



# Nasdaq Calypso

## SAP Integration Guide

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Approved

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## Document History

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**This document describes how to integrate Calypso with SAP.**

**NOTE – The SAP interface can only be used by clients who purchased the SAP interface license pre 2020. This license is no longer available for sale**

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# Introduction

This document describes the Calypso SAP Interface setup.

The module covers 3 integrations:

- **Business-Partner Integration:** In this Calypso gets all the Static data (Legal Entity, Contact information from SAP via Web service.
- **Payment Integration:** Calypso sends the payments to SAP for processing as a MT101 message and SAP confirms the payments via MT900 message, which is then used to update the messages and settle the linked transfer.
- **SAP-GL Integration:** Calypso sends the postings to SAP GL web service for processing. Calypso runs a scheduled task (SAP\_GL\_REPORT) to extract postings using a posting report template in the scheduled task.

## 1.1 Product Coverage and Scope

The Scope of this project is to build an interface to SAP for Business Partner, Payment Integration and SAP GL Integration.

Business Partner integration supports Legal Entity and Legal Entity Contact objects coming from SAP to Calypso via Web-services.

Payment Integration supports Swift messages (MT101) for Transfer and (MT900) for confirmation of the Transfer.

SAP GL integration supports reporting of postings generated in Calypso to SAP for General Ledger purpose via Web-services.

## 1.2 Lifecycles

### 1.2.1 Business Partner

Create/Amend Business Partners in real-time as well as Bulk. SAP has the ability to notify Calypso via web-services in real-time or as a batch.

### 1.2.2 Payment Integration

Send Payment messages for New Trades, Amended and Canceled trades.

Lifecycle	Action in Calypso	Action in Response
New	Calypso creates SAPPAYMENTMSG with MT101 and sends to SAP	SAP acknowledges the MT101 and confirms the payment by sending MT900
Amend	If the amendment affects Transfers, calypso creates MT192 for cancelling the payment and sends a new Payment as MT101	SAP cancels the payment referred in MT192 and acknowledges and confirms the new Payment by sending MT900

Lifecycle	Action in Calypso	Action in Response
Cancel	Calypso creates a MT192 for cancelling the payment	SAP cancels the payment.

### 1.2.3 GL Integration

Postings are generated from the Posting Report End of the Day and converted to a format understood by SAP (Xml) and sent to the GL System in SAP via web-service.

A response is sent back from SAP-GL to calypso with the MessageID, and any error information details. The MessageID can be used to verify the request processed on SAP side.

# Setup Instructions

## 2.1 Software Requirements

### 2.1.1 Supported Calypso Versions

This module is developed using Calypso Version 15.0 and can be run using calypso version 15.0 and above.

### 2.1.2 Dependencies

The SAP interface requires the installation of the Data Uploader optional module (version 5.1.0+).

## 2.2 Installation Instructions

The SAP interface is installed as part of the Calypso Installer when you select the “SAP” interface and the Data Uploader optional module.

Please refer to the Calypso Installation Guide for complete details on the Calypso Installer.

If you are installing a Calypso Upgrade package instead, the instructions are also in the Calypso Installation Guide.

### *Database Upgrade*

When you run Execute SQL as part of your installation, the SAP and Data Uploader files will be already loaded.

## 2.3 Task Station Configuration


### *Data Uploader*

Users can view exceptions in the Task Station for exceptions related to the integration of UPLOADSOURCMSG/GATEWAYMSG/PLATFORMMSG messages.

- EX\_UPLOADSOURCMSG
- EX\_UPLOADSOURCMSG\_ERROR
- EX\_UPLOADSOURCMSG\_IGNORE
- EX\_UPLOADSOURCMSG\_REJECT
- EX\_UPLOADSOURCMSG\_WARNING
- EX\_GATEWAYMSG
- EX\_GATEWAYMSG\_ERROR
- EX\_GATEWAYMSG\_IGNORE

- EX\_GATEWAYMSG\_INFORMATION
- EX\_GATEWAYMSG\_REJECT
- EX\_GATEWAYMSG\_WARNING
- EX\_PLATFORMMSG
- EX\_PLATFORMMSG\_ERROR
- EX\_PLATFORMMSG\_IGNORE
- EX\_PLATFORMMSG\_WARNING

Example:


**Report Configurations**
×

Task Station Tabs

Task Enrichment Filters

Gateway Errors and Warnings

Name	Value
Tab Name	Gateway Errors and Warnings
Workflow Types	Exception
Books	__ANY__
Book Attributes	
Event Types	EX_GATEWAYMSG, EX_GATEWAYMSG_ER...
Priorities	LOW, NORMAL, HIGH, CRITICAL, VERY CRI...
Task Statuses	NEW, UNDER_PROCESSING, COMPLETED, ...
Enrichment Columns ...	
Task Date Type	TaskDatetime
From Tenor	-1D
To Tenor	+1D

### SAP GL Integration

Users can view exceptions in the Task Station for exceptions related to the integration of SAP GL.

- EX\_INFORMATION
- EX\_EXCEPTION

Report Configurations

Task Station TabsTask Enrichment Filters

Q-

SAP GL

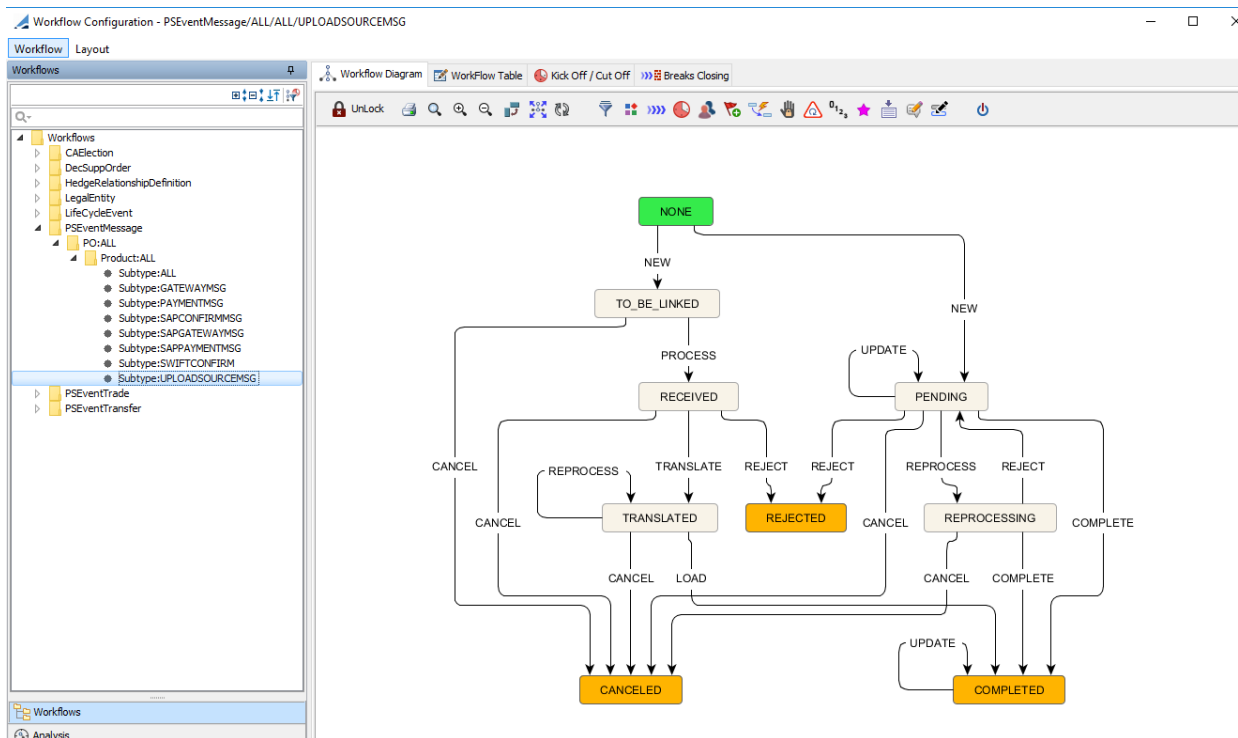
Name	Value
Tab Name	SAP GL
Workflow Types	Exception
Books	__ANY__
Book Attributes	
Event Types	EX_EXCEPTION, EX_INFORMATION
Priorities	LOW, NORMAL, HIGH, CRITICAL, VE...
Task Statuses	NEW, UNDER_PROCESSING, COMPL...
Enrichment Columns Filter	
Task Date Type	TaskDatetime
From Tenor	-1D
To Tenor	+1D

## 2.4 Workflow Setup

### 2.4.1 Business Partner Integration

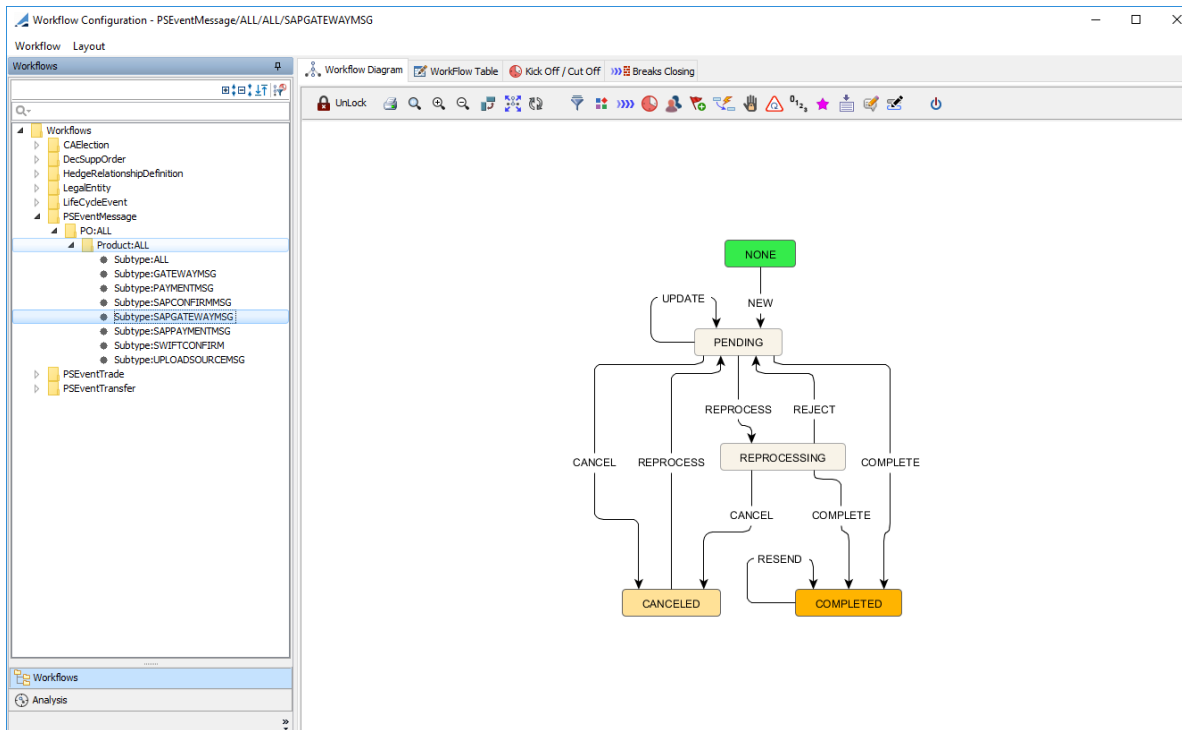
The following workflows should be imported for Business Partner Integration.

- `<calypso home>/resources/UPLOADSOURCEMSG.wf`  
 UPLOADSOURCEMSG is generated for every incoming message such as the NEW / UPDATE Business Partner.



- `<calypso home>/resources/SAPGATEWAYMSG.wf`

A SAPGATEWAYMSG is created for every incoming Business Partner message that is successfully translated by CALYPSO.

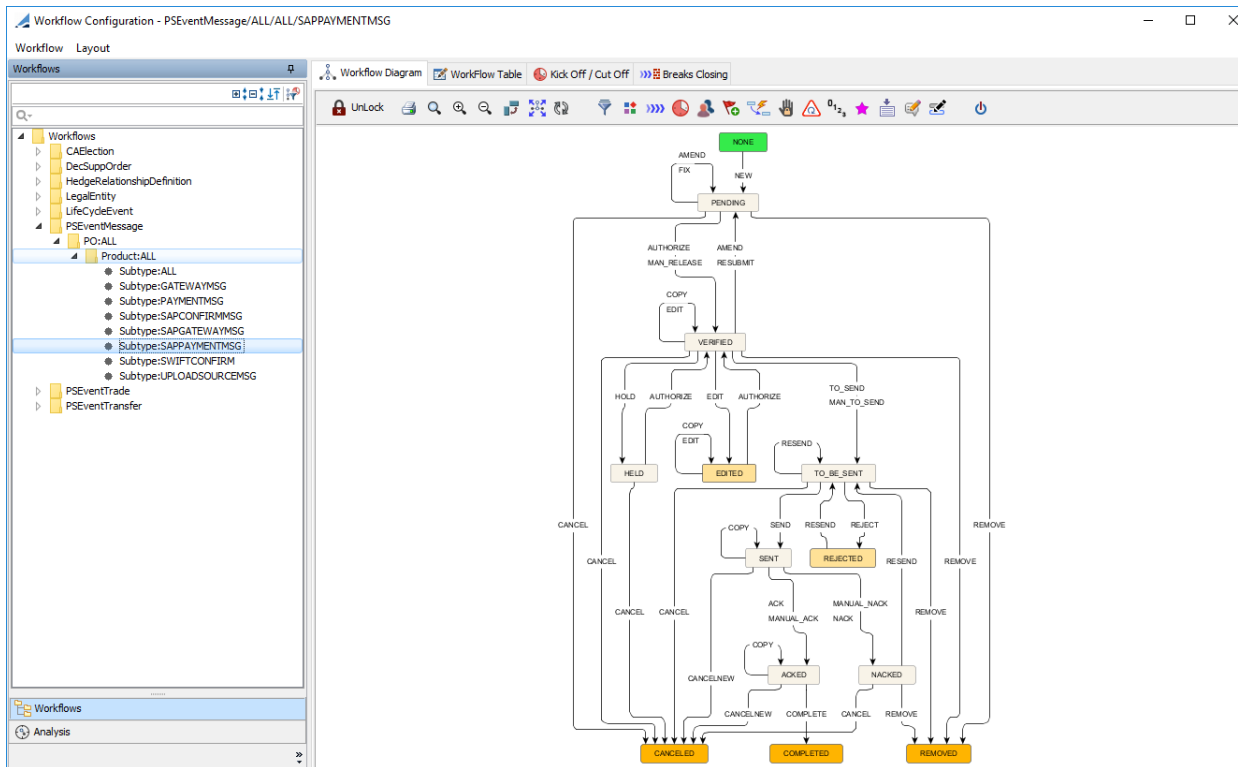


## 2.4.2 Payment Integration

The following workflows should be imported for Business Partner Integration.

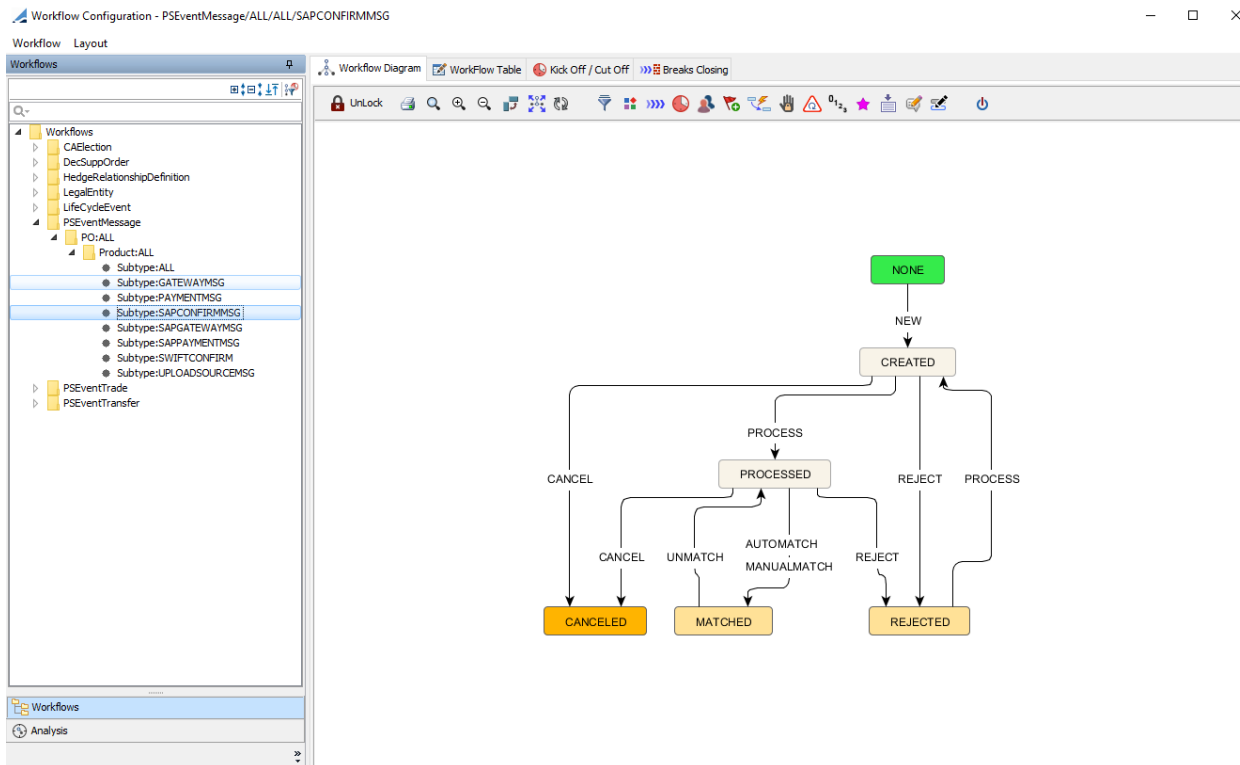
- <calypso home>/resources/SAPPAYMENTMSG.wf

The Payments are generated from the Transfers of the Trades that are created in CALYPSO. When a trade is created, Transfer Engine creates Transfers, and for every transfer that is VERIFIED, Calypso generates the message SAPPAYMENTMSG with template MT101, which is then sent to SAP via SAP Gateway which is a web-service call to SAP.



