ☐ Call Account...

Processing Org BANCOMER Ccy ANY Id 146702

Type SETTLE SubType Security ☐ Auto/Template Account

External Name 020132099 Interface Rule Aggregate

Description Bancomer: Thirdparty account in INDEVAL - Mex Res.

Legal Entity (F...) INDEVAL Role Agent

Cash Account

Accounts Definition - Authorization module

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation

Account Name 02013 ☐ Call Account...

Processing Org BANCOMER Ccy MXN Id 146704

Type SETTLE SubType ☐ Auto/Template Account

External Name 02013 Interface Rule Aggregate

Description Bancomer: MXN Cash account in INDEVAL

Legal Entity (F...) INDEVAL Role Agent

Vostro Account

Accounts Definition - Authorization mod

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation

Account Name Vostro account ☐ Call Acco...

Processing Org BANCOMER Ccy ANY Id 146705

Type SETTLE SubType ☐ Auto/Template Acc

External Name vostro Interface Rule Aggregate

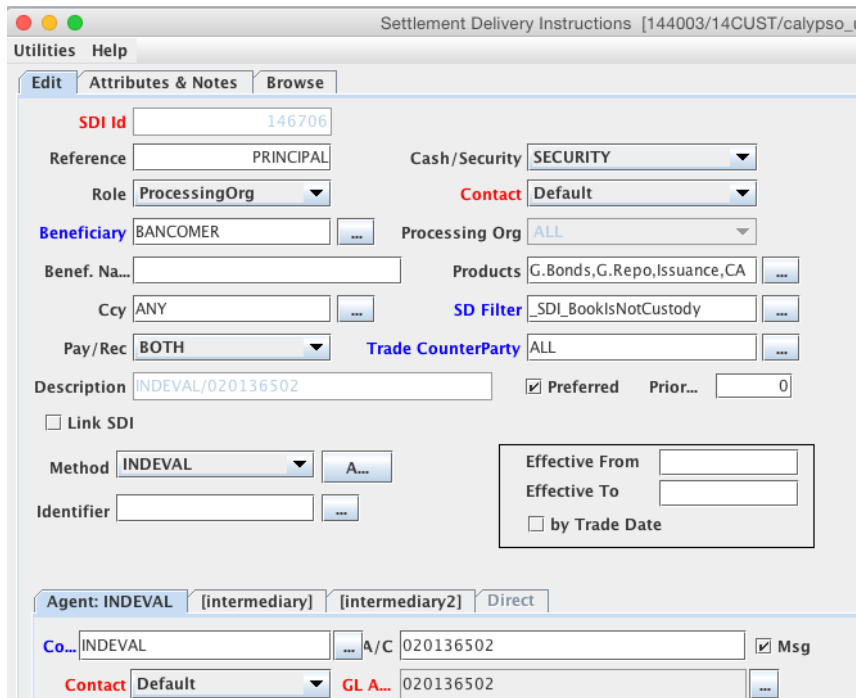
Description Bancomer: generic account for client in Bancomer's book

Legal Entity (F... BANCOMER Role Agent

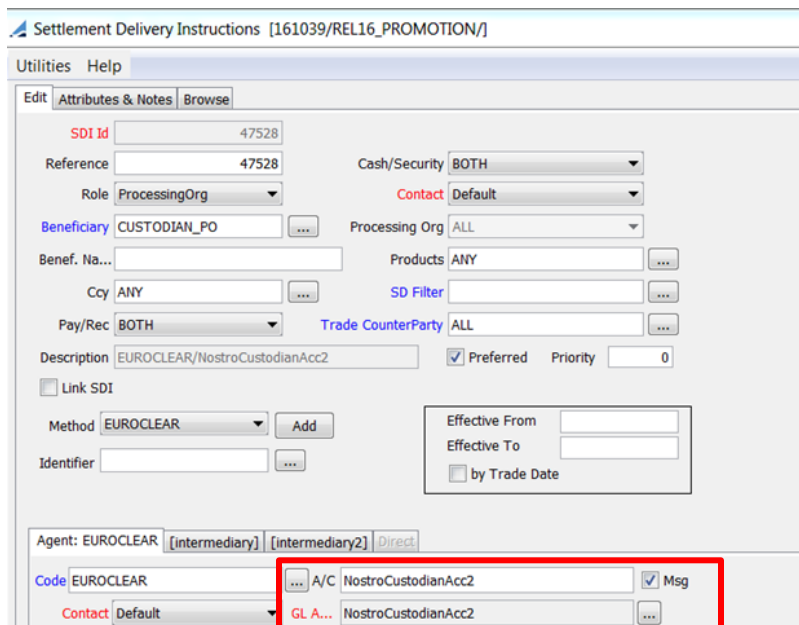
2.2 SDIs

- PO: Security and Cash
- Client: With role client (when custody is Bancomer) and CounterParty either for:
 - Matching Broker deal for settlement
 - Purely external is Client did not keep its security at Bancomer
- SD Filters are used to separate and allocate SDI.

Security Principal SDI



When SDI Cash/Security = BOTH and GL Account TYPE = SECURITY, you can associate cash Nostro accounts with the security Nostro account directly from the SDI window:



Click on **Cash Accounts Definitions** to associate the cash accounts:

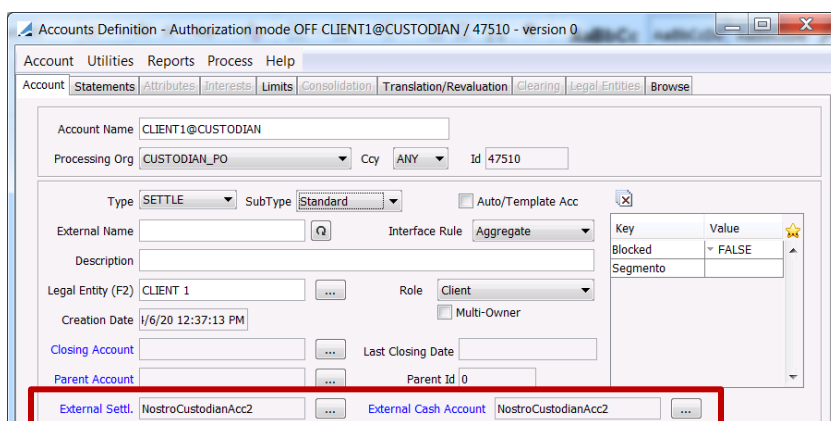
Cash Account Window		
Currency	Cash A/C	CASH GL A/C
ARS	CASHCustodianAcc-ARS	CASHCustodianAcc-ARS (47527)
JPY	CASHCustodianAcc-AUTO	CASHCustodianAcc-AUTO (47516)
EUR	CASHCustodianAcc-EUR	CASHCustodianAcc-EUR (47514)
USD	CASHCustodianAcc-USD	CASHCustodianAcc-USD (47515)

Currency – To select the cash currency.

Cash A/C – To enter the cash account.

Cash GL A/C – To select the cash GL account.

NOTE: When using the logic based on the **External Settlement Account** and **External Cash Account** along with the MultiCCY Cash Accounts SDIs, the same Nostro Security Account must be configured on both fields:



Accounts Definition - Authorization mode OFF CLIENT1@CUSTODIAN / 47510 - version 0

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Legal Entities Browse

Account Name: CLIENT1@CUSTODIAN

Processing Org: CUSTODIAN_PO Ccy: ANY Id: 47510

Type: SETTLE SubType: Standard Auto/Template Acc: ☐

External Name: Interface Rule: Aggregate

Description:

Legal Entity (F2): CLIENT 1 Role: Client

Creation Date: 1/6/20 12:37:13 PM

Closing Account: Last Closing Date:

Parent Account: Parent Id: 0

External Settl. NostroCustodianAcc2 External Cash Account NostroCustodianAcc2

Security Third-Party SDI

Settlement Delivery Instructions [144003/14CUST/calypso_

Utilities Help

Edit Attributes & Notes Browse

SDI Id 146707

Reference THIRD-MEX Cash/Security SECURITY

Role ProcessingOrg **Contact** Default

Beneficiary BANCOMER Processing Org ALL

Benef. Na... Products G.Bonds,G.Repo,Issuance,CA

Ccy ANY **SD Filter** DI_BooksCustody_ForResident

Pay/Rec BOTH **Trade CounterParty** ALL

Description INDEVAL/020132099 ☒ Preferred Prior... 0

☐ Link SDI

Method INDEVAL A... Effective From Effective To

Identifier by Trade Date

Agent: INDEVAL [intermediary] [intermediary2] Direct

Co... INDEVAL A/C 020132099 ☒ Msg

Contact Default **GL A...** 020132099

Name Sub A... R-Sh...

Identifier

Settlement Delivery Instructions [144003/14CUST/calypso_us

Utilities Help

Edit Attributes & Notes Browse

SDI Id 146710

Reference THIRD-N-MEX Cash/Security SECURITY

Role ProcessingOrg **Contact** Default

Beneficiary BANCOMER Processing Org ALL

Benef. Na... Products G.Bonds,G.Repo,Issuance,CA

Ccy ANY **SD Filter** okIsCustody_ForNoneResident

Pay/Rec BOTH **Trade CounterParty** ALL

Description INDEVAL/020136528 ☒ Preferred Prior... 0

☐ Link SDI

Method INDEVAL A... Effective From Effective To

Identifier by Trade Date

Agent: INDEVAL [intermediary] [intermediary2] Direct

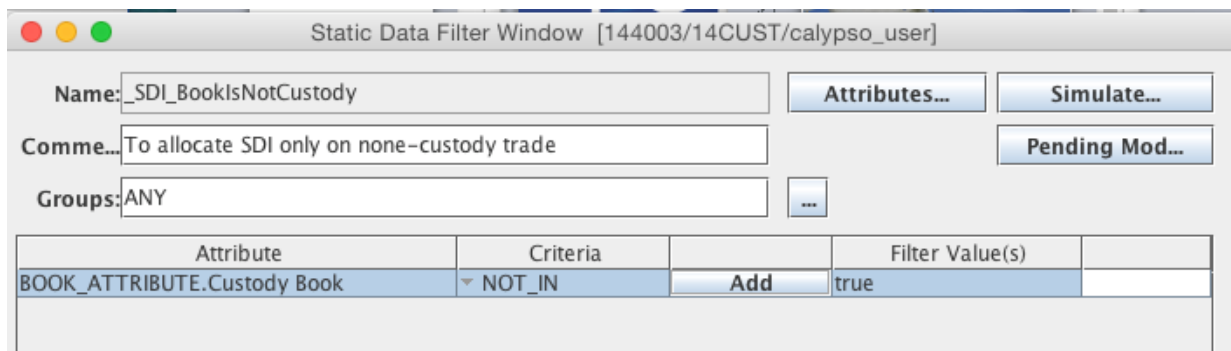
Co... INDEVAL A/C 020136528 ☒ Msg

Contact Default **GL A...** 020136528

Name Sub A... R-Sh...

Identifier

Static Data Filters



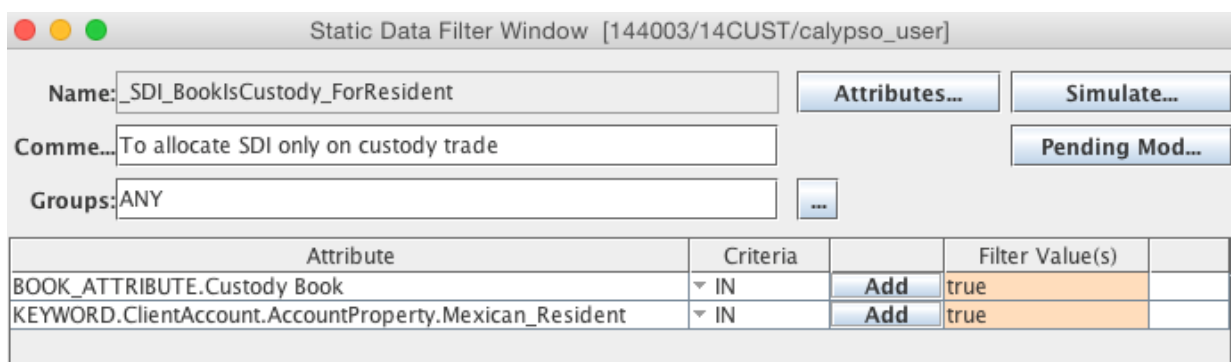
Static Data Filter Window [144003/14CUST/calypso_user]

Name: Attributes... Simulate...

Comme... Pending Mod...

Groups: ...

Attribute	Criteria		Filter Value(s)
BOOK_ATTRIBUTE.Custody Book	NOT_IN	Add	true



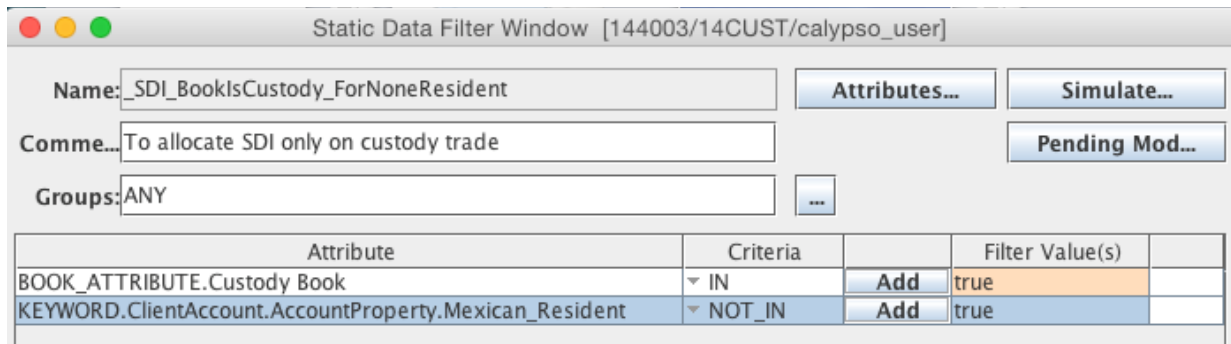
Static Data Filter Window [144003/14CUST/calypso_user]

Name: Attributes... Simulate...

Comme... Pending Mod...

Groups: ...

Attribute	Criteria		Filter Value(s)
BOOK_ATTRIBUTE.Custody Book	IN	Add	true
KEYWORD.ClientAccount.AccountProperty.Mexican_Resident	IN	Add	true



Static Data Filter Window [144003/14CUST/calypso_user]

Name: Attributes... Simulate...

Comme... Pending Mod...

Groups: ...

Attribute	Criteria		Filter Value(s)
BOOK_ATTRIBUTE.Custody Book	IN	Add	true
KEYWORD.ClientAccount.AccountProperty.Mexican_Resident	NOT_IN	Add	true

Attribute "Custody Book" on the book determines if the deal is client or house.

Client Accounts are flagged in this example as Resident or not.

Cash SDI

(Not needed if you setup the Security SDI with Cash/Security = BOTH)

SDI Id	146711		
Reference	CASH	Cash/Security	CASH
Role	ProcessingOrg	Contact	Default
Beneficiary	BANCOMER	Processing Org	ALL
Benef. Na...		Products	G.Bonds,G.Repo,Issuance,CA
Ccy	MXN	SD Filter	
Pay/Rec	BOTH	Trade CounterParty	ALL
Description	INDEVAL/02013		
<input checked="" type="checkbox"/> Link SDI		<input checked="" type="checkbox"/> Preferred	Prior... 0
Method	INDEVAL	Effective From	
Identifier		Effective To	
		<input type="checkbox"/> by Trade Date	

Agent: INDEVAL	[intermediary]	[intermediary2]	Direct
Co...	INDEVAL	A/C	02013
Contact	Default	GL A...	02013
Name		Sub A...	
Identifier		R-Sh...	

Vostro SDI

SDI Id	146712		
Reference	INTERNAL-VOSTRO	Cash/Security	BOTH
Role	ProcessingOrg	Contact	Default
Beneficiary	BANCOMER	Processing Org	ALL
Benef. Na...		Products	
Ccy	MXN	SD Filter	
Pay/Rec	BOTH	Trade CounterParty	ALL
Description	INTERNAL/BANCOMER		
<input type="checkbox"/> Link SDI		<input checked="" type="checkbox"/> Preferred	Prior... 0
Method	INTERNAL	Effective From	
Identifier		Effective To	
		<input type="checkbox"/> by Trade Date	

Agent: BANCOMER	[intermediary]	[intermediary2]	Direct
Co...	BANCOMER	A/C	
Contact	Default	GL A...	Vostro account
Name		Sub A...	
Identifier		R-Sh...	

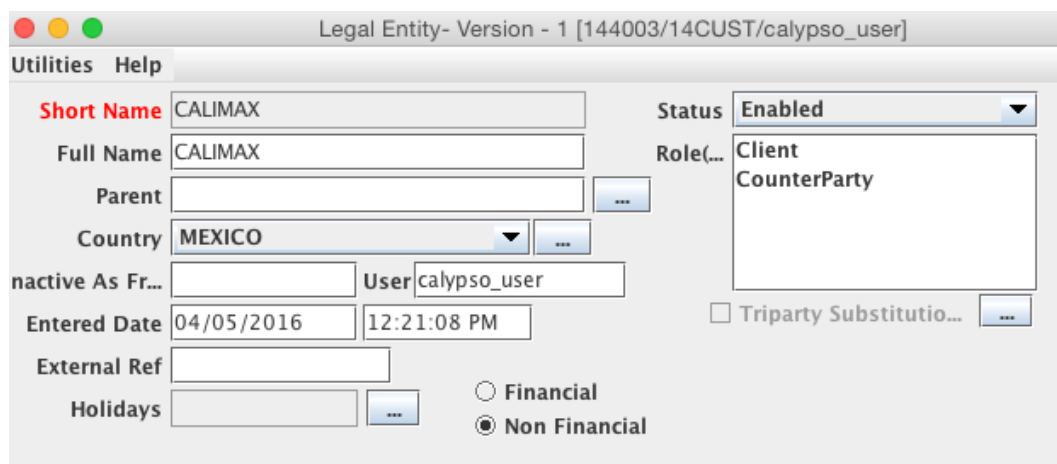
2.3 Client Onboarding

Example - Calimax has a client account @Bancomer. This account is marked as resident:

2.3.1 Legal Entity

A client is defined as a legal entity with the role Client and CounterParty.

- The role client is used under the specific transfer rules when PO acts as custodian
- The role counterparty is used on trade when the PO acts as principal (mirror of the custodian entry)



Legal Entity - Version - 1 [144003/14CUST/calypso_user]

Utilities Help

Short Name: CALIMAX

Full Name: CALIMAX

Parent: [Empty]

Country: MEXICO

Entered Date: 04/05/2016 12:21:08 PM

External Ref: [Empty]

Holidays: [Empty]

Status: Enabled

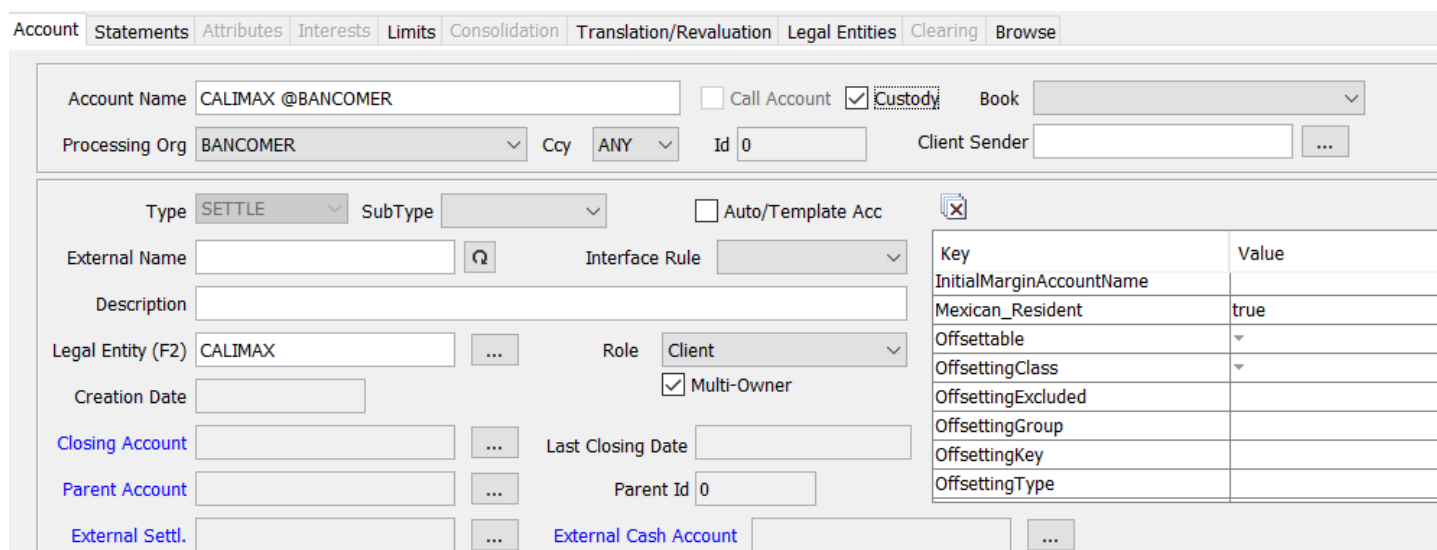
Role: Client CounterParty

Triparty Substitutio... [Empty]

Financial [] Non Financial [X]

2.3.2 Client Account

For the role Client, the system requires an account defined under the PO.



Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Legal Entities Clearing Browse

Account Name: CALIMAX @BANCOMER

Processing Org: BANCOMER

Ccy: ANY

Id: 0

Client Sender: [Empty]

Type: SETTLE

SubType: [Empty]

Auto/Template Acc: []

External Name: [Empty]

Description: [Empty]

Legal Entity (F2): CALIMAX

Role: Client

Multi-Owner: [X]

Creation Date: [Empty]

Closing Account: [Empty]

Parent Account: [Empty]

External Settl.: [Empty]

Interface Rule: [Empty]

Last Closing Date: [Empty]

Parent Id: 0

External Cash Account: [Empty]

Key	Value
InitialMarginAccountName	
Mexican_Resident	true
Offsettable	
OffsettingClass	
OffsettingExcluded	
OffsettingGroup	
OffsettingKey	
OffsettingType	

You can check "Custody" to:

- Define a book per client account – See [Custody Book](#) for details.
- Generate client statements – See [Swift MT535 Messages](#)

You can check “Multi-Owner” and define the owners in the Legal Entities panel.

Account	Statements	Attributes	Interests	Limits	Consolidation	Translation/Revaluation	Clearing	Legal Entities	Browse
Type here to filter table content									
Co-Owner Id	Legal Entity/Co-Owner	LE Id	Blocked	Blocked Reason	Global LE BLOCKED	Force Global BLOCKED			
0	CALIMAX-CL1	80700	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	...		
0	CALIMAX-CL2	80701	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	...		

Only legal entities with role Client can be selected.

You can block the owner of a multi-owner account by clicking the Force Global BLOCKED column. You will be prompted to confirm. It will set the legal entity attribute BLOCKED=true and block the owner. A blocked owner cannot be selected in a custody trade.

This account will carry the holdings (assets) from the client perspective (VOSTRO, “your account in my book”).

From the custody perspective an external account (within the CSD or the local custodian of the custodian) is also required. It can be defaulted from regular SDI assignment or known by the Client account and such as defaulted by this one.

In such case (Client account knows the external account to settle on), there are two possibilities:

- The external account is individual (the client owns the account) – Used for registration, US settlement, etc.
- The external account is omnibus, but the client account is only attached to a specific market and account (Mexican custody for local resident).

These fields are set to facilitate this configuration and the SDI assignment:

- **External Settlement Account** is viewed from Client Account perspective: It restricts the client account to one external account (individual or not). When set, only PO SDIs with this External Settlement Account are available
- **Client** is viewed from individual account; so the account is available and owned only by one client. It did not restrict SDI, but those are available only if the Client is set part of the trade.

See [Omnibus vs. Individual](#) for details.

An account is identified as a client account as the LE role is client or if it is a Call Account.

The Currency can be restricted if required. In this example, it is set to “ANY” as the SDI will restrict the currency the client can settle. Balance flag is un-checked; ledgers are not supported on client account under custody.

This Account can be available only through SDI.

2.3.3 SDIs

Two SDIs are required:

- Role client: to SETTLE the client account on the client trade
- Role CounterParty: For trade Principal (see capture example) to generate SWIFT

SDI Id	146714		
Reference	CLIENT-INT	Cash/Security	BOTH
Role	Client	Contact	Default
Beneficiary	CALIMAX	Processing Org	BANCOMER
Benef. Na...		Products	ANY
Ccy	ANY	SD Filter	
Pay/Rec	BOTH	Trade CounterParty	ALL
Description	INTERNAL/BANCOMER		
<input checked="" type="checkbox"/> Preferred	Prior...	0	
<input type="checkbox"/> Link SDI			
Method	INTERNAL	<input type="checkbox"/> Direct	Effective From Effective To <input type="checkbox"/> by Trade Date
Identifier			

Agent: BANCOMER	[intermediary]	[intermediary2]	Direct
Co...	BANCOMER	A/C	
Contact	Default	GL A...	CALIMAX @BANCOMER
Name		Sub A...	
Identifier		R-Sh...	

SDI Id	146715		
Reference	CLIENT-EXT	Cash/Security	BOTH
Role	CounterParty	Contact	Default
Beneficiary	CALIMAX	Processing Org	ALL
Benef. Na...		Products	ANY
Ccy	ANY	SD Filter	
Pay/Rec	BOTH	Trade CounterParty	ALL
Description	INDEVAL/BANCOMER		
<input checked="" type="checkbox"/> Preferred	Prior...	0	
<input type="checkbox"/> Link SDI			
Method	INDEVAL	<input type="checkbox"/> Direct	Effective From Effective To <input type="checkbox"/> by Trade Date
Identifier			

Agent: BANCOMER	Intermediary: INDEVAL	[intermediary2]	Direct
Co...	INDEVAL	A/C	020132099
<input checked="" type="checkbox"/> Conta...	Default	GL A...	
Na...		Sub A...	
Identif...		R-Sh...	

2.3.4 Omnibus vs. Individual

The Nostro is held for a pool of clients: **Omnibus**

The Nostro is held by one client only: **Individual**

Omnibus accounts (PO SDI) are defaulted regularly (removing individual accounts from SDI selection).

For individual account, the system must limit the PO SDI to the one the client held. This selection is required for PO SDI on transfer rule with role counterparty and role client.

Use of External Settlement Account

The field can be filled only:

- If the account is defined as Client:

Type is SETTLE

LE.Role=Client or LE.Role in domain AccountHolderRole

- With an 'external' settle account:

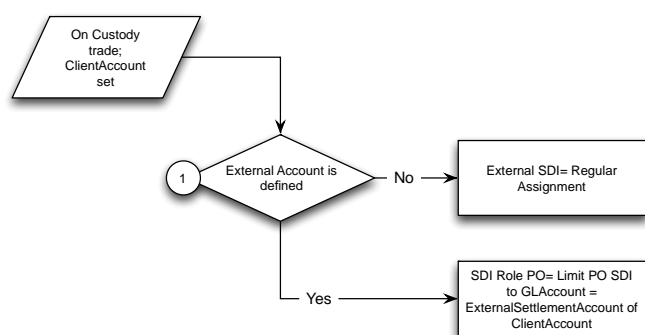
Type is SETTLE

LE.Role is not Client neither in domain AccountHolderRole

When set, any PO SDI (role is ProcessingOrg) defaulted MUST have only their GLAccount = to the External Settlement Account.

Therefore for Custody trade only (Book attribute 'Custody Book'=true).

- When ClientAccount trade keyword is set with a valid account id
- The PO SDI are only the one with GLAccount = External Settlement Account
- Otherwise normal SDI list is returned.



Account field External Settlement Account (Trade Keyword ClientAccount) is not null and contains a Calypso Account ID.

The intention here is to limit the external settlement account to the one defined on the account of the client. It can be used for example for mandatory external segregation:

- Local v. Foreigners
- Equity v. Bonds
- .../...

But also for individual account mapping if 1:1 mapping is required (1 client account=1 external account).

Client Account

Accounts Definition - Authorization mode OFF test acc @BANCOMER / 308387 - version 1

Account Utilities Reports Process **Help**

Account Statements Attributes Interests **Limit** Consolidation Translation/Revaluation Legal Entities Clearing Browse

Account Name: test acc @BANCOMER ☐ Call Account

Processing Org: BANCOMER Ccy: ANY Id: 308387

Type: SETTLE SubType: ☐ Auto/Template Acc

External Name: Interface Rule: Aggregate

Description:

Legal Entity (F2): CALIMIN Role: Client ☐ Multi-Owner

Creation Date: 27/06/19 16:48:19

Closing Account: Last Closing Date:

Parent Account: Parent Id: 0

External Settl. Acc-Bancomer-Sec External Cash Account Acc-Bancomer-Cash

Key

- ACC_EVENT_IMPAIR
- AccountStructure
- AccountType
- Agent
- AssignmentMethod
- CADefaultCurrency
- CATradeDDAInternal
- CCP
- CFTCAccountNumber

This client account is attached to only one external account: Acc-Bancomer-Cash.

Trade Capture example

Trade Details Cashflows Fees History

Trade Details

Buy Name BondOAT/30Y/04/25/2022/8.25% Browse Show

Nominal 150,000,000.00 EUR Clean Pri... 142.4650000 Settlement Da... 02/04/2016

Proceeds Principal 13,697,500.00 Price Details Clean Price 142.46500000 Benchmark Details Clean Price Bond Details Market Qu...

Accrual 9,636,270.00 Trade Attributes

Total 23,333,770.00 ☐ Editable

Ccy EUR

FX

Settle... 23,333,770.00

Settlement

CounterParty PO

Name	Value
ClientAccount	CLIENT3 VOSTRO (134701)
CashSettlement	
ClientReference	
MirrorClientAccount	
PositionTransfer	

Transfer rules												
Report Data View Export Window												
Filter	Transfer Type	Pay/Receive	Trade Counterparty	Delivery Type	Currency	Settle Date	Payer Name	Payer Role	Payer Instr.	Receiver Name	Receiver Role	Receiver Instr.
	PRINCIPAL	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	127200	PO PRINCIPAL	CounterParty	125697
	PRINCIPAL	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	CUSTODY_CLIENT3	Client	137699	PO CUSTODY	ProcessingOrg	127200
	SECURITY	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	137697	CUSTODY_CLIENT3	Client	137699
	SECURITY	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	PO PRINCIPAL	CounterParty	125697	PO CUSTODY	ProcessingOrg	137697

Note the custody is security driven. In theory Cash account is strictly attached to the security. As Calypso behaves in a more functional way, the cash account set for DAP activity depends on the CASH SDI available.

In our case we assume the Cash account and Security account are the same.

Application cases

The usage of External Settlement Account is limited to the SECURITY “NOSTRO” (indeed VOSTRO most of the time) held by the PO for the Client. In other words, it is restricting SDI selection only for:

- Book is custody (and only custody)
- Transfer type=SECURITY
- Transfer is not Client (DDA) – the role of the external party is different from the ClientAccount LE.Role

External Settlement Account is kept as the account id under the client account property. In that respect it is shown as an account name from GUI but kept as an id.

From previous example only the following transfer rule is impacted

Transfer rules												
Report Data View Export Window												
Filter	Transfer Type	Pay/Receive	Trade Counterparty	Delivery Type	Currency	Settle Date	Payer Name	Payer Role	Payer Instr.	Receiver Name	Receiver Role	Receiver Instr.
	PRINCIPAL	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	127200	PO PRINCIPAL	CounterParty	125697
	PRINCIPAL	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	CUSTODY_CLIENT3	Client	137699	PO CUSTODY	ProcessingOrg	127200
	SECURITY	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	137697	CUSTODY_CLIENT3	Client	137699
	SECURITY	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	PO PRINCIPAL	CounterParty	125697	PO CUSTODY	ProcessingOrg	137697

External Cash Account

External Cash Account works exactly the same as External Settlement Account. The difference is on transfer type. In the case of External Cash Account, the restricted SDIs are those under a transfer type that is not SECURITY

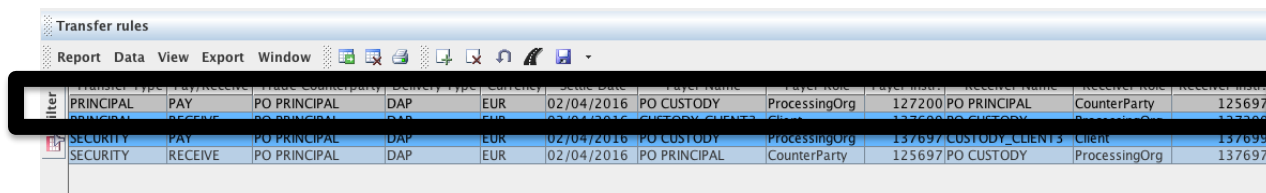
Cases of application:

- Book is custody (and only custody)
- Transfer type is not SECURITY
- Transfer is not Client (DDA) – the role of the external party is different from the ClientAccount LE.Role

All conditions must be accepted.

The value of External Cash Account is as per External Settlement Account: the account id but displayed as the account name.

As per previous example transfer rule impacted if External Cash Account is defined.



Transfer type	Pay/Receive	Under-Counterparty	Delivery type	Currency	Settle Date	PO Custody	ProcessingOrg	Receiver Name	Receiver Role	Receiver ID
PRINCIPAL	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	127200 PO PRINCIPAL	CounterParty	125697
SECURITY	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	137697/CUSTODY_CLIENT3	Client	137697
SECURITY	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	PO PRINCIPAL	CounterParty	125697/PO CUSTODY	ProcessingOrg	137697

The process can be summarized as:

Only for book that is custody (Attribute Book Custody=true)

For ClientAccount

- If External Settlement Account is not null then PO SDI are restricted to this value (POSDI.GLAccount = External Settlement Account) on SECURITY transfers
- If External Cash Account is not null then PO SDI are restricted to this value (POSDI.GLAccount = External Cash Account) on NONE SECURITY transfers

Use of Account Attribute Client

The intention here is to limit the usage of an external account to only one client. The client being identified as the LE under the account that is set on the trade keyword 'ClientAccount'.

The usage of an external account is limited to only one client by restricting the list of PO SDIs having G/L account with LE = value of the 'Client' attribute:

- empty
- or equal to LE owning the account in the tradeKeyword 'ClientAccount'.

Note that this account key can also be used on a Client Account definition with the value of the Agent to be used in the SDIs.

This value can be used in conjunction with the External Settlement Account (strict individual account) or without (client account can use other external account).

As mentioned, the filling of External Settlement Account on ClientAccount and Client on external account has to be consistent. If the combination is not mandatory, when enabled the Client has to be set properly.

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Browse

Account Name: NOSTRO THIRD PARTY - CLIENT2 FR ☐ Call Acco...

Processing Org: PO CUSTODY Ccy: ANY Id: 134699

Type: SETTLE SubType: Security ☐ Auto/Template Acc

External Name: Interface Rule: Aggregate

Description:

Legal Entity (F...: CSD FR Role: Agent

Creation Date: 12/16 9:36:01 AM

Closing Acco... Last Closing Da...

Parent Account: CLIENT3 VOSTRO Parent Id: 134701

Key	Value
Client	CUSTODY_CLIENT2
ExternalSettlementAccount	
IndividualAccount	

☐ Balance

SDI Id	Beneficiary	Agent	ProcessingOrg	Role	Currencies	Pay/Receive	GL Account	Type	Method	Priority	SD Filter	Preferred	Link Id	Effe
127199	PO PRINCIPAL	CSD FR	ALL	ProcessingOrg	EUR	BOTH	CASH Omnibus EUR	CASH	CSD FRANCE	0		<input checked="" type="checkbox"/>	0	
137697	PO CUSTODY	CSD FR	ALL	ProcessingOrg	ANY	BOTH	NOSTRO THIRD PARTY - CLIENT3 FR	SECURITY	CSD FRANCE	3		<input checked="" type="checkbox"/>	0	
127200	PO CUSTODY	CSD FR	ALL	ProcessingOrg	EUR	BOTH	CASH Omnibus EUR	CASH	CSD FRANCE	0		<input checked="" type="checkbox"/>	0	
137199	PO PRINCIPAL	PO	ALL	ProcessingOrg	ANY	BOTH	Liability Nostro	SECURITY	CSD FRANCE	2		<input checked="" type="checkbox"/>	0	
137198	PO PRINCIPAL	PO	ALL	ProcessingOrg	EUR	BOTH	Liability Nostro	SECURITY	CSD FRANCE	0		<input checked="" type="checkbox"/>	0	
120198	PO CUSTODY	CSD FR	ALL	ProcessingOrg	ANY	BOTH	NOSTRO THIRD PARTY	SECURITY	CSD FRANCE	0		<input checked="" type="checkbox"/>	0	
137700	PO CUSTODY	CSD FR	ALL	ProcessingOrg	ANY	BOTH	NOSTRO THIRD PARTY - CLIENT2 FR	SECURITY	CSD FRANCE	3		<input checked="" type="checkbox"/>	0	
123701	PO PRINCIPAL	CSD FR	ALL	ProcessingOrg	ANY	BOTH	NOSTRO PRINCIPAL	SECURITY	CSD FRANCE	0		<input checked="" type="checkbox"/>	0	

The usage of SDI id 137700 is limited to trade with a ClientAccount having LE=CUSTODY_CLIENT2

Trade example with the previous setup

ClientAccount is held by CUSTODY_CLIENT2

Trade Details Cashflows Fees History

Trade Details

Buy Name BondOAT/30Y/04/25/2022/8.25% Browse Show

Nominal 150,000,000.00 EUR Clean Pri. 142.4650000 Settlement Date 02/04/2016

Price Details Clean Price 142.4650000 Benchmark Details

Proceeds Principal 13,697,500.00 Accrual 9,636,270.00 Total 23,333,770.00

Ccy EUR FX Settlement 23,333,770.00

Settlement CounterParty PO Book Custody

Additional Mirror Book HFT Sales Comment

Transfer rules

Transfer Type	Pay/Receive	Trade Counterparty	Delivery Type	Currency	Settle Date	Payer Name	Payer Role	Payer Inst	Receiver Name	Receiver Role	Receiver Inst
PRINCIPAL	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	127200	PO PRINCIPAL	CounterParty	123697
PRINCIPAL	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	CUSTODY_CLIENT2	Client	137697	PO CUSTODY	ProcessingOrg	127200
SECURITY	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	137697	CUSTODY_CLIENT2	Client	137697
SECURITY	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	PO PRINCIPAL	CounterParty	123697	PO CUSTODY	ProcessingOrg	137697

Receiver SDI Chooser

ID	Name	Beneficiary	Agent	GL Account	Intermedia
120198	CSD FRANCE/CSD FR/Nostro Third Party	PO CUSTODY	CSD FR	NOSTRO THIRD PARTY	
137697	CSD FRANCE/CSD FR/Client 3 A/c	PO CUSTODY	CSD FR	NOSTRO THIRD PARTY - CLIENT3 FR	
137700	CSD FRANCE/CSD FR/Client 2 A/c	PO CUSTODY	CSD FR	NOSTRO THIRD PARTY - CLIENT2 FR	

SDI on the external account is available

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Browse

Account Name CLIENT2 VOSTRO ☐ Call Acco...

Processing Org PO CUSTODY Ccy ANY Id 132697

Type SETTLE SubType None ☐ Auto/Template Acc

External Name Interface Rule Aggregate

Description

Legal Entity (F... CUSTODY_CLIENT2 Role Client

Creation Date /4/16 9:38:53 AM

Closing Acco... Last Closing Da...

Parent Account Parent Id 0

☐ Balance

Key	Value
Client	
ExternalSettlementAccount	
IndividualAccount	

Any other LE

Transfer rules

Transfer Type	Pay/Receive	Trade Counterparty	Delivery Type	Currency	Settle Date	Payer Name	Payer Role	Payer Instr.	Receiver Name	Receiver Role	Receiver Instr.	Details
PRINCIPAL	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	127200	PO PRINCIPAL	CounterParty	125697	
PRINCIPAL	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	CUSTODY_CLIENT3	Client	137699	PO CUSTODY	ProcessingOrg	127299	
SECURITY	PAY	PO PRINCIPAL	DAP	EUR	02/04/2016	PO CUSTODY	ProcessingOrg	137697	CUSTODY_CLIENT3	Client	137699	
SECURITY	RECEIVE	PO PRINCIPAL	DAP	EUR	02/04/2016	PO PRINCIPAL	CounterParty	125697	PO CUSTODY	ProcessingOrg	137697	

Receiver SDI Chooser

ID	Name	Beneficiary	Agent	CL Account
120198	CSD FRANCE /CSD FR/Nostro thirdparty	PO CUSTODY	CSD FR	NOSTRO THIRDPARTY
137697	CSD FRANCE /CSD FR/Client 3 A/c	PO CUSTODY	CSD FR	NOSTRO THIRDPARTY - CLIENT3 FR

SDIs

ID	Name	Beneficiary	Agent	Intermediary	Direct	Roles	ProcessingOrg	Currencies
125697	CSD FRANCE /CSD FR/Nostro Principal	PO PRINCIPAL	CSD FR			CounterParty	ALL	ANY
137697	CSD FRANCE /CSD FR/Client 3 A/c	PO CUSTODY	CSD FR			ProcessingOrg	ALL	EUR

Apply Cancel

The SDI is no more available as restricted to only CUSTODY_CLIENT2 LE.

2.4 Tax Position – Book and Liquidation

A technical book represents the client's asset at the PO. Only one Custody Book can exist per PO. It gets identified by the attribute Custody Book = True.

An additional position type: CLIENT is added, it is maintained by:

- Client Account (Liquidation Attributes)
- For only trades under a custody book: TradeFilter= '_NotCustodyTrade'

Regular positions (for the PO activities) gets a filter to exclude client trades:

- TradeFilter= '_NotCustodyTrade'

Custody Book

Book Id	146716	Attributes	...
Name	Client Bancomer		
Activity	Custody		
Accounting Li...	NONE		
Legal Ent...	BANCOMER		
Locati...	America/Mexico_City		
End Of D...	19 Hour 00 Min		
Base Ccy	MXN		
Holidays	MEX		
Comment			

Name	Value
Custody	
Custody Book	▼ true
DayChangeRule	
Default GSCC Book	
Desk	
Domiciliation	▼
Drawn MM Book	▼
EOD	
EOD Week	
EODWeek	
FEE_RECOGNITION_LAG	
FX By Positions	▼
ICELink Book	

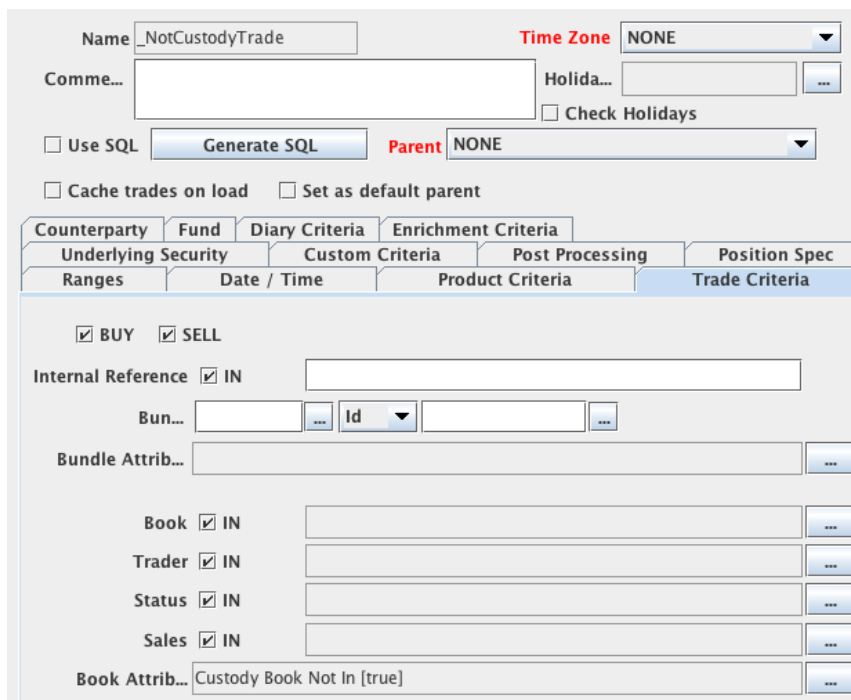
Liquidation Configuration

Liquidation Info									
Q- Type here to filter table content XML									
Filter	Book	Product Type	Product Sub Type	Liquidation Config	Liquidation Method	Comparator Method	Date Rule	Liquidation Attributes	Value By Trade
	ALL	ALL		CLIENT	AvgCost	SettleDate	NONE	Custody	<input checked="" type="checkbox"/>
	ALL	ALL		DEFAULT	FIFO	TradeDate	NONE		<input checked="" type="checkbox"/>
	ALL	ALL		USGAAP	WAC	SettleDate	NONE		<input type="checkbox"/>

Liquidation Configuration			
Configuration Editor			
General			
Name			
Id	0		
Process			
Liquidation Key	Book Product; Book Product Aggregation		
Liquidation Scope			
Trade Filter			
Configurations			
Add/Modify Delete			
Name	Id	Liquidation Key	Trade Filter
DEFAULT		0 Book Product	_NotCustodyTrade
USGAAP		100 Book Product	_NotCustodyTrade
CLIENT		3 Book Product Aggregation	_CustodyTrade

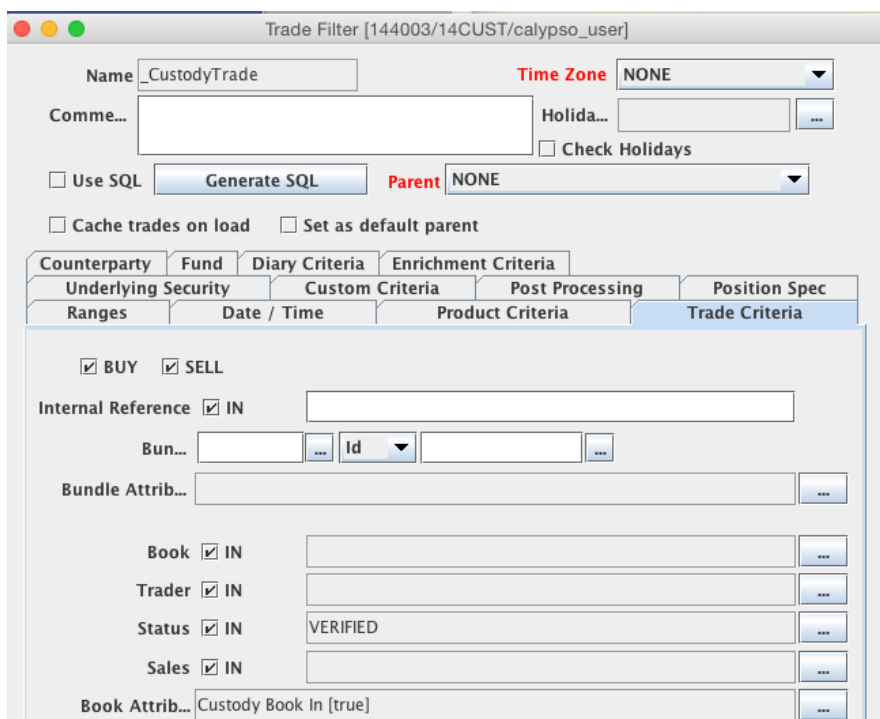
Position/Liquidation Key Configuration - Version - [1440...	
View	
Id	112198
Name	Custody
Attributes	ClientAccount
Load	
Id	Name
6099	CurrencyPair
33203	PM-Location
45250	Bundle Type
65210	Trader Level
65271	TRADER and SALES
88207	Future By Clearer
112198	Custody

'_NotCustodyTrade' filter exclude from PO position any client trades and grant a clear separation of holdings.



The screenshot shows the configuration window for the '_NotCustodyTrade' filter. The 'Name' field is set to '_NotCustodyTrade' and the 'Time Zone' is set to 'NONE'. The 'Comme...' field is empty, and the 'Holid...' field is also empty. The 'Check Holidays' checkbox is unchecked. The 'Use SQL' checkbox is unchecked, and the 'Generate SQL' button is visible. The 'Parent' dropdown is set to 'NONE'. The 'Cache trades on load' and 'Set as default parent' checkboxes are unchecked. The 'Counterparty' tab is selected, showing the 'Underlying Security' section. The 'Ranges' tab is also visible. The 'Date / Time' section is empty. The 'Product Criteria' section is empty. The 'Trade Criteria' section is empty. The 'BUY' and 'SELL' checkboxes are checked. The 'Internal Reference' checkbox is checked, and the 'IN' checkbox is also checked. The 'Bun...' field is empty, and the 'Id' dropdown is set to 'Id'. The 'Bundle Attrib...' field is empty. The 'Book' checkbox is checked, and the 'IN' checkbox is also checked. The 'Trader' checkbox is checked, and the 'IN' checkbox is also checked. The 'Status' checkbox is checked, and the 'IN' checkbox is also checked. The 'Sales' checkbox is checked, and the 'IN' checkbox is also checked. The 'Book Attrib...' field is set to 'Custody Book Not In [true]'. The 'Generate SQL' button is visible.

'_CustodyTrade' filter gets only client trades. Status is set to VERIFIED in this example so the tax is calculated and applied only if the trade is fully VERIFIED.



The screenshot shows the configuration window for the '_CustodyTrade' filter. The 'Name' field is set to '_CustodyTrade' and the 'Time Zone' is set to 'NONE'. The 'Comme...' field is empty, and the 'Holid...' field is also empty. The 'Check Holidays' checkbox is unchecked. The 'Use SQL' checkbox is unchecked, and the 'Generate SQL' button is visible. The 'Parent' dropdown is set to 'NONE'. The 'Cache trades on load' and 'Set as default parent' checkboxes are unchecked. The 'Counterparty' tab is selected, showing the 'Underlying Security' section. The 'Ranges' tab is also visible. The 'Date / Time' section is empty. The 'Product Criteria' section is empty. The 'Trade Criteria' section is empty. The 'BUY' and 'SELL' checkboxes are checked. The 'Internal Reference' checkbox is checked, and the 'IN' checkbox is also checked. The 'Bun...' field is empty, and the 'Id' dropdown is set to 'Id'. The 'Bundle Attrib...' field is empty. The 'Book' checkbox is checked, and the 'IN' checkbox is also checked. The 'Trader' checkbox is checked, and the 'IN' checkbox is also checked. The 'Status' checkbox is checked, and the 'IN' checkbox is also checked. The 'Sales' checkbox is checked, and the 'IN' checkbox is also checked. The 'Book Attrib...' field is set to 'Custody Book In [true]'. The 'Generate SQL' button is visible.

2.5 Trade Capture and Lifecycle

2.5.1 Type of trades

Client trades types:

#	Type	Mirror	Number of trades
1	Client faces a Counterparty not in Account with PO	No	1
2	Client faces a Counterparty in account with PO	No	1 per client
2'	Client faces a Counterparty in account with PO	Yes	1 per client
3	Client faces the PO	Yes	2: 1 for client / 1 for PO
4	Client faces a PO	No	2: 1 for client / 1 for PO

The custody mirroring is authorized only within the same PO. If the PO acting as Principal is different from the one acting as Custodian, the mirroring is disabled, unless the two POs are related by a Parent.

Book classification is used to identify the type of trade. The attribute Custody Book on the book, when set to true, mark the trade as part of custody, therefore:

Type of trade	Trading Book	Mirror Book	Type of Trade
1	Is Custody	Any	Is custody process The trade is client
2	Is not Custody	Is not Custody	Is not Custody process Regular principal activities
3	Is not Custody	Is Custody	Principal leg of a transaction facing a client of one PO

Book Window - Version -19 [144003/V14BO/calypso_user]

View Help

Book Id: 94202 Attributes: ...

Name: Custody

Activity:

Accounting Li...: NONE

Legal Ent...: PO CUSTODY

Locati...: Europe/Paris

End Of D...: 23 Hour 59 Min

Base Ccy: EUR

Holidays: TARGET

Name	Value
CTC Consolidator	
CTC Offset	
CTC Role	
CUSTOMER_ID	
Can Take Positions	
CheckERSLimits	
Custody	Custody
Custody Book	true
DayChangeRule	
Default GSCC Book	
Desk	
Domiciliation	
Drawn MM Book	

For one PO (legal entity of the book) only one book can exist with the flag custody book set to 'true'. A control to prevent the saving of another one is required.

The trade and the mirror trade are submitted to the MIRROR_WORKFLOW environment property.

Transfer generation:

The system generates 3 transfers for each flow:

- 2 External transfers:
 - PO 'Sales activity' to CounterParty (CTP being the client using Bancomer as its agent)
 - Client to PO 'Sales activity', with Client represented by the PO 'Custody'
- 1 Internal transfer:
 - PO Custody to Client representing holdings held by the PO in name of the client (Client trade keyword)

When a transfer workflow action is added to the domain CustodyTransferSimpleAction and the action is applied to a "parent" transfer, the action is also applied to the corresponding mirror transfers. If the action is applied to the mirror transfers directly, it is not applied back to the "parent" transfer.

If the transfer workflow action is not in the domain, it is not applied to the corresponding mirror transfers.

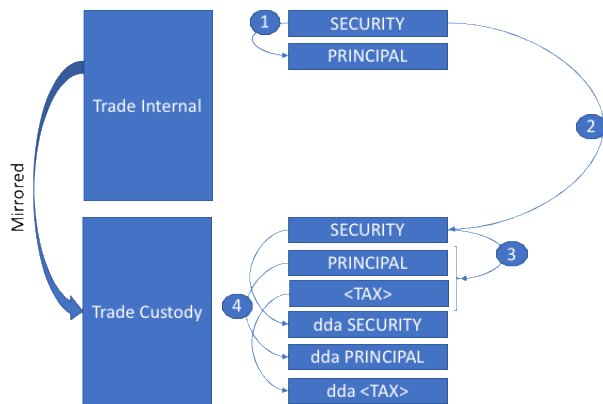
Transfers

Report Data View Export Window

Transfer Id	Transfer Type	Xfer Product Type	Transfer Amount	Xfer Other Amount	SettleCurrency	Xfer Pay/Rec	Value Date	GL Account	Xfer Their Role	Netting Type	Transfer Status	Delivery Type	PO Agent
75866SECURITY	Bond		100,000,000.00	(150,883,200.00)	EUR	RECEIVE	01/11/2016	NOSTRO THIRD PARTY	CounterParty	None	VERIFIED	DAP	CSD FR
75868SECURITY	Bond		(100,000,000.00)	150,883,200.00	EUR	PAY	01/11/2016	CLIENT1 VOSTRO	Client	None	VERIFIED	DAP	PO CUSTODY

The "client" leg is used for internal treatment, mainly vostro inventory management. The settlement, such as swift generation, is done through the "counterparty" one. Therefore any status of the "counterparty" one needs to be applied on the client one.

The settlement of the SECURITY on the NOSTRO settles the SECURITY VOSTRO (including partial settlement).



- 1 - Action on Security transfer is applied to Principal transfer
- 2 - Same action is applied to equivalent Security transfer on custody side
- 3 - This action on action security is mimic to the cash side
- 4 - The actions on "external movement" are replicated onto dda transfers

The lifecycle engine with the option CustodyTransfers is keeping the transfer status of custody trades in sync. As is, it applies an action received on an external movement to the belonging transfers that relates to it.

2.5.2 Lifecycle Engine - Option CustodyTransfers

Create a LifeCycle engine with:

Event subscription: PSEventProcessTransfer, PSEventTransfer

Event filter: TransferTypeExcluded

This filter disregards all events with transfer type listed into the domain "xferTypeExcluded". For example, you can exclude transfers with status TRANSFER_TAX.

config: CustodyTransfers

Between Mirror Trades

It is used mainly in the case one instruction is sent on the market:

- Most likely the one from Nostro Principal: Book is not Custody, Mirror book is Custody
- To know the transfer to "mirror" the action:

From:

- PSEvent=Book is not Custody
- XferType is SECURITY or PRINCIPAL or INTEREST or SECLENDING_FEE

To:

- Xfer Book is Custody
- Mirror Trade Id is Trade id of “From”
- Xfer Type equals Xfer Type From
- Value Date are the same
- Is Return flag is identical

In this example trade id 134931 (PO acts as Principal) is mirrored with trade 134930 (Client trade).

Xfer Custody												
Trade Id (F)	Book	Mirror Trade Id	Book_Attr.Custody Book	Transfer Type	Value Date	Is Return	Xfer Their Role	Client Ref.	Client A/c (id)	Xfer_SecCode.ISIN	Transfer_id	EventType
Trade Id: 134930												
134930	Custody	134931	true	SECURITY	02/04/2016	<input type="checkbox"/>	Client	ClientTest1	126267	FR0000571044	86327	SEC_DELIVERY
134930	Custody	134931	true	SECURITY	02/04/2016	<input type="checkbox"/>	CounterParty	ClientTest1	126267	FR0000571044	86326	SEC_RECEIPT
Trade Id: 134931												
134931	HFT Sales	134930		SECURITY	02/04/2016	<input type="checkbox"/>	CounterParty	ClientTest1		FR0000571044	86328	SEC_DELIVERY

Any action on transfer 86328 publishes an event to the LifeCycle engine; this engine will try to replicate it under transfer 86326.

Transfers within Same Trade

On custody trade, some transfers are created to retain cash on the client account either for:

- PNL/BS: Fees charge by Custodian to its client
- Escrowed: Tax or payment obligation held by the client and collect by the custodian before execution

In those cases, the full settlement of the security transfer settles the additional cash movements:

- Fees
- Taxes

To know which one to SETTLE the LifeCycle engine has to load transfers based on:

- Value Date are the same
- Xfer Type in a pre-defined list: NOT: PRINCIPAL, SECURITY or INTEREST or SECLENDING_FEE
- Trade id of security transfer = Trade id of the transfer to update

Such as:

When “CounterParty” transfer on the custody trade is settled, the fees and taxes under the same trade are settled to.

So far only SETTLE is replicated.

If a non DDA custody transfer is settled, the associated DDA transfers are settled as well based on the values in domain “CustodyThirdPartyAccountTransfers”.

If empty and security transfer is settled, the DDA security transfer is settled as well.

If empty and cash transfer is settled, the DDA cash transfer is settled as well.

If it contains Value = fromSecurityToCash: If security transfer is settled, the DDA security transfer is settled as well, and the cash transfers are settled.

If it contains Value = fromCashToSecurity: If cash transfer is settled, the DDA cash is settled as well, and the security transfers are settled.

In the case of mirrored trades between Custodian and Client, if an action is applied to a Client transfer, the action is propagated to the Custodian transfer. This only applies to actions defined in domain "CustodyTransferAction". The actions SPLIT and PARTIAL_SETTLE are not supported.

2.6 Broker, Custodian and Principal

2.6.1 Trade Booking

Scenario client BUYS \$100,000 of MX0MGO00003 from Bancomer

- Broker is represented by Sales Book (position flat EOD)
- Sales book buy securities from Trading book
- Sales book sell securities to the client in account with Bancomer custody
- Trading book faces the street

Trade Browser / Trade Browser												
Report Data View Export Market Data Process Utilities Help												
Criteria												
Trade ID	Buy/Sell	PRODUCT_CODE.ISIN	Trade Date	Trade Settle Date	Book	Normal	Trade Price	Trade Accrual	SettlementAmount	CounterParty	Product Type	TradeStatus
153930	Buy	MX0MGO00003	05/04/2016	08/04/2016	HFT BANCOMER	100,000.00	125.28138099	1,755.56	(127,016.94)	SANTANDER MEXICO	Bond	VERIFIED
153931	Sell	MX0MGO00003	05/04/2016	08/04/2016	HFT BANCOMER	(100,000.00)	125.28138099	1,755.56	127,016.94	BANCOMER	Bond	VERIFIED
153932	Buy	MX0MGO00003	05/04/2016	08/04/2016	SALES BANCOMER	100,000.00	125.28138099	1,755.56	(127,016.94)	BANCOMER	Bond	VERIFIED

Trade: 153930

- Trading book (HFT BANCOMER) buy securities from the street (Santander)

Trade: 153931 (mirror of 153932)

- Trading book sell the security internally to Sales book (SALES BANCOMER)

Trade: 153932 (mirror of 153932)

- Sales Book recognise the position to sell it to client (next slide)

Note: Prices and Sales margin fee are not represented with those examples

2.6.2 Broker to Client

FO capture a trade on its SALES book (brokerage) against the client (CALIMAX); as CALIMAX has its holding kept by Bancomer, the Mirror book is set to Custody book the MirrorClientAccount fill with the Client Account at Bancomer

System automatically mirror the trade to the Client one and:

- Booked are mirrored
- Client account are mirrored

- Resulting into a trade for Which:
 - Client faces the PO of the SALES book
 - Additional transfers to represent client position are added

Trade	Details	Cashflows	Fees	History																												
Trade Details																																
Sell	ISIN	GO00003 (BondMBONOS/0D/07/12/2023/8%)																														
Nominal		100,000.00	Clean Pri...	123.8398529																												
Ccy		MXN	Settle Da...	04/08/2016																												
<table border="1"> <thead> <tr> <th>Proceeds</th> <th>Price Details</th> <th>Benchmark Details</th> <th>Bond Details</th> </tr> </thead> <tbody> <tr> <td>Principal</td> <td>Clean Price</td> <td>Clean Price</td> <td>Market Qu...</td> </tr> <tr> <td>Accrual</td> <td>Yield</td> <td>Yield</td> <td>Next Coup...</td> </tr> <tr> <td>Total</td> <td>Dirty Price</td> <td>Spread</td> <td>Accrual Da...</td> </tr> <tr> <td>Ccy</td> <td>Gross Price</td> <td>Name</td> <td>Current Nomi...</td> </tr> <tr> <td>FX</td> <td>Margin</td> <td>Market Pr...</td> <td>Current Coup...</td> </tr> <tr> <td>Settleme...</td> <td>Prepay Sp...</td> <td></td> <td>Pool Factor</td> </tr> </tbody> </table>					Proceeds	Price Details	Benchmark Details	Bond Details	Principal	Clean Price	Clean Price	Market Qu...	Accrual	Yield	Yield	Next Coup...	Total	Dirty Price	Spread	Accrual Da...	Ccy	Gross Price	Name	Current Nomi...	FX	Margin	Market Pr...	Current Coup...	Settleme...	Prepay Sp...		Pool Factor
Proceeds	Price Details	Benchmark Details	Bond Details																													
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Ccy	Gross Price	Name	Current Nomi...																													
FX	Margin	Market Pr...	Current Coup...																													
Settleme...	Prepay Sp...		Pool Factor																													
Settlement																																
CounterParty	CALIMAX	CALIMAX	Show	ID																												
Book	SALES BANCOMER	Trade Date	04/05/2016	Status																												
Additional																																
Mirror Book	Client Bancomer	Market Type	NONE	Trade Classificati...																												
Comment																																

Trade Attributes	
SetUp	Editable
Name	Value
MirrorClientAccount	CALIMAX @BANCOMER (146709)
ClientAccount	

Trade	Details	Cashflows	Fees	History																												
Trade Details																																
Buy	ISIN	GO00003 (BondMBONOS/0D/07/12/2023/8%)																														
Nominal		100,000.00	Clean Pri...	123.8398529																												
Ccy		MXN	Settle Da...	04/08/2016																												
<table border="1"> <thead> <tr> <th>Proceeds</th> <th>Price Details</th> <th>Benchmark Details</th> <th>Bond Details</th> </tr> </thead> <tbody> <tr> <td>Principal</td> <td>Clean Price</td> <td>Clean Price</td> <td>Market Qu...</td> </tr> <tr> <td>Accrual</td> <td>Yield</td> <td>Yield</td> <td>Next Coup...</td> </tr> <tr> <td>Total</td> <td>Dirty Price</td> <td>Spread</td> <td>Accrual Da...</td> </tr> <tr> <td>Ccy</td> <td>Gross Price</td> <td>Name</td> <td>Current Nomi...</td> </tr> <tr> <td>FX</td> <td>Margin</td> <td>Market Pr...</td> <td>Current Coup...</td> </tr> <tr> <td>Settleme...</td> <td>Prepay Sp...</td> <td></td> <td>Pool Factor</td> </tr> </tbody> </table>					Proceeds	Price Details	Benchmark Details	Bond Details	Principal	Clean Price	Clean Price	Market Qu...	Accrual	Yield	Yield	Next Coup...	Total	Dirty Price	Spread	Accrual Da...	Ccy	Gross Price	Name	Current Nomi...	FX	Margin	Market Pr...	Current Coup...	Settleme...	Prepay Sp...		Pool Factor
Proceeds	Price Details	Benchmark Details	Bond Details																													
Principal	Clean Price	Clean Price	Market Qu...																													
Accrual	Yield	Yield	Next Coup...																													
Total	Dirty Price	Spread	Accrual Da...																													
Ccy	Gross Price	Name	Current Nomi...																													
FX	Margin	Market Pr...	Current Coup...																													
Settleme...	Prepay Sp...		Pool Factor																													
Settlement																																
CounterParty	BANCOMER	BBVA Bancomer Mexico	Show	ID																												
Book	Client Bancomer	Trade Date	04/05/2016	Status																												
Additional																																
Mirror Book	SALES BANCOMER	Market Type	NONE	Trade Classificati...																												
Comment																																

Trade Attributes	
SetUp	★ ? Q- Editable
Name	Value
ClientAccount	▼ CALIMAX @BANCOMER (146709)
MirrorClientAccount	▼

PO Transfers

Transfers										
Report Data View Export Window										
Filter	Transfer_id	Transfer Type	ISIN	Xfer Product Type	GL Account	Nominal (Par)	Money Amount	SettleCurrency	Xfer Pay/Rec	Value Date
	99330	SECURITY	MX0MGO00003	Bond	020136502	(100,000.00)	125,595.41	MXN	PAY	04/08/2016
						(100,000.00)	125,595.41			

SDIRoutePanel	
Table	Hierarchy
<ul style="list-style-type: none"> BANCOMER (Default/020136502/no swift/BBVA Bancomer Mexico) <ul style="list-style-type: none"> INDEVAL (Default/no account/no swift/INDEVAL) <ul style="list-style-type: none"> BANCOMER (Default/020132099/no swift/BBVA Bancomer Mexico) <ul style="list-style-type: none"> CALIMAX (Default/no account/no swift/CALIMAX) 	

Counterparty Transfers

Transfers											
Report Data View Export Window											
Filter	Xfer Their Role	Transfer_id	Transfer Type	ISIN	Xfer Product Type	GL Account	Nominal (Par)	Money Amount	SettleCurrency	Xfer Pay/Rec	Value Date
	Xfer Their Role: Client										
	Client	99332	SECURITY	MX0MGO00003	Bond	CALIMAX @BANCOMER	(100,000.00)	125,595.41	MXN	PAY	04/08/2016
							(100,000.00)	125,595.41			
	Xfer Their Role: CounterParty										
CounterParty	99331	SECURITY	MX0MGO00003	Bond	020132099		100,000.00	(125,595.41)	MXN	RECEIVE	04/08/2016
							100,000.00	(125,595.41)			

SDIRoutePanel	
Table	Hierarchy
<ul style="list-style-type: none"> BANCOMER (Default/020132099/no swift/BBVA Bancomer Mexico) <ul style="list-style-type: none"> INDEVAL (Default/no account/no swift/INDEVAL) <ul style="list-style-type: none"> BANCOMER (Default/020136502/no swift/BBVA Bancomer Mexico) 	

SDIRoutePanel	
Table	Hierarchy
<ul style="list-style-type: none"> BANCOMER (Default/no account/no swift/BBVA Bancomer Mexico) <ul style="list-style-type: none"> BANCOMER (Default/no account/no swift/BBVA Bancomer Mexico) <ul style="list-style-type: none"> CALIMAX (Default/no account/no swift/CALIMAX) 	

Inventory Position

Proprietary account: is reduced by amount sold to client

Security							
Product Id	PRODUCT_CODE.ISIN	Currency	Agent	Account	Movement Type	Position Type	Apr 8, 2016
78800	MX0MGO00003	MXN	INDEVAL	Account: 020136502	Balance	THEORETICAL	-100,000.00
78800	MX0MGO00003	MXN	INDEVAL	020136502	Balance Trading	THEORETICAL	-100,000.00

Third-party account: received the client's holding

Security							
Product Id	PRODUCT_CODE.ISIN	Currency	Agent	Account	Movement Type	Position Type	Apr 8, 2016
78800	MX0MGO00003	MXN	INDEVAL	Account: 020132099	Balance	THEORETICAL	100,000.00
78800	MX0MGO00003	MXN	INDEVAL	020132099	Balance Trading	THEORETICAL	100,000.00

Client account is credited for the security

Security							
Product Id	PRODUCT_CODE.CUSIP	Currency	Agent	Account	Movement Type	Position Type	Apr 8, 2016
78800		MXN	BANCOMER	Account: CALIMAX @BANCOMER	Balance	THEORETICAL	100,000.00
78800		MXN	BANCOMER	CALIMAX @BANCOMER	Balance Trading	THEORETICAL	100,000.00

In order to explode the Client position per external account, and the external position per client account, you need to set environment property INVENTORY_POSITION_CUSTODY_MODE = true. It is false by default. If true, the positions are subdivided by SubSecAccount / SubCashAccount on transfers.