- <calypso home/resources/SAPCONFIRMMSG.wf>

For every Payment message (MT101) that is sent to SAP, SAP confirms the message with a technical acknowledgement which moves the SAPPAYMENTMSG to ACKED/NACKED status. In addition to that, SAP also sends back a confirmation as MT900 message which is created in calypso as an incoming message which is linked to the MT101 message and the transfer that is linked will be SETTLED.



## 2.5 Property Files

Rename the following “.properties.sample” files in resources folder to “.properties”.

Engine server calypso\_sap\_config.properties file to establish connectivity between calypso and SAP via a Web-service call and hence this file should be deployed to the engine server.

Similarly for SAP GL integration calypso\_sap\_gl\_interface.properties file should be modified to establish connectivity between Calypso and SAP via a Web-service call. This file is read from client/resource directory of the calypso installation.

It also contains SAP GL report constants.

The following entries can be changed.

```

webservice.url=change to the web service url provided by SAP
webservice.connectionUserName=change to the username provided by SAP
webservice.connectionPassword=change to the password provided by SAP
wsrmEnabled=true/false (true to enable RM protocol at client side)
wsaEnabled=true/false (true to enable WS Addressing at client side)
wsrmNamespace=WSRM namespace

```



```
wsaNamespace=WSA namespace
isSAPPOEnabled=true/false (true to connect to SAP GL web service routed through SAP PO system)
updatePostingStatus=true/false (true to update posting status to SENT when successfully reported to SAP)
trustStore=trustStore location
trustStoreUser=Key to decipher Password
trustStorePassword=trustStore Password
```

The SOAP web services are registered in calypsoservicesinterfaceserver.

The common URL is `http://<host-ip>:<port>/calypsoservicesinterfaceserver/ws/`

- host-ip - Server IP address
- port - Port number for calypsoservicesinterfaceserver

Also for enabling this feature, the following property should be added in calypsoservicesinterfaceserver.properties:

```
calypso.ws.enabled=true
```

## 2.5.1 Required Processes

### *Business Partner Integration*

The engine server that hosts the Business Partner web-services should be up to consume the Business Partner request from SAP.

Once the Engine Server is Up, As and when any activity happens in SAP CRM system, Calypso will be notified via a Web-service call that is running in the engine server and the Business Partner message is translated into Calypso uploader format and the Legal Entity/Contact are saved into Calypso.

You also need to run the following servers:

Calypso Services Interfaces MS - `calypsoServicesInterfacesMs.bat`

Shared Services – `sharedServices.bat`

### *Business Partner Service*

Key	Value
Service Interface	BusinessPartnerDataManagementBusinessPartnerEventOut
Attributes	Category Inbound Mode Asynchronous
Operation	informOfBusinessPartnerAsBulk
Operation Attributes	Request Message Type: BusinessPartnerFSBulkInformation

### Business Partner Relationship Service

Key	Value
Service Interface	BusinessPartnerDataManagementBusinessPartnerRelationshipEventOut
Attributes	Category Inbound Mode Asynchronous
Operation	<b>informOfBusinessPartnerRelationshipAsBulk</b>
Operation Attributes	Request Message Type: BusinessPartnerRelationshipFSBulkInformation

### Payment Integration

For Payments, the following processes are required.

- Trades are captured into Calypso via Trade Window or the Pricing Sheet
- Transfer Engine is required to generate the transfers for the trades.
- Message Engine is required to create a SAPPAYMENTMSG for every VERIFIED\_PAYMENT
- Sender Engine is required to send the MT101 Swift message via SAP Gateway Document Sender.
- Finally, the Engine server that hosts the web-service to consume the incoming MT900 should be running.

Key	Value
Service Interface	TradingProcessingManagePaymentTransactionMessageOut
Attributes	Category Inbound Mode Asynchronous
Operation	<b>createMessage</b>
Operation Attributes	PaymentTransactionMessageFSCreateRequest

### SAP GL Integration

For Postings, the following processes are required.

- Trades are captured into Calypso via Trade Window or the Pricing Sheet
- Accounting Engine is required to generate the postings for the trades.
- SAP\_GL\_REPORT scheduled task must be configured and run to extract the postings and send it to SAP GL web service.

Key	Value
Service Interface	AccountingDocumentERPBulkNotification_In
Attributes	Category Inbound Mode Asynchronous
Operation	AccountingDocumentERPBulkNotification_In
Operation Attributes	AccountingDocumentERPBulkNotification

## 2.5.2 Message Configuration required by Message Engine

This is only required for Payment Integration.

Message Configuration Setup Window - Version - 1

Utilities Help

PO: ALL  
PO: NEWYORK  
Product: Bond  
Product: Equity  
CANCELED\_SEC\_DELIVERY  
VERIFIED\_SEC\_DELIVERY  
id=2004 : SAPPAYMENTMSG  
Product: FX  
Product: FXForward

Edit Browse

Product Type: Equity  
Event Type: VERIFIED\_SEC\_DELIVERY  
Message Type: SAPPAYMENTMSG  
Processing Org: NEWYORK  
PO Contact Type: Default  
Receiver: CITIBANK NY  
Receiver Role: Agent  
Rec Contact Type: Default  
Grouping: ...

Language: English  
Address Type: SWIFT  
Gateway: SAP  
Format Type: SWIFT  
Template: MT101  
SD Filter: ...  
Audit Filter: ...

☐ Matching ☐ Inactive  
☐ Do not Send Message


Config Id: 2004 Delete Save Save As New

Id	Product	Event	Message Type	ProcessingOrg	PO Contact Type	Receiver	Receiver Role	Rec Contact Type
2004	Equity	VERIFIED_SEC_DELIVERY	SAPPAYMENTMSG	NEWYORK	Default	CITIBANK NY	Agent	Default

Configure the message setup for each Processing Organization and Product type for which the Payments are to be reported to SAP.

**NOTE:** If you want to modify the name of the MT101 template, it needs to contain the string MT101, for example "MT101SAP"

## 2.5.3 Message Sender Configuration required by Sender Engine


Message Sender Config

Sender Config
Copy Config

Message Status
TO\_BE\_SENT

Product Type
ALL

Advice Type
SAPPAYMENTMSG

Address Type
SWIFT

Static Data Filter
...

Gateway
SAP

☐ Save

☒ Send
☐ Sender By Method
☒ Sender By Gateway

GatewaySAPDocumentSender class will be called

Save

Remove

New

Id	Status	Product	Advice Type	Address Type	Gateway	SD Filter	Send	Save	By Gateway
1743	TO_BE_SENT	ALL	SAPPAYMENTMSG	SWIFT	SAP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Mapping

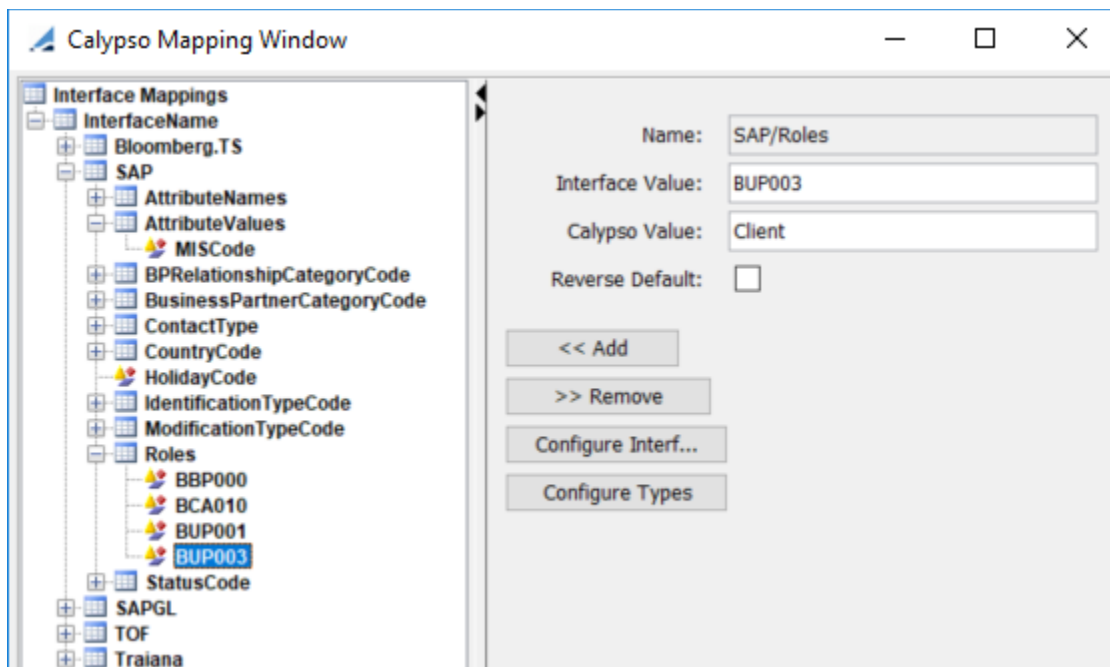
## 3.1 Mappings for Business Partner

All static data required for the integration is part of the SAPSchemaData.xml.

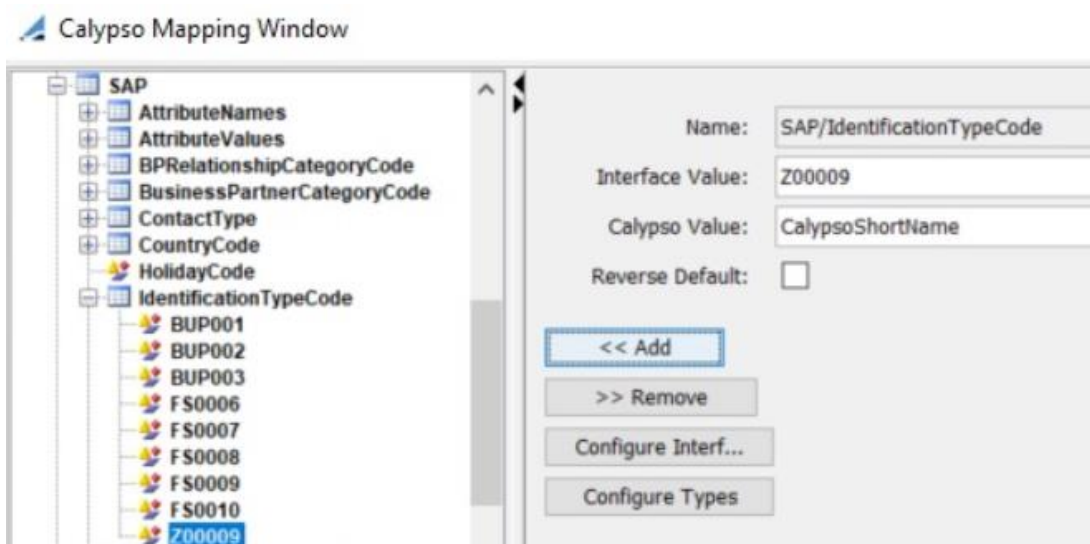
Domains that are used:

- SAPUploadMessageType – The type of BOMessage that should be created for SAP. E.g.: SAPGATEWAYMSG
  - IdentificationContactType - The identification details received from SAP are getting stored as Legal entity contacts. So, the types of contacts that should be used to store such identification details can be provided in this domain.
- \*\*\* No longer used as of version 2.3.0 \*\*\***
- messageType – This domain should contain the message type that we want to create for SAP module. e.g.- SAPGATEWAYMSG
  - IgnoredBusinessPartner - If we do not want to create Legal entities for some type of BusinessPartners that we get from SAP, we can include that in this domain. e.g. Person.
  - IgnoredBusinessPartnerRelationship - If we want to ignore certain relationships we can add in this domain.
  - leAttributeGroup.ParentChildRelationship - To determine BPRelationshipCategoryCode for which parent child relation should be established.

Calypso Mapping:



- **BPRelationshipCategoryCode** – This is used to identify the type of relationship between two Organizations/ Legal entities.
- **BusinessPartnerCategoryCode** – This is used to identify the type of Business Partner.  
Example, SAP code '1' denotes 'Person' type of Business Partner.
- **ContactType** – This type is used to save address details from SAP in Calypso contacts.  
Address usage codes from SAP are mapped with contact types.  
So, if calypso receive 2 address usage codes from SAP, two contacts will be created of different contact types.
- **IdentificationTypeCode** – The identification code is stored in the Legal Entity Short Name.



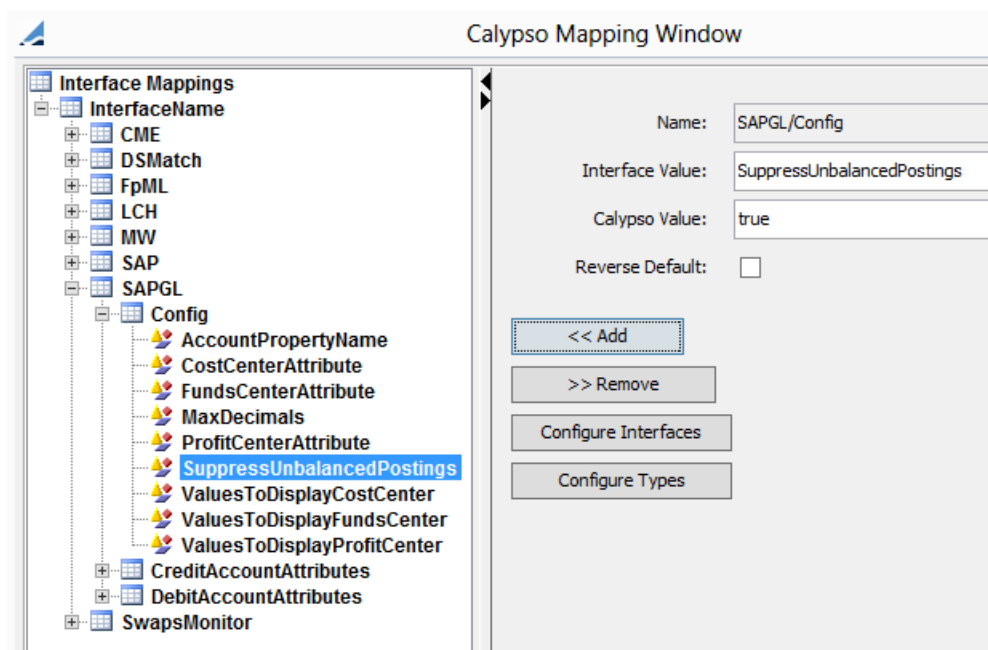
- **CountryCode** – Mapping between country code from SAP to countries in Calypso.
- **ModificationTypeCode** – This type is used to store mapping of modification types. For example, code C from SAP is mapped with action NEW in Calypso. C > NEW, D > DELETE, N & U -> AMEND.
- **Roles** – The role information from SAP is mapped with the roles present in calypso system.
- **StatusCode** – Business Partner status is mapped with Legal Entity Status.
- **AttributeNames** – Business Partner attribute name is mapped with Legal Entity attribute name.
- **AttributeValues** – Business Partner attribute value is mapped with Legal Entity attribute value.
- **SkipContactNameMapping** – This is used to skip resetting contact first name, last name and title fields when values are not sent from SAP when Calypso Value = true.
- **TemplateName** – Swift template name:  
Interface Value = <SAP template name>, example MT101C  
CalypsoValue = <Calypso template name>, example MT101

## 3.2 Mappings for General Ledger

All static mappings are provided in the calypso\_sap\_gl\_interface.properties file.