You also need to configure the inventory aggregation by Agent/CustAcc or Book/Agent/Account/CustAcc.

You can also filter out certain transfers as needed.

You need to set the account attribute InventoryRequired = false (default is true).

Then add the filter TransferWithNoPositionEventFilter to the Inventory engine – It filters out transfers for which the GL Account's attribute InventoryRequired=false.

2.6.3 Broker and Principal

Scenario client BUYS \$200,000 of MX0MGO00003 from Bancomer

- Same set of trades will be applicable (as custody example); the difference is on the 'Sales book' trade selling to a client that is not mirrored to Custody. In that case the client keeps its asset with another custodian
- In that example Trading book:
 - Buys \$400,000 to from street (Banamex)
 - Sell \$200,000 to 'Sales book'
- Sales book:
 - Buy the \$200,000 from Trading book

- Sell it to a client that is not keeping its asset within the bank (no mirror book)

Note the 'Sales book' can face the street directly. In this description, the configuration is done such as 'Sales book' is a fee business and such as flat EOD. 'Trading book' takes directional trades from market


Trade Browser / Trade Browser													
Report Data View Export Market Data Process Utilities Help													
<div>Criteria</div>													
Trade Id	Buy/Sell	PRODUCT_CODE.ISIN	Trade Date	Trade Settle Date	Book	Nominal (F)	Trade Price	Trade Accrual	SettlementAmount	CounterParty	Product Type	TradeStatus	Mirror Book
153943	Sell	MXOMGO00003	05/04/2016	08/04/2016	Book: SALES BANCOMER	(200,000.00)	123.83985299	3,511.11	251,190.82	CALIMAX	Bond	VERIFIED	
153944	Buy	MXOMGO00003	05/04/2016	08/04/2016	SALES BANCOMER	200,000.00	123.83985299	3,511.11	(251,190.82)	BANCOMER	Bond	VERIFIED	HFT BANCOMER
153945	Sell	MXOMGO00003	05/04/2016	08/04/2016	Book: HFT BANCOMER	(200,000.00)	123.83985299	3,511.11	251,190.82	BANCOMER	Bond	VERIFIED	SALES BANCOMER
153946	Buy	MXOMGO00003	05/04/2016	08/04/2016	HFT BANCOMER	400,000.00	123.83985299	7,022.22	(502,381.63)	BANAMEX	Bond	VERIFIED	

2.6.4 Custodian

Scenario client BUYS \$300,000 of MXOMGO00003 from a counterparty with no account at Bancomer (BANAMEX).

- Only one trade is captured under the 'Custody book' (only difference from Broker, custodian and principal example)
- It impacts only clients position & third-party account
- The PO is not involved on the trade: No mirroring to the sales book

Trade	Details	Cashflows	Fees	History
Trade Details Buy Name BondMBONOS/0D/07/12/2023/8% Browse Show Nominal 300,000.00 MXN Clean Pri... 123.83985299 Settle Da... 04/08/2016				
Proceeds Principal 371,519.56 Accrual 5,266.67 Total 376,786.23 Ccy MXN FX Settlement... 376,786.23		Price Details Clean Price 123.83985299 Yield 4.20000000 Dirty Price 125.59540854 Gross Price Margin Prepay Sp...		
		Benchmark Details Clean Price Yield Spread Name Market Pr...		
		Bond Details Market Qu... Next Coup... 07/20/2016 Accrual Da... 79 Current Nomi... Current Coup... 8 Pool Factor		
Settlement CounterParty BANAMEX Show ID 153947 Book Client Bancomer Trade Date 04/05/2016 Status VERIFIED				
Additional Mirror Book NONE Market Type NONE Trade Classificati... Comment				

Transfers													
Report Data View Export Window													
Filter	Xfer Their Role	Transfer_id	Transfer Type	ISIN	Xfer Product Type	GL Account	Nominal (Par)	Money Amount	SettleCurrency	Xfer Pay/Rec	Value Date	Netting Type	Transfer Status
	Xfer Their Role: Client												
	Client	99840	SECURITY	MXOMGO00003	Bond	CALIMAX @BANCOMER	(300,000.00)	376,786.23	MXN	PAY	04/08/2016	None	VERIFIED
							(300,000.00)	376,786.23					
	Xfer Their Role: CounterParty												
	CounterParty	99839	SECURITY	MXOMGO00003	Bond	020132099	300,000.00	(376,786.23)	MXN	RECEIVE	04/08/2016	None	VERIFIED
							300,000.00	(376,786.23)					

Tax Management

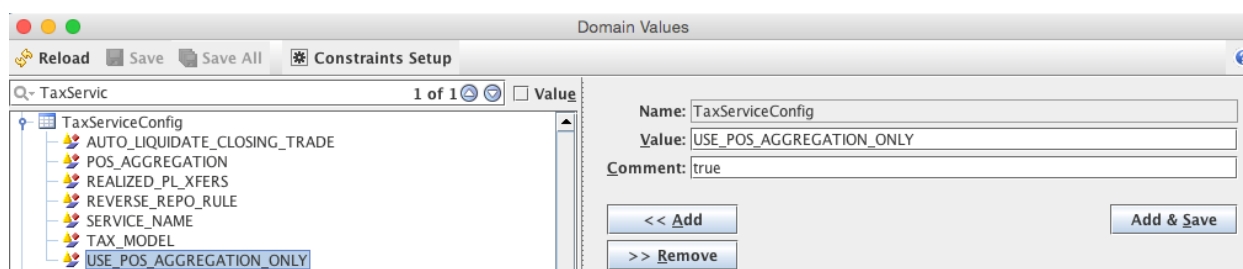
3.1 Tax Configuration

3.1.1 Initial Setup

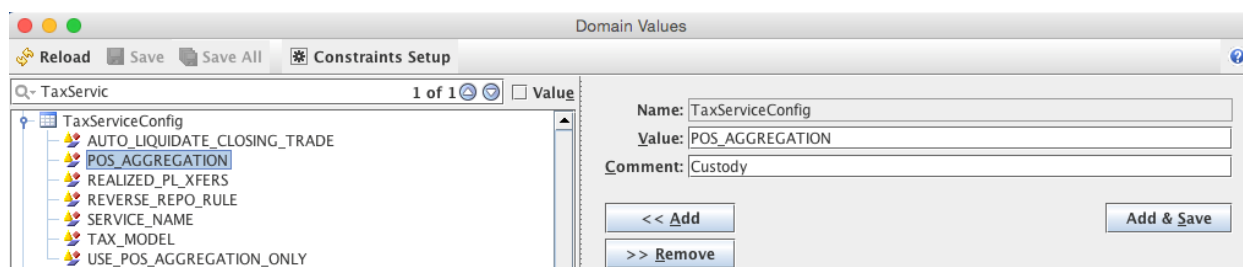
Tax Service Setup

To enable the tax service, the following domain values are required under the 'TaxServiceConfig'

USE_POS_AGGREGATION_ONLY set to true. So only tax get calculated on the aggregated position (at the client account level)



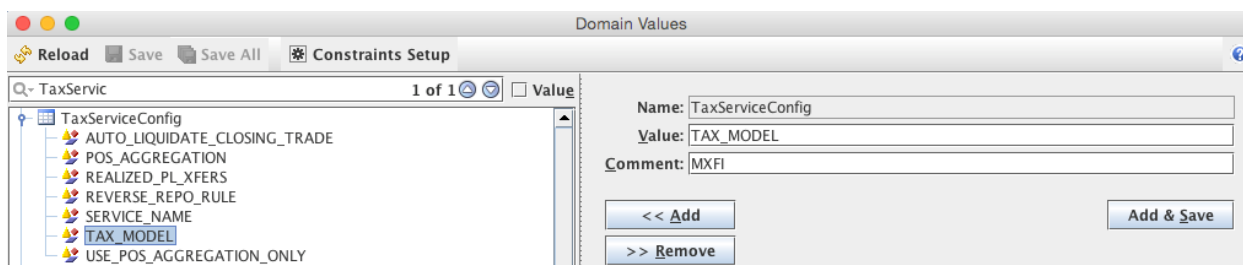
POS_AGGREGATION=Custody ; the name of the previously defined aggregation.



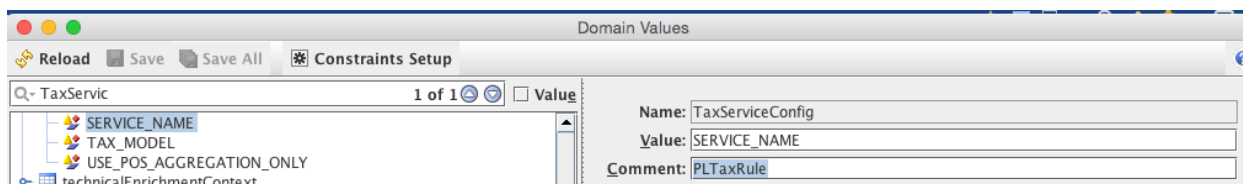
Set TAX_MODEL = MXFI to enable the following tax calculation logic.

The MXFI tax model generates CA Tax transfers on PO CA trades instead of Client CA trades.

The BRFI tax model will be deprecated in an upcoming release. It is recommended to use the MXFI tax model instead.

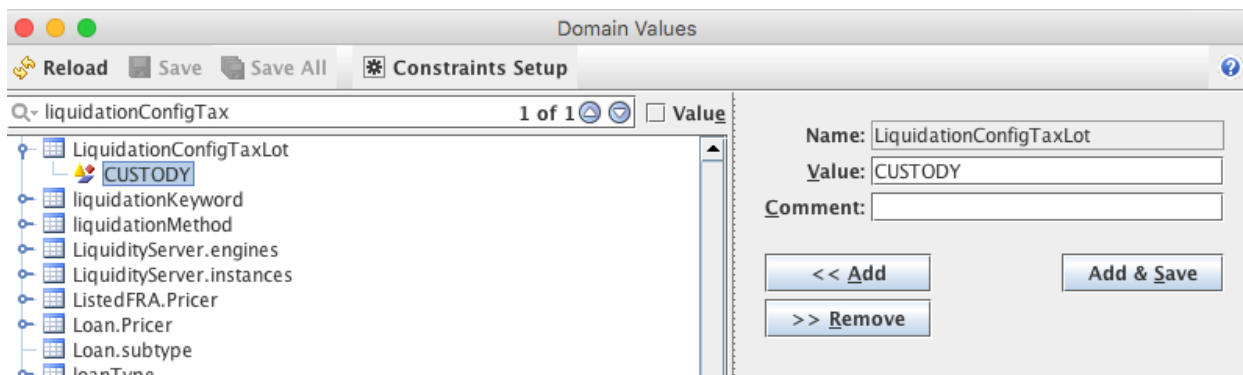


SERVICE_NAME= PLTaxRule ; to use as the calculator for the new PL Config window.

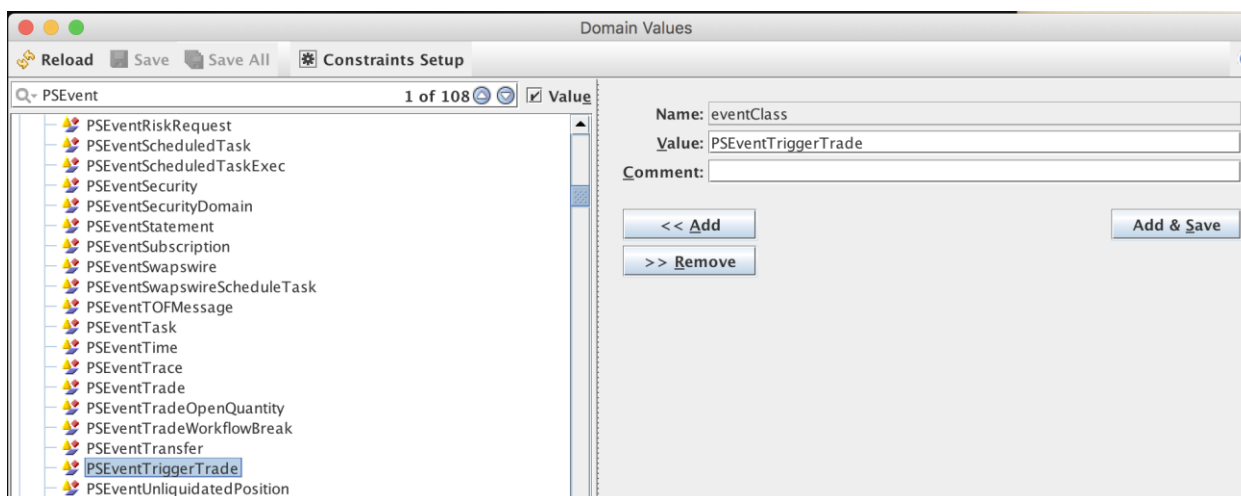


Tax lot, Liquidation to monitor

The LiquidationConfigTaxLot domain should list the Liquidation Configuration names, configuration designated for Tax Lot positions; "CUSTODY" in that document. In other words only position type CUSTODY will be eligible to tax calculation.



Event Class for Transfer Engine



Transfer Engine configuration

The transfer engine needs to listen to PSEventTriggerTrade to process tax calculated by the liquidation engine.

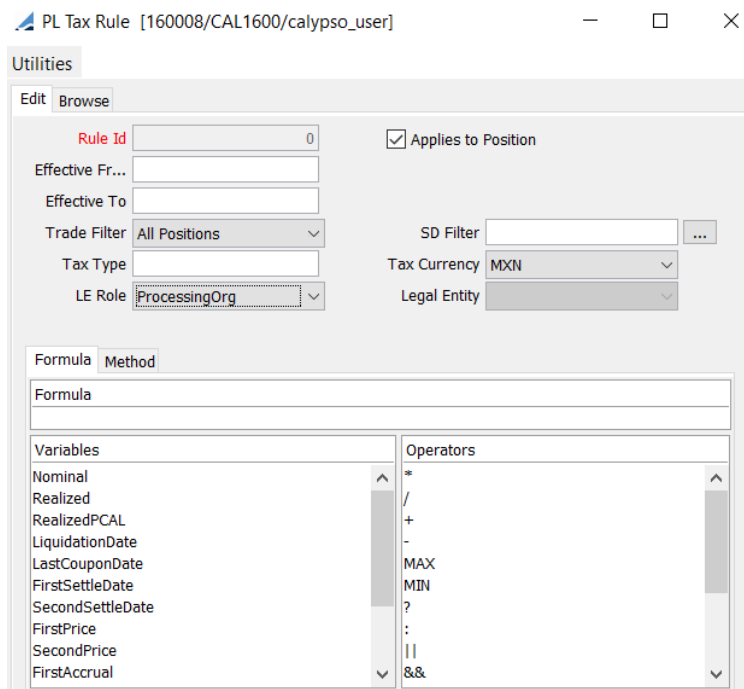
Engine Configuration

Unable to edit a running engine. Displaying in read-only mode.

Engine Name: <input type="text" value="TransferEngine"/> Engine ID: <input type="text" value="1"/> Engine Class: <input type="text" value="com.calypso.engine.payment.TransferEngine"/> Display Name: <input type="text" value="Transfer Engine"/> Application Type: <input type="text" value="EngineServer"/> Description: <input type="text"/> Persisted Event Configuration: <input type="text" value="PSEventAccountBilling"/> <input type="text" value="PSEventRateReset"/> <input type="text" value="PSEventTrade"/> <input type="text" value="PSEventTriggerTrade"/> <input type="text" value="PSEventUnliquidatedPosition"/> Event Filters: <input type="text" value="AllTransfersKnownEventFilter"/> <input type="text" value="IgnoreTradesEventFilter"/> <input type="text" value="VerifiedEventFilter"/> Engine Manager Configuration: <input type="text" value="engineserver"/> Start on Startup: <input checked="" type="checkbox"/>	Max Queue Size: <input type="text"/> Max Batch Size: <input type="text"/> Number of Threads: <input type="text"/> Event Pool Policy: <input type="text"/> Pricing Environment: <input type="text"/> Save settle position changes: <input type="text"/> Configuration attributes <table border="1"> <tr><td>MCC_INTRA_MONITOR_PRICING_ENV</td><td></td></tr> <tr><td>MCC_PRICING_ENV</td><td></td></tr> <tr><td>MCC_TRADE_FILTER_NAME</td><td></td></tr> <tr><td>MIGRATION_DATE</td><td></td></tr> <tr><td>NumberOfRetry</td><td></td></tr> <tr><td>PROJECTED_DAYS</td><td></td></tr> <tr><td>REVERSAL_CRE</td><td></td></tr> <tr><td>RetryInterval</td><td></td></tr> <tr><td>STARTUP</td><td></td></tr> <tr><td>TIMEOUT_RESTART</td><td></td></tr> <tr><td>USE_BOOK_PRICING_ENV</td><td></td></tr> <tr><td>VALUATION_TIMES</td><td></td></tr> <tr><td>VALUATION_TIMEZONES</td><td></td></tr> <tr><td>VERSION_CHECK</td><td></td></tr> <tr><td>XFER_CHECK_FIRST</td><td></td></tr> <tr><td>XFER_NEVER_BV</td><td>false</td></tr> </table>	MCC_INTRA_MONITOR_PRICING_ENV		MCC_PRICING_ENV		MCC_TRADE_FILTER_NAME		MIGRATION_DATE		NumberOfRetry		PROJECTED_DAYS		REVERSAL_CRE		RetryInterval		STARTUP		TIMEOUT_RESTART		USE_BOOK_PRICING_ENV		VALUATION_TIMES		VALUATION_TIMEZONES		VERSION_CHECK		XFER_CHECK_FIRST		XFER_NEVER_BV	false
MCC_INTRA_MONITOR_PRICING_ENV																																	
MCC_PRICING_ENV																																	
MCC_TRADE_FILTER_NAME																																	
MIGRATION_DATE																																	
NumberOfRetry																																	
PROJECTED_DAYS																																	
REVERSAL_CRE																																	
RetryInterval																																	
STARTUP																																	
TIMEOUT_RESTART																																	
USE_BOOK_PRICING_ENV																																	
VALUATION_TIMES																																	
VALUATION_TIMEZONES																																	
VERSION_CHECK																																	
XFER_CHECK_FIRST																																	
XFER_NEVER_BV	false																																

3.1.2 Tax Calculator

The tax calculator is defined using the window: refdata.PLTaxRuleWindow.



Fields

Field	Description
Rule Id	Internal unique ID for each rule defined. All tax entry will have this ID on
Applies to Position	True/False: When true the configuration applies to liquidation and so position. Otherwise it applies to cashflows and so trades. To define a PL Tax config for sec lending trades, you have to clear the checkbox "Applies to Position".
Effective date from	Date when the rule starts to be applicable per events
Effective date to	Date starting for which the rule is not applicable anymore
Trade Filter	Applies either to position or trade; when "Applies to position" is checked the trade filter should have a Position spec defined
Tax Type	Name of the tax to apply. It is defined by the user. The system set this string on the tax entry and use it as the transfer type (SDI assignment and transfer creation/WF)

Field	Description
	Note that this string can be added to the flowType domain; if the value is required to be retrieved from filters, reports...
LE Role	Define the "Role" of the party facing the client on the tax transfer. It could be: <ul style="list-style-type: none"> ProcessingOrg Agents TaxAuthority
Legal Entity	<p>If ProcessingOrg is selected under the "LE Role" this field cannot be selected. The Legal Entity is selected from the Book of either the position or the trade. The role is set to CounterParty on the transfers</p> <p>If Agent is selected, a valid LE with role Agent is required. It should represent the custodian to which the flows get cleared.</p> <p>If TaxAuthority is selected, a valid LE with role TaxAuthority is required. It represents the local tax collector that received the tax payment.</p>
SD Filter	Applies to either trade or position. Filter based on static inputs.
Tax Currency	Currency for which the tax is expected. All calculations are done using the PL currency (Trade currency) and could be converted afterward using the currency. See below for further details

Variables

Variables	Comments
CashflowType	<p>Type of cashflow. INTEREST by default if not defined.</p> <p><code>CashflowType(<typeOfCashflow>,<formula>)</code></p> <p>Example:</p> <p><code>CashflowType(SECLENDING_FEE,Interest*(End Date - Start Date)/360))</code></p>
ConvertAmount	<p>Provides all necessary information for FX conversion: amount to convert, conversion date and settlement currency.</p> <p>Example:</p> <p><code>ConvertAmount(Nominal*FirstPrice, FirstSettleDate, 'EUR')*0.004</code></p> <p>When this variable is present in the tax rule, there is no need to run the conversion process.</p>
Nominal	Liquidated nominal as kept by the liquidation.

Variables	Comments
PreviousNominal	If the bond can have notional changes, this variable returns the nominal for the previous PRINCIPAL flow start date. Otherwise it returns the same as the Nominal variable.
Realized	Dirty Realized= Buy Principal - Sell Principal + Accrual Bought - Sell Accrual
RealizedPCAL	For Voluntary redemption (only on redemption trade) returns the Realized + Coupon Realized For all other trades it returns the Realized
LiquidationDate	Date for which the liquidation was performed
LiquidatedQuantity	Liquidated quantity
LastCouponDate	From SecondSettleDate, last time a coupon was paid before the second settle date
FirstSettleDate	Settle date of the trade creating the position/open trade (buy trade on custody activities)
SecondSettleDate	Settle date of the trade liquidating the position/open trade (sell trade on custody activities)
FirstPrice	Same as per liquidation report. Gives the signed price (clean) of the open trade. For custody this price is positive (no short position) Eg: 1.03 for 103%
FirstFXRate	First FX rate (from FX Average Price functionality)
SecondPrice	Same as per liquidation report. Gives the signed price (clean) of the liquidating trade. For custody this price is negative (no short position) Eg: 1.02 for 102%
SecondFXRate	Second FX rate (from FX Average Price functionality)
FirstAccrual	Same as per liquidation report. Accrual rate bought on the open trade. For custody this price is positive (no short position) Eg: 0.42544 as factor to apply to the current notional to obtain interest bought at inception
SecondAccrual	Same as per liquidation report. Accrual rate sold on the liquidating trade. For custody this price is positive (no short position) Eg: 1.0144 as factor to apply to the current notional to obtain interest sold at liquidation

Variables	Comments
LiquidationType	Refer to the liquidation User guide for more detail. It is the type of liquidation performed by the system as: <ul style="list-style-type: none"> - Liquidation= Buy/Sell (value=0) - Realization= Interest Coupon clip (value=2) - Redemption= Principal redeem at maturity/amortization date (value 9) (...)
FaceValue	Face value of the bond
DayCount	Return from two dates the number day difference based on day-count basis DayCount(Start Date, End Date, DayCount as per Calypso naming convention)
DayCountFactor	Return from two dates and a day-count basis, a factor as per financial convention DayCountFactor(Start Date, End Date, DayCount as per Calypso naming convention)

Operators

Operators	Value/comment
*	Multiply
-	Minus
+	Plus
/	Divide
	Or (condition)
&&	And (condition)
==	Equals
>	Strictly greater than
>=	Greater or equal than
<	Strictly less than
<=	Less or equal than
(())?(():())	If condition as per: ('condition')?(TRUE):(FALSE))

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Account Statements Attributes Interests Limits Consolidation Translation/Revaluation

Account Name: CLIENT VOSTRO

Processing Org: CALYPSO_LDN Ccy: ANY Id: 2037107

Type: SETTLE SubType: Auto/Template Acc

External Name: Interface Rule: Aggregate

Description: CLIENT ACCOUNT xxxxxxxx

Legal Entity (F...): CLIENT Role: Client

Creation Date: 3/3/16 5:01:27 PM

Closing Acco... Last Closing Da...

Parent Account Parent Id: 0

External Settl. External Cash Accou...

Legal Entity- Version - 0 [151001/V14207/calypso_user]

Utilities Help

Short Name: CLIENT Status: Enabled

Full Name: Role: Client CounterParty

Parent: Country: MEXICO

Inactive As Fr... User: calypso_user

Entered Date: 10/03/2016 5:00:40 PM

External Ref: Financial (selected) Non Financial

Holidays: Comment:

- Tax PNL Config: Applied only for positions and liquidating trades matching the SD Filter and trade filter.

PL Tax Rule [151001/V14207/calypso_user]

Utilities Edit Browse

Rule Id: 2038002 Applies to Position (checked)

Effective F... Effective To

Trade Filter: CustodyPosition SD Filter: clientsResident

Tax Type: MX_PO_RES_DC Tax Curren...: MXN

LE Role: ProcessingOrg Legal Entity:

Formula Method

Formula: $((Realized <= 0) ? (0) : (Nominal * 0.006 * DayCountFactor(((FirstSettleDate > LastCouponDate) ? (FirstSettleDate - (LastCouponDate)), SecondSettleDate, "ACT / ACT"))))$

Variables: Nominal, Realized, RealizedPCAL, LiquidationDate, LastCouponDate, FirstSettleDate, SecondSettleDate, FirstPrice, SecondPrice, FirstAccrual, SecondAccrual, LiquidationType, FaceValue, DayCount, DayCountFactor

Operators: *, /, +, -, MAX, MIN, ?, :, ||, &&, DATE, ==, !=, >, >=, <, <=

New Delete Save Save As New Close

- Trade filter: is made of position spec that defines which type of position is eligible for this configuration:

Trade Filter [151001/V14207/calypso_user]

Name Time Zone

Comme... Holid...

☐ Use SQL Parent

☐ Cache trades on load ☐ Set as default parent

Position Spec Counterparty Portfolio Hierarchy Diary Criteria

Underlying Security Custom Criteria Post Processing

Ranges Date / Time Product Criteria Trade Criteria

Position Spec

Securities Selection

☐ Exclude Inactive Positions

☐ Only Cross Book Positions

PositionCash Flo... ☒ IN

Position Specification

Configuration Editor

General

Name Custody

Used For Risk and PL

Product Position By Trade Date

Cash Position By Settle Date

Liquidation/Position Key Custody

Liquidation Config CUSTODY

FX Products

Split Ccy Prs by Ccy ☐

Gp Non-Settled FX Trades by Settle Dt ☐

- And a security selection that in that case relies on a LE attribute of the Issuer of the bond (gravado=true)

Bond Report (10/11/16 3:55:05 PM) / SecurityTaxable

Report Data View Export Bond Report Utilities Help

Criteria

Properties Filter Specific Securities Sec Codes Filter Issuer Attributes Filter (*)

Name	Value
Gravado	TRUE
ACCOUNTING	
ACC_BUSINESS_DATE	
ACC_USE_BUSINESS	
ANNEX_VER	
ANONYMOUS_DTCC_LE_ID	
AVOX_ID	
ApplyBufferITD	
BAFI	
BB_ACCOUNT_SHORT_NAME	
BIC_CODE	
BLOOMBERG	
BermudanTradeDate	
CA.MB.MSC-DerivativesDealer	
CA.MB.MSC-Eligible	

Name	Product Type	Class	Issuer	Issued Date	Issue Price	Total Issued	Maturity Date	Face Value	Coupr
DummyIssuanceExample	Bond	Bond	CALYPSO_NYC	09/12/2005	100.00000000	100,000,000,000	09/11/2020	100.00	5.00
DBR 3.75 01/04/19	Bond	Bond	GERMAN GVT	11/14/2008	100.07000000	24,000,000,000	01/04/2019	1,000.00	3.75
UKT 4.0 09/07/16	Bond	Bond	UK TREASURY	03/02/2006	98.36000000	34,346,196,000	03/02/2026	1,000.00	2.00
DummyIssuance2	Bond	Bond	CALYPSO_SFO	09/12/2005	100.00000000	100,000,000	09/12/2025	1,000.00	0.00
Program 11 on Bond	Bond	Bond	CALYPSO_NYC	09/12/2005	100.00000000	100,000,000	09/12/2025	1,000.00	0.00

- The SD Filter applies here on the account. It restricts account for which the owning Legal entity of that account has its country defined to MEXICO



Static Data Filter Window [151001/V14207/calypso_user]

Name:

External Ref.:

Comment:

Groups: ...

 Criteria...  Simulate

Attribute	Criteria	Filter Value(s)
ClientAccountLECountry	LIKE	MEXICO

Bookings

- Trade entries, a buy and a sell (date format mm/dd/yyyy)

Trade Browser / Trade Browser

Report Data View Export Market Data Process Utilities Help

Criteria

Trade Id	Book	Custody?	Product Type	CounterParty	Client Account (F)	Trade Date	Settle Date	ISIN	Quantity	Accruals	Ccy	Price	SettlementAmount	Settle Cur.	Neg. Price	Neg. Price Type
62801	CLIENT	true	Bond	HSBC BANK	CLIENT VOSTRO	03/10/16	10/05/2016	GB008THH2R79	100,000.0000	15,342.47	GBP	101.642209	(10,179,563.37)	GBP	101.642209	CleanPrice
63003	CLIENT	true	Bond	HSBC BANK	CLIENT VOSTRO	03/10/16	10/13/2016	GB008THH2R79	(10,000.0000)	1,972.60	GBP	108.521055	1,087,183.15	GBP	108.521055	CleanPrice

With bond expected CFs:

Bond Window

File Help

Name: Product Id:

Security Co.: Load Templates ...