- SenderBusinessSystemID – It is the system ID of the sender of the business document.
- CompanyID – Describes the (business) nature of similar documents. It is the company code in SAP GL system.
- SetOfBooksID – A SetOfBooksID is a unique identifier for a collection of specifications structuring a body of accounting records containing all data of all positions of a balance sheet and profit and loss statement.
- TypeCode – It is a coded representation of the type of accounting document.
- OriginalEntryDocumentTypeCode – It is a coded representation of the document type that occurs in business transactions.

Mappings defined in calypso mapping window:



- CostCentreID – The posting report column name corresponding to CostCentreID should be defined in the attribute CostCenterAttribute.
- ProfitCentreID – The posting report column name corresponding to ProfitCentreID should be defined in the attribute ProfitCenterAttribute.
- FundsManagementCentreID – The posting report column name corresponding to FundsManagementCentreID should be defined in the attribute FundsCenterAttribute.
- GeneralLedgerAccountReference – Its value is determined by concatenating the values of posting report columns defined in attributes CreditAccountAttributes and DebitAccountAttributes.
- SuppressUnbalancedPostings – Set to true to remove unbalances postings.
- CreditAccountAttributes will be used to determine account reference of a credit entry and DebitAccountAttributes for a debit entry.

List of account attributes should be defined in CreditAccountAttributes and DebitAccountAttributes along with the order in which they should be concatenated to determine account reference.

- OriginalEntryDocumentID – It is a unique document id generated for postings having wash account belonging to same trade, accounting rule and effective date. For postings without wash account it is unique across each posting.
- PostingDate – It populated the posting's Booking Date.
- AccountingTransactionDate – It populates the posting's Effective Date.
- Item.ID – It is a unique identifier of an item or subitem of a document. It's format is "<DocumentID>.<SequenceNumber>'
- DebitCreditCode – The DebitCreditCode is the coded representation of the credit or debit side of an account.
- SetOfBooksCurrencyAmount – It is the transaction amount and its corresponding currency. It is rounded up to the decimals defined in its currency default definition or up to MaxDecimals configured in calypso mapping window whichever is less. Rounding is done based on rounding mode defined in currency default.
- TransactionCurrencyAmount – It is the book amount and its corresponding currency. It is rounded up to the decimals defined in its currency default definition or up to MaxDecimals configured in calypso mapping window whichever is less. Rounding is done based on rounding mode defined in currency default.

Default value for MaxDecimals is 6 as per allowed by SAP GL web service.

- AccountPropertyName, ValuesToDisplayProfitCenter, ValuesToDisplayFundsCenter, ValuesToDisplayCostCenter – See Book below.
- LocalCurrencyAmount – True to enable the LocalCurrencyAmount tag in SAP GL interface, or false otherwise.  
The LocalCurrencyAmount is the amount in Function Currency.
- SkipSameDayReversals – True to suppress same day reversals, or false otherwise.
- ImbalanceToleranceLevel - If the difference between the total debit and credit amounts is within the tolerance, the postings are adjusted of the difference. The adjustment is made in the SAP GL report only.

Example:

Interface Value = ImbalanceToleranceLevel

Calypso Value = 0.01



### 3.3 Counterparty and Swift Code Mapping

Legal Entity- Version - 0 [150013/sap/admin] — □ ×

Utilities Help

Short Name  Status

Full Name  Role(s)

Parent  ...

Country  ...

Inactive As From  User

Entered Date

External Ref

Holidays  ... ☒ Financial ☐ Non Financial

Contact Window -Version - 4 [150013/sap/admin] — □ ×

Utilities Help

Legal Entity  ...

Role  Product  ...

Contact Type  ...

Processing Org

Effective From  Effective To  Static Data Filter  ...

Trade Keyword

Last Name  First Name  Title

Address

City

State  Zip Code

Country

Phone  Telex  Fax

Swift  ... E-Mail

External Ref  Codes  ...

Comment

Id	Legal Entity	Role	Product	Type	Name	Title	Email	Phone	Fax	Telex
402	CITIBANK NY	Agent	ALL	Default	Bob Wilson	Head of US Operations		+1 212 999 0000	+1 212 999 9999	909090
401	CITIBANK NY	CounterParty	ALL	Default	Bob Wilson	Head of US Operations	CITIUS33XXX	+1 212 999 0000	+1 212 999 9999	909090

addressMethod Window 400 (CounterParty) Default-Wilson-ALL-0

Name	Value
AddressUUID	
CNPJ	
EMAIL	CITIUS33XXX
FAX	+1 212 999 9999
FS0006	
MAIL	99 xxx Avenue
SWIFT	WDFXDEXTZWE

### 3.4 Processing Org & Swift Mapping

Legal Entity- Version - 0 [150013/sap/admin]

Utilities Help

Short Name	NEWYORK	Status	Enabled
Full Name	New York Branch	Role(s)	Agent CounterParty ProcessingOrg
Parent	HEADOFFICE		
Country	UNITED STATES		
Inactive As From	User		
Entered Date			
External Ref			
Holidays		<input checked="" type="radio"/> Financial <input type="radio"/> Non Financial	

Contact Window -Version - 4 [150013/sap/admin]

Utilities Help

Legal Entity	Role	Product	Contact Type
NEWYORK	ProcessingOrg	ALL	Default

Processing Org

Effective From	Effective To	Static Data Filter	Trade Keyword
ALL			

Last Name	First Name	Title
Carter	Bill	Head of US Operations

Address	City	State	Zip Code	Country
99 xxx Avenue	NEW YORK	NY	10001	UNITED STATES

Phone	Telex	Fax
+1 212 999 0000	909090T	+1 212 999 9999

Swift	E-Mail
WDFXDEXTZWE	bill_carter@headoffice.com

External Ref	Codes

Comment: Demonstration Data

Id	Legal Entity	Role	Product	Type	Name	Title	Email	Phone	Fax
306	NEWYORK	CounterParty	ALL	Accounting	Bill Carter	Head of US Operations	bill_carter@headoffice.com	+1 212 999 0000	+1 212
1703	NEWYORK	ProcessingOrg	ALL	Accounting	Bill Carter	Head of US Operations	bill_carter@headoffice.com	+1 212 999 0000	+1 212
307	NEWYORK	Agent	ALL	Default	Bill Carter	Head of US Operations	bill_carter@headoffice.com	+1 212 999 0000	+1 212
305	NEWYORK	ProcessingOrg	ALL	Default	Bill Carter	Head of US Operations	bill_carter@headoffice.com	+1 212 999 0000	+1 212

addressMethod Window 304 (ProcessingOrg) Default-Carter-ALL-0

Name	Value
AddressUUID	
CNPJ	HEOFUS33XXX
EMAIL	bill_carter@headoffice.com
FAX	+1 212 999 9999
FS0006	
MAIL	99 xxx Avenue
SWIFT	WDFXDEXTZWE
TELEX	909090T

## 3.5 Book

Book Window - Version -0 [150013/sap/admin]

View Help

Book Id 359 Attributes ...

Name FX\_NEWYORK

Activity TRADING

Accounting Link TRADING1

Legal Entity NEWYORK

Location America/New\_York

End Of Day 23 Hour 59 Min

Base Ccy USD

Holidays NYC

Comment Demonstration Data

Name	Value
AccAdjustmentDays	
AccDateRule	
AccReversalRule	
BankingBook	
BookBundle	
CAMoneyDiff Book	
CTC Compounding	
CTC Consolidator	
CTC Offset	
CTC Role	
Can Take Positions	
DayChangeRule	
Desk	

Id	Name	Legal Entity	Location	Activity	Accounting Link	Base Currency	End Of Day Time	Comment
352	EQUITIES_GLOBAL	HEADOFFICE	America/Los_Angeles	TRADING	TRADING1	USD	2359	Demonstration Data
353	FX_GLOBAL	HEADOFFICE	America/Los_Angeles	TRADING	TRADING1	USD	2359	Demonstration Data
354	MM_GLOBAL	HEADOFFICE	America/Los_Angeles	TRADING	TRADING1	USD	2359	Demonstration Data
355	REPOS_GLOBAL	HEADOFFICE	America/Los_Angeles	TRADING	TRADING1	USD	2359	Demonstration Data
356	BONDS_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data
357	DERIVATIVE_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data
358	EQUITIES_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data
359	FX_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data
360	MM_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data
361	REPOS_NEWYORK	NEWYORK	America/New_York	TRADING	TRADING1	USD	2359	Demonstration Data

You can define the following attributes at the Book level: Cost Center, Profit Center Funds Center.

Add the following domains: bookAttribute.CostCenter, bookAttribute.ProfitCenter, bookAttribute.FundsCenter to define their possible values.

Domain Values

Reload Save Save All Constraints Setup

Q- costcenter 1 of 2 Value

bookAttribute.CostCenter

Value: 11

Comment:

<< Add Add & Save >> Remove

Domain Values

Reload Save Save All Constraints Setup

Q- profitcenter 1 of 2 Value

bookAttribute.ProfitCenter

Value: 07

Comment:

<< Add >> Remove

Domain Values

Reload Save Save All Constraints Setup

Q- bookAttribute.FundsCenter 1 of 2 Value

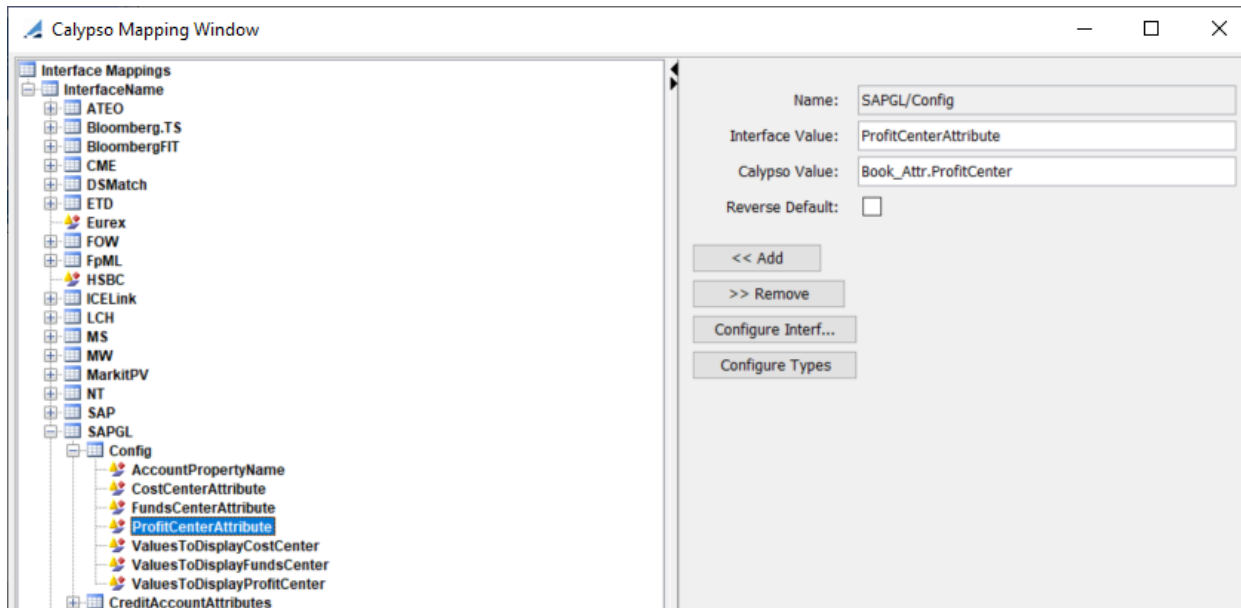
bookAttribute.FundsCenter

Value: 55

Comment:

<< Add Add & Save >> Remove

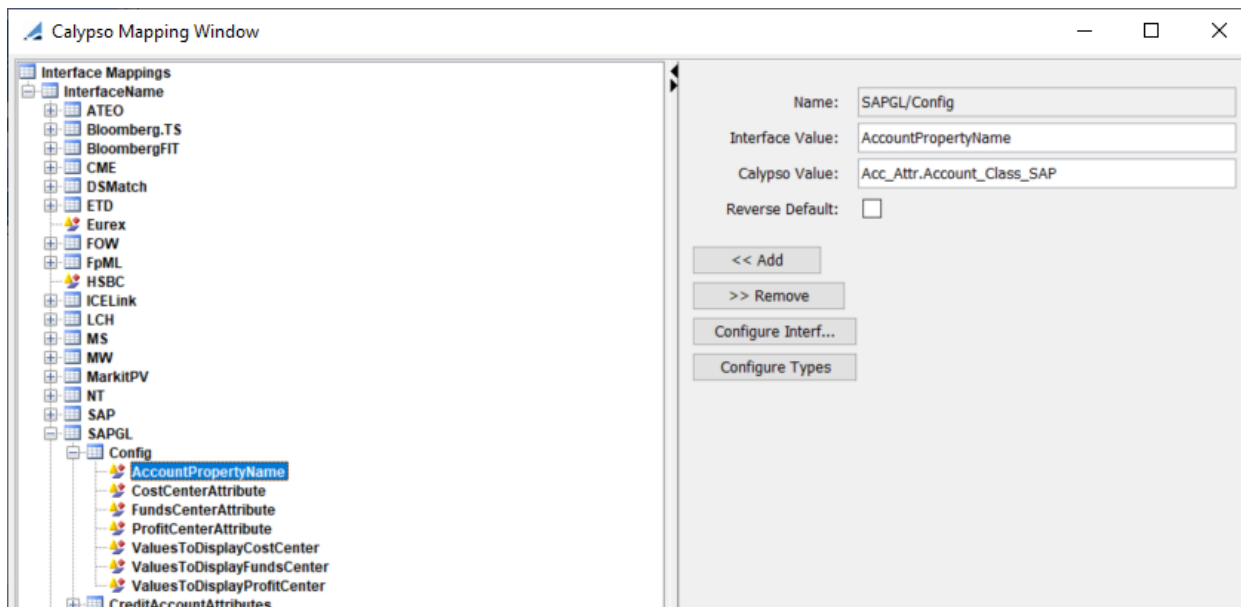
To populate these attributes, you also need to define them in the mapping table for CostCenterAttribute, FundsCenterAttribute, ProfitCenterAttribute.



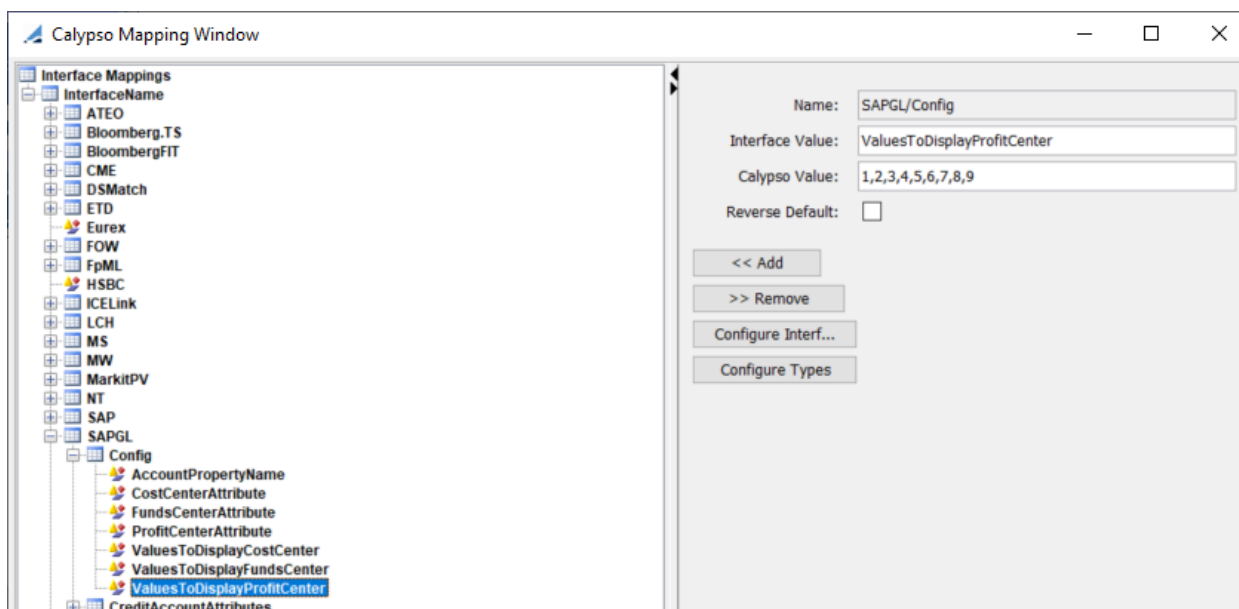
These attributes are populated by default.

If you want to setup a rule to populate these attributes, you can use the following mechanism.

You first need to define the AccountPropertyName (account attribute) to be checked in the mapping table.



The value of this account attribute is checked against the values defined in the mapping table for ValuesToDisplayProfitCenter, ValuesToDisplayFundsCenter, ValuesToDisplayCostCenter.

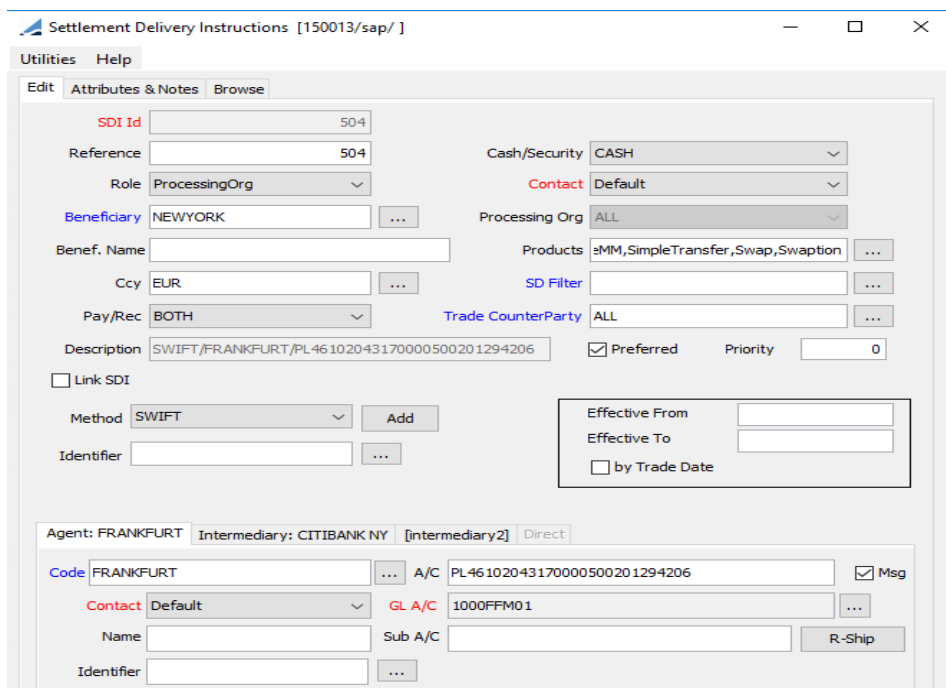


For example, if a posting has account attribute `Account_Class_SAP = 6` (present in `ValuesToDisplayProfitCenter`), then the book attribute `ProfitCenter` will be populated.

The same logic applies to `FundsCenter / ValuesToDisplayFundsCenter` and `CostCenter / ValuesToDisplayCostCenter`.

## 3.6 Settlement Delivery Instructions

Settlement Delivery Instructions are required between the Processing Organization and the Counterparty for generating the Transfers.



Agent: FRANKFURT Intermediary: CITIBANK NY [intermediary2] Direct

Code CITIBANK NY ... A/C GR2402600270000380 ☐ Msg

☒ Contact Default GL A/C

Name Sub A/C R-Ship

Identifier ...

SDI for the Counterparty.

Settlement Delivery Instructions [150013/sap/]

Utilities Help

Edit Attributes & Notes Browse

SDI Id 1338

Reference 1338

Role CounterParty

Beneficiary CITIBANK NY

Benef. Name

Ccy USD,EUR

Pay/Rec BOTH

Description SWIFT/CITIBANK NY/GR2402600270000380

☐ Link SDI

Method SWIFT Add ☐ Direct

Identifier

Cash/Security BOTH

Contact Default

Processing Org ALL

Products impleTransfer,Swap,Swaption,Bond

SD Filter

Trade CounterParty ALL

☒ Preferred Priority 0

Effective From

Effective To

☐ by Trade Date

Agent: CITIBANK NY [intermediary] [intermediary2] Direct

Code CITIBANK NY ... A/C GR2402600270000380 ☒ Msg

Contact Default GL A/C

Name Sub A/C R-Ship

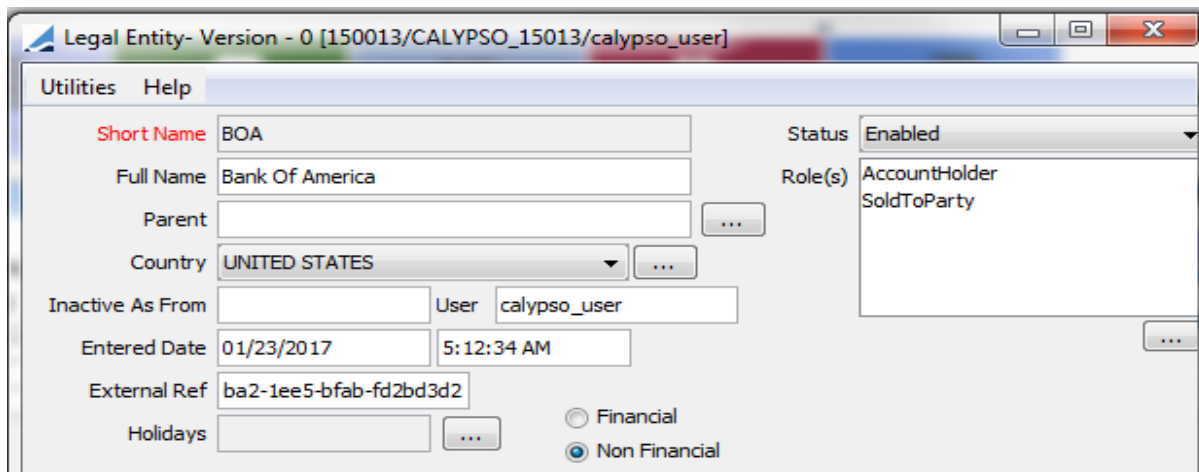
Identifier ...

# Creating Legal Entity and Relationship

## 4.1 Legal Entity Creation

On receiving the message from SAP through webservice, a Legal Entity is created in Calypso if there are no errors. Business Partner Information from SAP are mapped to the legal entity, contacts and attributes.

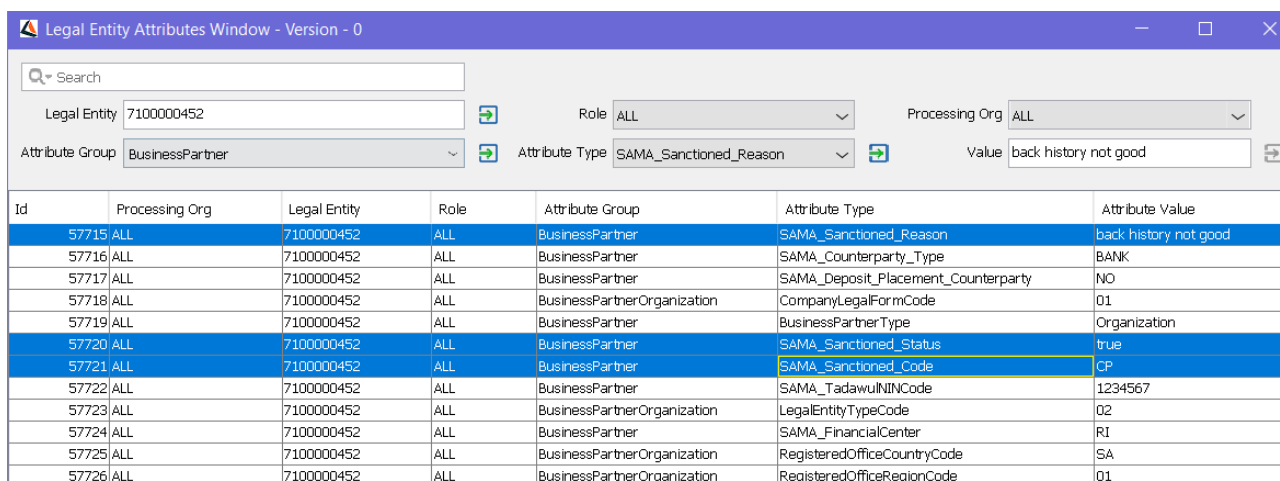
Legal Entity window



Legal entities are created as Non Financial by default. To create legal entities as Financial, the Financial industry sector codes need to be added to the domain "SAPFinancialIndustrySectorCodes" in the form Value = <IndustryClassificationSystemCode> <IndustrialSectorCode>.

Example: Value = A B

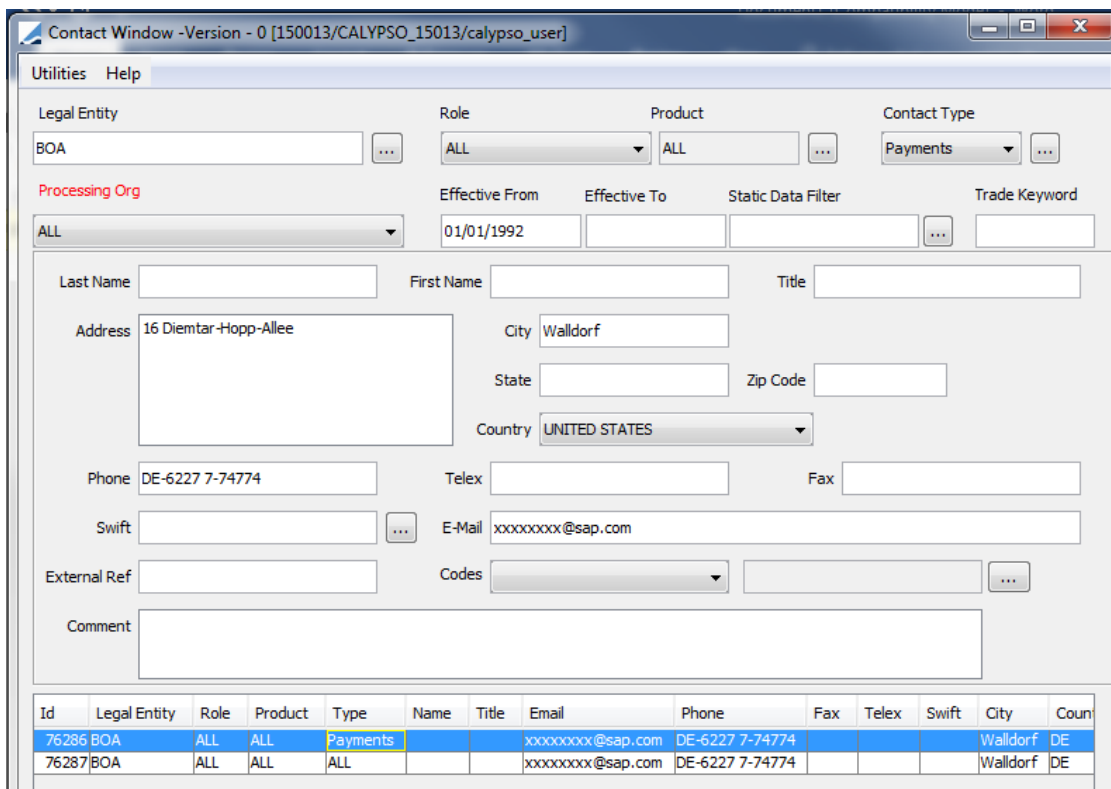
### Legal Entity Attributes



Id	Processing Org	Legal Entity	Role	Attribute Group	Attribute Type	Attribute Value
57715	ALL	7100000452	ALL	BusinessPartner	SAMA_Sanctioned_Reason	back history not good
57716	ALL	7100000452	ALL	BusinessPartner	SAMA_Counterparty_Type	BANK
57717	ALL	7100000452	ALL	BusinessPartner	SAMA_Deposit_Placement_Counterparty	NO
57718	ALL	7100000452	ALL	BusinessPartnerOrganization	CompanyLegalFormCode	01
57719	ALL	7100000452	ALL	BusinessPartner	BusinessPartnerType	Organization
57720	ALL	7100000452	ALL	BusinessPartner	SAMA_Sanctioned_Status	true
57721	ALL	7100000452	ALL	BusinessPartner	SAMA_Sanctioned_Code	CP
57722	ALL	7100000452	ALL	BusinessPartner	SAMA_TadawulININCode	1234567
57723	ALL	7100000452	ALL	BusinessPartnerOrganization	LegalEntityTypeCode	02
57724	ALL	7100000452	ALL	BusinessPartner	SAMA_FinancialCenter	RI
57725	ALL	7100000452	ALL	BusinessPartnerOrganization	RegisteredOfficeCountryCode	SA
57726	ALL	7100000452	ALL	BusinessPartnerOrganization	RegisteredOfficeRegionCode	01

### Legal Entity Contact





Utilities Help

Legal Entity: BOA Role: ALL Product: ALL Contact Type: Payments

Processing Org: ALL Effective From: 01/01/1992 Effective To: Static Data Filter: Trade Keyword:

Last Name: First Name: Title:

Address: 16 Diemtar-Hopp-Allee City: Walldorf State: Zip Code: Country: UNITED STATES

Phone: DE-6227 7-74774 Telex: Fax:

Swift: E-Mail: xxxxxxxx@sap.com

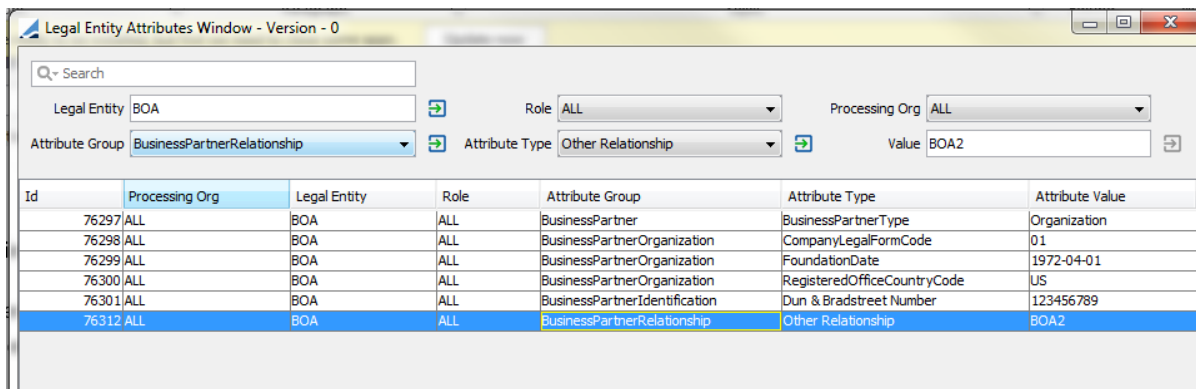
External Ref: Codes: Comment:

Id	Legal Entity	Role	Product	Type	Name	Title	Email	Phone	Fax	Telex	Swift	City	Coun
76286	BOA	ALL	ALL	Payments			xxxxxxx@sap.com	DE-6227 7-74774				Walldorf	DE
76287	BOA	ALL	ALL	ALL			xxxxxxx@sap.com	DE-6227 7-74774				Walldorf	DE

## 4.2 Business Partner Relationship

When Relationship information is received from SAP for creating new relationship between two business partners, in calypso a relationship is created and can be seen in the Legal Entity Attribute window.

The relationship can be seen in the Attribute as shown below.



Search: Legal Entity: BOA Role: ALL Processing Org: ALL

Attribute Group: BusinessPartnerRelationship Attribute Type: Other Relationship Value: BOA2

Id	Processing Org	Legal Entity	Role	Attribute Group	Attribute Type	Attribute Value
76297	ALL	BOA	ALL	BusinessPartner	BusinessPartnerType	Organization
76298	ALL	BOA	ALL	BusinessPartnerOrganization	CompanyLegalFormCode	01
76299	ALL	BOA	ALL	BusinessPartnerOrganization	FoundationDate	1972-04-01
76300	ALL	BOA	ALL	BusinessPartnerOrganization	RegisteredOfficeCountryCode	US
76301	ALL	BOA	ALL	BusinessPartnerIdentification	Dun & Bradstreet Number	123456789
76312	ALL	BOA	ALL	BusinessPartnerRelationship	Other Relationship	BOA2

Here the Legal Entity 'BOA2' is linked to 'BOA1' and the relationship between them is of type 'Other Relationship'.

## 4.3 Exception Handling in Business Partner and Relationship

Exceptions are handled using BOMessage.