Call Schedule Brady Schedule Credit Events ABS CLN Impairment Events Revolver Danish Mortgage

Bond Coupon Market Special CashFlows Primary Market Legal Entities Convertible

Val Date: Pricing Env: Generate

Pmt Begin	Pmt End	Pmt Dt	Pmt Amt	Manual Amt	Notional	Rate	Day Ct	Spread	Reset
		03/20/2001	-9,275,000,000.00						
03/20/2001	03/07/2015	03/09/2015	2,591,917,808.22		9,275,000,000.00	2.00000	ACT/365		
03/07/2015	09/07/2015	09/07/2015	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2015	03/07/2016	03/07/2016	92,495,890.41		9,275,000,000.00	2.00000	ACT/365		
03/07/2016	09/07/2016	09/07/2016	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2016	03/07/2017	03/07/2017	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2017	09/07/2017	09/07/2017	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2017	03/07/2018	03/07/2018	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2018	09/07/2018	09/07/2018	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2018	03/07/2019	03/07/2019	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2019	09/07/2019	09/09/2019	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2019	03/07/2020	03/09/2020	92,495,890.41		9,275,000,000.00	2.00000	ACT/365		
03/07/2020	09/07/2020	09/07/2020	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2020	03/07/2021	03/08/2021	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2021	09/07/2021	09/07/2021	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2021	03/07/2022	03/07/2022	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2022	09/07/2022	09/07/2022	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2022	03/07/2023	03/07/2023	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2023	09/07/2023	09/07/2023	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2023	03/07/2024	03/07/2024	92,495,890.41		9,275,000,000.00	2.00000	ACT/365		
03/07/2024	09/07/2024	09/09/2024	93,512,328.77		9,275,000,000.00	2.00000	ACT/365		
09/07/2024	03/07/2025	03/07/2025	91,987,671.23		9,275,000,000.00	2.00000	ACT/365		
03/07/2025	09/07/2025	09/08/2025	9,368,512,328.77		9,275,000,000.00	2.00000	ACT/365		

From Settle date, the last coupon date is the 7th of July 2016

- The booking of those two trades results into the following liquidation:

Liquidation Report PE: OFFICIAL (10/10/16 12:24:27 PM)												
Report Data View Export Market Data Tax Lot Info Utilities Help												
Criteria												
Trade Id	Buy/Sell	First Trade Id	Second Trade Id	Liquidation Type	Nominal	Realized	First Settle Date	Second Settle Date	Effective Date	Liquidation Date	Clean Realized	Accrual Realized
62801	Buy	62801	63003	Liquidation	1,000,000.00	69,226.82	10/05/2016	10/13/2016	10/13/2016	10/3/16 5:00:10.000 PM BST	68,788.46	438.36
63003	Sell	62801	63003	Liquidation	1,000,000.00	69,226.82	10/05/2016	10/13/2016	10/13/2016	10/3/16 5:00:10.000 PM BST	68,788.46	438.36

As per previous formula:

$$\text{Tax Amount} = \frac{1,000,000.00 \times 0.6\% \times (13\text{th of Oct 2016} - 5\text{th of Oct 2016})}{366} = \frac{1,000,000.00 \times 0.6\% \times 8}{366} = 131.14754098 \text{ rounded as per currency definition: } \pounds 131.15$$

- The liquidation creates a tax object:

Liquidation Tax Info

Configuration Editor

Liquidation Id	42,002
Tax Type	MX_PO_RES_DC
Tax Amount	131.147540983607
Revenue	6.9226816165
Modification User	
Modification Date	
Comments	
Status	NEW
PLTaxRule Id	2,038,002
PLTaxRule Version	1

Configurations

Add/Modify Delete

Liquidation...	Tax Type	Tax Amount	Revenue	Modificatio...	Modificatio...	Comments	Status	PLTaxRule Id	PLTaxRule...
42002	MX_PO_RE...	131.148	6.923				NEW	2038002	1

View Transfers Save Close

The revenue is the realized per unit of bonds in currency. The tax amount to be the total amount of tax to pay for this liquidation pair.

- Transfer rules are added onto liquidating trade:

The collecting party (facing the PO acting as the client custodian) is the PO itself. The tax is not cleared on the market. The PO will hold this amount in the name of the client for future clearance.

Trade Id ID 63003

Transfer rules

ReportDataViewExportWindow

Filter	Transfer Type	Payer Name	Payer Role	Payer Instr.	Payer Agent	Payer Status	Receiver Name	Receiver Role	Receiver Instr.	Receiver Agent
	Transfer Type: MX_PO_RES_DC									
	MX_PO_RES_DC	CLIENT	Client	2037108	NONE	Default	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN
	MX_PO_RES_DC	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default	CALYPSO_LDN	CounterParty	2038803	EUROCLEAR BANK
	Transfer Type: PRINCIPAL									
	PRINCIPAL	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN	Default	CLIENT	Client	2037108	NONE
	PRINCIPAL	HSBC BANK	CounterParty	2012278	BNYM NYC	Default	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO
	Transfer Type: SECURITY									
	SECURITY	CLIENT	Client	2037108	NONE	Default	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN
	SECURITY	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default	HSBC BANK	CounterParty	2012278	BNYM NYC

– Resulting transfers:

Trade ID

63003

Transfers

Report

Data

View

Export

Window

Filter

Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false										
false	301870	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	SECURITY	PAY	-1,000,000.00	0.00	GBP
false	301871	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	PRINCIPAL	RECEIVE	0.00	1,087,183.15	GBP
false	301872	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	MX_PO_RES_DC	PAY	-0.00	(131.15)	GBP
								-1,000,000.00	1,087,052.00	
Is DDA: true										
true	301873	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	SECURITY	RECEIVE	1,000,000.00	-0.00	GBP
true	301874	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PRINCIPAL	PAY	-0.00	(1,087,183.15)	GBP
true	301875	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	MX_PO_RES_DC	RECEIVE	0.00	131.15	GBP
								1,000,000.00	(1,087,052.00)	

Tax is withdrawing from Nostro third-party account & from the client account. The mirroring in that case of the tax into escrow account is out of scope for this document.

3.1.3 Log to Monitor Calculation

The calculation performed by the system can be seen when the log category: “PLTaxRuleProcessor” is defined under the engine sever for a level DEBUG.

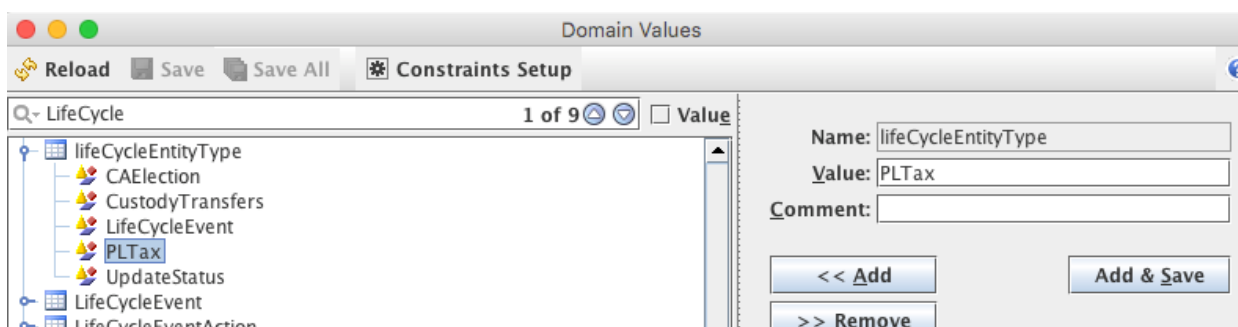
3.2 Standalone Trades, Tax generated over Cashflows

3.2.1 Initial Setup

You can define the PLTax LifeCycle engine either using Domain values or by adding another instance. With Domain values, the taxes on cash-flows will be handled with other type of lifecycle.

Domain Values

The lifecycle engine type PLTax is required to process trades and to store tax entries.


















LifeCycle Engine parameter

You can create a dedicate LifeCycle Engine. In that case ‘PLTaxLifeCycleEngine’ (refer to user guide for that).

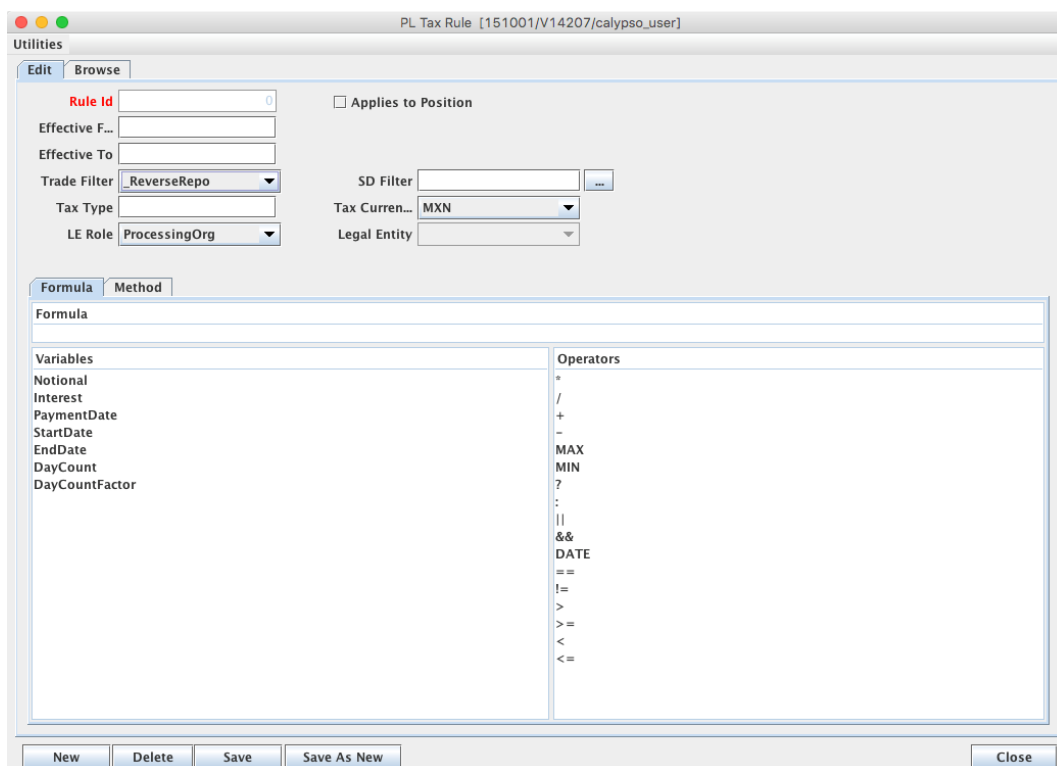
The ‘Config field’ has to be set to ‘PLTax’; lifecycle engine must subscribe PSEventTrade

Engine Configuration

Engine Name: 	Engine ID:	Max Queue Size: 	Max Batch Size: 																																
PLTaxLifeCycleEngine	421016																																		
Engine Class:		Number of Threads: 	Event Pool Policy: 																																
com.calypso.engine.lifecycle.LifeCycleEngine																																			
Display Name: 	Application Type:	Pricing Environment: 																																	
PLTax LifeCycle Engine	EngineServer																																		
Description:		Save settle position changes: 																																	
Persisted Event Configuration:		Configuration attributes																																	
PSEventAccountBilling   		<table border="1"> <tr><td>USE_BOOK_PRICING_ENV</td><td></td></tr> <tr><td>VALUATION_TIMES</td><td></td></tr> <tr><td>VALUATION_TIMEZONES</td><td></td></tr> <tr><td>VERSION_CHECK</td><td></td></tr> <tr><td>XFER_CHECK_FIRST</td><td></td></tr> <tr><td>XFER_NEVER_BV</td><td></td></tr> <tr><td>XFER_NEXT_EVENT</td><td></td></tr> <tr><td>XFER_PAST_GENERATION</td><td></td></tr> <tr><td>XFER_POS_AGGREGATION_NAME</td><td></td></tr> <tr><td>XFER_PRODUCT_FORCEPAST</td><td></td></tr> <tr><td>XFER_USE_AUTOMATIC_ACCOUNT</td><td></td></tr> <tr><td>XFER_USE_MONEYDIFF</td><td></td></tr> <tr><td>XFER_USE_POS_AGGREGATION_ONLY</td><td></td></tr> <tr><td>XFER_USE_REVERSE</td><td></td></tr> <tr><td>config</td><td>PLTax</td></tr> <tr><td>tcid</td><td></td></tr> </table>		USE_BOOK_PRICING_ENV		VALUATION_TIMES		VALUATION_TIMEZONES		VERSION_CHECK		XFER_CHECK_FIRST		XFER_NEVER_BV		XFER_NEXT_EVENT		XFER_PAST_GENERATION		XFER_POS_AGGREGATION_NAME		XFER_PRODUCT_FORCEPAST		XFER_USE_AUTOMATIC_ACCOUNT		XFER_USE_MONEYDIFF		XFER_USE_POS_AGGREGATION_ONLY		XFER_USE_REVERSE		config	PLTax	tcid	
USE_BOOK_PRICING_ENV																																			
VALUATION_TIMES																																			
VALUATION_TIMEZONES																																			
VERSION_CHECK																																			
XFER_CHECK_FIRST																																			
XFER_NEVER_BV																																			
XFER_NEXT_EVENT																																			
XFER_PAST_GENERATION																																			
XFER_POS_AGGREGATION_NAME																																			
XFER_PRODUCT_FORCEPAST																																			
XFER_USE_AUTOMATIC_ACCOUNT																																			
XFER_USE_MONEYDIFF																																			
XFER_USE_POS_AGGREGATION_ONLY																																			
XFER_USE_REVERSE																																			
config	PLTax																																		
tcid																																			
PSEventTrade																																			
Event Filters:																																			
AllTransfersKnownEventFilter   																																			
Engine Manager Configuration:	Start on Startup:																																		
engineserver 	<input checked="" type="checkbox"/>																																		

3.2.2 Tax Calculator with Option “applies to position” Disabled

The system only pick-up cash-flow type INTEREST that are not Coupon clip of the underlying security. Other cash-flow are disregarded.



Fields and Operators are identical; refer to section: 3.1.2 Tax Calculator for set-up. Only Variables change:

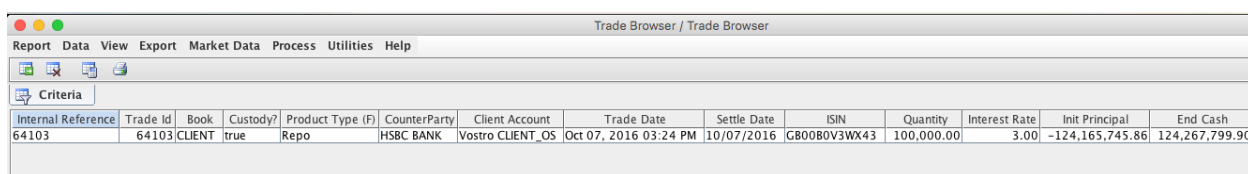
Variables	Comments
Notional	Cash-flow field Notional of an INTEREST cash-flow type
Interest	Field Interest Amt. of the cash-flow
PaymentDate	Pmt Dt of the cash-flow
StartDate	Pmt Begin of the cash-flow
EndDate	Pmt End of the cash-flow
ConvertAmount	<p>Provides all necessary information for FX conversion: amount to convert, conversion date and settlement currency.</p> <p>Example:</p> <pre>ConvertAmount(Nominal*FirstPrice, FirstSettleDate, 'EUR')*0.004</pre> <p>When this variable is present in the tax rule, there is no need to run the conversion process.</p>
DayCount	<p>Return from two dates the days difference based on day-count basis</p> <p>DayCount(Start Date, End Date, DayCount as per Calypso naming convention)</p>

Variables	Comments
DayCountFactor	Return from two dates and a day-count basis a factor as per financial convention DayCountFactor(Start Date, End Date, DayCount as per Calypso naming convention)

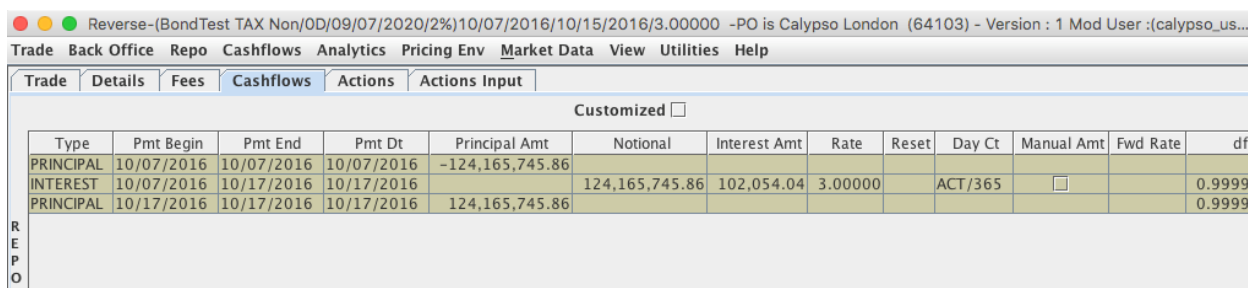
Example

Interest*0.049*DayCountFactor(StartDate,EndDate,ACT/360)

- Reverse repo booked by client:



Internal Reference	Trade Id	Book	Custody?	Product Type (F)	CounterParty	Client Account	Trade Date	Settle Date	ISIN	Quantity	Interest Rate	Init Principal	End Cash
64103	64103	CLIENT	true	Repo	HSBC BANK	Vostro CLIENT_OS	Oct 07, 2016 03:24 PM	10/07/2016	GB0080V3WX43	100,000.00	3.00	-124,165,745.86	124,267,799.90



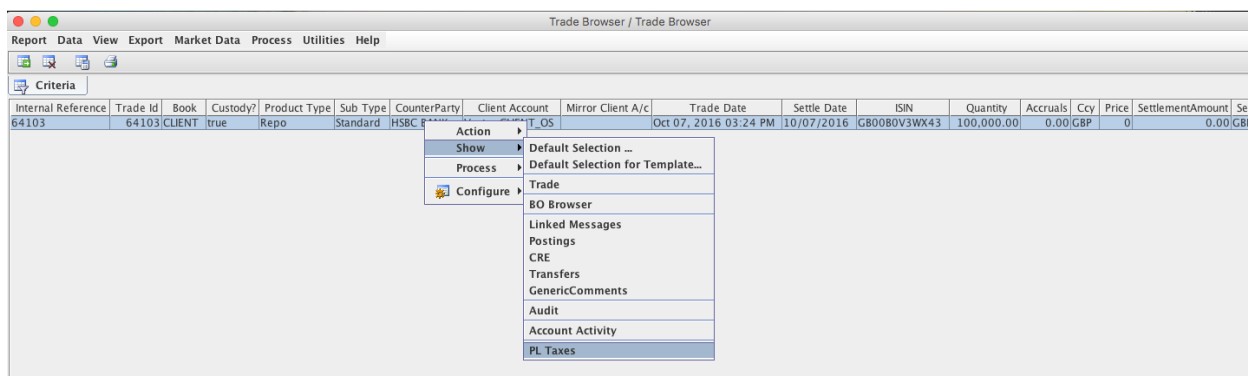
Type	Pmt Begin	Pmt End	Pmt Dt	Principal Amt	Notional	Interest Amt	Rate	Reset	Day Ct	Manual Amt	Fwd Rate	df
PRINCIPAL	10/07/2016	10/07/2016	10/07/2016	-124,165,745.86								
INTEREST	10/07/2016	10/17/2016	10/17/2016		124,165,745.86	102,054.04	3.00000		ACT/365			0.9999
PRINCIPAL	10/17/2016	10/17/2016	10/17/2016	124,165,745.86								0.9999

Tax calculation as per formula defined

$$\text{Tax Amount} = \frac{102,054.04 \times 4.9\% \times (17\text{th of Oct 2016} - 7\text{th of Oct 2016})}{360} = \frac{102,054.04 \times 4.9\% \times 10}{360} = 138.90688778$$

Rounded to 138.91

- Tax entry; can be shown only from trade browser on the right click. Menu is “PL Taxes”



Internal Reference	Trade Id	Book	Custody?	Product Type	Sub Type	CounterParty	Client Account	Mirror Client A/c	Trade Date	Settle Date	ISIN	Quantity	Accruals	Ccy	Price	SettlementAmount	Set
64103	64103	CLIENT	true	Repo	Standard	HSBC BANK	Vostro CLIENT_OS		Oct 07, 2016 03:24 PM	10/07/2016	GB0080V3WX43	100,000.00	0.00	GBP	0	0.00	GBP

PL Tax Info

Edit Tax

Tax Type	MX_TAX_REPO
Tax Date	10/17/2016
Tax Amount	138.907
Comments	
Trade Id	64,103
Original Flow Type	INTEREST
Original Flow Amount	102,054.04
Notional	124,165,745.86
Start Date	10/07/2016
End Date	10/17/2016
Tax Ccy	GBP
FX Rate	0
Tax Rule	2,038,202
Tax Rule Version	0
Status	NEW
Modification Date	
Modification User	

Taxes

Add/Modify X Delete

Tax T...	Tax ...	Tax A...	Com...	Trad...	Origin...	Orig...	Notio...	Start ...	End ...	Tax ...	FX Rate	Tax ...	Tax R...	Status	Modif...	Modif...
MX_T...	10/1...	138...		64103	INTE...	102...	124...	10/0...	10/1...	GBP	0	2038...	0	NEW		

View Transfers Save Close

– Trade Transfer rules

Trade ID ID 64103

Transfer rules

Report Data View Export Window

Transfer Type	Payer Name	Payer Role	Payer Instr.	Payer Agent	Payer Status	Receiver Name	Receiver Role	Receiver Instr.	Receiver Agent
Transfer Type: INTEREST									
INTEREST	HSBC BANK	CounterParty	1958440	HSBC BANK	Default	CALYPSO_LDN	ProcessingOrg	1958422	CALYPSO_LDN
INTEREST	CALYPSO_LDN	ProcessingOrg	1958501	AGENT	Default	CLIENT_OS	Client	2038106	NONE
Transfer Type: MX_TAX_REPO									
MX_TAX_REPO	CALYPSO_LDN	ProcessingOrg	1958422	CALYPSO_LDN	Default	CALYPSO_LDN	ProcessingOrg	1958422	CALYPSO_LDN
MX_TAX_REPO	CLIENT_OS	Client	2038106	NONE	Default	CALYPSO_LDN	ProcessingOrg	1958501	AGENT
Transfer Type: PRINCIPAL									
PRINCIPAL	CALYPSO_LDN	ProcessingOrg	1958422	CALYPSO_LDN	Default	HSBC BANK	CounterParty	1958440	HSBC BANK
PRINCIPAL	CLIENT_OS	Client	2038106	NONE	Default	CALYPSO_LDN	ProcessingOrg	1958501	AGENT
PRINCIPAL	HSBC BANK	CounterParty	1958440	HSBC BANK	Default	CALYPSO_LDN	ProcessingOrg	1958422	CALYPSO_LDN
PRINCIPAL	CALYPSO_LDN	ProcessingOrg	1958501	AGENT	Default	CLIENT_OS	Client	2038106	NONE
Transfer Type: SECURITY									
SECURITY	HSBC BANK	CounterParty	2012278	BNYM NYC	Default	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO
SECURITY	CALYPSO_LDN	ProcessingOrg	1958501	AGENT	Default	CLIENT_OS	Client	2038106	NONE
SECURITY	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default	HSBC BANK	CounterParty	2012278	BNYM NYC
SECURITY	CLIENT_OS	Client	2038106	NONE	Default	CALYPSO_LDN	ProcessingOrg	1958501	AGENT

– Resulting transfers

Trade ID ID 64103

Transfers

Report Data View Export Window

Is DDA	Is Return	Transfer Type	Transfer_id	Netted Transfer	Netting Type	Xfer Account	Transfer Status	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false											
false	<input type="checkbox"/>	SECURITY	297376	0	None	NOSTRO ACCOUNT THIRDPARTY	CREATED	RECEIVE	100,000,000.00	0.00	GBP
false	<input type="checkbox"/>	PRINCIPAL	297377	0	None	NOSTRO ACCOUNT THIRDPARTY	CREATED	PAY	-0.00	(124,165,745.86)	GBP
false	<input checked="" type="checkbox"/>	SECURITY	297380	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	PAY	-100,000,000.00	0.00	GBP
false	<input checked="" type="checkbox"/>	PRINCIPAL	297381	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	RECEIVE	0.00	124,165,745.86	GBP
false	<input checked="" type="checkbox"/>	INTEREST	297382	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	RECEIVE	0.00	102,054.04	GBP
false	<input checked="" type="checkbox"/>	MX_TAX_REPO	297866	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	PAY	-0.00	(138.91)	GBP
Is DDA: true											
true	<input type="checkbox"/>	SECURITY	297378	0	None	CLIENT ACCOUNT yyyyyy	CREATED	PAY	-100,000,000.00	0.00	GBP
true	<input type="checkbox"/>	PRINCIPAL	297379	0	None	CLIENT ACCOUNT yyyyyy	CREATED	RECEIVE	0.00	124,165,745.86	GBP
true	<input checked="" type="checkbox"/>	SECURITY	297383	0	None	CLIENT ACCOUNT yyyyyy	VERIFIED	RECEIVE	100,000,000.00	0.00	GBP
true	<input checked="" type="checkbox"/>	PRINCIPAL	297384	0	None	CLIENT ACCOUNT yyyyyy	VERIFIED	PAY	-0.00	(124,165,745.86)	GBP
true	<input checked="" type="checkbox"/>	INTEREST	297385	0	None	CLIENT ACCOUNT yyyyyy	VERIFIED	PAY	-0.00	(102,054.04)	GBP
true	<input checked="" type="checkbox"/>	MX_TAX_REPO	297867	0	None	CLIENT ACCOUNT yyyyyy	VERIFIED	RECEIVE	0.00	138.91	GBP

As per regular liquidation, taxes are created under Nostro and Vostro.

In addition to the keyword ClientAccount the process requires the key Client (as a legal entity) to be defined. It is used by the system for CA process:

On the coupon application date, system will create 3 CA's:

- Generate

Apply

Create

Elect

Applicable Date

12/28/2017

☒ Use Ex Date
 ☐ Use Record Date
 ☐ Use Payment Date

Corporate Action Selection

Corporate Action

CA Model

CA SubType

Swift Event Code

CA SDFilter

Underlying Code: ISIN

Underlying Product

CASH/INTEREST/03/07/2017/36502

G800BTHH2R79

Bond UK Treasury 2% 2015/10Y/09/07/2025/2%

Corporate Action Application Criteria

Apply to Position

BO Position Type

BO Position Date Type

BO Position Aggregation

BO Position Balance Type

PL Position Reposed

Processing Org.

Product Type

Position Filter

Apply to OTC

Apply to MarginCall Position

THEORETICAL

SETTLE

ALL

☒
☐
☐
☐

Applicable CA

Load (CA)

Add

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
54105	CASH	INTEREST	0.991780821917808		1GBP	02/28/2017	03/07/2017	02/28/2017

Trade

Generate Trade

Save All

☒ Internal
 ☐ Only Position Aggregation
 ☒ Claims
 ☒ Agent
 ☐ Agent Aggregation

PRODUCT_CODE.ISIN	Role	Trade Id	Book	CounterParty	Product Type	Action	Ex Date	Record Date	Payment Date	Pay/Rec.SettlementAmount	Settle Cur.	Liq Attribute Name	Liq Attribute.ClientAccount
G800BTHH2R79	Role: Agent												
	Agent	64703	CLIENT	JPMORGAN CHASE & CO	CA	NONE	02/28/2017	02/28/2017	03/07/2017	89,260.27	GBP		
				CLIENT JPMORGAN CHASE & CO	CA	NONE				89,260.27	GBP		
G800BTHH2R79	Role: Client												
	Client	64704	CLIENT	CLIENT	CA	NONE	02/28/2017	02/28/2017	03/07/2017	89,260.27	GBP		
					CA	NONE				89,260.27	GBP		
G800BTHH2R79	Role: ProcessingOrg												
	ProcessingOrg	64705	CLIENT	CALYPSO_LDN	CA	NONE	02/28/2017	02/28/2017	03/07/2017	89,260.27	GBP	ClientAccount	2037107
G800BTHH2R79	ProcessingOrg	64706	CLIENT	CALYPSO_LDN	CA	NONE	02/28/2017	02/28/2017	03/07/2017	89,260.27	GBP	ClientAccount	2037107
				CLIENT CALYPSO_LDN	CA	NONE				178,520.54	GBP		
										(178,520.54)			

When creating CA trades for P&L adjustment, the following trade keywords can be automatically populated using the trade rule `CheckAutomaticTradeCounterParty`:

CAManualAmend = true

- Liquidation/Realisation of the Coupon

Only the liquidation Type Realized creates tax entry as the realized for Ex-Date equals 0 (only cash movement).

Liquidation Report PE: OFFICIAL (10/11/16 11:56:34 AM) / default											
Report Data View Export Market Data Tax Lot Info Utilities Help											
Criteria											
CA Liquidation Allocations...											
Liq Aggregation	Liquidation Type	Liquidation Id	Liquidation Quantity	Nominal	Liquidation Date	Realized	First Settle Date	Second Settle Date	First Trade Id	Second Trade Id	
ClientAccount:2037107	Liquidation	44001	10,000.00	1,000,000.00	10/3/16 5:00:10.000 PM BST	69,226.82	10/05/2016	10/13/2016	62801	63003	
ClientAccount:2037107	Realized	44005	90,000.00	9,000,000.00	2/28/17 10:59:01.000 PM GMT	89,260.27	10/05/2016	03/07/2017	62801	64705	
ClientAccount:2037107	Realized Ex-Div Adjustment	44006	90,000.00	9,000,000.00	3/6/17 10:59:01.000 PM GMT	0.00	10/05/2016	03/07/2017	62801	64706	

With the same tax configuration as buy and sell the following tax is calculated. Note in that example the day-count basis convention is ACT/ACT as per ISDA definition, so factor is calculated year to year.

$$\text{Tax Amount} = 9,000,000 \times 0.6\% \times \left(\frac{01/01/2017 - 05/10/2016}{366} + \frac{07/03/2017 - 01/01/2017}{365} \right) = 9,000,000 \times 0.6\% \times \left(\frac{88}{366} + \frac{65}{365} \right) = 22,600.044914 \text{ rounded to } 22,600.04$$

- Tax Entry

Liquidation Tax Info									
Edit Tax									
Tax Type	MX_PO_RES_DC								
Tax Amount	22,600.045								
Revenue	0.992								
Comments									
Liquidation Id	44,005								
Modification User									
Modification Date									
Status	NEW								
PLTaxRule Id	2038002								
PLTaxRule Version	1								
Taxes									
Add/Modify X Delete									
Tax Type	Tax Amount	Revenue	Comments	Liquidation...	Modificatio...	Modificatio...	Status	PLTaxRule Id	PLTaxRule...
MX_PO_RE...	22,600.045	0.992		44005			NEW	2038002	1

- The tax calculated on the liquidation is allocated to the client trade that generate the cash movement on the inventory

LiquidationCorporateActionAllocation Report (10/11/16 12:01:42 PM)											
Report Data View Export Market Data Utilities Help											
Criteria											
Liquidation Id				Inventory Trade				Allocated Quantity			
44005				64704				90,000.00			

The expected allocation is 1 PnL trade for 1 Client trade, if no claim exists (fail or Repo/SBL)

Trade	Details	Fees	CA Election
Cpty	CLIENT	Client	
Book	CLIENT	Status	VERIFIED
		ID	64704
		Template	NONE
General			
Trade Date	2/28/2017 10:59:01 PM		
Settle Date	03/07/2017		
Pay/Receive	Pay		
Corporate Action Type	Cash		
Model - Type	CASH		
Sub Type	INTEREST		
Corporate Action	CASH/INTEREST/03/07/2017/36502		
Underlying Product	Bond UK Treasury 2% 2015/10Y/09/07/2025/2%		
Underlying Ccy	GBP		
SecCode Type	ISIN		
SecCode	GB00BTHH2R79		
Ccy	GBP		
Quantity	90,000		
CA Unit Amount	0.991780821917808		
Nominal	9,000,000		
Settlement Amount	-89,260.27		
Related Trade Id	64704		

- Two transfer rules are added. One for the Nostro Thirdparty, one for the client account

Trade Id

ID

64704

Transfer rules

Report

Data

View

Export

Window

Filter	Transfer Type	Payer Name	Payer Role	Payer Instr.	Payer Agent	Payer Status	Receiver Name	Receiver Role	Receiver Instr.	Receiver Agent
	Transfer Type: INTEREST									
	INTEREST	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN	Default	CLIENT	Client	2037108	NONE
	Transfer Type: MX_PO_RES_DC									
	MX_PO_RES_DC	CLIENT	Client	2037108	NONE	Default	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN
	MX_PO_RES_DC	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default	CALYPSO_LDN	CounterParty	2038803	EUROCLEAR BANK






- Based on transfers onto the two accounts are created to reduce the cash position and to pay the tax to the collector. In this document the PO itself

Trade Id

ID

64704

...



Transfers




Report

Data

View

Export

Window



Filter

	Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false											
false		302367	0	None	NOSTRO ACCOUNT THIRDPARTY	VERIFIED	MX_PO_RES_DC	PAY	-0.00	(22,600.04)	GBP
									-0.00	(22,600.04)	
Is DDA: true											
true		302368	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	INTEREST	PAY	-0.00	(89,260.27)	GBP
true		302369	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	MX_PO_RES_DC	RECEIVE	0.00	22,600.04	GBP
									0.00	(66,660.23)	

- The total movement onto the Nostro third-party is not impacted by the tax process

- Transfers

- The cash positions are impacted accordingly
 - Internal: Nostro third-party Account

- Client: Vostro position:

Cash										
Currency	Account	Position Type	Date Type	Agent	Mar 6, 2017	Mar 7, 2017	Mar 8, 2017	Mar 9, 2017	Mar 10, 2017	
GBP	CLIENT VOSTRO	THEORETICAL	SETTLE	CALYPSO_LDN	-9,092,511.37	-9,025,851.14	-9,025,851.14	-9,025,851.14	-9,025,851.14	

Transfer / Default										
Transfer Id	Event Type	Transfer Status	Trade Id	Transfer Type	Transfer Amount	Settle Currency	Value Date	Payer Code	Payer Role	Payer Inst
302368	PAYMENT	VERIFIED	64704	INTEREST	(89,260.27)	GBP	03/07/2017	CALYPSO_LDN	ProcessingOrg	Direct/CALYPSO_LDN
302369	RECEIPT	VERIFIED	64704	MX_PO_RES_DC	22,600.04	GBP	03/07/2017	CLIENT	Client	Direct/CLIENT VOSTRO

Transfer Id	Event Type	Transfer Status	Trade Id	Transfer Type	Transfer Amount	Settle Currency	Value Date	Payer Code	Payer Role	Payer Inst	Payer Inst Status	Receiver Code	Receiver Role	Receiver Inst
302368	PAYMENT	VERIFIED	64704	INTEREST	(89,260.27)	GBP	03/07/2017	CALYPSO_LDN	ProcessingOrg	Direct/CALYPSO_LDN	Default	CLIENT	Client	Direct/CLIENT VOSTRO
302369	RECEIPT	VERIFIED	64704	MX_PO_RES_DC	22,600.04	GBP	03/07/2017	CLIENT	Client	Direct/CLIENT VOSTRO	Default	CALYPSO_LDN	ProcessingOrg	Direct/CALYPSO_LDN

3.4 Foreign Withholding Tax Management

In order to validate the process, the two Clients are considered non resident (tax calculated on realized and not the notional).

The following configuration applies only on account with LE Country different from MEXICO and having the account attribute W8Form not true

PL Tax Rule [151001/V14207/calypso_user]

Utilities

Edit Browse

Rule Id: 2039703 ☒ Applies to Position

Effective F...:

Effective To:

Trade Filter: _CustodyPosition SD Filter: entsNotResidentWithoutW8

Tax Type: MX_PO_N_RES_DC

LE Role: ProcessingOrg Legal Entity:

Formula Method

Formula

((LiquidationType == 2)?(Nominal*SecondPrice/FaceValue*0.049*DayCountFactor(((FirstSettleDate > LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB")):(0))

Static Data Filter Window [151001/V14207/calypso_user]

Name: _ClientsNotResidentWithoutW8

External Ref:

Comment:

Groups: ANY

Criteria... Simulate

Attribute	Criteria	Filter Value(s)
ClientAccountLECountry	NOT_LIKE	MEXICO
KEYWORD.ClientAccount.AccountProperty.W8Form	NOT_IN	true

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Browse

Account Name: CLIENT VOSTRO

Processing Org: CALYPSO_LDN Ccy: ANY Id: 2037107

Type: SETTLE SubType: Auto/Template Acc: ☐

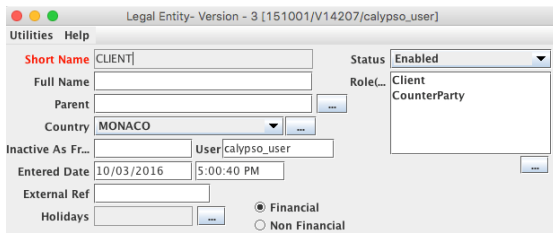
External Name: Interface Rule: Aggregate

Description: CLIENT ACCOUNT xxxxxxx

Legal Entity (F...): CLIENT Role: Client

Creation Date: 3/3/16 5:01:27 PM

Key	Value
Propagate	false
W8Form	false



Legal Entity - Version - 3 (151001/V14207/calypso_user)

Utilities Help

Short Name CLIENT Status Enabled

Full Name

Parent

Country MONACO

Inactive As Fr... User calypso_user

Entered Date 10/03/2016 5:00:40 PM

External Ref

Holidays

Role Client CounterParty

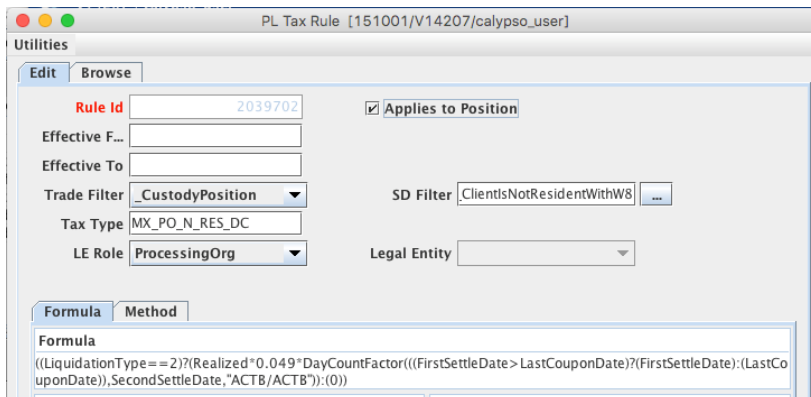
Financial Non Financial

Formula:

```
((LiquidationType==2)?(Nominal*SecondPrice/FaceValue*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB")):(0))
```

Applies only for Coupon: The calculation is done as per Coupon rate (SecondPrice/FaceValue) as per cashflows to the open trade outstanding notional

The following configuration applies only on account with LE Country different from MEXICO and having the account attribute W8Form is true.



PL Tax Rule [151001/V14207/calypso_user]

Utilities

Edit Browse

Rule Id 2039702 ☒ Applies to Position

Effective F...

Effective To

Trade Filter CustodyPosition SD Filter ClientsNotResidentWithW8

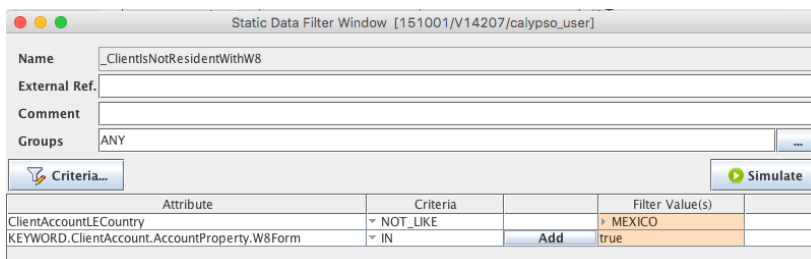
Tax Type MX_PO_N_RES_DC

LE Role ProcessingOrg Legal Entity

Formula Method

Formula

```
((LiquidationType==2)?(Realized*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB")):(0))
```



Static Data Filter Window [151001/V14207/calypso_user]

Name ClientsNotResidentWithW8

External Ref.

Comment

Groups ANY

Criteria... Simulate

Attribute	Criteria	Filter Value(s)
ClientAccountLECountry	NOT LIKE	MEXICO
KEYWORD.ClientAccount.AccountProperty.W8Form	IN	true

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Browse

Account Name: Vostro CLIENT_OS

Processing Org: CALYPSO_LDN Ccy: ANY Id: 2038104

Type: SETTLE SubType: Auto/Template Acc

External Name: Interface Rule: Aggregate

Description: CLIENT ACCOUNT yyyyyy

Legal Entity (F...): CLIENT_OS Role: Client

Creation Date: 10/7/16 3:05:58 PM

Closing Acco... Last Closing Da...

Parent Account Parent Id 0

Key	Value
Propagate	false
W8Form	true

Legal Entity- Version - 0 [151001/V14207/calypso_user]

Utilities Help

Short Name: CLIENT_OS Status: Enabled

Full Name: Role: Client CounterParty

Parent: Country: FRANCE

Inactive As Fr... User: calypso_user

Entered Date: 10/07/2016 3:05:22 PM





External Ref: Holidays: Financial Non Financial

Formula

$((LiquidationType==2)?(Realized*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate))),(SecondSettleDate,"ACTB/ACTB")):(0))$

Applies only for Coupon: The calculation is done as per coupon amount recognized onto the open trade.

- Following trades are captured:

Trade Browser / Trade Browser														
Report Data View Export Market Data Process Utilities Help														
<div><div></div><div>Criteria</div></div>														
Internal Reference	Trade Id	Book	Custody?	Product Type	Sub Type	CounterParty	Client Account	Mirror Client A/c	Trade Date	Settle Date	ISIN	CUSIP	Quantity	Nominal
62801	62801	CLIENT	true	Bond	Gilt	HSBC BANK	Client Account: CLIENT VOSTRO		Oct 03, 2016 05:00 PM	10/05/2016	GB00BTHH2R79		100,000	50,000,000.00
63003	63003	CLIENT	true	Bond	Gilt	HSBC BANK	CLIENT VOSTRO		Oct 03, 2016 05:00 PM	10/17/2016	GB00BTHH2R79		-20,000	(10,000,000.00)
							Client Account: Vostro CLIENT_OS						80,000	40,000,000.00
63901	63901	CLIENT	true	Bond	Gilt	HSBC BANK	Vostro CLIENT_OS		Oct 03, 2016 03:07 PM	10/05/2016	GB00BTHH2R79		100,000	50,000,000.00
63903	63903	CLIENT	true	Bond	Gilt	HSBC BANK	Vostro CLIENT_OS		Oct 03, 2016 03:07 PM	10/17/2016	GB00BTHH2R79		-20,000	(10,000,000.00)
													80,000	40,000,000.00

- Resulting into the following CA (No local WHT calculated)

Trade	Generate Trade	Save All	<input checked="" type="checkbox"/> Internal	<input type="checkbox"/> Only Position Aggregation	<input checked="" type="checkbox"/> Claims	<input checked="" type="checkbox"/> Agent	<input type="checkbox"/> Agent Aggregation				
Role	Trade Id	Book	CounterParty	Account	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec.Quantity	Pay/Rec.SettlementAmount	Settle Cur.
Role: Agent											
Agent	66203	CLIENT	JPMORGAN CHASE & CO	GBP - 1234	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	160,000.00	158,684.93	GBP
		CLIENT	JPMORGAN CHASE & CO		CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	160,000.00	158,684.93	GBP
Role: Client											
Client	66204	CLIENT	CLIENT VOSTRO		CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(79,342.47)	GBP
Client	66205	CLIENT	CLIENT_OS	Vostro CLIENT_OS	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(79,342.47)	GBP
		CLIENT			CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(160,000.00)	(158,684.94)	GBP
Role: ProcessingOrg											
ProcessingOrg	66206	CLIENT	CALYPSO_LDN	Vostro CLIENT_OS	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(79,342.47)	GBP
ProcessingOrg	66208	CLIENT	CALYPSO_LDN	CLIENT VOSTRO	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(79,342.47)	GBP
		CLIENT			CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(160,000.00)	(158,684.94)	GBP
									(160,000.00)	(158,684.95)	

- Liquidation:

Trade Id	Liquidation Id	Product Description	Nominal	Second Price	Liquidation Date	Realized	First Settle Date	Second Settle Date
66206	50511	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	79,342.47	10/05/2016	03/07/2017
66208	50508	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	79,342.47	10/05/2016	03/07/2017

And resulting taxes

Trade Id	Liquidation Id	Product Description	Nominal	Second Price	Liquidation Date	Realized	First Settle Date	Second Settle Date
66206	50511	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	79,342.47	10/05/2016	03/07/2017
66208	50508	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	79,342.47	10/05/2016	03/07/2017

Result is identical.

3.5 Regular Withholding Tax Configuration

Call Schedule	Brady Schedule	Credit Events	ABS	CLN	Impairment Events	Revolver	Dar
Bond	Coupon	Market	Special	CashFlows	Primary		
Bond Class Bond	Bond Type Gilt	Security Ty...					
Issue Date 03/20/2001	Dated Date 03/20/2001	Maturity D... 09/07/2025	1...				
Issuer UK TREASURY							
United Kingdom Treasury							
Count... UNITED KINGDOM							
Issue Price 100	Issue Yield 0	Currency GBP	Redem. Price 100	Redem. Curr. GBP	Total Issued 9,275,000,000	Face Value 500	
Code ISIN	G8008THH2R79	Code...					
Comment							
Min. Purchase Amt. 1							

Now the Cash applies to position is reduced by the local WHT.

Trade	Generate Trade	Save All	<input checked="" type="checkbox"/> Internal	<input type="checkbox"/> Only Position Aggregation	<input checked="" type="checkbox"/> Claims	<input checked="" type="checkbox"/> Agent	<input type="checkbox"/> Agent Aggregation				
Role	Trade Id	Book	CounterParty	Account	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec.Quantity	Pay/Rec.SettlementAmount	Settle Cur.
Role: Agent											
Agent	66210	CLIENT	JPMORGAN CHASE & CO	GBP - 1234	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	160,000.00	119,013.70	GBP
		CLIENT	JPMORGAN CHASE & CO		CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	160,000.00	119,013.70	GBP
Role: Client											
Client	66211	CLIENT	CLIENT	CLIENT VOSTRO	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(59,506.85)	GBP
Client	66212	CLIENT	CLIENT_OS	Vostro CLIENT_OS	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(59,506.85)	GBP
		CLIENT			CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(160,000.00)	(119,013.70)	GBP
Role: ProcessingOrg											
ProcessingOrg	66213	CLIENT	CALYPSO_LDN	Vostro CLIENT_OS	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(59,506.85)	GBP
ProcessingOrg	66215	CLIENT	CALYPSO_LDN	CLIENT VOSTRO	CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(80,000.00)	(59,506.85)	GBP
		CLIENT	CALYPSO_LDN		CA	CASH/INTEREST/03/07/2017/36502	03/01/2017	NONE	(160,000.00)	(119,013.70)	GBP
									(160,000.00)	(119,013.70)	

Attribute "WithholdingTaxAmount" is added on CA Transfer if Book is Custody and CA is CASH/INTEREST and Trade has withholding tax.

This attribute contains the withholding tax amount (not the rate). The following posting events can be used:

- WHT_xxx - WithholdingTaxAmount xfer attribute
- GROSS_AMT_xxxx - WithholdingTaxAmount xfer attribute - xfer settlement amount

Liquidation is as so also reduced by this amount, but price remain gross:

Liquidation Report PE: OFFICIAL (10/18/16 4:26:57 PM)

ReportDataViewExportMarket DataTax Lot InfoUtilitiesHelp

Criteria

Trade Id	Liquidation Id	Product Description	Nominal	Second Price	Liquidation Date	Realized	First Settle Date	Second Settle Date
66215	50517	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	59,506.85	10/05/2016	03/07/2017
66213	50515	CASH/INTEREST/03/07/2017/36502	40,000,000.00	99.178082	2/28/17 10:59:01.000 PM GMT	59,506.85	10/05/2016	03/07/2017

Tax result:

Liquidation Tax Info	
Edit Tax	
Tax Type	MX_PO_N_RES_DC
Tax Amount	1,629,673
Revenue	0.744
Comments	
Liquidation Id	50,517
Modification User	
Modification Date	
Status	NEW
PLTaxRule Id	2,039,703
PLTaxRule Version	2

Liquidation Tax Info	
Edit Tax	
Tax Type	MX_PO_N_RES_DC
Tax Amount	1,222,254
Revenue	0.744
Comments	
Liquidation Id	50,515
Modification User	
Modification Date	
Status	NEW
PLTaxRule Id	2,039,702
PLTaxRule Version	2

CLIENT pays tax on the full coupon (attribute W8Form=false); CLIENT_OS pays the tax on the net amount (attribute W8Form=true)

3.6 Special Case for Elections

This section is dedicated to non payment of coupon by issuer to security owner. The owner chooses an early redemption with an interest clean-up. For this model, two CA's will be generated:

- One for the coupon
- One for the redemption

In that particular case, the redemption gets taxed too. The maximum tax that can be paid is the total realised (redemption + coupon); therefore, two different liquidations.

For the application of such coupon, please do refer to the CA user guide.

3.6.1 Tax Configuration

For this process the variable RealizedPCAL is used. It will return the Realized from liquidation on the redemption trade

- $\text{Realized} = \text{LiquidationQuantity} * (\text{FirstPrice} - \text{SecondPrice} + \text{FirstAccrual} - \text{SecondAccrual})$
- $\text{Coupon Realized} = \text{LiquidationQuantity} * \text{AdjustedCouponRate}$

For $\text{AdjustedCouponRate} = \text{CA Product Amount} - \text{Second Price}$

- $\text{RealizedPCAL} = \text{Realized} + \text{Coupon Realized}$

For this configuration the CA type INTEREST has to be ignored by the process. Only the "redemption" will generate tax. The redemption trade has a liquidation type 9.

PL Tax Rule [151001/V14207/calypso_user]

Utilities

Edit Browse

Rule Id 2039803 ☒ Applies to Position

Effective F...

Effective To

Trade Filter CustodyPosition SD Filter clientsNotResident

Tax Type MX_PO_N_RES_DC

LE Role ProcessingOrg Legal Entity

Formula Method

Formula

```
((LiquidationType==9)?(MAX(0,RealizedPCAL*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB"))):(0))
```

Variables	Operators
Nominal	=
Realized	/
RealizedPCAL	+
LiquidationDate	-
LastCouponDate	MAX
FirstSettleDate	MIN
SecondSettleDate	?
FirstPrice	:
SecondPrice	
FirstAccrual	&&
SecondAccrual	DATE
LiquidationType	==
FaceValue	!=
DayCount	>
DayCountFactor	>=
	<
	<=

New Delete Save Save As New Close

Formula:

```
((LiquidationType==9)?(MAX(0,RealizedPCAL*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB"))):(0))
```

Calculation applies on Liquidation Type redemption

RealizedPCAL to be the redemption amount + Coupon to date (if coupon is paid at the same date).

Calculation after is as per regular one: Realized x 4.9% x Carrying time/Year Basis

3.6.2 Process Description

- Trade Booking

Trade Browser / Trade Browser

Report Data View Export Market Data Process Utilities Help

Criteria

Internal Reference	Trade Id	Book	Custody?	Product Type	Sub Type	CounterParty	Client Account	Trade Date	Settle Date	ISIN	Quantity	Accruals	Ccy	Price	SettlementAmount	Settle Cur.
67001	67001	CLIENT	true	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Feb 18, 2016 05:00 PM	02/23/2016	GB00BTHH2R79	100,000.0000	92,602.74	GBP	101.642209	(10,256,823.64)	GBP
67002	67002	CLIENT	true	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Feb 23, 2016 05:00 PM	02/26/2016	GB00BTHH2R79	(20,000.0000)	18,849.32	GBP	108.521055	2,189,270.42	GBP

In February the Client elect for a redemption at 104%

• CA Trade

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
54901 REDEMPTION	CALL REDEMPTION		104		0 GBP	02/29/2016	03/07/2016	02/29/2016
54902 CASH	INTEREST		0.997260273972603		1 GBP	02/29/2016	03/07/2016	02/29/2016

Role	Trade Id	Book	CounterParty	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec.Quantity	Pay/Rec.SettlementAmount	Settle Cur.	Diff With Existing
Role - Agent	67502 CLIENT		JPMORGAN CHASE & CO	CA	Partial Redemption With Reduction of Nominal Value/03/07/2016/36502	02/29/2016	NONE	(80,000.00)	8,000,000.00 GBP		
Agent	67505 CLIENT		JPMORGAN CHASE & CO	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE	80,000.00	79,780.82 GBP		
Agent	CLIENT		JPMORGAN CHASE & CO	CA			NONE	0.00	8,079,780.82 GBP		
Role - Client	67501 CLIENT	CLIENT	CA	CA	Partial Redemption With Reduction of Nominal Value/03/07/2016/36502	02/29/2016	NONE	80,000.00	(8,000,000.00) GBP		
Client	67506 CLIENT	CLIENT	CA	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE	(80,000.00)	(79,780.82) GBP		
Client	CLIENT	CLIENT	CA	CA			NONE	0.00	(8,079,780.82) GBP		
Role - ProcessingOrg	67504 CLIENT	CALYPSO_LDN	Bond	Bond	Bond UK Treasury 2% 2015/10/09/07/2025/2%	02/29/2016	NONE	80,000.0000	(8,240,219.18) GBP		
ProcessingOrg	67507 CLIENT	CALYPSO_LDN	CA	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE	(80,000.00)	(79,780.82) GBP		
ProcessingOrg	67508 CLIENT	CALYPSO_LDN	CA	CA	CASH/INTEREST/03/07/2016/36502	03/07/2016	NONE	(80,000.00)	(79,780.82) GBP		
ProcessingOrg	CLIENT	CALYPSO_LDN					NONE	(80,000.0000)	(8,399,780.82) GBP		
								(80,000.00)	(8,399,780.82)		

• Liquidation

Liquidation Report (10/19/16 4:48:17 PM) / default

Report

Data

View

Export

Market Data

Tax Lot Info

Utilities

Help

Criteria

Liq Aggregation	PRODUCT_CODE.ISIN	Liquidation Type	Liquidation Id	Liquidation Quantity	Nominal	Liquidation Date	Realized	First Settle Date	Second Settle Date
Liq Aggregation: ClientAccount:2037107	PRODUCT_CODE.ISIN: GB008THH2R79								
ClientAccount:2037107	GB008THH2R79	Liquidation	56501	20,000.00	2,000,000.00	2/23/16 5:00:10.000 PM GMT	137,905.69	02/23/2016	02/26/2016
ClientAccount:2037107	GB008THH2R79	Redemption	56502	80,000.00	8,000,000.00	2/28/16 10:59:01.000 PM GMT	34,760.27	02/23/2016	03/07/2016
ClientAccount:2037107	GB008THH2R79	Realized Ex-Div Adjustment	56504	80,000.00	8,000,000.00	3/6/16 10:59:01.000 PM GMT	0.00	02/23/2016	03/07/2016
ClientAccount:2037107	GB008THH2R79	Realized	56503	80,000.00	8,000,000.00	2/29/16 10:59:01.000 PM GMT	79,780.82	02/23/2016	03/07/2016

Edit Tax	
Tax Type	MX_PO_N_RES_DC
Tax Amount	199.352
Revenue	0.435
Comments	
Liquidation Id	56,502
Modification User	
Modification Date	
Status	NEW
PLTaxRule Id	2,039,803
PLTaxRule Version	3

Taxes

$$PLTax = \frac{(34,760.27 + 79,780.82) \times 4.9\% \times 13}{366} = 199.351569 \text{ so } \text{£}199.35$$

In that case the tax transfer is attached to the redemption trade, no reallocation to CA Client trade is performed:

Back Office Window for Trade 67504 / Internal Ref. 67504

BO Trade Browser

BO Trade Browser (67504)

Trade Id ID67504

Trade details

Internal Reference67504

Trade id67504

BookCLIENT

Custody?true

Product TypeBond

Sub TypeGilt

CounterPartyCALYPSO_LDN

Client AccountCLIENT VOSTRO

Mirror Client A/c

Trade Date02/28/2016

Settle Date03/07/2016

ISINGB008THH2R79

CUSIP

Quantity(80,000.0000)

Accruals0.00

CcyGBP

Price103.002740

SettlementAmount8,240,219.18

Settle Cur.GBP

Neg. Price103.002739726027

Neg. Price TypeCleanPrice

FX Rate

Currency Pair

TraderNONE

Entered Usercalypso_user

TradeStatusVERIFIED

TRADE_KEYWORD.CAClosingtrue

TRADE_KEYWORD.CAReference54901

Transfers

ReportDataViewExportWindow

Filter

Is DDA: false

Is DDA: true

	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
false	315882	0	None	NOSTRO ACCOUNT	VERIFIED	MX_PO_N_RES_DC	PAY	-0.00	(199.35)	GBP
								-0.00	(199.35)	
true	315883	0	None	CLIENT ACCOUNT xxxxxxx	VERIFIED	MX_PO_N_RES_DC	RECEIVE	0.00	199.35	GBP
								0.00	199.35	

Same process but with a redemption price at 101%

- Corporate Action

Applicable CA Load (CA) Add											
Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date			
54901:REDEMPTION	CALL REDEMPTION		101		0:GBP	02/29/2016	03/07/2016	02/29/2016			
54902:CASH	INTEREST		0.997260273972603		1:GBP	02/29/2016	03/07/2016	02/29/2016			

Trade Generate Trade Save All Internal Only Position Aggregation Claims Agent Agent Aggregation											
Role	Trade Id	Book	CounterParty	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec.Quantity	Pay/Rec.SettlementAmount	Settle Cur.	Diff's With Existing
Role: Agent											
Agent	67605:CLIENT	JPMORGAN CHASE & CO	CA	Partial Redemption With Reduction of Nominal Value/03/07/2016/36502	02/29/2016	NONE		(80,000.00)	8,080,000.00	GBP	
Agent	67605:CLIENT	JPMORGAN CHASE & CO	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE		80,000.00	79,780.82	GBP	
Client	67603:CLIENT	JPMORGAN CHASE & CO	CA			NONE		0.00	8,159,780.82	GBP	
Client	67603:CLIENT	CLIENT	CA	Partial Redemption With Reduction of Nominal Value/03/07/2016/36502	02/29/2016	NONE		80,000.00	(8,080,000.00)	GBP	
Client	67606:CLIENT	CLIENT	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE		80,000.00	79,780.82	GBP	
Client	67606:CLIENT	CLIENT	CA			NONE		0.00	(8,159,780.82)	GBP	
Role: ProcessingOrg											
ProcessingOrg	67604:CLIENT	CALYPSO_LDN	Bond	Bond UK Treasury 2% 2015/10/09/07/2025/2%	02/29/2016	NONE		80,000.0000	(8,080,000.00)	GBP	
ProcessingOrg	67607:CLIENT	CALYPSO_LDN	CA	CASH/INTEREST/03/07/2016/36502	03/01/2016	NONE		(80,000.00)	79,780.82	GBP	
ProcessingOrg	67608:CLIENT	CALYPSO_LDN	CA	CASH/INTEREST/03/07/2016/36502	03/07/2016	NONE		(80,000.00)	79,780.82	GBP	
						NONE		(80,000.0000)	(8,239,561.64)	GBP	
								(80,000.00)	(8,239,561.64)		

- Liquidation

Liquidation Report (10/19/16 4:48:17 PM) / default

Report Data View Export Market Data Tax Lot Info Utilities Help

Criteria

Liq Aggregation	PRODUCT_CODE.ISIN	Liquidation Type	Liquidation Id	Liquidation Quantity	Nominal	Liquidation Date	Realized	First Settle Date	Second Settle Date
Liq Aggregation: ClientAccount:2037107	PRODUCT_CODE.ISIN: GB008THH2R79								
ClientAccount:2037107	GB008THH2R79	Liquidation	57001	20,000.00	2,000,000.00	2/23/16 5:00:10.000 PM GMT	137,905.69	02/23/2016	02/26/2016
ClientAccount:2037107	GB008THH2R79	Redemption	57002	80,000.00	8,000,000.00	2/28/16 10:59:01.000 PM GMT	-125,458.91	02/23/2016	03/07/2016
ClientAccount:2037107	GB008THH2R79	Realized	57003	80,000.00	8,000,000.00	2/29/16 10:59:01.000 PM GMT	79,780.82	02/23/2016	03/07/2016
ClientAccount:2037107	GB008THH2R79	Realized Ex-Div Adjustment	57004	80,000.00	8,000,000.00	3/6/16 10:59:01.000 PM GMT	0.00	02/23/2016	03/07/2016

As the sum of the Coupon (Realized Liquidation Type) and the Redemption is less than 0 no tax is generated

3.6.3 Client Elections

If you perform the elections on the Client positions, you can use the following workflow rules to propagate the elections to the other positions.

The rule ElectMirrorClientElection propagates the election made on the Custody book and position type = Short/long Client Accounts to the Custody Book and position type = Long/Short Trading Books.

The rule ElectMirrorCustodyElection propagates the election made on the Custody book and position type = Short/Long Client Accounts to the Custody book and position type= Agent Accounts.

FX Management

This only applies if the `ConvertAmount` variable is not set in the tax rules.

4.1 General assumption

As stated in previous sections, taxes are calculated based on the currency of the position and never the settlement one. In that extend once a liquidation occurs, the amount of tax is in that currency.

Onto the tax configuration, a tax payment currency can be set.

4.2 Process Description

If a tax transfer is generated with an amount in another currency than the one defined on PL Tax rule it belongs to:

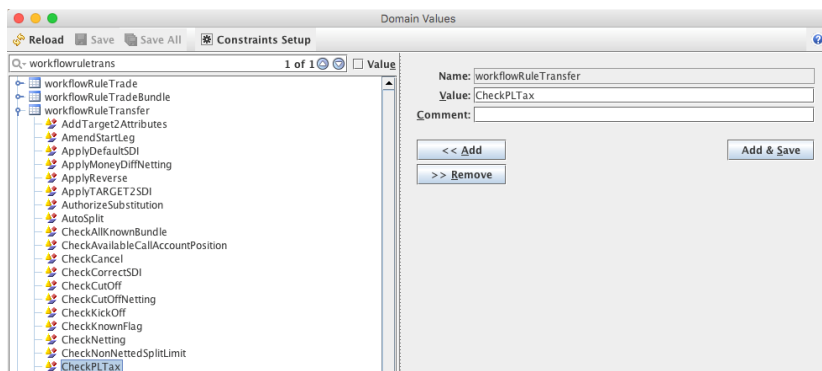
- The transfer STP is broken so that users can:
 - Manually fix the rate onto the tax entry
 - Or to validate quotes and to launch a process to reset those amounts
- Once taxes are reset into local currency:
 - Transfer in foreign currency is CANCELED
 - New transfer with correct amount is generated
- If a new liquidation occurs
 - Existing transfer is CANCELED (either reset or not, depending on the previous staging)
 - A new tax entry with no reset is created. Up to user to reset it manually or to launch again the FX reset process described bellow
- If quotes are changing, up to users to manually adjust the tax entries/transfers or to launch again the FX reset process.

Note that if the Settlement currency of the trade is the tax local currency, a flag on the reset process forces the usage of this rate rather than the end-of-day quote.

The management of backdated transfers is conducted as per any cash transfer management: Cancel/Replace or Reverse/New if the option is enabled.

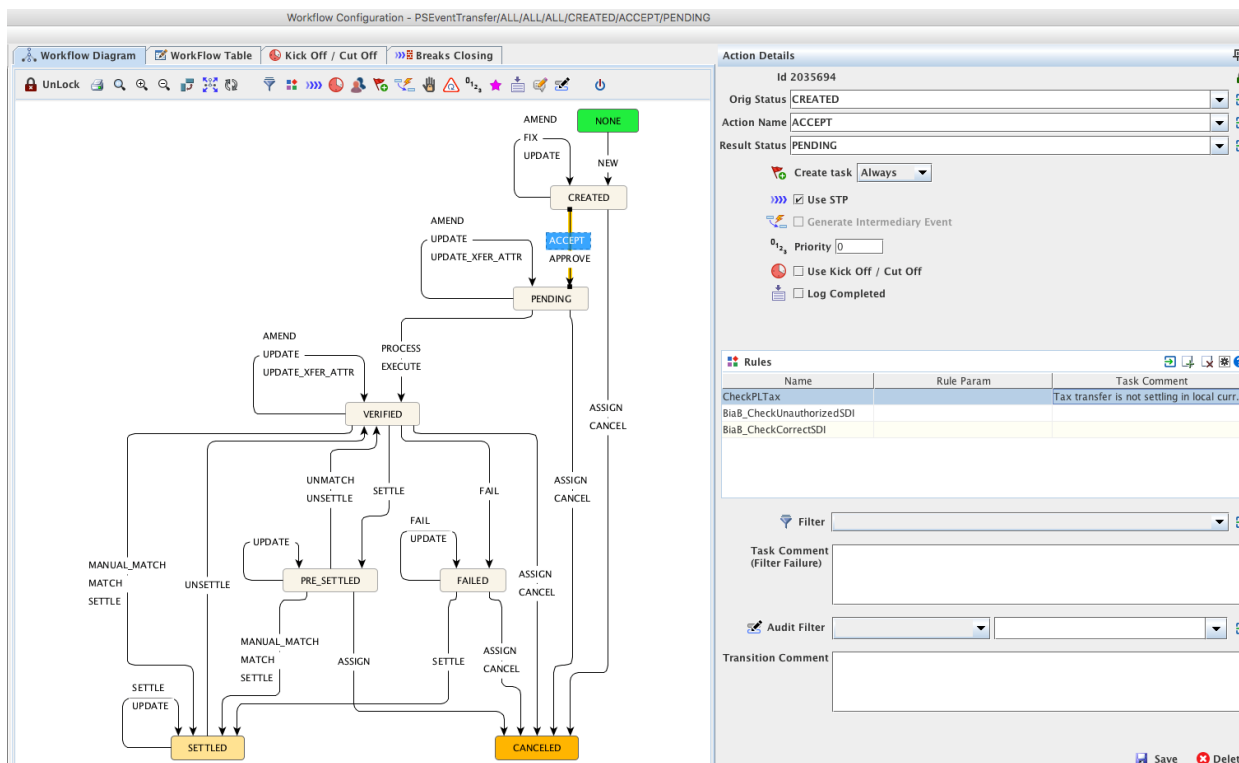
4.3 CheckPLTax

4.3.1 Workflow Rule Domain

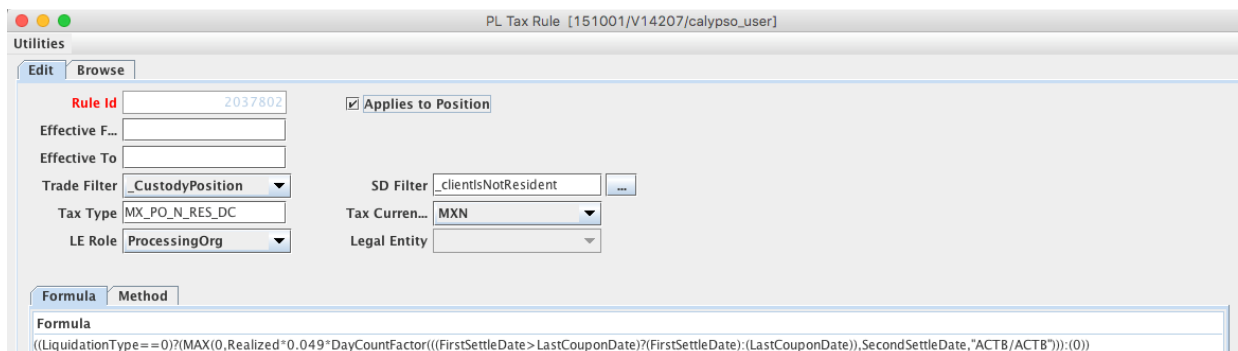


4.3.2 Workflow Example

In the following example, tax payment that are not in the correct currency are blocked in CREATED waiting for FX Reset.