After every process, we can check Message Report and Task station.

Message Report (1/23/17 5:11:27 AM)

MESSAGE_ID	DOCUMENT_EDITED	EVENT_TYPE	MESSAGE_TYPE	Sender	Sender.Role	Receiver	Receiver.Role	LANGUAGE	ORIGINAL_DATE	Msg Status	MATCHINGB	TEMPLATE_NAME	ACTION	Mt
31083		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 2:16:10.805 A...	COMPLETED			NEW	
31084		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 2:16:10.553 A...	CANCELED			CANCEL	
31085		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 2:18:26.249 A...	COMPLETED			NEW	
31086		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 2:18:26.175 A...	COMPLETED			NEW	
31087		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 2:18:56.090 A...	COMPLETED			NEW	
31088		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 2:18:56.016 A...	COMPLETED			NEW	
31089		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 2:20:11.143 A...	COMPLETED			UPDATE	
31090		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 2:20:11.101 A...	COMPLETED			COMPLETE	
31091		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 2:25:43.223 A...	COMPLETED			UPDATE	
31092		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 2:25:43.172 A...	COMPLETED			COMPLETE	
31093		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 5:12:35.622 A...	COMPLETED			NEW	
31094		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 5:12:35.437 A...	COMPLETED			NEW	
31095		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 5:21:42.725 A...	COMPLETED			NEW	
31096		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 5:21:42.692 A...	COMPLETED			NEW	
31097		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT		CALYPSO			1/23/17 5:23:51.212 A...	COMPLETED			NEW	
31098		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT		CALYPSO			1/23/17 5:23:51.169 A...	COMPLETED			NEW	

The BOMessages should be in completed state. In case of any error, the message will remain in Pending state.

For example, in the Business Partner message from SAP the role code is 'BUP009' and this role does not exist and its mapping is also not present in calypso then the SAPGATEWAYMSG will remain in pending state as shown below.

31106	0		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT	CALYPSO	ALL	1/23/17 6:11:37.629 AM EST	CANCELED			CANCEL	0
31107	0		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT	CALYPSO	ALL	1/23/17 6:13:29.776 AM EST	COMPLETED			NEW	0
31108	0		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT	CALYPSO	ALL	1/23/17 6:13:29.728 AM EST	PENDING			NEW	0

Message Viewer

Task Id	Trade Id	TradeStatus	Date & Time	Book	Task Status	Task Owner	Comment	Priority	Action Performed	Resulting Status	Cut Off Date
62111	0		1/23/17 6:13:29.752 AM EST	NEW			type=InvalidData~subtype=Item=Roles~10064=Invalid Role~value=BUP009	NORMAL	COMPLETE		
62110	0		1/23/17 6:13:29.755 AM EST	NEW			Filter UploadMessageCompleted rejects Message	NORMAL	COMPLETE		

We can reprocess this message after correcting the mapping.

Calypso Mapping Window

Interface Mappings	InterfaceName	Name	Interface Value	Calypso Value	Reverse Default
CME		SAP/Roles			
LCH			BUP009	SoldToParty	
MWV					
SAP					
BPRelationshipCategoryCode					
BusinessPartnerCategoryCode					
ContactType					
CountryCode					
IdentificationTypeCode					
ModificationTypeCode					
Roles					
BBP000					
BCA010					
BUP001					
BUP002					
BUP003					
BUP009					
StatusCode					

On reprocess the message will move to COMPLETED state and Legal Entity will be created.

31106	0		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT	CALYPSO	ALL	1/23/17 6:11:37.629 AM EST	CANCELED	
31107	0		EX_UPLOADSOURCMSG	UPLOADSOURCMSG	CLIENT	CALYPSO	ALL	1/23/17 6:13:29.776 AM EST	COMPLETED	
31108	0		EX_SAPGATEWAYMSG	SAPGATEWAYMSG	CLIENT	CALYPSO	ALL	1/23/17 6:13:29.728 AM EST	PENDING	

Action	COMPLETE
Show	REPROCESS
Process	UPDATE
Configure	CANCEL

Message Report PE: OFFICIAL (2/9/17 3:11:38 AM)

Report Data View Export Market Data Process Utilities Help

Criteria

MESSAGE_ID	Trade Id	DOCUMENT_EDITED	TRADE_UPDATE_DATETIME	Msg Status	EVENT_TYPE	Family	Product Type	MESSAGE_TYPE	Sender	Sender.Role	Sender.Contact Type	Sender.Address Code	Receiver	Receiver
31108	0			COMPLETED	EX_SAPGATEWAYMSG			SAPGATEWAYMSG	CLIENT				CALYPSO	

Now we will see a Legal Entity is created

Legal Entity Chooser [150013/CALYPSO\_15013/calypso\_user]

Include Disabled ☒

Multi Selection ☐

Short Name Like

boa

Id

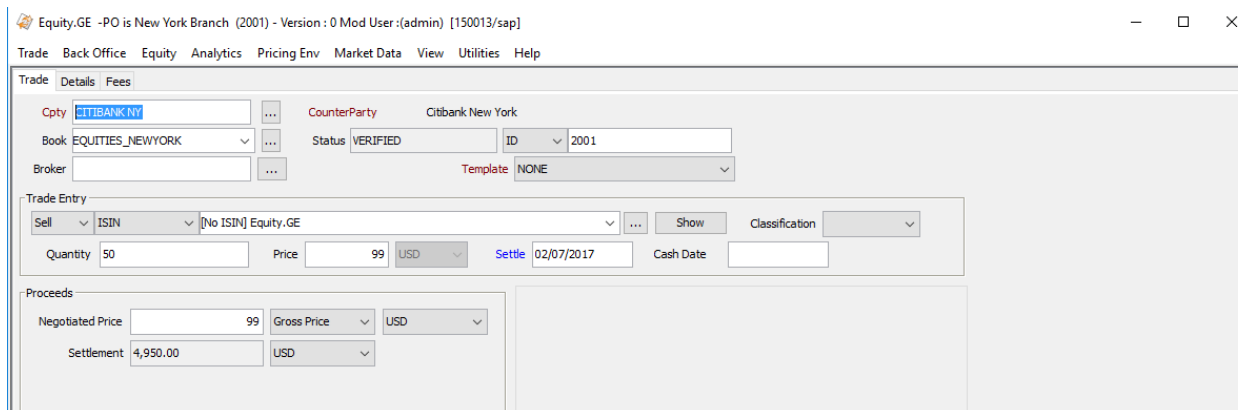
ID	Legal Entity	LE Full Name	Country	Financial	Roles
76296	BOA	Bank Of America	UNITED STATES	<input type="checkbox"/>	AccountHolder,SoldToParty

# Sending Payments

## 5.1 Create a Trade in Calypso

Trades should be created in calypso either via the Pricing Sheet or the Trade Window or via an interface like data uploader.

Once the trade is created, the Transfers are generated by the Transfer Engine.



Equity.GE -PO is New York Branch (2001) - Version : 0 Mod User :(admin) [150013/sap]

Trade Back Office Equity Analytics Pricing Env Market Data View Utilities Help

Trade Details Fees

Cpty: CITIBANK NY CounterParty: Citibank New York  
Book: EQUITIES\_NEWYORK Status: VERIFIED ID: 2001  
Broker: Template: NONE

Trade Entry

Sell ISIN [No ISIN] Equity.GE Show Classification

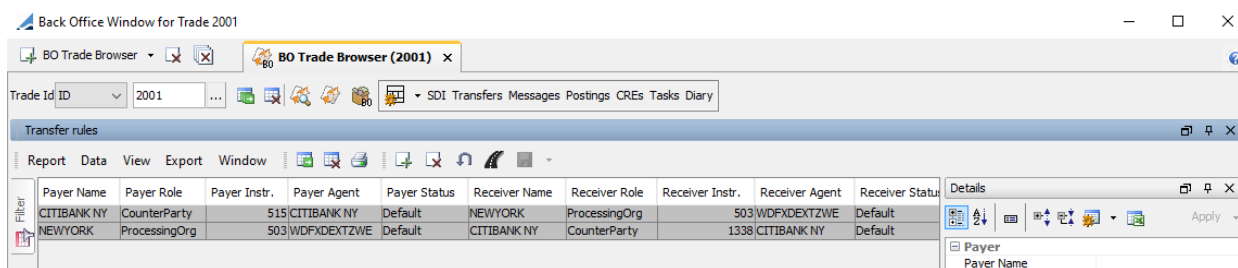
Quantity: 50 Price: 99 USD Settle: 02/07/2017 Cash Date:

Proceeds

Negotiated Price: 99 Gross Price: USD  
Settlement: 4,950.00 USD

## 5.2 Transfers are generated by Transfer Engine

SDI's of the Trade



Back Office Window for Trade 2001

BO Trade Browser BO Trade Browser (2001)

Trade ID: 2001

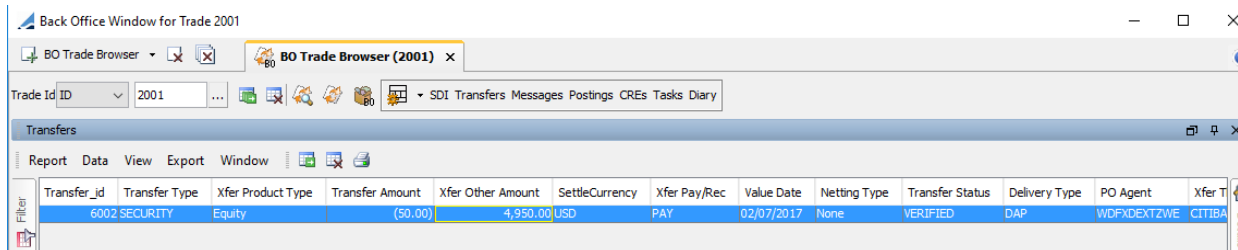
Transfer rules

Payer Name	Payer Role	Payer Instr.	Payer Agent	Payer Status	Receiver Name	Receiver Role	Receiver Instr.	Receiver Agent	Receiver Status
CITIBANK NY	CounterParty	515 CITIBANK NY	Default	NEWYORK	ProcessingOrg	503 WDFXDEXTZWE	Default		
NEWYORK	ProcessingOrg	503 WDFXDEXTZWE	Default	CITIBANK NY	CounterParty	1338 CITIBANK NY	Default		

Details

Payer Name

Transfer's of the Trade, created by Transfer Engine.



Back Office Window for Trade 2001

BO Trade Browser BO Trade Browser (2001)

Trade ID: 2001

Transfers

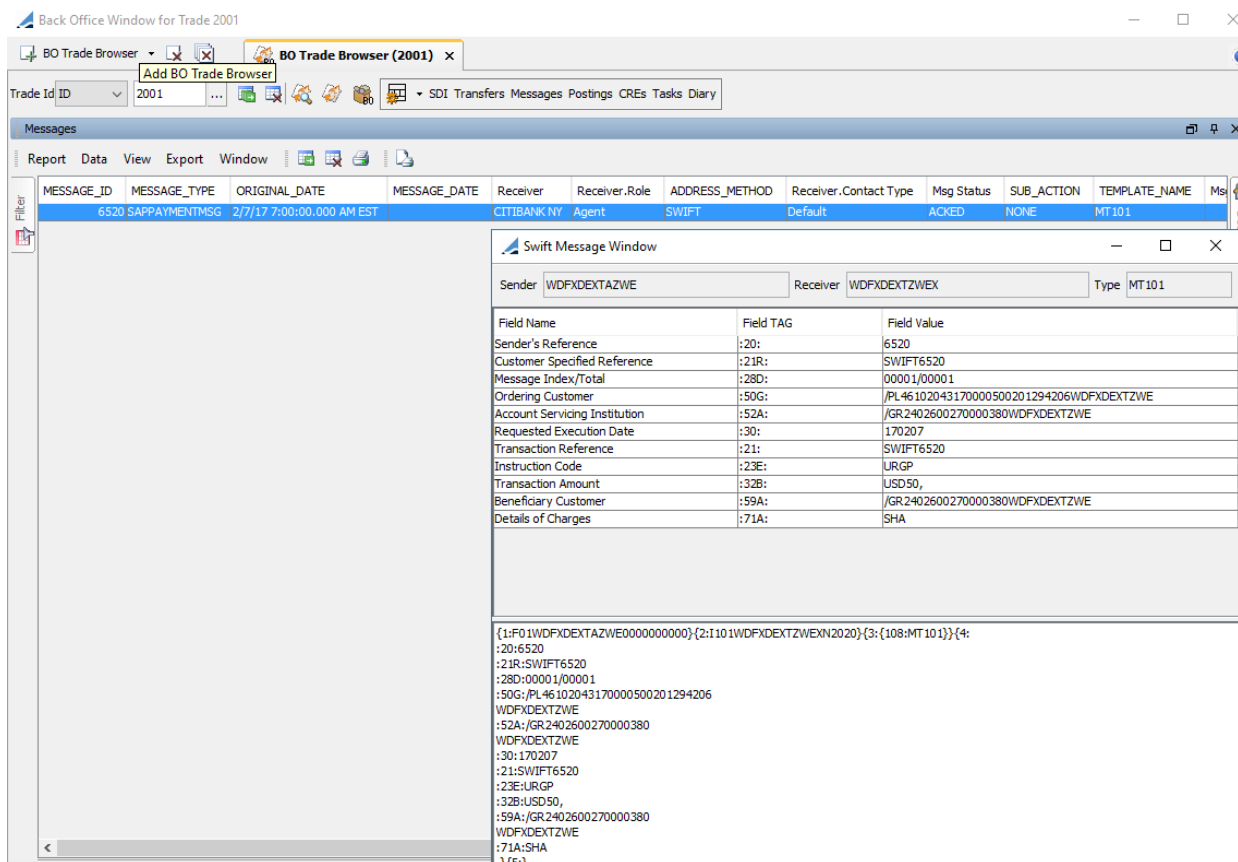
Transfer_id	Transfer Type	Xfer Product Type	Transfer Amount	Xfer Other Amount	SettleCurrency	Xfer Pay/Rec	Value Date	Netting Type	Transfer Status	Delivery Type	PO Agent	Xfer T
6002 SECURITY	Equity		(50.00)	4,950.00	USD	PAY	02/07/2017	None	VERIFIED	DAP	WDFXDEXTZWE	CITIBA

Details

## 5.3 Message SAPPAYMENTMSG sent to SAP

Messages SAPPAYMENTMSG created by Message Engine with Template as MT101.

Sender Engine sends the message to SAP via the Web-service call. SAP responds via Accept/Reject technical acknowledgement and based on the response the Message is moved to ACKED/NACKED status.



The screenshot displays the 'Back Office Window for Trade 2001' with a 'BO Trade Browser' tab. The 'Messages' section shows a table with columns: MESSAGE\_ID, MESSAGE\_TYPE, ORIGINAL\_DATE, MESSAGE\_DATE, Receiver, Receiver.Role, ADDRESS\_METHOD, Receiver.Contact Type, Msg Status, SUB\_ACTION, and TEMPLATE\_NAME. The first row shows: 6520, SAPPAYMENTMSG, 2/7/17 7:00:00.000 AM EST, CITIBANK NY, Agent, SWIFT, Default, ACKED, NONE, MT101.

The 'Swift Message Window' is open, showing details for a Swift message. The Sender is WDFXDEXTAZWE and the Receiver is WDFXDEXTZWE. The Type is MT101. The message details are as follows:

Field Name	Field TAG	Field Value
Sender's Reference	:20:	6520
Customer Specified Reference	:21R:	SWIFT6520
Message Index/Total	:28D:	00001/00001
Ordering Customer	:50G:	/PL46102043170000500201294206WDFXDEXTZWE
Account Servicing Institution	:52A:	/GR2402600270000380WDFXDEXTZWE
Requested Execution Date	:30:	170207
Transaction Reference	:21:	SWIFT6520
Instruction Code	:23E:	URGP
Transaction Amount	:32B:	USD50,
Beneficiary Customer	:59A:	/GR2402600270000380WDFXDEXTZWE
Details of Charges	:71A:	SHA

The Swift message payload is shown below the details:

```
{1:F01WDFXDEXTAZWE0000000000}{2:I101WDFXDEXTZWE170207}{3:{108:MT101}}{4:
:20:6520
:21R:SWIFT6520
:28D:00001/00001
:50G:/PL46102043170000500201294206
WDFXDEXTZWE
:52A:/GR2402600270000380
WDFXDEXTZWE
:30:170207
:21:SWIFT6520
:23E:URGP
:32B:USD50,
:59A:/GR2402600270000380
WDFXDEXTZWE
:71A:SHA
-15:}
```

## 5.4 SAP Confirms the Payment by sending MT900

SAP Responds with Final Confirmation by Sending MT900 message to Calypso.

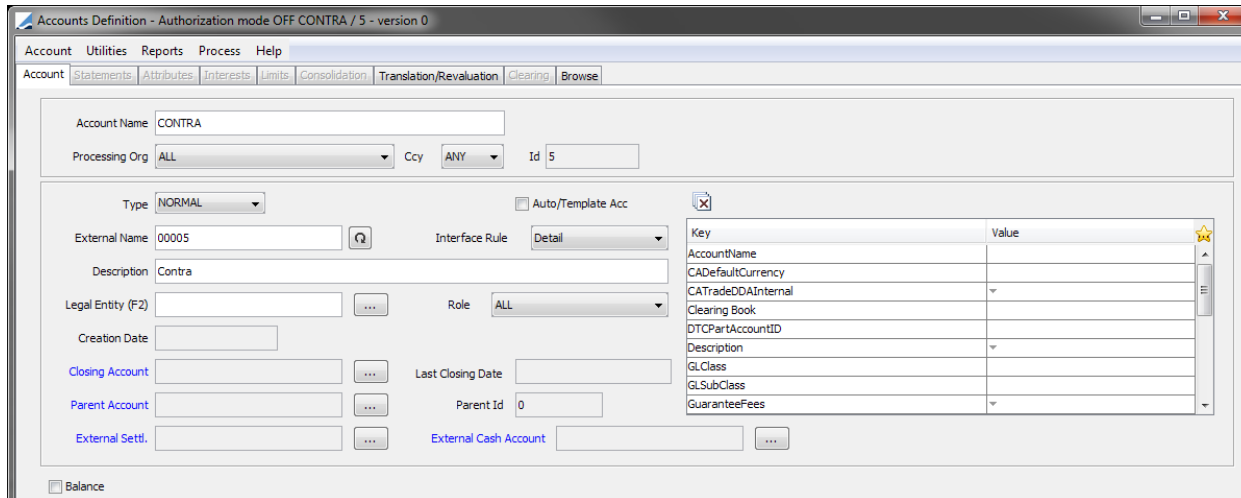
A BO Message SAPCONFIRMMSG is created with payload as MT900 message.



# Sending Postings to SAP GL

## 6.1 Account Mapping with Trading Book

Define an account with external name as SAP identified account.



Accounts Definition - Authorization mode OFF CONTRA / 5 - version 0

Account Utilities Reports Process Help

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Clearing Browse

Account Name: CONTRA

Processing Org: ALL Ccy: ANY Id: 5

Type: NORMAL Auto/Template Acc: ☐

External Name: 00005 Interface Rule: Detail

Description: Contra

Legal Entity (F2): ... Role: ALL

Creation Date: ...

Closing Account: ... Last Closing Date: ...

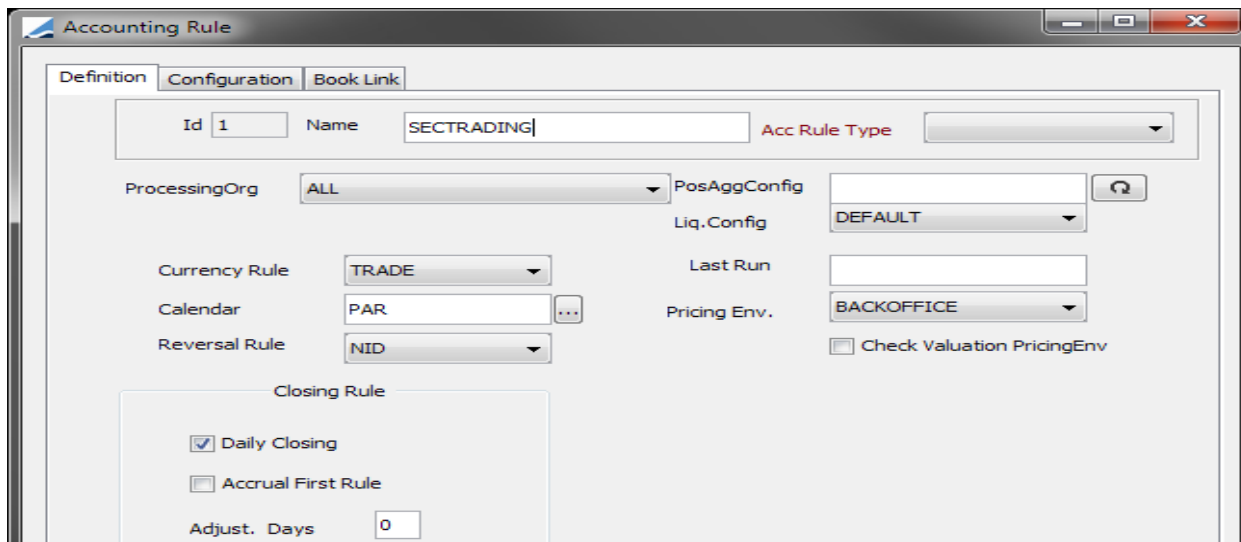
Parent Account: ... Parent Id: 0

External Settl.: ... External Cash Account: ...

☐ Balance

Key	Value
AccountName	
CADefaultCurrency	
CATradeDDAInternal	
Clearing Book	
DTCPartAccountID	
Description	
GLClass	
GLSubClass	
GuaranteeFees	

Link account with an accounting rule



Accounting Rule

Definition Configuration Book Link

Id: 1 Name: SECTRADING Acc Rule Type: ...

ProcessingOrg: ALL PosAggConfig: ...

Liq.Config: DEFAULT

Currency Rule: TRADE Last Run: ...

Calendar: PAR Pricing Env.: BACKOFFICE

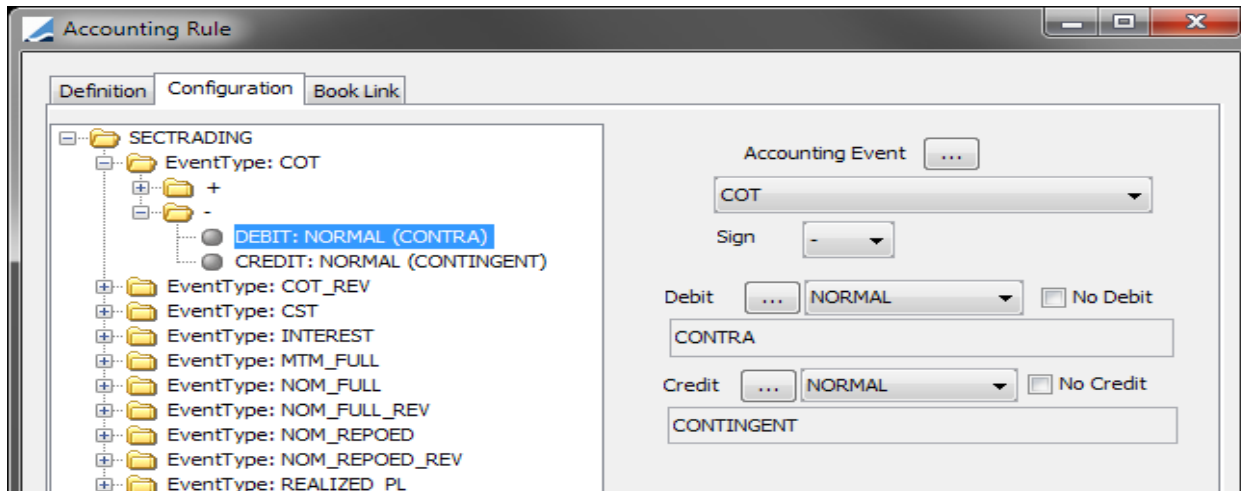
Reversal Rule: NID ☐ Check Valuation PricingEnv

Closing Rule

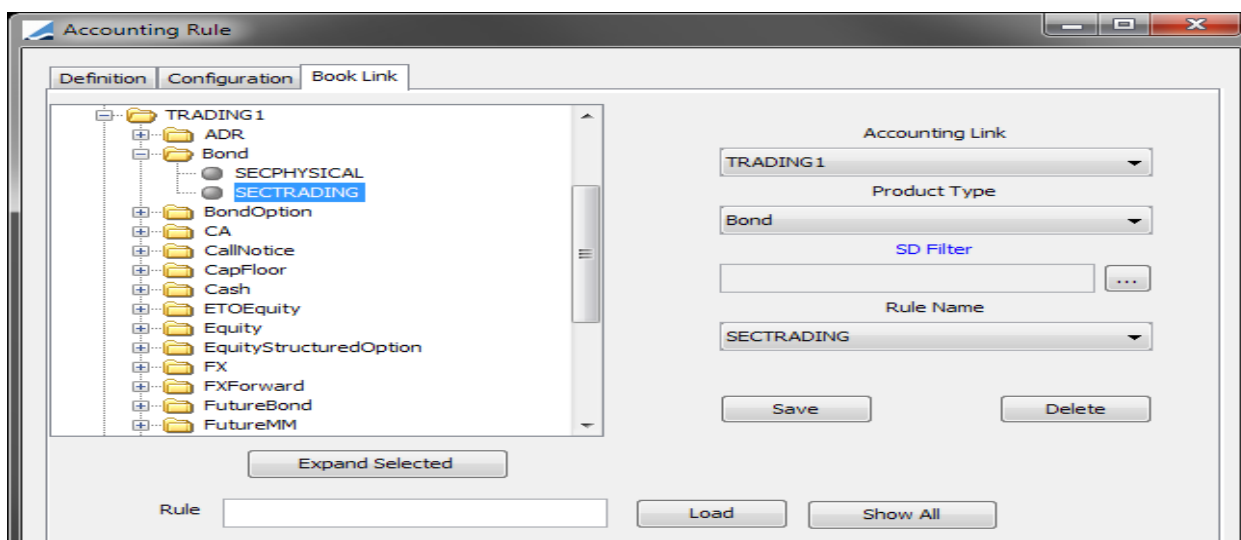
☒ Daily Closing

☐ Accrual First Rule

Adjust. Days: 0

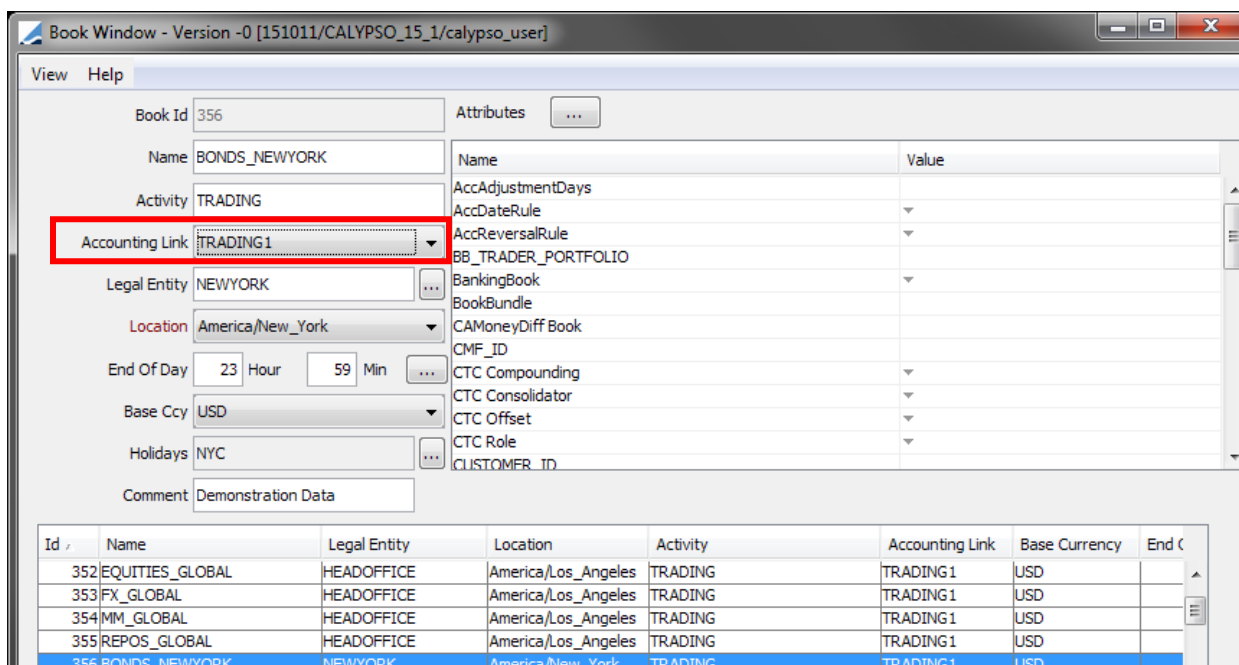


Add the defined rule in the accounting link



Update accounting link to the trading book

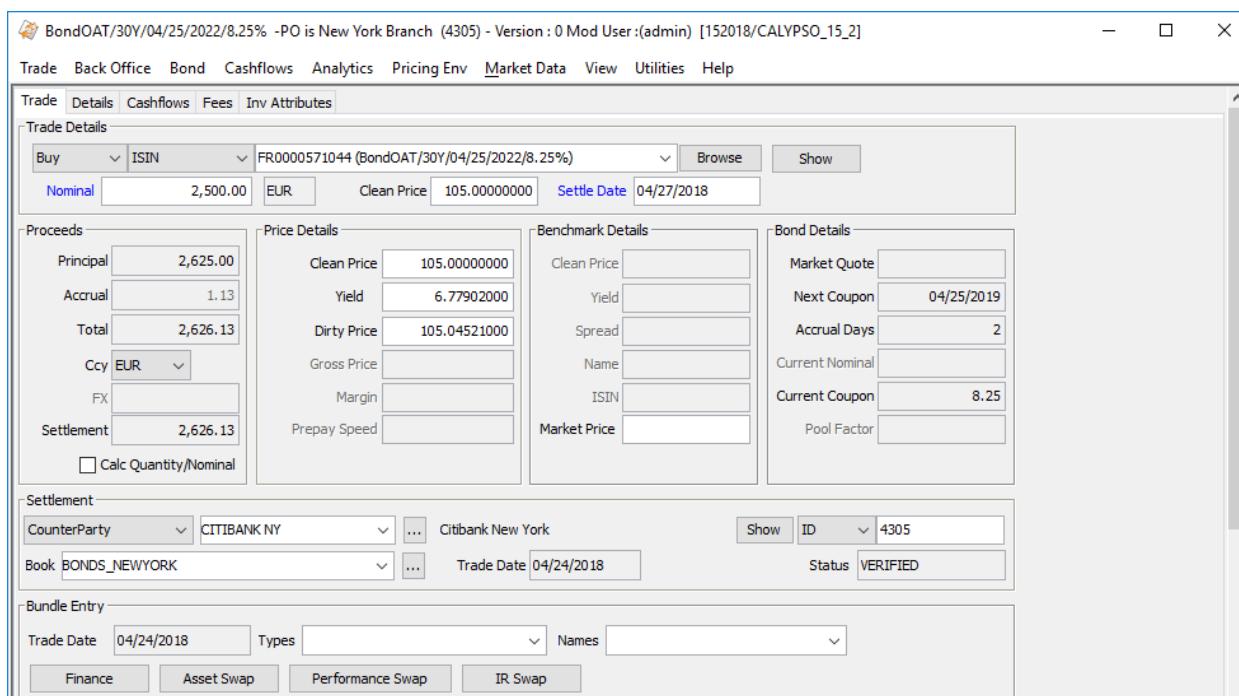




## 6.2 Create a Trade in Calypso

Trades should be created in calypso either via the Pricing Sheet or the Trade Window or via an interface like data uploader.

Once the trade is created, the Postings are generated by the Accounting Engine.