4.4 PL Tax Configuration



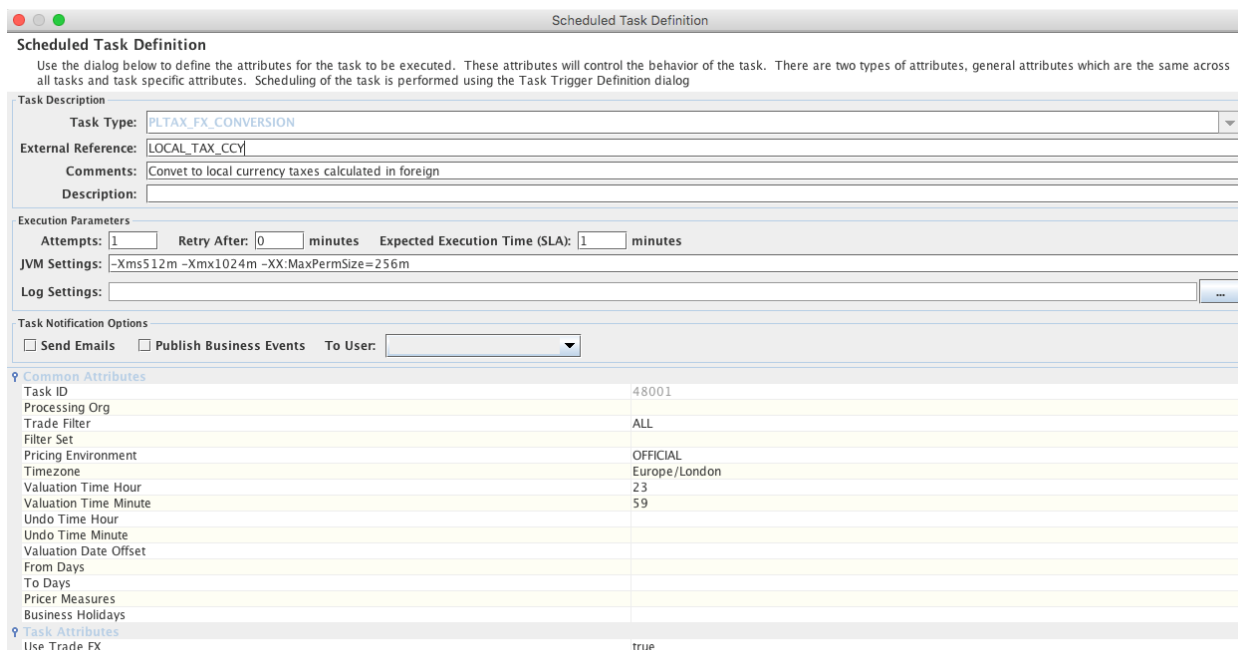
Applies only on Buy/Sell and income

Realized * 4.9% on weighted by carrying days for a day-count convention Act/Act

The Tax is expected in MXN

4.5 Scheduled Task PLTAX_FX_CONVERSION

4.5.1 Configuration



When Use Trade FX is set to true, the system uses the rate set on the trade if the settlement currency is the currency of the tax.

4.5.2 Result

Deal in FX

Trade Entered:

One buy: 62801

Three sells identical aside the settlement currency:

63003: Settles in original product currency

69506: Settles in MXN (currency of the tax, so carry a FX rate in MXN)

69507: Settles in EUR (not the tax currency, so no FX rate to MXN)

Trade Browser / Trade Browser																	
Internal Reference	Trade Id	Book	Custody?	Book Base Ccy	Product Type	Sub Type	CounterParty	Client Account	Trade Date	Settle Date	ISIN	Quantity	Accruals	Ccy	Price	SettlementAmount	Settle Ccy
62801	62801	CLIENT	true	EUR	Bond	GIR	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/05/2016	GB008THH2R79	1,000,000.0000	153.424.66	GBP	101.642209	(101,795,633.66)	GBP
63003	63003	CLIENT	true	EUR	Bond	GIR	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(20,000.0000)	4.383.56	GBP	108.521055	2,174,804.66	GBP
69506	69506	CLIENT	true	EUR	Bond	GIR	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(20,000.0000)	4.383.56	GBP	108.521055	9,134,179.57	MXN
69507	69507	CLIENT	true	EUR	Bond	GIR	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(20,000.0000)	4.383.56	GBP	108.521055	2,718,505.83	EUR

EOD Quote used for conversion

Quotes									
QuoteSet	default								
Date	10/17/2016								
Name	FX.GBP.MXN								
Filters	ALL								
Date	Quote Name	Quote Type	Bid	Ask	Open	Close	High	Low	Last
10/17/2016	FX.GBP.MXN	Price	4.0000000000	4.0000000000		4.0000000000			4.0000000000

Liquidation report and resulting transfers:

All liquidations are identical

Liquidation Report (11/9/16 10:44:44 AM) / default									
Liq Aggregation	PRODUCT_CODE.ISIN	Liquidation Type	Liquidation Id	Liquidation Quantity	Nominal	Liquidation Date	Realized	First Settle Date	Second Settle Date
Liq Aggregation: ClientAccount:2037107	PRODUCT_CODE.ISIN: GB008THH2R79	Liquidation	66004	20,000.00	2,000,000.00	10/3/16 5:00:10.000 PM BST	138,891.99	10/05/2016	10/17/2016
ClientAccount:2037107	GB008THH2R79	Liquidation	66005	20,000.00	2,000,000.00	10/3/16 5:00:10.000 PM BST	138,891.99	10/05/2016	10/17/2016
ClientAccount:2037107	GB008THH2R79	Liquidation	66006	20,000.00	2,000,000.00	10/3/16 5:00:10.000 PM BST	138,891.99	10/05/2016	10/17/2016

Edit Tax			
Tax Type	MX_PO_N_RES_DC		
Tax Amount		223.749	
Revenue		6.945	
FX Rate		0	
Comments			
Liquidation Id		66,004	
Modification User			
Modification Date			
Status	NEW		
Tax Ccy	GBP		
Settle Ccy	MXN		
PLTaxRule Id		2,037,802	
PLTaxRule Version		17	

Edit Tax			
Tax Type	MX_PO_N_RES_DC		
Tax Amount		223.749	
Revenue		6.945	
FX Rate		0	
Comments			
Liquidation Id		66,005	
Modification User			
Modification Date			
Status	NEW		
Tax Ccy	GBP		
Settle Ccy	MXN		
PLTaxRule Id		2,037,802	
PLTaxRule Version		17	

Edit Tax		
Tax Type	MX_PO_N_RES_DC	
Tax Amount		223.749
Revenue		6.945
FX Rate		0
Comments		
Liquidation Id		66,006
Modification User		
Modification Date		
Status	NEW	
Tax Ccy	GBP	
Settle Ccy	MXN	
PLTaxRule Id		2,037,802
PLTaxRule Version		17

Resulting transfers & Task Station

Transfer Report (11/9/16 10:56:39 AM)											
Report Data View Export Market Data Process Utilities Help											
Criteria											
Transfer Id	Event Type	Transfer Status	Trade Id	Transfer Type (F)	Transfer Amount	Settle Currency	Value Date	Payer Code	Payer Role	Payer Inst	
326872	PAYMENT	CREATED	Trade Id: 63003	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK/JPMORGAN CHASE & CO/1234	
326875	RECEIPT	CREATED	63003	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO	
326878	PAYMENT	CREATED	Trade Id: 69506	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK/JPMORGAN CHASE & CO/1234	
326881	RECEIPT	CREATED	69506	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO	
326884	PAYMENT	CREATED	Trade Id: 69507	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK/JPMORGAN CHASE & CO/1234	
326887	RECEIPT	CREATED	69507	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO	

ement Advises [0] Incoming Settlement Advises [0] Outgoing Netting Advises [0] Nettings To Be Approved [0] Payments Needing Validation [6] Failed Settlements [0] Outgoing Tran:									
Status	Comments	Xfer Value Date	Priority	Xfer Internal Agent	Xfer Original Cpty	Xfer Settlement Currency	Xfer Settlement Amount		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO	CALYPSO_LDN	GBP	-223.75		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO	CALYPSO_LDN	GBP	-223.75		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO	CALYPSO_LDN	GBP	-223.75		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	CALYPSO_LDN	CALYPSO_LDN	GBP	223.75		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	CALYPSO_LDN	CALYPSO_LDN	GBP	223.75		
CREATED	[Tax transfer is not settling in local currency]	2016-10-17	NORMAL	CALYPSO_LDN	CALYPSO_LDN	GBP	223.75		

Settlement Advises [0] Outgoing Netting Advises [0] Nettings To Be Approved [0] Payments Needing Validation [6]						
Status	Task	Trade	Xfer Value Date	Priority	Xfer Internal Agent	Xfer Origin
CREATED	Investigate	Trade				
CREATED	Transfer	Transfer	cal currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO
CREATED	Messages	Messages	cal currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO
CREATED	BO Trade Browser	BO Trade Browser	cal currency]	2016-10-17	NORMAL	JPMORGAN CHASE & CO
CREATED	Product	Product	cal currency]	2016-10-17	NORMAL	CALYPSO_LDN
CREATED	Tax Information	Tax Information	cal currency]	2016-10-17	NORMAL	CALYPSO_LDN

Liquidation Tax Info

Edit Tax

Tax Type	MX_PO_N_RES_DC	
Tax Amount		223,749
Revenue		6,945
FX Rate		0
Comments		
Liquidation Id		66,006
Modification User		
Modification Date		
Status	NEW	
Tax Ccy	GBP	
Settle Ccy	MXN	
PLTaxRule Id		2,037,802
PLTaxRule Version		17

Taxes

Tax Type	Tax Am...	Revenue	FX Rate	Comme...	Liquidat...	Modific...	Modific...	Status	Tax Ccy	Settle Ccy	PLTaxR...	PLTaxR...
MX_PO...	223,749	6,945	0		66006			NEW	GBP	MXN	2037802	17

Resulting Transfers after Run of the Scheduled task: Previously calculated in currency get cancelled. A new one in MXN is created.

Transfer Report (11/9/16 10:56:39 AM)

Report Data View Export Market Data Process Utilities Help

Criteria

Transfer_id	Event Type	Transfer Status	Trade Id	Transfer Type (F)	Transfer Amount	Settle Currency	Value Date	Payer Code	Payer Role	Payer Inst
326872	PAYMENT	CANCELED	Trade Id: 63003	MX_PO_N_RES_DC	(223.75) GBP		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326875	RECEIPT	CANCELED	63003	MX_PO_N_RES_DC	223.75 GBP		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326892	PAYMENT	VERIFIED	63003	MX_PO_N_RES_DC	(895.00) MXN		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326893	RECEIPT	VERIFIED	63003	MX_PO_N_RES_DC	895.00 MXN		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326878	PAYMENT	CANCELED	Trade Id: 69506	MX_PO_N_RES_DC	(223.75) GBP		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326881	RECEIPT	CANCELED	69506	MX_PO_N_RES_DC	223.75 GBP		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326890	PAYMENT	VERIFIED	69506	MX_PO_N_RES_DC	(939.75) MXN		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326891	RECEIPT	VERIFIED	69506	MX_PO_N_RES_DC	939.75 MXN		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326884	PAYMENT	CANCELED	Trade Id: 69507	MX_PO_N_RES_DC	(223.75) GBP		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326887	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	223.75 GBP		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326888	PAYMENT	VERIFIED	69507	MX_PO_N_RES_DC	(895.00) MXN		10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326889	RECEIPT	VERIFIED	69507	MX_PO_N_RES_DC	895.00 MXN		10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO

Edit Tax

Tax Type	MX_PO_N_RES_DC	
Tax Amount		223,749
Revenue		6,945
FX Rate		4
Comments		
Liquidation Id		66,004
Modification User		
Modification Date		
Status	NEW	
Tax Ccy	GBP	
Settle Ccy	MXN	
PLTaxRule Id		2,037,802
PLTaxRule Version		17

Edit Tax

Tax Type	MX_PO_N_RES_DC	
Tax Amount		223,749
Revenue		6,945
FX Rate		4.2
Comments		
Liquidation Id		66,005
Modification User		
Modification Date		
Status	NEW	
Tax Ccy	GBP	
Settle Ccy	MXN	
PLTaxRule Id		2,037,802
PLTaxRule Version		17

Edit Tax

Tax Type	MX_PO_N_RES_DC	
Tax Amount		223,749
Revenue		6,945
FX Rate		4
Comments		
Liquidation Id		66,006
Modification User		
Modification Date		
Status	NEW	
Tax Ccy	GBP	
Settle Ccy	MXN	
PLTaxRule Id		2,037,802
PLTaxRule Version		17

Modification of the liquidation on last trade:
Quantity is becoming 10,000 instead of the previous 20,000

Trade Browser / Trade Browser

ReportDataViewExportMarket DataProcessUtilitiesHelp

Criteria

Internal Reference	Trade Id	Book	Custody?	Book Base Ccy	Product Type	Sub Type	CounterParty	Client Account	Trade Date	Settle Date	ISIN	Quantity	Accruals	Ccy	Price	Settleme
62801	62801	CLIENT	true	EUR	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/05/2016	GB008THH2R79	1,000,000.0000	153.424.66	GBP	101.642209	(101,79
63003	63003	CLIENT	true	EUR	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(20,000.0000)	4.383.56	GBP	108.521055	2.17
69506	69506	CLIENT	true	EUR	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(20,000.0000)	4.383.56	GBP	108.521055	9.13
69507	69507	CLIENT	true	EUR	Bond	Gilt	HSBC BANK	CLIENT VOSTRO	Oct 03, 2016 05:00 PM	10/17/2016	GB008THH2R79	(10,000.0000)	2,191.78	GBP	108.521055	1.35

New liquidation is created and so a new tax amount

Liquidation Report (11/9/16 1:24:43 PM) / default										
Report Data View Export Market Data Tax Lot Info Utilities Help										
Criteria										
Liq Aggregation	PRODUCT_CODE.ISIN	Liquidation Type	Liquidation Id	Liquidation Quantity	Nominal	Liquidation Date	Realized	First Settle Date	Second Settle Date	
Liq Aggregation: ClientAccount:2037107	PRODUCT_CODE.ISIN: GB008THH2R79									
ClientAccount:2037107	GB008THH2R79	Liquidation	66501	20,000.00	2,000,000.00	10/3/16 5:00:10.000 PM BST	138,891.99	10/05/2016	10/17/2016	
ClientAccount:2037107	GB008THH2R79	Liquidation	66502	20,000.00	2,000,000.00	10/3/16 5:00:10.000 PM BST	138,891.99	10/05/2016	10/17/2016	
ClientAccount:2037107	GB008THH2R79	Liquidation	66503	10,000.00	1,000,000.00	10/3/16 5:00:10.000 PM BST	69,445.99	10/05/2016	10/17/2016	

Edit Tax	
Tax Type	MX_PO_N_RES_DC
Tax Amount	111.875
Revenue	6.945
FX Rate	0
Comments	
Liquidation Id	66,503
Modification User	
Modification Date	
Status	NEW
Tax Ccy	GBP
Settle Ccy	MXN
PLTaxRule Id	2,037,802
PLTaxRule Version	17

Previous transfers are canceled waiting for FX Conversion

Transfer Id	EventType	Transfer Status	Trade Id	Transfer Type (F)	Transfer Amount	SettleCurrency	Value Date	Payer.Code	Payer.Role	Payer.Inst
			Trade Id: 63003							
326872	PAYMENT	CANCELED	63003	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326875	RECEIPT	CANCELED	63003	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326892	PAYMENT	VERIFIED	63003	MX_PO_N_RES_DC	(895.00)	MXN	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326893	RECEIPT	VERIFIED	63003	MX_PO_N_RES_DC	895.00	MXN	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
			Trade Id: 69506							
326878	PAYMENT	CANCELED	69506	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326881	RECEIPT	CANCELED	69506	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326890	PAYMENT	VERIFIED	69506	MX_PO_N_RES_DC	(939.75)	MXN	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326891	RECEIPT	VERIFIED	69506	MX_PO_N_RES_DC	939.75	MXN	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
			Trade Id: 69507							
326884	PAYMENT	CANCELED	69507	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326887	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326888	PAYMENT	CANCELED	69507	MX_PO_N_RES_DC	(895.00)	MXN	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326889	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	895.00	MXN	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
327370	PAYMENT	CREATED	69507	MX_PO_N_RES_DC	(111.87)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
327371	RECEIPT	CREATED	69507	MX_PO_N_RES_DC	111.87	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO

Result after re-run of the EOD Fixing:

			Trade Id: 69507							
326884	PAYMENT	CANCELED	69507	MX_PO_N_RES_DC	(223.75)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326887	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	223.75	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
326888	PAYMENT	CANCELED	69507	MX_PO_N_RES_DC	(895.00)	MXN	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
326889	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	895.00	MXN	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
327370	PAYMENT	CANCELED	69507	MX_PO_N_RES_DC	(111.87)	GBP	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
327371	RECEIPT	CANCELED	69507	MX_PO_N_RES_DC	111.87	GBP	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO
327372	PAYMENT	VERIFIED	69507	MX_PO_N_RES_DC	(447.50)	MXN	10/17/2016	CALYPSO_LDN	ProcessingOrg	EUROCLEAR BANK//PMORGAN CHASE & CO/1234
327373	RECEIPT	VERIFIED	69507	MX_PO_N_RES_DC	447.50	MXN	10/17/2016	CLIENT	Client	Direct/CLIENT VOSTRO

Setup example for client settling in foreign currency

The PL Tax setup can be duplicated:

- Rule that expect a settlement in MXN

Edit
Browse

Rule Id
2040903

☒ Applies to Position

Effective F...

Effective To

Trade Filter
_CustodyPosition

SD Filter
entsNotResidentFXProduct

Tax Type
PL_TAX_FX

Tax Curren...
MXN

LE Role
ProcessingOrg

Legal Entity

Formula
Method

Formula
((LiquidationType==0)?(MAX(0,Realized*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB")):(0))

- Same rule that accepts any currency

Edit
Browse

Rule Id
2037802

☒ Applies to Position

Effective F...

Effective To

Trade Filter
_CustodyPosition

SD Filter
_clientIsNotResident

Tax Type
PL_TAX

Tax Curren...
ANY

LE Role
ProcessingOrg

Legal Entity

Formula
Method

Formula
((LiquidationType==0)?(MAX(0,Realized*0.049*DayCountFactor(((FirstSettleDate>LastCouponDate)?(FirstSettleDate):(LastCouponDate)),SecondSettleDate,"ACTB/ACTB")):(0))

- Trade booked in foreign currency

Trade ID
ID
63003

Trade details

Transfer rules

Internal Reference	63003
Trade Id	63003
Book	CLIENT
Custody?	true
Book Base Ccy	EUR
Product Type	Bond
Sub Type	Gilt
CounterParty	HSBC BANK
Client Account	CLIENT VOSTRO
Trade Date	10/03/2016
Settle Date	10/17/2016
ISIN	GB00BTHH2R79
Quantity	(20,000.0000)
Accruals	4,383.56
Ccy	GBP
Price	108.521055
SettlementAmount	2,174,804.66
Settle Cur.	GBP
Neg. Price	108.521055
Neg. Price Type	CleanPrice
FX Rate	0
Currency Pair	
Trader	NONE
Entered User	calypso_user
TradeStatus	VERIFIED

Transfer Type	Payer Name	Payer Role	Payer Instr.	Payer Agent	Payer Status
Transfer Type: PL_TAX					
PL_TAX	CLIENT	Client	2037108	NONE	Default
PL_TAX	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default
Transfer Type: PL_TAX_FX					
PL_TAX_FX	CLIENT	Client	2037108	NONE	Default
PL_TAX_FX	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default
Transfer Type: PRINCIPAL					
PRINCIPAL	CALYPSO_LDN	ProcessingOrg	2021946	CALYPSO_LDN	Default
PRINCIPAL	HSBC BANK	CounterParty	2012278	BNYM NYC	Default
Transfer Type: SECURITY					
SECURITY	CLIENT	Client	2037108	NONE	Default
SECURITY	CALYPSO_LDN	ProcessingOrg	2013056	JPMORGAN CHASE & CO	Default

- Two taxes are expected

Trade ID: ID 63003											
Transfers											
Report Data View Export Window											
Filter	Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false	false	328370	0	None	NOSTRO ACCOUNT	VERIFIED	SECURITY	PAY	-2,000,000.00	0.00	GBP
	false	328371	0	None	NOSTRO ACCOUNT	VERIFIED	PRINCIPAL	RECEIVE	0.00	2,174,804.66	GBP
	false	328372	0	None	NOSTRO ACCOUNT	CREATED	PL_TAX_FX	PAY	-0.00	(223.75)	GBP
	false	328373	0	None	NOSTRO ACCOUNT	CREATED	PL_TAX	PAY	-0.00	(223.75)	GBP
									-2,000,000.00	2,174,357.16	
Is DDA: true	true	328374	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	SECURITY	RECEIVE	2,000,000.00	-0.00	GBP
	true	328375	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PRINCIPAL	PAY	-0.00	(2,174,804.66)	GBP
	true	328376	0	None	CLIENT ACCOUNT xxxxxxxx	CREATED	PL_TAX_FX	RECEIVE	0.00	223.75	GBP
	true	328377	0	None	CLIENT ACCOUNT xxxxxxxx	CREATED	PL_TAX	RECEIVE	0.00	223.75	GBP
									2,000,000.00	(2,174,357.16)	

- Trade is booked in local currency

Trade Id

ID

70104

Trade details

Internal Reference

70104

Trade Id

70104

Book

CLIENT

Custody?

true

Book Base Ccy

EUR

Product Type

Bond

Sub Type

Generic

CounterParty

HSBC BANK

Client Account

CLIENT VOSTRO

Trade Date

10/03/2016

Settle Date

10/17/2016

ISIN

Quantity

(100,000.0000)

Accruals

612,500.00

Ccy

MXN

Price

114.8854

SettlementAmount

12,101,040.00

Settle Cur.

MXN

Neg. Price

114.8854

Neg. Price Type

CleanPrice

FX Rate

0

Currency Pair

Trader

NONE

Entered User

calypso_user

TradeStatus

VERIFIED

Transfer rules

Report

Data

View

Export

Window

<

- Only one tax entry is generated.

Trade ID: ID 70104											
Transfers											
Report Data View Export Window											
Filter	Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false	false	328382	0	None	NOSTRO ACCOUNT	VERIFIED	SECURITY	PAY	-10,000,000.00	0.00	MXN
	false	328383	0	None	NOSTRO ACCOUNT	VERIFIED	PRINCIPAL	RECEIVE	0.00	12,101,040.00	MXN
	false	328386	0	None	NOSTRO ACCOUNT	CREATED	PL_TAX	PAY	-0.00	(395.74)	MXN
									-10,000,000.00	12,100,644.26	
Is DDA: true	true	328384	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	SECURITY	RECEIVE	10,000,000.00	-0.00	MXN
	true	328385	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PRINCIPAL	PAY	-0.00	(12,101,040.00)	MXN
	true	328387	0	None	CLIENT ACCOUNT xxxxxxxx	CREATED	PL_TAX	RECEIVE	0.00	395.74	MXN
									10,000,000.00	(12,100,644.26)	

- Transfers after Fixing:
 - Trade in FX has two entries

Trade ID: ID 63003

Transfers

Report Data View Export Window

Filter	Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false	false	328370	0	None	NOSTRO ACCOUNT	VERIFIED	SECURITY	PAY	-2,000,000.00	0.00	GBP
	false	328371	0	None	NOSTRO ACCOUNT	VERIFIED	PRINCIPAL	RECEIVE	0.00	2,174,804.66	GBP
	false	328372	0	None	NOSTRO ACCOUNT	CANCELED	PL_TAX_FX	PAY	-0.00	(223.75)	GBP
	false	328373	0	None	NOSTRO ACCOUNT	CREATED	PL_TAX	PAY	-0.00	(223.75)	GBP
	false	328388	0	None	NOSTRO ACCOUNT	VERIFIED	PL_TAX_FX	PAY	-0.00	(895.00)	MXN
									-2,000,000.00	2,173,462.16	
Is DDA: true	true	328374	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	SECURITY	RECEIVE	2,000,000.00	-0.00	GBP
	true	328375	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PRINCIPAL	PAY	-0.00	(2,174,804.66)	GBP
	true	328376	0	None	CLIENT ACCOUNT xxxxxxxx	CANCELED	PL_TAX_FX	RECEIVE	0.00	223.75	GBP
	true	328377	0	None	CLIENT ACCOUNT xxxxxxxx	CREATED	PL_TAX	RECEIVE	0.00	223.75	GBP
	true	328389	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PL_TAX_FX	RECEIVE	0.00	895.00	MXN
									2,000,000.00	(2,173,462.16)	

- Trade in local currency remain unchanged

Trade ID: ID 70104

Transfers

Report Data View Export Window

Filter	Is DDA	Transfer_id	Netted Transfer	Netting Type	GL Account	Transfer Status	Transfer Type	Xfer Pay/Rec	Nominal (Par)	Money Amount	SettleCurrency
Is DDA: false	false	328382	0	None	NOSTRO ACCOUNT	VERIFIED	SECURITY	PAY	-10,000,000.00	0.00	MXN
	false	328383	0	None	NOSTRO ACCOUNT	VERIFIED	PRINCIPAL	RECEIVE	0.00	12,101,040.00	MXN
	false	328386	0	None	NOSTRO ACCOUNT	CREATED	PL_TAX	PAY	-0.00	(395.74)	MXN
									-10,000,000.00	12,100,644.26	
Is DDA: true	true	328384	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	SECURITY	RECEIVE	10,000,000.00	-0.00	MXN
	true	328385	0	None	CLIENT ACCOUNT xxxxxxxx	VERIFIED	PRINCIPAL	PAY	-0.00	(12,101,040.00)	MXN
	true	328387	0	None	CLIENT ACCOUNT xxxxxxxx	CREATED	PL_TAX	RECEIVE	0.00	395.74	MXN
									10,000,000.00	(12,100,644.26)	

Inventory Position Check

This function allows configuring position checks.

5.1 Configuration

5.1.1 Initial Setup

Domains

Domain name = **lifeCycleEntityType**, Value = **InventoryCheck**

Domain name = **exceptionType**, Value = **INVENTORY_CHECK**

Domain name = **eventType**, Value = **EX_INVENTORY_CHECK**, Comment = "Exception generated by Inventory Check"

Domain name = **groupStaticDataFilter**, Value = **BOPosition**

Domain name = **InventoryCheck.WaitingTime**, Value = Waiting time between two trades if they impact the same position - Default is 1000ms

LifeCycle Engine

Please make sure you have started the LifeCycle engine as it is not done by default.

LifeCycle engine must be subscribing PSEventTrade.

config = **InventoryCheck**

Engine Configuration

Unable to edit a running engine. Displaying in read-only mode.

Engine Name: ? LifeCycleEngine	Engine ID: 421010	Max Queue Size: ?	Max Batch Size: ?																																
Engine Class: com.calypso.engine.lifecycle.LifeCycleEngine	Application Type: EngineServer	Number of Threads: ?	Event Pool Policy: ?																																
Display Name: ? LifeCycle Engine		Pricing Environment: ?																																	
Description:		Save settle position changes: ?																																	
Persisted Event Configuration: PSEventAccountBilling		Configuration attributes																																	
PSEventLifeCycle		<table border="1"> <thead> <tr> <th>Attribute Name</th> <th>Attribute Value</th> </tr> </thead> <tbody> <tr><td>BALANCE_MODE</td><td></td></tr> <tr><td>CLASS_NAME</td><td></td></tr> <tr><td>DISPLAY_NAME</td><td></td></tr> <tr><td>DateType</td><td></td></tr> <tr><td>EVENT_ORDER</td><td></td></tr> <tr><td>EXCLUDE_STATUS</td><td></td></tr> <tr><td>IGNORE_ACTION</td><td></td></tr> <tr><td>INSTANCE_NAME</td><td></td></tr> <tr><td>INV_MAX_POSITION</td><td></td></tr> <tr><td>LIQUIDATION_TIMEOUT</td><td></td></tr> <tr><td>MAX_TIMER_POSITION</td><td></td></tr> <tr><td>MCC_DATE_KEYWORD</td><td></td></tr> <tr><td>MCC_FEED_NAME</td><td></td></tr> <tr><td>MCC_IGNORE_CONFIG_CHANGES</td><td></td></tr> <tr><td>MCC_INTRA_DELAY</td><td></td></tr> </tbody> </table>		Attribute Name	Attribute Value	BALANCE_MODE		CLASS_NAME		DISPLAY_NAME		DateType		EVENT_ORDER		EXCLUDE_STATUS		IGNORE_ACTION		INSTANCE_NAME		INV_MAX_POSITION		LIQUIDATION_TIMEOUT		MAX_TIMER_POSITION		MCC_DATE_KEYWORD		MCC_FEED_NAME		MCC_IGNORE_CONFIG_CHANGES		MCC_INTRA_DELAY	
Attribute Name	Attribute Value																																		
BALANCE_MODE																																			
CLASS_NAME																																			
DISPLAY_NAME																																			
DateType																																			
EVENT_ORDER																																			
EXCLUDE_STATUS																																			
IGNORE_ACTION																																			
INSTANCE_NAME																																			
INV_MAX_POSITION																																			
LIQUIDATION_TIMEOUT																																			
MAX_TIMER_POSITION																																			
MCC_DATE_KEYWORD																																			
MCC_FEED_NAME																																			
MCC_IGNORE_CONFIG_CHANGES																																			
MCC_INTRA_DELAY																																			
PSEventTrade																																			
PSEventTransfer																																			
Event Filters: AllTransfersKnownEventFilter																																			
LifeCycleEngineEventFilter																																			
Engine Manager Configuration: engineserver	Start on Startup: <input type="checkbox"/>																																		

[Go Back](#)

5.1.2 Workflow

The Workflow is configured for STP management. The position check managed using a workflow transition and a PSEventTrade can be plugged at any stage of the STP workflow.

Please make sure your workflow supports the case where the STP is broken and the case where the STP is ensure.

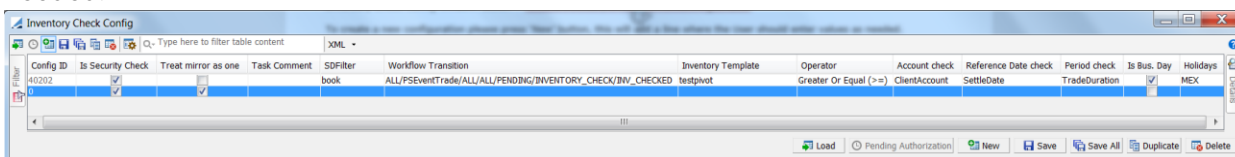
Trade Workflow setup must be plugged on a non-STP transition i.e. PENDING - INVENTORY_CHECK - INVENTORY_CHECKED/VERIFIED.