Trade with Wash Account posting

StructuredFlows - PO is Calypso New York (113572) - Version : 0 Mod User : (admin) [15/02/2024/bialloca]

Trade Back Office StructuredFlows Cashflows Analytics Pricing Env Market Data View Utilities Help

Trade Details Fees Cashflows Resets Inv Attributes

Copy CITIBANK CounterParty Status VERIFIED Trade ID 113572

Book Test\_MM Broker Templ. NONE

☐ Cancellable

BUY Exp Dt Expiry Time

European Del Dt 1 D Bus Fee as per... USD

Product Details

Product SubType	Standard
Collateral Type	
Direction	Receive
Principal Disbursement	Schedule
First Payment Date	
Revolving	<input type="checkbox"/>
Open Term	
Leg Type	Fixed
Start Date	29/06/2018
Maturity Date	30/07/2018
Currency	USD
Principal	1,000,000
Amortization	Bullet
Actual Principal Exchange	Initial, Amort, Final
Fixed Rate (%)	2
Compounding Type	None
Coupon Frequency	ZC
Payment Day Count	ACT/360
Payment Date Roll	FOLLOWING
Custom Rolling Day	
Effective Reset on reset date	<input type="checkbox"/>
Select Settlement Currency	USD
Additional Rounding Attributes	
Stubs	

Reports

Cashflow Report

Report Data View

Reconventions

Type	Date	Effective Date	Exercise Type
No data was found based on criteria			

Strip Swap

MarketData Pricer Params Results Pricer Override Market Data Item Override

DIS USD.FEDFUNDS.ID.MC/USD/R/CLOSE 21/05/18 23:00:00.000 o'clock BST

## 6.3 Postings are Generated by Accounting Engine

SDI's of the Trade

Processing Org SDI

Settlement Delivery Instructions [15/2018/CALYPSO\_15\_2/]

Utilities Help Asset Management

Edit Attributes & Notes Browse

SDI Id 504

Reference 504

Role ProcessingOrg

Beneficiary NEWYORK

Benef. Name

Ccy EUR

Pay/Rec BOTH

Description SWIFT/FRANKFURT/PL46102043170000500201294206

☐ Link SDI

Method SWIFT Add

Identifier

Cash/Security CASH

Contact Default

Processing Org ALL

Products tion,Bond,BondAssetBacked,Equity

SD Filter

Trade CounterParty ALL

☒ Preferred Priority 0

Effective From

Effective To

☐ by Trade Date

Agent: FRANKFURT Intermediary: CITIBANK NY [Intermediary2] Direct

Code FRANKFURT A/C PL46102043170000500201294206 ☒ Msg

Contact Default GL A/C 1000FFM01

Name Sub A/C R-Ship

Identifier

Counterparty SDI

Settlement Delivery Instructions [152018/CALYPSO\_15\_2/]

Utilities Help Asset Management

Edit Attributes & Notes Browse

SDI Id 1338

Reference 1338

Role CounterParty

Beneficiary CITIBANK NY

Benef. Name

Ccy USD,EUR

Pay/Rec BOTH

Description SWIFT/CITIBANK NY/GR2402600270000380

☐ Link SDI

Method SWIFT Add

Identifier

Cash/Security BOTH

Contact Default

Processing Org ALL

Products tion,Bond,BondAssetBacked,Equity

SD Filter

Trade CounterParty ALL

☒ Preferred Priority 0

☐ Direct

Effective From

Effective To

☐ by Trade Date

Agent: CITIBANK NY Intermediary: CITIBANK NY [intermediary2] Direct

Code CITIBANK NY A/C GR2402600270000380 ☒ Msg

Contact Default GL A/C

Name Sub A/C

Identifier

R-Ship

## Generated postings

Back Office Window for Trade 4305

BO Trade Browser BO Trade Browser (4305)

Trade ID 4305

SDI Transfers Messages Postings CREs Tasks Diary

Liquidation

Trade Id	Product Description	First Trade Id	Second Trade Id	Liquidation Type	Liquidation Quantity	Nominal	First Price	First Accrual	Second Price	Second Accrual	Liquidation Date	Realized	Effective Date
1548	COT	04/24/2018	NEW	2,626.13	EUR	CONTRA	CONTINGENT	VERIFIED_TRADE	04/24/2018	VERIFIED	4/24/18 3:41:08.440 PM IST		
1549	COT_REV	04/27/2018	NEW	2,626.13	EUR	CONTINGENT	CONTRA	VERIFIED_TRADE	04/27/2018	VERIFIED	4/24/18 3:35:42.330 PM IST		
1550	NOM_FULL	04/27/2018	NEW	2,626.13	EUR	POSITION		VERIFIED_TRADE	04/27/2018	VERIFIED	4/24/18 3:35:42.330 PM IST		
1551	CON_SEC_VERIFIED	04/24/2018	NEW	2,500.00	EUR			VERIFIED_SEC_RECEIPT	04/24/2018	VERIFIED	4/24/18 3:35:43.020 PM IST	STOCK	
1552	CST	04/27/2018	NEW	2,626.13	EUR		1000PFM01	VERIFIED_PAYMENT	04/27/2018	VERIFIED	4/24/18 3:35:43.116 PM IST		

Postings

Posting Id	Event Type	Effective Date	Posting Type	Amount	Posting Currency	DebitAccount	CreditAccount	Original Event	Booking Date	TradeStatus	Posting Update Time	Rule Type
1548	COT	04/24/2018	NEW	2,626.13	EUR	CONTRA	CONTINGENT	VERIFIED_TRADE	04/24/2018	VERIFIED	4/24/18 3:41:08.440 PM IST	
1549	COT_REV	04/27/2018	NEW	2,626.13	EUR	CONTINGENT	CONTRA	VERIFIED_TRADE	04/27/2018	VERIFIED	4/24/18 3:35:42.330 PM IST	
1550	NOM_FULL	04/27/2018	NEW	2,626.13	EUR	POSITION		VERIFIED_TRADE	04/27/2018	VERIFIED	4/24/18 3:35:42.330 PM IST	
1551	CON_SEC_VERIFIED	04/24/2018	NEW	2,500.00	EUR			VERIFIED_SEC_RECEIPT	04/24/2018	VERIFIED	4/24/18 3:35:43.020 PM IST	STOCK
1552	CST	04/27/2018	NEW	2,626.13	EUR		1000PFM01	VERIFIED_PAYMENT	04/27/2018	VERIFIED	4/24/18 3:35:43.116 PM IST	

## Generated postings with WashAccount

Trade Id ID 113572 ... SDI Transfers Messages Postings CREs Tasks Diary

Postings

Report Data View Export Window

AGGREGATION	Posting Id	Posting Linked Id	Accounting Rule	Event Type	Effective Date	Original Event	Transfer_id	Posting Type	Amount	Posting Other Amount	Posting Currency	DebitAccount	CreditAccount
BOTradePosting													
29/06/2018													
PRINCIPAL_LOAN(841250)	841250		0 Loans & Deposits	PRINCIPAL_LOAN	29/06/2018	VERIFIED_TRADE	0 NEW		1,000,000.00	-1,000,000.00	USD	Loan Asset	Wash account
COT(841253)	841253		0 Loans & Deposits	COT	29/06/2018	VERIFIED_TRADE	0 NEW		1,000,000.00	-1,000,000.00	USD	Contingent Asset	Contingent Contra Asset
COT_REV(841254)	841254		0 Loans & Deposits	COT_REV	29/06/2018	VERIFIED_TRADE	0 NEW		1,000,000.00	-1,000,000.00	USD	Contingent Contra Asset	Contingent Asset
CST_NET(841255)	841255		0 Loans & Deposits	CST_NET	29/06/2018	SETTLED_PAYMENT	430216 NEW		1,000,000.00	-1,000,000.00	USD	Wash account	PO NOSTRO Account
30/07/2018													
PRINCIPAL_LOAN(841251)	841251		0 Loans & Deposits	PRINCIPAL_LOAN	30/07/2018	VERIFIED_TRADE	0 NEW		1,000,000.00	1,000,000.00	USD	Wash account	Loan Asset
INTEREST(841252)	841252		0 Loans & Deposits	INTEREST	30/07/2018	VERIFIED_TRADE	0 NEW		1,722.22	1,722.22	USD	Wash account	Interest Income
CST_NET(841256)	841256		0 Loans & Deposits	CST_NET	30/07/2018	SETTLED_RECEIPT	430217 NEW		1,001,722.22	1,001,722.22	USD	PO NOSTRO Account	Wash account

## 6.4 Exporting - Scheduled Task SAP\_GL\_REPORT

This Scheduled task uploads the Posting Report Data to the SAP GL service.

This task uses a Posting report template to select postings to be sent to SAP.

The scheduled task uses the following attributes.

### Common Attributes

Attribute	Description
Valuation Date Offset	Offset is added in the valuation date

### Task Attributes

Attribute	Description
REPORT TEMPLATE NAME	Select Posting report template.
REPORT FOLDER	Enter the name of the folder where the report is generated – Example C:\SAPGL.
REPORT FILE NAME	Set the prefix for the output file name.
TIMESTAMP FILENAME	Select true to append the valuation date and time to the file name, or false otherwise. If you run the same report multiple times during a given day, earlier reports will be overridden.
TIMESTAMP FORMAT	Only applies if "TIMESTAMP FILENAME" is true. Enter the format of the timestamp. By default, the format is: MM-dd-yyyy or dd-MM-yyyy (depending on the locale).
TRANSPORT TYPE	Select one of the following options:

Attribute	Description
	<ul style="list-style-type: none"> <li>test - This option is for testing purposes. Postings are not updated but a sample output report is generated for verification purposes.</li> <li>manual - This option generates a report locally that will be sent manually.</li> <li>webservice - This option generates a report and sends it to SAP via webservice.</li> </ul>
PROXY TYPE	DIRECT or PROXY (Please set this flag to proxy in case of proxy connection)
RE-SEND POSTINGS	Flag to indicate already reported postings to be resent.
REPORT DATE	Select the reference date to load the postings: EFFECTIVE DATE or BOOKING DATE.

### Grouping Logic

To handle Liquidation scenario, postings having same Book ID, Underling Product ID and Effective date are sent across one SAP document.

To handle Rollover cases, postings having same Original Trade ID, Product ID and Effective date are sent across one SAP document.

To handle repo products, postings having same Trade ID, Book ID and Effective Date are sent across one SAP document.

Mirror Trades: Postings related to mirror trades are sent as one document where key is original Trade ID, mirror Trade ID and Effective Date.

Trade Level: For the rest of the cases postings having same Trade ID, Product ID and Effective Date are sent across one SAP document.

## 6.4.1 Proxy Server Parameters

The SAP GL interface supports a proxy-based connection. It is configurable on the scheduled task window via the "Proxy Type" attribute as shown in the below screenshot:



As shown in the screenshot it has two modes: DIRECT/PROXY.

DIRECT == represents a direct connection, or absence of proxy.

PROXY == represents a proxy using the HTTP protocol.

Besides above parameter, we need define the following proxy parameters in the calypso release environment properties to do a connection via proxy:

- HTTP\_PROXY\_HOST
- HTTP\_PROXY\_PORT
- HTTP\_PROXY\_USER (Optional)
- HTTP\_PROXY\_PASSWORD (Optional)

- HTTP\_PROXY\_DOMAIN (Optional)

The requests will be routed via the proxy server to SAP webservice if the above parameters are configured.

Task Attributes	
REPORT TEMPLATE NAME	SAP_GL_Posting_Template
REPORT FOLDER	D:\Output\SAP
REPORT FILE NAME	SAP
TIMESTAMP FILENAME	true
TIMESTAMP FORMAT	yyyyMMddHHmmss
TransportType	webservice
Proxy Type	DIRECT
Resend Postings	false

The valuation date time of the task is considered as process date of the report.

Valuation Datetime Selector

**Valuation Datetime Selector**  
Please specify date and time to use as the valuation datetime to use to execute this scheduled task.

☒ Use Valuation Time from Configuration (Uses valuation-time from individual tasks configuration)

Valuation Datetime: 04/24/2018  
4/24/18 7:31:14.000 AM EDT

Run Cancel

## 6.4.2 Verifying Task Execution

Executed scheduled task can be verified from the Execution Report and Task Station for details.

The task station is populated with the related message id. This message id can be used to verify the status of the request sent to SAP GL.

Calypso Scheduled Tasks

Execution Report Task and Schedule Configuration Progress Log

**Scheduled Task Execution Report**  
This report provides access to the results of all previously executed scheduled tasks with access to underlying logs where available.

Advanced Search

From: 04/23/2018 3:39:07 PM To: 04/24/2018 11:59:59 PM Valuation Date Time - From: To:

Trade Filter: Type: Status: success, finished wit Task ID: Search by ID's

Pricing Env: Processing Org: Description:

Run Task Stop Task View Log Excel HTML

Status	External Ref.	Task ID	Task Type	Parent Task	Trade Filter	Processing Org	Valuation Time	Valuation Timezone	Execution Time	Duration (sec)	End Time	SLA	SLA Time (min)	Avg Time (sec)
✓ success	EXT_SAP_1	1001	SAP_GL_REPORT				4/24/18 3:40:00 PM IST	Asia/Calcutta	4/24/18 3:40:50 PM IST	20	4/24/18 3:41:10 PM IST	Passed	5	15

Task Station/admin/admin

Configure Apply Status Priority Action Inspect Utilities Find Help

From: 04/24/2018 Date Type: TaskDatetime Event Class: Trade ID: LoadRef: Local filter: None

To: 04/24/2018 Time Zone: Asia/Calcutta Load Process Free Pass Over Complete

SAP GL [1]

From 04/24/2018 To 04/24/2018

Task Id	Trade Id	Status	Date & Time	Book	Task Status	Task Owner	Comment	Priority	User Comment	Object Id	Object Class Name
17071	0		4/24/18 3:40:59.537 PM IST		NEW		ScheduledTask 1001:	NORMAL		1001	ScheduledTaskSAP_GL_REPOR

## 6.5 Postings are Updated with Attribute

Postings that are successfully sent to the SAP GL web service will be updated with attribute SentToSAPGL = true. If updatePostingStatus property is set in the property file, then postings are updated to SENT status as well when they are successfully sent.

Posting Report (4/24/18 5:29:21 PM) / SAP-GL Template

Report Data View Export Market Data Edit Utilities Help

Criteria

Template Description  ☐ Matching Only ☐ Manual Only ☐ Balance Updated ☐ Balance Not Updated ☐ Conversion

Effective Start 04/24/2018 End 04/24/2018 Debit OR Credit

Creation Start End Ccy EUR Type

Booking Start End Rule Type Event COT

Sent Start End Xfer Id Security

Updated Start End Subtype CounterParty

Trade ID Filter Set Xfer Attributes Book

Account Debit Attributes Credit Attributes ProcessingOrg

Accounting Link Attribute Name Value Bundle Id

Posting Id Status Relationship Id

Posting Id	Trade Id	Event Type	Posting Description	Amount	Posting Currency	Posting Type	Attributes	DebitAccount	External DebitAccount	CreditAccount	External CreditAccount	Posting Linked Id	Original
1548	4305 COT	Contingent on Trade Date	2,626.13 EUR	NEW	(SentToSAPGL=true)	CONTRA	ORGL00005	CONTINGENT	ORGL00004			0 VERIFIED	

# Flow and Exception Handling

The following explains the communication flow between Calypso & SAP systems.

Integration Type	SAP System	Flow	Frequency	Connectivity	Web Service Hosted
Business Partner	Customer Relationship Management (SAP - CRM)	Incoming	Intraday Batches	Asynchronous Web service	Calypso
Payments	Payment Engine (SAP - PE)	Bi-directional	Real-time	Asynchronous Web service	Calypso & SAP
General Ledger	Enterprise Core Component (SAP - ECC)	Outgoing	Intraday Batches	Asynchronous Web service	SAP

## 7.1 Business Partner - Flow & Exception Handling

- Business Object like a Business Partner / Relationship is created in the CRM system.
- SAP sends a message via Web service to Calypso.
- Technical Ack related to reliable messaging is sent back to SAP. This indicates only that the message is received but does not reveal any information about processing of the message.
- Calypso processes every such message via a workflow. Upon successful validation Legal Entity is updated in Calypso. For failures appropriate error is highlighted in Calypso Task Station along with a link to the incoming message.
- Calypso Operations team is required to monitor the Task Station and take appropriate action based on the errors, this may include reaching out to SAP team.

## 7.2 Payment Integration - Flow & Exception Handling

- Transfers are generated in Calypso for any payment related to a trade.
- Calypso processes transfers identified for SAP and generates MT101 message, this is sent to SAP via a web-service.
- SAP sends a Technical Ack that the message is received by SAP.
- Calypso then updates the status of the message as SENT. If there is a failure in sending the message its status is not updated to SENT.
- SAP processes the payment and then sends a payment confirmation (MT900) that the Payment is Processed. Calypso then updates the Transfer as SETTLED.
- Calypso sends a technical ACK/NACK in response to processing of incoming MT900/910 message from SAP.