Please note that if you want to use any Workflow Rule in this workflow transition, this will be applicable once the check is done and if the ACTION is applied. In other words, it will be applied only if the PSEventTrade is eligible to go through the transition.

5.1.3 Inventory Check Config Window

Inventory Check Config Window: action = refdata.inventory.InventoryCheckConfigWindow.

To create a new configuration please press 'New' button, this will add a line where the User should enter values as needed.



Config ID	Is Security Check	Treat mirror as one	Task Comment	SDFilter	Workflow Transition	Inventory Template	Operator	Account check	Reference Date check	Period check	Is Bus. Day	Holidays
40202	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	book	ALL/PSEventTrade/ALL/ALL/PENDING/INVENTORY_CHECK/INV_CHECKED	testpivot	Greater Or Equal (>=)	ClientAccount	SettleDate	TradeDuration	<input checked="" type="checkbox"/>	MEX

Fields Description

Is Security Check: This parameter is set to true by default. The check applies to Security Positions only.

Treat mirror as one: This parameter is set to true by default.

When checked, the flag forces any Mirrored trade to be OK together. In other words, the action is applied only if the two trades are satisfying the position for their relevant checks.

Ex:

Trade 1 is mirrored into Trade 2

Trade 1 has a check rule A

Trade 2 has a check rule B

Action is fired only if rule A is successful for trade 1 and rule B is satisfied also for trade B.

SDFilter: Mandatory Field.

The Static Data filter needs to be preconfigured by the user. It will grant the application of the Inventory Check Process (and its exclusion).

Workflow Transition: Mandatory Field.

The selection will be done using the workflow selector and it will be as follow

```
<ProcessingOrg>/<PSEventType>/<ProductType>/<Workflow SubType>/<Initial  
Status>/<Action>/<ResultingStatus>
```

It is an eligibility criteria to 'Position check' the trade.

The PSEventTrade to be processed by the LifeCycleEngine will need to be accepted by this static data filter and compared to the WF Transition to be processed and checked.

Inventory Template: Mandatory Field.

The user will need to select a pre-configured Security Template with the Position CLASS/TYPE/DATE. Please make sure that the Inventory Aggregation, Account ID, Agg.Cong in your template if applicable match correctly the other criterion in the Inventory Check Configuration.

The Custom Agg.Config will be part of the Filtering Criterion if set and saved in the dedicated Template used in the InventoryCheck Configuration.

Operator: Mandatory Field.

This is used to compare the trade to the position

This quantity is added to each position. The resulting amount is compared to '0' using the "Operator" defined on the check.

Account check: Mandatory Field.

This field specifies how the Inventory Aggregation, Account Id and Agg.config will be completed after Loading the Inventory Template:

Fields from Configuration	Aggregation	Account Id	Agg. Config	Books
ClientAccount*	Agent/Account	Trade Keyword.ClientAccount Or MirrorClientAccount	Null	Null
Book/Agent/Account	Book/Agent/Account	Null	Null	Book of the trade
GLAccount	Agent/Account	GL Account is taken from the trade transfer rule: It is the PO Account aka GL Account of the transfer, with a transfer type SECURITY and an external role of the transfer to be CounterParty	Null	Null
Book	Book	Null	Null	Book of the trade
Global	Global	Null	Null	Null

*Account check = 'ClientAccount', the check will be done on the 'Client Trade', the trade with the Keyword ='ClientAccount'.

Reference Date check: [TradeDate, SettleDate]

The date on the trade to use as a reference for the checking.

The default behavior is Settle Date (Value Date of the Trade).

Period check: [0D, 1D, 2D, 3D, 4D, 5D, TradeDuration]

This will define the Period End Date the system will check the position.

The default behavior is TradeDuration.

Now the system checks position from PeriodStartDate until PeriodEndDate with:

PeriodStartDate = [TradeDate, SettleDate]

PeriodEndDate = [Trade EndDate if PeriodCheck=TradeDuration, PeriodStartDate + 0D/1D/2D Cal or Bus if PeriodCheck=xD]

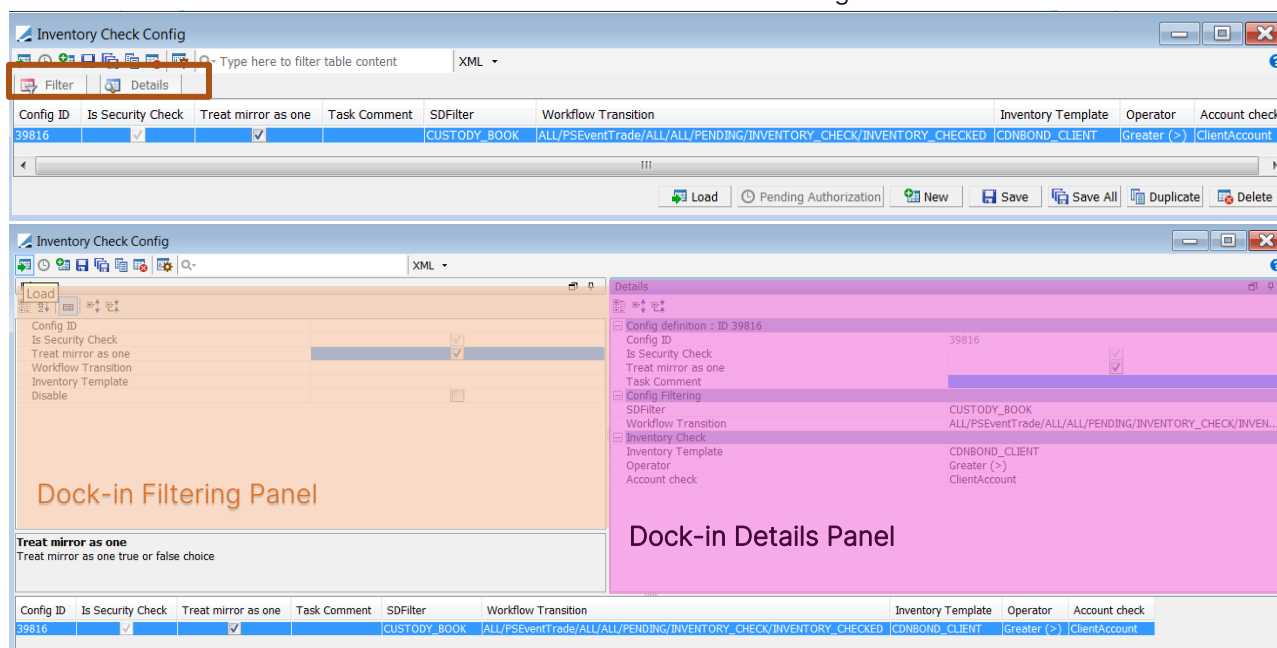
Is Bus. Day: [True, False]

It makes sense only if PeriodCheck = xD

Holidays: Holiday Codes

To load the configurations available please check the Filter Panel, as the load will always consider the filtering criterion.

Note that the Details Panel must not be used to enter a New Configuration.



5.2 Inventory Check Process

It is important to mention that this enhancement has been done for Security Positions and the check is ALWAYS done in QUANTITY.

The Inventory Check Process will be performed by the LifeCycle Engine. And can be activated by the domain value 'lifeCycleEntityType' with the value 'InventoryCheck' as mention above.

Once active, the LifeCycleEngine will determine if and how to process the trade event to be checked.

Eligibility

To know if a Trade Event is eligible to check, the event is compared to the Workflow and to the SD Filter defined in the Inventory Check Config.

The trade event processed by the LifeCycleEngine must match from a Workflow application the criterion:

- ProcessingOrg
- PSEventType (even if PSEventTrade are checked, it could be extended to transfers)
- ProductType
- SubType
- InitialStatus

Once the check requirement is performed, either the system applies the resulting action or it publishes a task type **EX_INVENTORY_CHECK** with the following information:

- Status: 'Inventory Check FAILED'
- Config Id: Inventory Check Config.
- ISIN: ISIN of the Trade being checked.
- DATE: Check Date
- INVENTORY BALANCE: Inventory Security Position used for the Checking.
- TRADE QTY: Quantity of the trade being checked.
- Task Comment: Task comment of the Inventory Check Config.

Dates Checked

The trades will be checked on Trade Settle Date.

In the case of the Repo and Security Lending Trade, the position will be checked from the Start Date to the End Date. For each Date where the check failed, a Task will be generated.

In the Case of OPEN Trade, the check will be done for 1 year from the Start Date. For each Date where the check failed, a Task will be generated.

Inventory Position to be checked

The logic is to compare the trade to the position and it is done in TRADE QUANTITY only.

The check takes the quantity signed in calypso:

- Buy: +
- Sell: -
- Repo: -
- Reverse repo: +
- SecLending: -
- SecBorrowing: +
- ...

This quantity is added to each position. The resulting amount is compared to '0' using the "Operator" defined on the check as mentioned before.

Swift MT54x Messages

6.1 Setup Requirements

6.1.1 Environment Properties

The following environment properties must be set to be able to receive swift and parse properly Settlement parties:

CUSTODY_SAVE_SDI_PERTRADE= true

DEFAULT_MANUAL_SDI= true

The system will create the relevant security Manual SDIs by transaction. Any other configuration is not supported.

6.1.2 Legal Entity Identification

ClientSender Legal Entity

The legal entity sending the Swift, must have the following configuration:

Legal entity attribute 'CustodyReference' defined with a value. This value is used as a radical added to the swift reference (SEME) into the external reference of the created transaction. The format being 'radical'_SEME. This value is unique. Any swift received with instruction type NEWM already existing in the system is rejected.

This Legal Entity must have a role of ClientSender with a contact containing the BIC used.

The Safe Account received in the swift must be unique and configured on a client account in the account attribute 'AccountNumber'.

Scope

Message supported: MT540, MT541, MT542, MT543

Product Type supported: Equity, ADR, Bonds

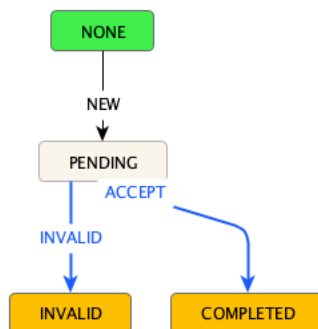
Product Identification supported: ISIN

6.1.3 Workflow

The messages must be defined under the domain incomingType

Domain Values	
Name:	incomingType
Value:	MT540
Comment:	CUSTODY_TRADE

Here CUSTODY_TRADE as message type is used.



6.1.4 Unsupported Processes

- Manual modification of the transaction
- SDI saved in the system, not received from Swift
- Fees generated by the system onto the transaction, impacting the Settlement amount
- Cancellation advice on cancellation request
- Reprocess of an incoming swift, that either cannot create the transaction, or cancel it
- Settlement parties unknown in the system. The Legal Entities and their format must exist

6.2 Trade Creation

MT540: Create a simple transfer received with the security as underlying

MT541: Create a buy:

- Equity trade if ISIN defines as a product Equity
- Bond Trade if the ISIN is a Bond

MT542: Create a simple transfer paid with the security as underlying

MT543: Create a sell:

- Equity trade if ISIN defines as a product Equity
- Bond Trade if the ISIN is a Bond

Additional validation:

The product (ISIN) must exist in the system.

The settlement parties must be identified, only the CounterParty can be Unknown

Swift fields correct.

6.2.1 Product Identification

Products are identified with the code ISIN, if multiple are found (only for equities) the Denominated currency (DENO of FIA section) is used. If no security, or multiple are found, an error is raised. The Swift is not creating a transaction.

6.2.2 Quantity

Supported FAMT (original notional, for bonds only) and UNIT.

6.2.3 Transaction Price

If the quantity is expressed in FAMT, the price must be:

Option A type PRCT as the Clean Price

If the quantity is expressed in UNIT, the price must be:

Option B type ACTU (clean for Bonds, negotiated for Equities)

6.2.4 Settlement Amount

Equity

The settlement amount for equities, will be calculated by Calypso as Quantity * Price. If this value did not equal the settlement amount of the received swift, the system can generate an adjustment fee. Note this fee will contain also the additional amounts provided (STAM,LEVY...)

As such, if the option is selected, the other fees must not generate transfers.

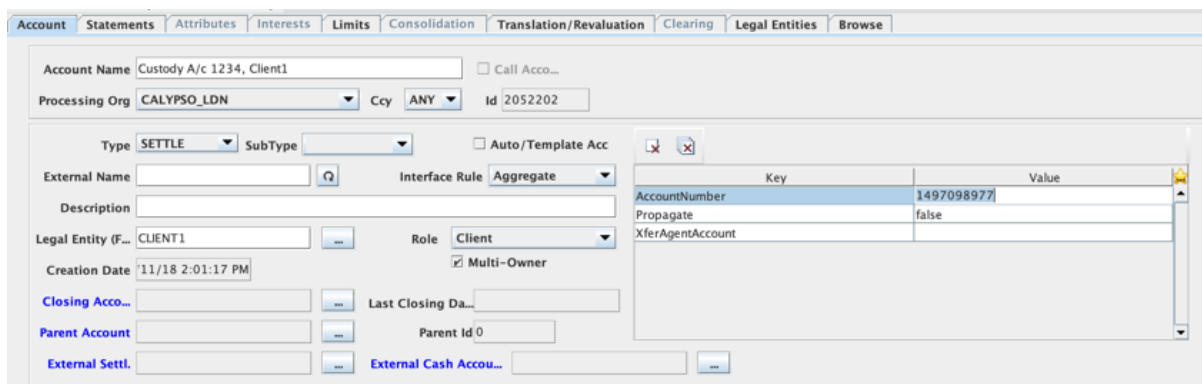
Bonds

The settlement amount is forced using trade keyword ManualSettlementAmount. As such all fees (including adjustment) are ignored.

Note the accruals are forced to 0.

6.2.5 Safe Keeping Account

Based on the Safe account received



```
:16R:FIAC
(...)
:97A::SAFE//1497098977
(...)
:16S:FIAC
```

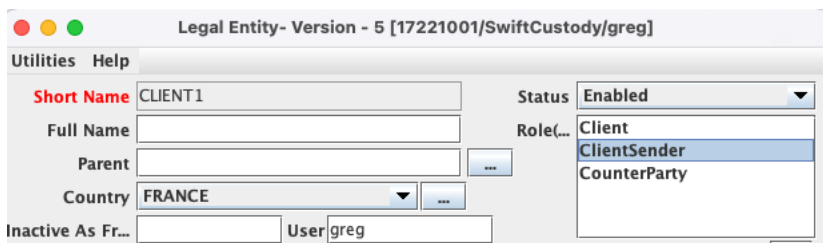
Qualifier is SAFE, only option A is maintained. The number is the account number in calypso, of the client account. For maintaining external account identifier, or the options B and E additional development will be required

6.2.6 Client Sender (Entity providing the Swift)

The client sender can be the client itself or another entity. It is obtained and stored under the trade keyword ClientSender

From Header of the Swift, in section 2, BIC received

```
{2:05411417070615CLI1FFPPDABC54956137150706151417N}
```



Legal Enti...	Role	Product
CLIENT1	ClientSender	ALL
Processing Org		
ALL	Effective From	Effective To
Last Name	First Name	Title
Address	Address Type	City
	State	Zip Co...
	Coun...	
Phone	Telex	Fax
Swift	E-Mail	
CLI1FFPPABC		
External ...	Codes	
Comment		

Trade Entry	
Buy	Name
	Equity.GOOG
Quantity	Price
50,000	100
Proceeds	
legotiated Pri...	Gross Price
Settlement	USD
-4,999,990.00	
Trade Attributes	
SetUp	Editable
Name	Value
ClientAccount	Custody vostro: Security A/c Client 1...
ClientSender	CLIENT1
CustodyManualSDI	true
InstructionType	NEWN
PlaceCode	EXCH
PlaceNarrative	XNAS
STAM	ECLR/IEXE

In addition any ClientSender must carry the attribute CustodyReference, used as a radical from SEME received (to avoid same number sent by different clients)

For the ClientSender, you can check from the Incoming Message (Security MT540/41/42/43 or Cash MT103/202) on Client Account if the Client Custody Account has following criteria:

- Custody Book must belong to the correct PO (receiver of the Message Block1)
- 'ClientSender' = SENDER of the Message

Q- Search	
Legal Entity	CLIENT1
Role	ClientSender
Processing Org	ALL
Attribute Group	
Attribute Type	CustodyReference
Value	CLI1

In that case, the swift was sent with the reference 26 (that will be used on any messages provided back to that client Sender) with CLI1 the radical for the remitter.

Comment		
BackOffi...		
Trade At...	Internal Ref. 127104	External Ref. CU1_26
Product ...		

6.2.7 Market Place

In section Trade Detail, TRADDET, field 94a Place

Option supported B

Qualifier supported TRAD

Code Supported EXCH and OTCO

Code set to the Keyword PlaceCode

Narrative set to the Keyword PlaceNarrative

6.2.8 Settle Date

In the Section Trade Detail, TRADDET, field 98a

Option supported A

Qualifier is SETT

:98A::SETT//20220929

Set the date as the settle date of the transaction

	▼	...	Show
USD ▼	Settle	09/29/2022	Cash Date

6.2.9 Trade Date

In the Section Trade Detail, TRADDET, field 98a

Option supported A

Qualifier is TRAD

:98A::TRAD//20220926

If missing, the trade date is set with the min date between system business date and settle date.

The time for the Calypso trade date is set to the start of day for the Currency of the Equity product. Field Location (time zone of the currency)

Trade	Details	Fees	Inv Attributes
Trader	NONE	...	Trade Date
Sales	NONE	...	09/26/2022 8:58:50 AM
			<input type="checkbox"/> Current Trade DateTime

Currency Default	Currency Pairs	Precious Metal Information
Currency	USD	ISO Code USD Country UNITED STATES
Spot Days	2	Holidays NYC
Rounding	NEAREST	Decimals 2 Rate Decim... 6
DayCount	ACT/360	Def. Index LIBOR Tenor 3M
Group	G12,CLS	...
Location	America/New_York	Warning Thresho...
External Referen...	United States Dollar	Attributes
Settlement Cut-O...	America/New_York	
Trading Cut-Off Ti...	NONE	
<input type="checkbox"/> Precious Metal <input type="checkbox"/> Non Deliverab...		
Descripti... United States Dollar		
<input type="button" value="Delete"/> <input type="button" value="Save"/>		
<input type="checkbox"/> Authorization <input type="button" value="Show Pending Modificati..."/>		

6.2.10 22F Fields

Field format :4!c/[8C]/4!c (Qualifier, Data source scheme, Indicator)

When the qualifier is:

STCO

STAM

RTGS

REGT

BENE

Keyword is saved using following logic:

If DSS is null, save only the indicator (no slash) as the keyword result. Ex: STCO//DLWM Keyword STCO=DLWM

If DSS is not null, save the DDS and the indicator keeping the slash in between. Ex: STAM/ECLR/IEXE Keyword STAM= ECLR/IEXE

6.2.11 Fees

Setup

Only option supported:

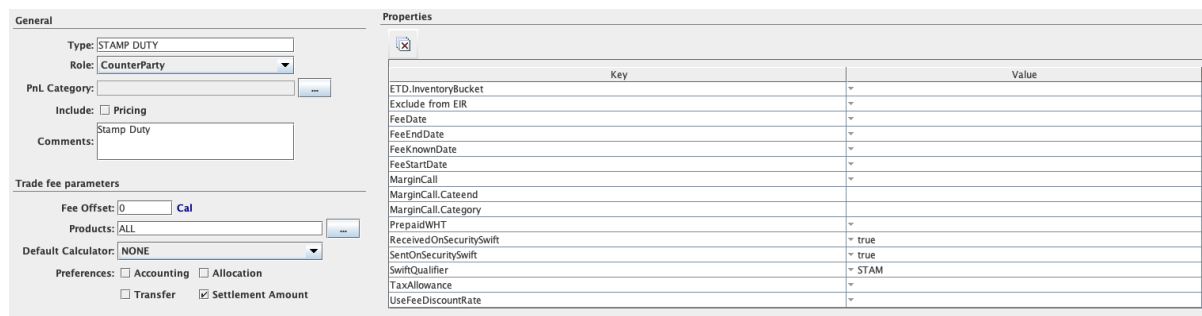
SettlementAmount=true, Transfer=false if no Adjustment fee is setup

SettlementAmount=false, Transfer= false if Adjustment fee is setup

Regular fees

Any Amounts received on the Swift can create a fee in Calypso. The fees having the attribute: ReceivedOnSecuritySwift set to true and the SwiftQualifier defined will be created. They will be sent back if the tag SentOnSecuritySwift is also true.

In that case, any STAM amount received, will create a fee STAMP DUTY. Any STAMP DUTY fee will be sent on swift with qualifier STAM



Key	Value
ETD.InventoryBucket	
Exclude from EIR	
FeeDate	
FeeEndDate	
FeeKnownDate	
FeeStartDate	
MarginCall	
MarginCall.Cateend	
MarginCall.Category	
PrepaidWHT	
ReceivedOnSecuritySwift	true
SentOnSecuritySwift	true
SwiftQualifier	STAM
TaxAllowance	
UseFeeDiscountRate	

Adjustment (only for Equities)

Identified with properties: CustodySettleAmount=true; in that case SettlementAmount = True, Transfer=False

Any other fee as SettlementAmount=false,Transfer=false

General		Properties																																	
Type:	CUSTODY_FEE_ADJ																																		
Role:	CounterParty																																		
Pnl. Category:	ExcludePnl																																		
Include:	<input type="checkbox"/> Pricing																																		
Comments:	Custody: fee to adjust settlement amount when total did not match cash exchanged																																		
Trade fee parameters																																			
Fee Offset:	0 Cal																																		
Products:	ALL																																		
Default Calculator:	NONE																																		
Preferences:	<input checked="" type="checkbox"/> Accounting <input type="checkbox"/> Allocation																																		
	<input type="checkbox"/> Transfer <input checked="" type="checkbox"/> Settlement Amount																																		
		<table border="1"> <thead> <tr> <th>Key</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>Amortization net of interests</td><td></td></tr> <tr><td>CustodySettleAmount</td><td>true</td></tr> <tr><td>Duplicate Fee Transfer</td><td>true</td></tr> <tr><td>ETD.InventoryBucket</td><td></td></tr> <tr><td>Exclude from EIR</td><td></td></tr> <tr><td>FeeDate</td><td></td></tr> <tr><td>FeeEndDate</td><td></td></tr> <tr><td>FeeKnownDate</td><td></td></tr> <tr><td>FeeStartDate</td><td></td></tr> <tr><td>MarginCall</td><td></td></tr> <tr><td>MarginCall.Cateend</td><td></td></tr> <tr><td>MarginCall.Category</td><td></td></tr> <tr><td>PrepaidWHT</td><td></td></tr> <tr><td>ReceivedOnSecuritySwift</td><td></td></tr> <tr><td>SentOnSecuritySwift</td><td></td></tr> </tbody> </table>		Key	Value	Amortization net of interests		CustodySettleAmount	true	Duplicate Fee Transfer	true	ETD.InventoryBucket		Exclude from EIR		FeeDate		FeeEndDate		FeeKnownDate		FeeStartDate		MarginCall		MarginCall.Cateend		MarginCall.Category		PrepaidWHT		ReceivedOnSecuritySwift		SentOnSecuritySwift	
Key	Value																																		
Amortization net of interests																																			
CustodySettleAmount	true																																		
Duplicate Fee Transfer	true																																		
ETD.InventoryBucket																																			
Exclude from EIR																																			
FeeDate																																			
FeeEndDate																																			
FeeKnownDate																																			
FeeStartDate																																			
MarginCall																																			
MarginCall.Cateend																																			
MarginCall.Category																																			
PrepaidWHT																																			
ReceivedOnSecuritySwift																																			
SentOnSecuritySwift																																			

In that case if Settlement amount from swift \neq Quantity * price, the difference is captured.

6.2.12 Settlement Parties

Settlement Instruction

The Sequence E, settlement details, is used to create a manual SDI restricted to the transaction.

CounterParty

The trade counterparty is identified within the Settlement parties' section, with the qualifier BUYR or SELL

If the Option is:

Option	Information in the system
P	Contact address method is Swift
R	Contact address method is the Data Source Scheme, the value of the address method is the Proprietary Code
Q	The LE can be found either by its long name, or on the last name of one of its contact; if not found, or multiple legal entities are found, the counterparty to use is UNKNOWN

:16R:SETPRTY

:95P::SELL//MIDLGB22

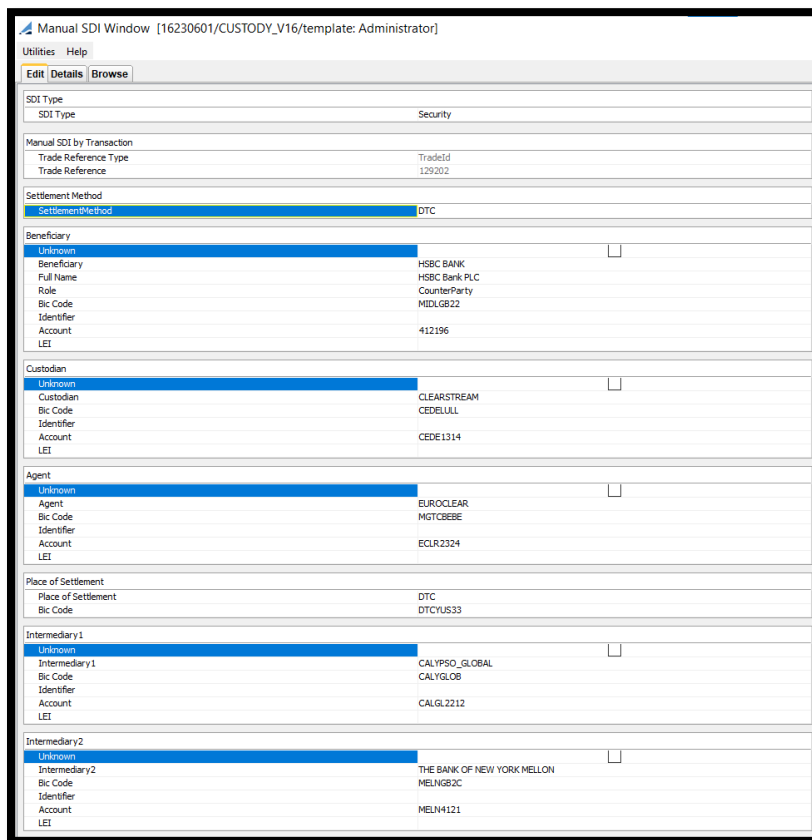
:16S:SETPRTY

```
:16R:SETPRTY
:95R::SELL/DTCYID/56756
:16S:SETPRTY
:16R:SETPRTY
:95Q::SELL//HSBC BANK PLC
:16S:SETPRTY
```

Other settlement parties, qualifier is PSET, DEAG, REAG, DECU, RECU (only supported) are identified the same way the counterparty is. Thus, they are stored in the Manual SDI.

Swift field	
-------------	--

:95P::PSET//DTCYUS33	See below "Place of Safekeeping"
:95Q::SELL// HSBC BANK PLC	Must have the role CounterParty
:95R::DEAG/DTCYID/56756	Must have the role Agent



Place of Safekeeping

You can assign the SDIs based on the place of safekeeping, if the place of safekeeping and the place of settlement are populated.

Example:

:94F::SAFE//NCSD/DTCYUS33

:95P::PSET//DTCYUS33

In this case, the trade keywords Depository and Place of SafeKeeping are set:

Name	Value
ClientAccount	▼ Custody vostro: Security A/c Client 1 (2082218)
ClientSender	▼ THE BANK OF NEW YORK MELLON
CustodyManualSDI	▼ true
Depository	▼ DTC
InstructionType	▼ NEWN
Place of SafeKeeping	NCSD/DTCYUS33
PlaceCode	▼ EXCH

Now, to assign the SDIs based on these trade keywords, you need to create a legal entity of role Depository.

Example:

Legal Entity- Version - 2 [17230602/CUSTODY/admin]

Utilities Help

Short Name: DTC

Full Name: Depository Trust Company

Parent:

Country: UNITED STATES

Inactive As From:

User: benjamin_derousseaux

Entered Date: 08/03/2015 1:39:44 PM

External Ref:

Holidays:

Status: Enabled

Role(s): Agent, CCP, Depository

Financial ☒ Non Financial ☐

With the following attributes: **CustodySettlementMethod** and **CustodyPlaceCode**.

Legal Entity Attributes Window - Version - 0

Search:

Legal Entity: DTC

Role: Agent

Processing Org: ALL

Attribute Group:

Attribute Type: CustodyS...

Value: DTC

Id	Processing Org	Legal Entity	Role	Attribute Group	Attribute Type	Attribute Value
2077302	ALL	DTC	Agent		CustodySettlementMethod	DTC
2084804	ALL	DTC	Agent	Identification	LEI	44444444DTC44444444
2085502	ALL	DTC	Agent	Identification	BIC_CODE	DTCYUS33
2085402	ALL	DTC	Agent		CustodyPlaceCode	NCSD

The system will look for an SDI with settlement method = <CustodySettlementMethod> and legal entity with <CustodyPlaceCode>/<BIC_CODE> = Place of SafeKeeping.

6.3 MT548 Management

6.3.1 Incoming Process







MT548 messages sent to client are using transfer attributes to provide statuses back to client.

Attributes:

ProcessingReason for swift tag 24B

ProcessingStatus for swift tag 25D

In order to populate those fields, when a MT548 is received from Custodian, the message workflow rule UpdateTransfer is used with action to apply and attributes to Update.

Action Details	
Id 2038185	
Orig Status	VER MTCH UPDATE
Action Name	MATCH
Result Status	PROCESSED
<div>  Create task On Failure ▼ </div> <div>  <input checked="" type="checkbox"/> Use STP </div> <div>  <input type="checkbox"/> Generate Intermediary Event </div> <div>  Priority <input type="text" value="0"/> </div> <div>  <input type="checkbox"/> Use Kick Off / Cut Off </div> <div>  <input type="checkbox"/> Log Completed </div>	
Rules	
Name	Rule Param
UpdateTransfer	action=CLIENT_ADVICE,mapping=custodyMatchingStatus

In that case, the MT548 received is for Matching process, the domain custodyMacthingStatus contains the mapping:

Name:	custodyMatchingStatus
Value:	Matching_Reason
Comment:	ProcessingReason

Name:	custodyMatchingStatus
Value:	Matching_Status
Comment:	ProcessingStatus

Same applies for Settlement, or Cancelation...

Processing (such as Cancelation ack, nack)

Name:	custodyProcessingStatus
Value:	Processing_Reason
Comment:	ProcessingReason

Name:	custodyProcessingStatus
Value:	Processing_Status
Comment:	ProcessingStatus

Settlement batch results, prior real settlement:

Name:	custodySettlementStatus
Value:	Settlement_Reason
Comment:	ProcessingReason

Name:	custodySettlementStatus
Value:	Settlement_Status
Comment:	ProcessingStatus

The action applied on Transfer is CLIENT_ADVICE, to trigger the MT548 generation.

6.3.2 Message Setup







Edit Browse	
Product Type ALL	Language English
Event Type CLIENT_ADVICED_SEC_...	Address Type SWIFT
Message Type SWIFT_CLIENT_ADVICE	Gateway SWIFT
Processing Org ALL	Format Type SWIFT
PO Contact Ty... Default	Template MT548CUST
Receiver ALL	SD Filter isNotVostroXfer
Receiver Role ClientSender	Audit Filter
Rec Contact T... Default	<input type="checkbox"/> Matching <input type="checkbox"/> Inactive
Grouping	<input type="checkbox"/> Do not Send Me...
Config Id 2082410	Delete Save Save As N...

The configuration ignores the internal transfer (SDFilter) and is sent to the ClientSender (legal entity providing the swift for the client).

Message to use: MT548CUST

6.4 Settlement Acknowledgement (MT544,5,6,7)

6.4.1 Incoming Process

Action Details	
Id	2081804
Orig Status	VER SETT UPDATE
Action Name	MATCH
Result Status	MATCHED
<div>  Create task On Failure ▼ </div> <div>  <input checked="" type="checkbox"/> Use STP </div> <div>  <input type="checkbox"/> Generate Intermediary Event </div> <div>  Priority <input type="text" value="0"/> </div> <div>  <input type="checkbox"/> Use Kick Off / Cut Off </div> <div>  <input type="checkbox"/> Log Completed </div>	
Rules	
Name	Rule Param
MatchIncomingSecurity	
UpdateTrade	ACTION=SETTLED

When such messages are received, an action is applied to transaction to indicate it is locked (cannot be canceled). Note that the same can be applied for Matching or Any statuses requiring bilateral cancelation execution.

6.4.2 Swift Generation to ClientSender

Edit	Browse
Product Type	ALL
Event Type	SETTLED_SEC_DELIVERY
Message Type	SWIFT_CLIENT_ADVICE
Processing Org	ALL
PO Contact Ty...	Default
Receiver	ALL
Receiver Role	ClientSender
Rec Contact T...	Default
Grouping	
Config Id	2082413
<div> <div>Language</div> <div>English</div> </div> <div> <div>Address Type</div> <div>SWIFT</div> </div> <div> <div>Gateway</div> <div>SWIFT</div> </div> <div> <div>Format Type</div> <div>SWIFT</div> </div> <div> <div>Template</div> <div>SecuritiesReturnCUST.selector</div> </div> <div> <div>SD Filter</div> <div>isNotVostroXfer</div> </div> <div> <div>Audit Filter</div> <div></div> </div> <div> <input type="checkbox"/> Matching <input type="checkbox"/> Inactive <input type="checkbox"/> Do not Send Me... </div>	
<div> <div>Delete</div> <div>Save</div> <div>Save As N...</div> </div>	

Same logic applies as one defined for MT548; a specific selector is used to know which of the messages to generate. The templates used are: MT544CUST, MT545CUST, MT546CUST, MT547CUST


6.5 Cancellation Request

A cancellation (MT540,1,2,3) is processed only if tag 23C is CANC and if the link reference (tag PREV) matches a SEME (internal reference) already in the system. In that case, the action defines under the domain:

Name:	ProcessingConfig
Value:	Custody.SwiftCancelRequestAction
Comment:	CANCEL_REQ

In that case the action CANCEL_REQ is applied onto the trade.

Same action is applied to transfer, to generate the Cancellation Request to the market (if Cancellation is authorized)

Action Details	
Id 2082221	
Orig Status	VERIFIED
Action Name	CANCEL_REQ
Result Status	CANCEL_REQUESTED
<div>  Create task On Failure ▾ </div> <div> <input type="checkbox"/> Use STP </div> <div> <input type="checkbox"/> Generate Intermediary Event </div> <div> <input type="checkbox"/> Priority 0 </div> <div> <input type="checkbox"/> Need Manual Authorization </div> <div> <input type="checkbox"/> Comment </div> <div> <input type="checkbox"/> Different User </div> <div> <input type="checkbox"/> Preferred Action </div> <div> <input type="checkbox"/> Update Only </div>	
Rules	
Name	Rule Param
ApplyTradeActionOnTransfers	
SetKeywords	InstructionType=CANC

Or to generate a task, if the transaction did not accept a cancellation anymore

Action Details

Id 2082727

Orig Status

SETTLED

Action Name

CANCEL_REQ

Result Status

CANCEL_DENIED

Create task

Never

Use STP

☐

Generate Intermediary Event

☐

Priority

0

Need Manual Authorization

☐

Comment

☐

Different User

☐

Preferred Action

☐

Update Only

☐

Rules

Name	Rule Param	Task Comment
SetKeywords	CancellationReject=true	Cancellation cannot be proceed

If cancelation can be processed, the transfer is moved also to a status corresponding to the cancelation demand

Action Details

Id 2082314

Orig Status

CLIENT_ADVICED

Action Name

CANCEL_REQ

Result Status

CANCEL_REQUESTED

Create task

On Failure

Use STP

☐

Generate Intermediary Event

☐

Priority

0

Need Manual Authorization

☐

Comment

☐

Different User

☐

Preferred Action

☐

Update Only

☐

Rules

A MT54X is generated to the custodian to execute it:

Edit
Browse

Product Type
ALL

Event Type
CANCEL_REQUESTED_S...

Message Type
SEC_DELIVERYMSG

Processing Org
ALL

PO Contact Ty...
Default

Receiver
ALL

Receiver Role
Agent

Rec Contact T...
Default

Grouping

Config Id
2082417

Language
English

Address Type
SWIFT

Gateway
SWIFT

Format Type
SWIFT

Template
MT543CANC

SD Filter
isNotVostroXfer

Audit Filter

☐ Matching
☐ Inactive

☐ Do not Send Me...

Delete
Save
Save As N...

A message type CANC is generated; templates to use, MT540CANC, MT541CANC, MT542CANC, MT543CANC

At the reception of the cancelation of the original instruction (MT548, type INST, status cancelation OK) trade is moved to CANCEL status, canceling transfers; sending back the MT548 to the ClientSender:

Action Details

Id
2082403

Orig Status
PEND MTCH UPDATE

Action Name
CANCELACK

Result Status
MATCHED

Create task
On Failure

☒ Use STP

☐ Generate Intermediary Event

Priority
0

☐ Use Kick Off / Cut Off

☐ Log Completed

Rules

Name	Rule Param
UpdateTrade	Action= CANCELTION_ACK
UpdateTransfer	action=UPDATE,mapping=custodyProcessingStatus

Transfer is updated to carry statuses of the cancelation; trade is pushed to CANCEL

Action Details

Id 2082225

Orig Status

CANCEL_REQUESTED

Action Name

CANCELATION_ACK

Result Status

CANCELED

Create task

On Failure

Use STP

Generate Intermediary Event

012

Priority

0

Need Manual Authorization

Comment

Different User

Preferred Action

Update Only

MT548 sent to client sender:

Edit

Browse

Product Type

ALL

Event Type

CANCELED_SEC_DELIVE...

Message Type

SWIFT_CLIENT_ADVICE

Processing Org

ALL

PO Contact Ty...

Default

Receiver

ALL

Receiver Role

ClientSender

Rec Contact T...

Default

Grouping

Config Id

2082411

Language

English

Address Type

SWIFT

Gateway

SWIFT

Format Type

SWIFT

Template

MT548CUST

SD Filter

isNotVostroXfer

Audit Filter

Matching

Inactive

Do not Send Me...

Delete

Save

Save As N...

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Revision 8.0 / Approved
Private and Confidential

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Generating CA Messages

7.1 MT564

You can generate MT564 messages for CAs based on CA_NOTIFICATION message setup using the MT564 message template.

The following Swift codes are currently supported:

DVCA – Cash Dividend

INTR – Interest Payment

REDM - Redemption Final Maturity

BONU - Bonus Issue

RHDI - Intermediate Securities Distribution

SOFF - Spin-Off

SPLF – Stock Split

SPLR - Reverse Stock Split

TEND - Tender Offer

EXRI - Call on Intermediate Securities

MEET, XMET, CMET and OMET will be supported in an upcoming release.

7.1.1 Domain Values

Domain "messageType"

Value = CA_NOTIFICATION

Domain "workflowRuleMessage"

Value = CASetAttributeMsgFunction"

Domain "MT564SentStatus"

Value = SENT

7.1.2 Message Setup

Event Type = VERIFIED_TRADE

Static data filter

Static Data Filter Window [18231201/ENDBAPL7936/calypso_user]

Name	MT564Generation		
External Ref.			
Comment			
Groups	ANY		

Criteria...

Attribute	Criteria		Filter Value(s)
Is Election Uninstructed In Latest Version	IS	<input type="checkbox"/>	false
Message Template	IN	Add	MT564

Edit Browse

Product Type	CA	Language	English
Event Type	VERIFIED_TRADE	Address Type	SWIFT
Message Type	CA_NOTIFICATION	Gateway	SWIFT
Processing Org	ALL	Format Type	SWIFT
PO Contact Type	Operation	Template	MT564
Receiver	ALL	SD Filter	MT564Generation
Receiver Role	Client	Audit Filter	
Rec Contact Type	Operation		
Grouping			

☐ Matching
 ☐ Inactive
 ☐ Do not Send Message

You can also select the MT564RMDR template to generate MT564 reminders for voluntary events.

You can set Domain value "messageAllowedTemplates.REMIND" to generate MT564RMDR messages for specific action. The domain value considers the action REMIND in combination with the SDFilter used at message setup level to generate only MT564RMDR messages when the action REMIND is applied on the CA trade using Scheduled Task PROCESS_TRADE.

Event Type = CANCELED_TRADE

Static data filter

Static Data Filter Window [18231201/ENDBAPL7936/calypso_user]

Name: MT564Generation_cancel

External Ref.:

Comment:

Groups: ANY

Criteria...

Attribute	Criteria		Filter Value(s)
Is Election Uninstructed In Latest Version	IS	<input checked="" type="checkbox"/>	true
Message Template	IN	Add	MT564

Edit Browse

Product Type: CA

Event Type: CANCELED_TRADE

Message Type: CA_NOTIFICATION

Processing Org: ALL

PO Contact Type: Operation

Receiver: ALL

Receiver Role: ProcessingOrg

Rec Contact Type: Operation

Grouping:

Language: English

Address Type: SWIFT

Gateway: SWIFT

Format Type: SWIFT

Template: MT564

SD Filter: MT564Generation_cancel

Audit Filter:

☐ Matching ☐ Inactive

☐ Do not Send Me...

7.1.3 Message Workflow for CA_NOTIFICATION

Orig Status	Action	Resulting Status	Create Task	Use STP	Same User	Rules
PENDING	CANCEL	CANCELED		False	True	
NONE	NEW	PENDING		False	True	CASetAttributeMsgFunction, CheckContact
PENDING	EDIT	PENDING		False	True	
PENDING	AUTHORIZE	VERIFIED		True	True	CASetAttributeMsgFunction, CheckCAAgentDetails
REJECTED	CANCEL	CANCELED		False	True	
REJECTED	RESEND	SENT		False	True	
REJECTED	AUTHORIZE	ACKED		False	True	
SENT	MANUAL_MATCH	NOTIFIED		False	True	
SENT	REJECT	REJECTED		False	True	
PENDING	AMEND	PENDING		False	True	
VERIFIED	SEND	SENT		False	True	
SENT	ACK	ACKED		False	True	
NONE	NEW	INVALID		False	True	CheckCorrectContact
VERIFIED	AUTO_CANCEL	CANCELED		True	True	
VERIFIED	TO_BE_SENT	SENT		True	True	

Static data filter on VERIFIED - SEND - SENT transition:

Static Data Filter Window [18231201/CAL18/calypso_user]

Name	MT564		
External Ref.			
Comment			
Groups	ANY		
Criteria...			
Attribute	Criteria	Filter Value(s)	
Message Template	LIKE	MT564	

7.1.4 Message Generation

When a Cash Dividend CA is applied, the MT564 message is generated.

Example:

Swift Message Window

Sender	POSWIFT1AXXX	Receiver	POSWIFT1XXXX	Type	MT564
Field Name	Field TAG	Field Value			
Start of Block	:16R:	GENL			
Sender's Product Reference	:20C:	:CORP//56800			
Sender's Reference	:20C:	:SEME//48076			
Official Corporate Action Event Reference	:20C:	:COAF//TESTING			
Function of the Message	:23G:	NOT SEND			
Ca event indicator	:22F:	:CAEV//DVCA			
Mandatory voluntary indicator	:22F:	:CAMV//MAND			
Preparation Date/Time	:98C:	:PREP//20230123051331			
Status	:25D:	:PROC//ENTL			
Start of Block	:16R:	LINK			
Sender's Product Reference	:20C:	:CORP//56800			
End of Block	:16S:	LINK			
Start of Block	:16R:	LINK			
Official Corporate Action Event Reference	:20C:	:COAF//TESTING			
End of Block	:16S:	LINK			
End of Block	:16S:	GENL			
Start of Block	:16R:	USECU			
Identification of the Financial Instrument	:358:	EQUITY.DVCA APL-859			
Start of Block Financial Instrument Attribute	:16R:	FIA			
Currency of Denomination	:11A:	:DENO//USD			
End of Block	:16S:	FIA			

When generating the MT564 for a given CA ID, the system checks if there are multiple outcomes linked to the CA Product and generates the CAs accordingly.

Looking in database table product_ca_association for all the lines, where FIRST_CA_ID equals main CA Product ID.

For each line obtained, to create a new sequence E CAOPTN in the MT564 document that will be generated with the date from the CA Product Id contained in column SECOND_CA_ID.

Tag 13A CAON - Populating this tag in block CAOPTN with the value contained in the Option Reference field of the CA Id being processed in the database which can be found in column CODE_VALUE = 001 of the DB table product_sec_code when column SEC_CODE = OutcomeReference.

Tag :17B::DFLT - Only one option can be the default, one which is flagged in Calypso. The default option tag is set as :17B::DFLT//Y (on the other sequences E CAOPTN in the message the flag is set as :17B::DFLT//N). Now, For

each sequence E CAOPTN in the message (i.e. one per each CA Id of the Event), set tag :17B of Sequence E Block CAOPTN to:

- "Y" if Is Default Option for the CA Id of the sequence being added
- "N" if unchecked

Default option can be found in table product_ca_association by looking for the lines with column SECOND_CA_ID = CA Id of the sequence being added:

- If ASSOCIATION_TYPE for the lines found = "DefaultOutcome" then CA Id is the default option so tag will be "Y"
- Else tag will be "N".

7.2 MT566

You can generate MT566 messages for Cash Dividend, Interest and Redemption CA settlements based on CA_CONFIRMATION message setup using the MT566 message template.

7.2.1 Domain Values

Domain "messageType"

Value = CA_CONFIRMATION

Domain "workflowRuleMessage"

Value = CASetAttributeMsgFunction"

Domain "MT566SentStatus"

Value = SENT

7.2.2 Message Setup

Event Type = SETTLED_RECEIPT / SETTLED_PAYMENT

Edit
Browse

Product Type
CA

Event Type
SETTLED_RECEIPT

Message Type
CA_CONFIRMATION

Processing Org
ALL

PO Contact Type
Operation

Receiver
ALL

Receiver Role
ProcessingOrg

Rec Contact Type
Operation

Grouping

Language
English

Address Type
SWIFT

Gateway
SWIFT

Format Type
SWIFT

Template
MT566

SD Filter

Audit Filter

☐ Matching
☐ Inactive
☐ Do not Send Message

Event Type = UNMATCHED_RECEIPT / UNMATCHED_PAYMENT

Edit
Browse

Product Type
CA

Event Type
UNMATCHED_RECEIPT

Message Type
CA_CONFIRMATION

Processing Org
ALL

PO Contact Type
Operation

Receiver
ALL

Receiver Role
ProcessingOrg

Rec Contact Type
Operation

Grouping

Language
English

Address Type
SWIFT

Gateway
SWIFT

Format Type
SWIFT

Template
MT566

SD Filter

Audit Filter

☐ Matching
☐ Inactive
☐ Do not Send Message

Transfer Workflow - You need the SETTLED - UNMATCH - UNMATCHED transition.

7.2.3 Message Workflow for CA_CONFIRMATION

Same as CA_NOTIFICATION.

Static data filter on VERIFIED - SEND - SENT transition:

Name
MT566

External Ref.

Comment

Groups
ANY

Criteria...

Attribute	Criteria	Filter Value(s)
Message Template	LIKE	MT566

7.2.4 Message Generation

When the transfers of a Cash Dividend, Interest or Redemption CA is settled / unmatched, the MT566 message is generated.

Example:

Swift Message Window		
Sender	POSWIFT1AXXX	Receiver POSWIFT1XXXX
Type	MT566	
Field Name	Field TAG	Field Value
Start of Block	:16R:	GENL
Sender's Reference	:20C:	:SEME//68581
Sender's Product Reference	:20C:	:CORP//72802
Official Corporate Action Event Reference	:20C:	:COAF//REDM 564
Function of the Message	:23G:	NEWM
Ca event indicator	:22F:	:CAEV//REDM
Preparation Date/Time	:98C:	:PREP//20230816063237
End of Block	:16S:	GENL
Start of Block	:16R:	USECU
SafeKeeping Account	:97A:	:SAFE//GENERIC DDA ACCOUNT CP
Identification of the Financial Instrument	:35B:	ISIN US912810QC998ONDREDDMT564/3Y/17/08/2039/3PC
Start of Block Financial Instrument Attribute	:16R:	FIA
Currency of Denomination	:11A:	:DENO//USD
End of Block	:16S:	FIA
CA Eligible Balance	:93B:	:ELIG//FAMT/1000000,
CA Confirmed Balance	:93B:	:CONB//FAMT/1000000,

MT535 Generation

7.1 Setup Requirements

8.1.1 Account Definition

You can generate MT535 messages if the Custody checkbox is checked on the client account definition.

It allows selecting a Client Sender, a legal entity of role ClientSender. When set, the MT535 message uses this legal entity as receiver of the client statement.

Account attribute "AccountNumber" should be populated with the Account Number of the safekeeper for the statement.

8.1.2 Account Statement Configuration

A statement of type "Custody" needs to be defined on the client account.

This is only available if the Custody checkbox is checked on the client account definition.

For the Custody statement type, the checkbox "Aggregation on SubAccount" is available:

- If this checkbox is checked, the inventory position is aggregated by "Book/Agent/Account/SubAccount"
- If this checkbox is not checked, the inventory position is aggregated by "Agent/Account"

Accounts Definition - Authorization mode OFF Custody A/c 1234, Client1 / 2052202 - version 7

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Legal Entities Clearing Browse

Statement Type Custody

General

Numbering Last Statement

Zero Balance ☐ Last Date

No Movement ☐ Active From

Interim Generation ☐ To

Frequency

Rule ...

Position

Cash/Sec Security

Class Client

Type Actual

Date Settle

Value Quantity

Payment Based ☐ CAAdjustBook ☐ Aggregation on SubAccount ☐

Message Config

Config 0

Message Type

Template

Format

Gateway

Please refer to Calypso Nostro Management documentation for complete details on configuring account statements.

8.1.3 Safekeeper Legal Entity Attributes

The following legal entity attribute need to be specified on the safekeeper.

CustodyPlaceCode

This attribute is used to store the Place Code of the safekeeper under tag 94B. Possible values are:

- CUST: Local Custodian
- ICSD: International Central Securities Depository
- NCSD: National Central Securities Depository
- SHHE: Shares Held Elsewhere

BIC_CODE

This attribute is used to store the BIC Code of the safekeeper. Value in this field should be a valid BIC code.

8.2 Message Generation

The scheduled task ACCOUNT_STATEMENT generates statement events based on account statement configurations and account positions computed by the Inventory engine. The statement events are then processed by the Message engine for the actual generation of the statement document.

You can also click Generate in the Account window, Statements panel to generate the statement events. You will be prompted to select a date range.

Example:

Following is the inventory position for client account "Custody A/c 1234,Client1" with different securities and SubAccounts:

InventoryPosition / default

Report Data View Export Market Data Process Utilities Help

Financing

Criteria

Start: 03/20/2023 End: 04/28/2023 Use Tenor: ☐ Template Description:

Class: Client Type: Theoretical Date: Settle Aggregation: Book/Agent/Account/C... Books: ProcessingOrg: Include Child POs: ☒

Counterparty: Securities: Security Template:

Account Id: 2080502 Sec Code: AGENC... Include Issuances: ☒

Position Value: Quantity: SD Filter: Include SubAccount: ☐ Display Only Multiple Agent: ☐ Explode Position: ☐ Aggregate Agg. Config: ☐

Position Direction: All Offset Pos: ☐ Cash/Sec: ☐ Security: Movement Type: Balance Agg. Config:

Closing Bal: ☐ Legal Ag. / Contract Id: Node Expansion Level: Filter Zero Balance: ☐ Propagate To Cash: ☐ Filter Matured Securities: ☒ Account Template:

Security

ProcessingOrg	Book	Product Id	PRODUCT_CODE.ISIN	Prd Description	Currency	Agent	Account	Position Type	Movement Type	Date Type	SubAccount	Mar 20, 2023	Mar 21, 2023	Mar 22, 2023	M
CALYPSO_IDN	N/A	36539	US02079K3059	Equity.GOOG	USD	CALYPSO_IDN	Custody Acct 1234, Client 1_5	THEORETICAL	Balance	SETTLE	Eurodear A/c: 000 (Thirdparty)	50,000.00	50,000.00	50,000.00	
CALYPSO_IDN	N/A	36539	US02079K3059	Equity.GOOG	USD	CALYPSO_IDN	Custody Acct 1234, Client 1_5	THEORETICAL	Balance	SETTLE	DTC A/c 1456 (security)	50,000.00	50,000.00	50,000.00	
CALYPSO_IDN	N/A	36601	US0378331005	Equity.AAPL US	USD	CALYPSO_IDN	Custody Acct 1234, Client 1_5	THEORETICAL	Balance	SETTLE	DTC A/c 1456 (security)	50,000.00	50,000.00	50,000.00	

These positions are represented in MT535 as below (only relevant tags are provided here):

Legal Entity Attributes Window

Search:

Legal Entity: DTC Role: ALL Processing Org: ALL

Attribute Group: Attribute Type: ACCOUNTING Value:

Id	Processing Org	Legal Entity	Role	Attribute Group	Attribute Type	Attribute Value
2077302	ALL	DTC	Agent		CustodySettlementMethod	DTC
2080505	ALL	DTC	ALL		CustodyPlaceCode	CUST
2080506	ALL	DTC	ALL	Identification	BIC_CODE	DTCYUS33XXX

```
{1:F01CALYLD2NAXXX0000000000}{2:I535CLIT1EE1XXXXN2020}{3:{108:MT535}}{4:
:16R:GENL
:28E:00001/ONLY
:13A::STAT//079
:20C::SEME//257001
:23G:NEWM
:98C::PREP//20230320100320
:98A::STAT//20230320
:22F::SFRE//DAIL
:22F::STTY//CUST
:22F::CODE//COMP
:22F::STBA//CONT
:97A::SAFE//1497098978
:17B::ACTI//Y
:17B::CONS//N
:16S:GENL
:16R:SUBSAFE
```



```
:94F::SAFE//CUST/DTCYUS33XXX
:16R:FIN
:35B:ISIN US02079K3059
EQUITY.GOOG
:93B::AGGR//FAMT/50000,
:16S:FIN
:16R:FIN
:35B:ISIN US0378331005
EQUITY.AAPL US
:93B::AGGR//FAMT/50000,
:16S:FIN
:16S:SUBSAFE
:16R:SUBSAFE
:94F::SAFE//CUST/SICVFRPPXXX
:16R:FIN
:35B:ISIN US02079K3059
EQUITY.GOOG
:93B::AGGR//FAMT/50000,
:16S:FIN
:16S:SUBSAFE
-} {5: }
```

Please refer to Calypso Nostro Management documentation for details on generating account statements.

MT103 and MT202 Integration

These messages are received with:

- Sender = BIC code of legal entity with role ClientSender (as previously described, with a CustodyReference).
- Receiver = BIC code of PO. The PO must own a custody book.

If the custody book is not available, you can define a default custody book in the DEFAULT_CUSTODY_BOOK PO attribute.

*** A custody book is identified by book attribute Custody Book = true

- Client = The client account is identified with Tag 50 matching the AccountNumber account attribute.
- Counterparty = BIC code of counterparty is identified with TAG 57.

9.1 Setup Requirements

You need to add MT103 and MT202 to the incomingType domain:

Name: incomingType

Value: MT103

Comment: INC_MT103

Name: incomingType

Value: MT202

Comment: INC_MT202

INC_MT103 Message Workflow

Orig Status	Action	Resulting Status	Create Task	Use STP
CANCELED	UNDO	VERIFIED	Always	False
NONE	NEW	UNPROCESSED	Always	False
PROCESSED	CANCEL	CANCELED	Always	False
PROCESSED	ITD_UNMATCH	UNPROCESSED	Always	False
UNPROCESSED	CANCEL	CANCELED	On Failure	False
UNPROCESSED	ITD_MANUAL_MATCH	PROCESSED	Always	False
UNPROCESSED	ITD_MATCH	PROCESSED	Always	False
UNPROCESSED	MANUAL_MATCH	PROCESSED	Always	False
UNPROCESSED	MATCH	PROCESSED	Always	False


INC_MT202 Message Workflow

Orig Status	Action	Resulting Status	Create Task	Use STP
NONE	NEW	UNPROCESSED	Always	False
PROCESSED	CANCEL	CANCELED	Always	False
PROCESSED	ITD_UNMATCH	UNPROCESSED	Always	False
UNPROCESSED	CANCEL	CANCELED	On Failure	False
UNPROCESSED	ITD_MANUAL_MATCH	PROCESSED	Always	False
UNPROCESSED	ITD_MATCH	PROCESSED	Always	False
UNPROCESSED	MANUAL_MATCH	PROCESSED	Always	False
UNPROCESSED	MATCH	PROCESSED	Always	False

9.2 Import

Upon import, Cash Transfers of type PRNCIPAL are created between the PO and the counterparty for the given client account on the custody book.

Example:


Swift Message Window
—
□
×


Sender
Receiver
Type

Field Name	Field TAG	Field Value
Transaction Reference Number	:20:	103INCCUST240813
Function of the Message	:23B:	CRED
Settlement Amount	:32A:	240730USD 137990,22
Amount Sold	:33B:	USD 137990,22
Unknown	:50K:	/32241476FEDERICO ANDRESCARISSIMO 5676ASUNCION CL
Ordering Institution	:52A:	BOFAUS3N
Receiving Agent	:57A:	BBVAUYYMM
Unknown	:59:	/050012817GUARANI S ASANTA TERESA 00000PENNSYLVANNIA PY
Unknown	:70:	/RFB/19C001255009001//022-005-00007
Unknown	:71A:	SHA
Unknown	:71F:	USD0,

```

{1:F01UBBRPYPXXXX000000000000}{2:O 1032314060731JPMSGB2LXXXX76896955940608010631N}{3:{108:MT 10300000017953}{119:STP}}{4:
:20: 103INCCUST240813
:23B:CRED
:32A:240730USD 137990,22
:33B:USD 137990,22
:50K:/32241476
FEDERICO ANDRES
CARISSIMO 5676
ASUNCION CL
:52A:BOFAUS3N
:57A:BBVAUYYMM
:59:/050012817
GUARANI S A
SANTA TERESA 00000
PENNSYLVANNIA PY
:70:/RFB/19C001255009001//022-005-00007
:71A:SHA
:71F:USD0,
-}{5:}

```



CashTransfer(-137,990.22 USD) - PO is PO_CUSTODY (187101) - Version : 0 Mod User :() [18240901/CUSTODY_MT103202]

Trade

Back Office

SimpleTransfer

Analytics

Pricing Env

Market Data

Utilities

Help

Template

Trade

Details

Fees

Trader

NONE

...

Sales

NONE

...

MarketPlace

OTC

Action

AMEND

Status

VERIFIED

Market Type

NONE

Subsidiary

...

StepIn Transferor

...

Calc Agent

...

Comment

BackOffice...

Trade Attri...

Product Co...

Internal Ref.

External Ref.

JPM_103INCCUST240813

Bundles...

Remove From Bundle

Show ...

☐ Mirror

MT200 and MT210 Integration

MT200 (flow type COVERAGE) and MT210 (flow type CASHEXCESS) messages integration allows creating Simple Xfer Trades related to foreign currency funding. The trades are only generated if the incoming message currency is different from the PO local currency.

10.1 Setup Requirements

10.1.1 Domain Values

Domain IncomingType

Value = MT200

Comment = INC_CASH_CUST

Value = MT210

Comment = INC_CASH_CUST

Domain flowType

Value = COVERAGE

Value = CASHEXCESS

Domain SimpleTransfer.subtype

Value = COVERAGE

Value = CASHEXCESS

Domain ProcessingConfig

Value = FCCYFunding.IsActive

Comment = true

10.1.2 INC_CASH_CUST Message Workflow

Workflow Configuration - PSEventMessage/ALL/ALL/INC_CASH_CUST/PENDING/INVALID/INVALID

Workflow Layout Domain

Workflow Diagram Workflow Table Kick Off / Cut Off

Id	Orig Status	Action	Resulting Status	Create Task	Use STP	Same User	Rules	Needs Man. Auth.	Use Comment	Kick Off / Cut Off	Static Data Filter
2074273	NONE	NEW	PENDING		False	True		False	False	False	
2074274	PENDING	ACCEPT	COMPLETED		False	True		False	False	False	
2074275	PENDING	CANCEL	CANCELED		False	True		False	False	False	
2074276	PENDING	INVALID	INVALID		False	True		False	False	False	

10.1.3 Processing Organization

You need to specify the following PO attributes:

Legal Entity Attributes Window - Version - 0

Search

Legal Entity: CENTRAL BANK OF TUNISIA

Attribute Group

Role: ALL

Processing Org: ALL

Attribute Type: FCCYFunding_BOOK

Value: FCCY_CBT

Id	Processing Org	Legal Entity	Role	Attribute Group	Attribute Type	Attribute Value
2074177	ALL	CENTRAL BANK	ALL		FCCYFunding_BOOK	FCCY_CBT
2074178	ALL	CENTRAL BANK	ALL		LocalCurrency	TND

- FCCYFunding_BOOK = Book of the simple xfer trades
The selected book MUST HAVE the following book attribute:
Custody Book = true
- LocalCurrency = PO local currency

You also need to configure proper accounts and settlements instructions for the Simple Xfer trades.


10.2 Import

Run the MESSAGE_MATCHING scheduled task to import the MT200 and MT210 messages.

Sample MT210 Message Integration

```
{1:F01BCTNTNTTAXXX9712477898}{2:O2100951211206BIATTNTTAVG105904823692112060951N}{3:{108:213400XDOM86967}}{4:
:20:NIV134097661061
:30:250305
:21:NIV134097661026
:32B:USD155032,12
:52A:CITIUS33XXX
:56A:CITIUS33}
```

-} {5:}


Message Viewer

Message

Main
Audit
Grouping
Transfers
Tasks
Advice Documents
Matching Audit
Matching

General

Workflow

Contact

Format

Message: 482502 / 0

Trade Id: 160472 / 0

Transfer Id: 0

Linked Id: 0

Creation Date: 5/3/25 5:31:48 PM

☐ Is Edited

Latest Document

Type: INC_CASH_CUST

Status: PENDING

Action: NEW

SubAction: NONE

Address Method: SWIFT

Entity: CENTRAL BANK

Role: ProcessingOrg

Type:

Receiver

Sender: BIAT

CounterParty

Format: SWIFT


Template: MT210

Gateway: SWIFT

Language: English

Attributes

Name	Value
Ccy	USD
Amount	155,032.12
ValDate	05/03/2025
MessageRef	NIV134097661026
PORef	NIV134097661026
AgentRef	NIV134097661061
FCCYFundingProcess	true

 CashTransfer(155,032.12 USD) - PO is Central Bank of Tunisia (160472) - Version : 0 Mod User : (calypso_user DO NOT USE THIS AC...

Trade Back Office SimpleTransfer Analytics Pricing Env Market Data Utilities Help Template

Trade

Details

Fees

Custody Trade Entry

From: BIAT CounterParty

Book: FCCY_CBT

Status: VERIFIED

ID: 160472

To: ITRAL BANK ProcessingOrg

Trade Date: 05/03/2025 5:31:48 PM

Settle Date: 05/03/2025

Receive

Cash

Transfer Type: CASHEXCESS

Linked Id: 0

Principal: 155,032.12

Ccy: USD

Trade Attributes


SetUp

☐ Editable

Name	Value
ClientAccount	BIAT Local Bank USD AC @ CBT (2074192)
Our Agent	CITIUS33
RegulatoryReportingState	DONE
Their Agent	CITIUS33XXX
13CTimeIndication	26T
ACCOMMODATION_CHARGE_ID	
AccountNumber	

Sample MT200 Integration

```
{1:F01BCTNTNTTAXXX9711476922}{2:O2001050211203UIBKTNT1AXXX96949915122112031050N}{4:
:20:SDM6746554
:32A:250306EUR200011,31
:56A:SOGEFRPP
:57A:SOGEFRPP
-}{5:}
```


Message Viewer


Message

Main Audit Grouping Transfers Tasks Advice Documents Matching Matching Audit

General	Workflow	Contact	Format
Message: 483002 / 0	Type: INC_CASH_CUST	Address Method: SWIFT	Format: SWIFT
Trade Id: 160572 / 0	Status: PENDING	Receiver	Template: MT200
Transfer Id: 0	Action: NEW	Entity: CENTRAL BANK	Gateway: SWIFT
Linked Id: 0	SubAction: NONE	Role: ProcessingOrg	Language: English
Creation Date: 6/3/25 1:17:16 PM		Type:	
<input type="checkbox"/> Is Edited Latest Document			

Attributes

Name	Value
Ccy	EUR
Amount	200,011.31
ValDate	06/03/2025
AgentRef	SDM6746554
FCCYFundingProcess	true


CashTransfer(-200,011.31 EUR) -PO is Central Bank of Tunisia (160572) - Version : 0 Mod User :(calypso_user DO NOT USE THIS AC...


Trade Back Office SimpleTransfer Analytics Pricing Env Market Data Utilities Help Template

Trade Details Fees Custody Trade Entry

To UIB CounterParty Book FCCY_CBT Status VERIFIED ID 160572

From ITRAL BANK ProcessingOrg Trade Date 06/03/2025 1:17:16 PM Settle Date 06/03/2025

Pay Cash Transfer Type COVERAGE Linked Id 0


Trade Attributes

SetUp

☐ Editable

Name	Value
ClientAccount	UIB Local Bank EUR AC @ CBT (2074186)
Our Agent	SOGEFRPP
RegulatoryReportingState	DONE
Their Agent	SOGEFRPP
13CTimeIndication	26T
ACCOMMODATION_CHARGE_ID	

Principal 200,011.31 Ccy EUR