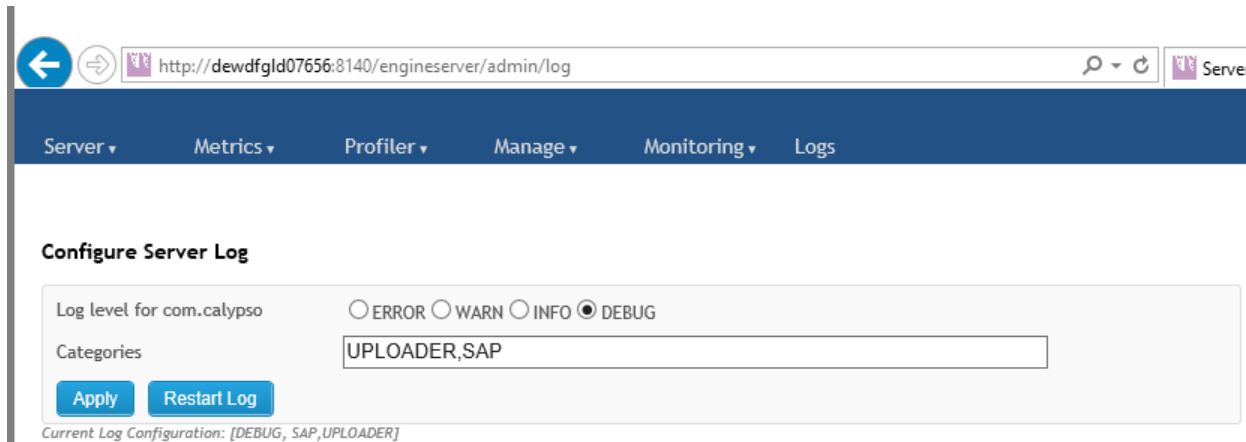
- If the payment is not processed for any reason, Calypso does not receive any acknowledgement, and the Payment status remains as SENT.
- Example: Calypso submits a Debit Request, but the account is not enabled for Debit, such a request cannot be processed by SAP and SAP will not be able to process that request. Transfer remains in SENT status.
- Calypso Operations team require to monitor the transfers and ensures that all transfers are SETTLED.

## 7.3 GL Integration - Flow & Exception Handling

- Postings (Credit/Debit entries) are generated in Calypso as per configuration.
- Calypso collects all the postings and sends them as a message to SAP via a Web Service (WSRM).
- SAP sends back a technical acknowledgement indicating that the message is received by SAP.
- For the case when the web service is hosted through SAP PO system no response or acknowledgement is sent by SAP. Calypso assumes in this case postings are successfully reported to SAP.
- Calypso updates all the postings to SENT status.
- Any Errors while processing the Postings in SAP should be reviewed by the SAP Operations Team.
- Calypso Operations team should reconcile the postings with the SAP and make sure the Postings are processed.

# Troubleshooting

The following are the categories that should be enabled for logging.



← → http://dewdfgld07656:8140/engineserver/admin/log 🔍 ↻ Server

Server ▾ Metrics ▾ Profiler ▾ Manage ▾ Monitoring ▾ Logs

### Configure Server Log

Log level for com.calypso ☐ ERROR ☐ WARN ☐ INFO ☒ DEBUG

Categories

Apply Restart Log

Current Log Configuration: [DEBUG, SAP, UPLOADER]

# Release Notes

## 9.1 Changes in Version 1.2.0

- SAP-35 - Internal minor enhancement.

## 9.2 Changes in Version 1.2.1

- SAP-41 - Add SSL support for SOAP messages in SAP

## 9.3 Changes in Version 1.2.2

- SAP-27 - Support SAP GL Integration

## 9.4 Changes in Version 1.3.1

- SAP-47 (HD 164298) – Enhancements to SAP GL integration:
  - Generate DocumentID attribute for each posting.
  - For postings of a trade with wash account it should be processed by GL Interface and netted into a single SAP document having multiple debit/credit entries.
  - Reporting reversal postings to SAP.
  - Determine GL account reference info from account attributes.
- SAP-49 (HD 166381) - Add support for specific attributes in SAP Business Partner service and save them as Legal Entity attributes.

## 9.5 Changes in Version 1.3.2

- SAP-74 (HD 172062) - SAP GL scheduled task fails to run when date format is dd/MM/yyyy.  
It is now responsive to the locale.
- SAP-78 (HD 172291) - SAP GL scheduled task is appending the webservice name to the End Point URL.  
Only the property 'webservice.url' is now used for the URL and not 'webservice.name'.  
If the webservice name is needed in the URL, it must be added to the 'webservice.url' property.

## 9.6 Changes in Version 1.3.3

- SAP-81 (HD 174746) - GL Task fails when RM Protocol is not enabled at server side.  
Added configuration 'wsrmEnabled' in SAP GL property file to enable/disable WS-RM protocol on client side.

Made WSA and WSRM namespace configurable from SAP GL property file.

## 9.7 Changes in Version 1.3.5

- SAP-100 (HD 180511) – Wrong Values for Cost and Profit Center: SAP GL Interface.  
Added support to display profit center, cost center and funds center based on account property and its value configured in Calypso Mapping window.
- SAP-97 (HD 180405) – The confirmation message that Calypso sends back as a response for the incoming MT900/910 will now have the MessageId.
- SAP-88 (HD 179477) – The posting status will be updated to SENT once the postings are sent and acknowledgement is received.
- SAP-95 (HD 179480) – Addressed the issue with web service URL concatenation.

## 9.8 Changes in Version 1.3.6

- SAP-83 (HD 174746) - GL Task fails when RM Protocol is not enabled at server side.  
Additional fix.

## 9.9 Changes in Version 1.3.7

Version	Component	HelpDesk	Issue	Type	Description
1.3.7	SAP	182646	SAP-116	Enh	Issue – Scheduled Task SAP_GL_REPORT generates GL file with more than 6 decimals. Fix - Made changes to round posting amount sent to SAP GL service based on currency default definition.  Added calypso mapping MaxDecimals to configure maximum decimals allowed for posting amount send to SAP GL. Default value is 6.
1.3.7	SAP	182647	SAP-114	Issue	Issue - Scheduled Task SAP_GL_REPORT resend option is omitting reversal postings. The reversals should be sent.
1.3.7	SAP	182528	SAP-110	Issue	Issue - SAP PE is sending response even when the incoming message is not processed in Calypso.  Fix - Made changes to send NACK response with Rejected status when incoming payment confirmation message is not processed.

Version	Component	HelpDesk	Issue	Type	Description
1.3.7	SAP	182527	SAP-108	Issue	Issue - Scheduled Task SAP_GL_REPORT throws Null Pointer Exception.  Fix - Code re-factoring to prevent run time exceptions in GL interface.

## 9.10 Changes in Version 1.3.8

Version	Component	HelpDesk	Issue	Type	Description
1.3.8	SAP		SAP-133	Issue	Issue – Imported msg remains in CREATED status when MT900 has O900 in BLOCK2.
1.3.8	SAP		SAO-131	Issue	Issue – When incoming MT900/910 has alphanumeric value in tag 20, it is rejected. It should be created.  Fix - Corrected SAP interface behavior to handle alphanumeric reference id corresponding to payment confirmation message sent from SAP.
1.3.8	SAP	183658	SAP-126	Enh	Issue – By default, legal entities are created as Non Financial.  Fix – Financial industry sector codes need to be added to the domain “SAPFinancialIndustrySectorCodes” in the form Value = <IndustryClassificationSystemCode> <IndustrialSectorCode>. Example: Value = A B
1.3.8	SAP	183470	SAP-124	Enh	Issue – When the name of the MT101 template is customized, the incoming MT900 does not find the MT101 message.  Fix – The system is now handling the customization of the MT101 template name provided it contains the string “MT101”. Example “MT101SAP”.
1.3.8	SAP		SAP-119	Issue	Issue – SOAP response msg does not include <ID> when receiving ACTC.  Fix - Corrected response message corresponding to payment confirmation message in SAP interface.

## 9.11 Changes in Version 1.3.9

Version	Component	HelpDesk	Issue	Type	Description
1.3.9	SAP	184001	SAP-136	Issue	<p>Issue – PartyIdentifierTypeCode tag should set all contact types defined in domain “IdentificationContactType”.</p> <p>Fix - Changed SAP business partner interface behavior to support multiple contact types in domain “IdentificationContactType”.</p>

## 9.12 Changes in Version 1.3.10

Version	Component	HelpDesk	Issue	Type	Description
1.3.10	SAP	186813	SAP-145	Enh	<p>Issue – SAP GL Scheduled Task is updating attributes and status without transporting the Payload to GL.</p> <p>Fix - Added transport type 'test' in SAP GL scheduled task which can be used for testing purposes.</p>
1.3.10	SAP	185558	SAP-141	Enh	<p>Issue - Posting ID is not populated in SAP GL Report.</p> <p>Fix - Changes made to populate Note tag in AccountingDocument with Document ID and Posting ID.</p>

## 9.13 Changes in Version 1.3.11

Version	Component	HelpDesk	Issue	Type	Description
1.3.11	SAP	186904	SAP-152	Enh	<p>Issue - Parent Child mapping between SAP BP and Calypso LE.</p> <p>Fix - Changes made in business partner relationship to provide support with updated short name and external reference mapping.</p> <p>Added domain “leAttributeGroup.ParentChildRelationship” to determine BPRelationshipCategoryCode for which parent child relation should be established.</p> <p>Added support for file “BusinessPartnerRelationship.xml” which includes:</p>

Version	Component	HelpDesk	Issue	Type	Description
					<p>&lt;InternalID&gt;&lt;FirstBusinessPartner&gt; is the parent</p> <p>&lt;InternalID&gt;&lt;SecondBusinessPartner&gt; is the child</p>
1.3.11	SAP	186830 186331	SAP-150	Enh	<p>Issue - Mapping of SAP BP's ID and Calypso's External Reference to be modified.</p> <p>Fix - Updated Business Partner mapping with calypso Legal Entity.</p> <p>Mapped identification type code CalypsoShortName to legal entity short name.</p> <p>Mapped Business Partner InternalID to legal entity external reference.</p>

## 9.14 Changes in Version 1.3.12

Version	Component	HelpDesk	Issue	Type	Description
1.3.12	SAP	188625	SAP-161	Issue	<p>Issue – Wrong Mapping in SAP GL Interface for PostingDate.</p> <p>Fix - Corrected PostingDate mapping to Booking Date.</p>
1.3.12	SAP	187589	SAP-158	Enh	<p>Issue – Add ability to generate postings on effective date or booking date.</p> <p>Fix - Added REPORT DATE attribute to the scheduled task SAP_GL_REPORT to configure report generation based on EFFECTIVE DATE or BOOKING DATE.</p> <p>Default is EFFECTIVE DATE.</p> <p>For reference, the effective date is set to SAP's AccountingTransactionDate and the booking date is set to SAP's PostingDate.</p>

## 9.15 Changes in Version 1.3.13

Version	Component	HelpDesk	Issue	Type	Description
1.3.13	SAP	188827	SAP-166	Issue	<p>Issue – Amendment file not getting processed successfully and LE remains in PENDING status.</p>

Version	Component	HelpDesk	Issue	Type	Description
1.3.13	SAP	186904	SAP-153	Enh	<p>Issue - Parent Child mapping between SAP BP and Calypso LE.</p> <p>Fix - Changes made in business partner relationship to provide support with updated short name and external reference mapping.</p> <p>Added domain "leAttributeGroup.ParentChildRelationship" to determine BPRelationshipCategoryCode for which parent child relation should be established.</p> <p>Added support for file "BusinessPartnerRelationship.xml" which includes:</p> <p>&lt;InternalID&gt;&lt;FirstBusinessPartner&gt; is the parent</p> <p>&lt;InternalID&gt;&lt;SecondBusinessPartner&gt; is the child</p>

## 9.16 Changes in Version 1.3.14

Version	Component	HelpDesk	Issue	Type	Description
1.3.14	SAP	189929	SAP-177	Enh	<p>Issue – Unbalanced posting at the DOCUMENT ID Level.</p> <p>Fix - Introduced SuppressUnbalancedPostings mapping config in Calypso Mapping table. You can set it to true to remove unbalances postings.</p>
1.3.14	SAP	189990	SAP-175	Issue	Issue – The legal entity short name is not getting updated properly.

## 9.17 Changes in Version 1.3.15

Version	Component	HelpDesk	Issue	Type	Description
1.3.15	SAP	189684	SAP-183	Issue	<p>Issue – When amending existing contacts, new contacts are created instead of existing contacts being updated.</p> <p>Fix - Corrected handling of legal entity contacts received from SAP Business Partner.</p>



Version	Component	HelpDesk	Issue	Type	Description
1.3.15	SAP	186904	SAP-181	Issue	<p>Issue – Child's role changes from 'Financial' to 'Non-Financial' when processing relationship requests.</p> <p>Fix - Corrected financial details update in child legal entity in case of BusinessPartnerRelationship request send from SAP.</p>

## 9.18 Changes in Version 1.3.16

Version	Component	HelpDesk	Issue	Type	Description
1.3.16	SAP	191766	SAP-192	Issue	<p>Issue – When address fields are modified on a business partner, the SWIFT code disappears from the contact.</p> <p>Fix - Corrected behavior of SAP business partner interface to update SWIFT codes correctly in LE contacts.</p>
1.3.16	SAP	191725	SAP-190	Issue	<p>Issue – When SAP sends all the roles defined in a Business Partner to Calypso, the upload process fails in case one of the roles is not mapped in Calypso. Such roles should be ignored instead.</p> <p>Fix - Changes made in SAP business partner interface to ignore incoming roles from SAP which do not have any mapping defined in calypso mapping window.</p>

## 9.19 Changes in Version 2.0.0

Version	Component	HelpDesk	Issue	Type	Description
2.0.0	SAP		SAP-195	Enh	Issue – Upgrade Dozer library to version 6.5.0.
2.0.0	SAP	191766	SAP-191	Issue	<p>Issue – When address fields are modified on a business partner, the SWIFT code disappears from the contact.</p> <p>Fix - Corrected behavior of SAP business partner interface to update SWIFT codes correctly in LE contacts.</p>
2.0.0	SAP	191725	SAP-189	Issue	Issue – When SAP sends all the roles defined in a Business Partner to Calypso, the upload

Version	Component	HelpDesk	Issue	Type	Description
					<p>process fails in case one of the roles is not mapped in Calypso. Such roles should be ignored instead.</p> <p>Fix - Changes made in SAP business partner interface to ignore incoming roles from SAP which do not have any mapping defined in calypso mapping window.</p>
2.0.0	SAP	189684	SAP-182	Issue	<p>Issue – When amending existing contacts, new contacts are created instead of existing contacts being updated.</p> <p>Fix - Corrected handling of legal entity contacts received from SAP Business Partner.</p>
2.0.0	SAP	186904	SAP-180	Issue	<p>Issue – Child's role changes from 'Financial' to 'Non-Financial' when processing relationship requests.</p> <p>Fix - Corrected financial details update in child legal entity in case of BusinessPartnerRelationship request send from SAP.</p>
2.0.0	SAP	189929	SAP-176	Enh	<p>Issue – Unbalanced posting at the DOCUMENT ID Level.</p> <p>Fix - Introduced SuppressUnbalancedPostings mapping config in Calypso Mapping table. You can set it to true to remove unbalances postings.</p>
2.0.0	SAP	189990	SAP-174	Issue	<p>Issue – The legal entity short name is not getting updated properly.</p>
2.0.0	SAP	188827	SAP-165	Issue	<p>Issue – Amendment file not getting processed successfully and LE remains in PENDING status.</p>
2.0.0	SAP	188625	SAP-160	Issue	<p>Issue – Wrong Mapping in SAP GL Interface for PostingDate.</p> <p>Fix - Corrected PostingDate mapping to Booking Date.</p>
2.0.0	SAP	187589	SAP-157	Enh	<p>Issue – Add ability to generate postings on effective date or booking date.</p> <p>Fix - Added REPORT DATE attribute to the scheduled task SAP_GL_REPORT to configure report generation based on EFFECTIVE DATE or BOOKING DATE.</p> <p>Default is EFFECTIVE DATE.</p>

Version	Component	HelpDesk	Issue	Type	Description
					For reference, the effective date is set to SAP's AccountingTransactionDate and the booking date is set to SAP's PostingDate.
2.0.0	SAP	186904	SAP-151	Enh	<p>Issue - Parent Child mapping between SAP BP and Calypso LE.</p> <p>Fix - Changes made in business partner relationship to provide support with updated short name and external reference mapping.</p> <p>Added domain "leAttributeGroup.ParentChildRelationship" to determine BPRelationshipCategoryCode for which parent child relation should be established.</p> <p>Added support for file "BusinessPartnerRelationship.xml" which includes:</p> <p>&lt;InternalID&gt;&lt;FirstBusinessPartner&gt; is the parent</p> <p>&lt;InternalID&gt;&lt;SecondBusinessPartner&gt; is the child</p>
2.0.0	SAP	186830 186331	SAP-149	Enh	<p>Issue - Mapping of SAP BP's ID and Calypso's External Reference to be modified.</p> <p>Fix - Updated Business Partner mapping with calypso Legal Entity.</p> <p>Mapped identification type code CalypsoShortName to legal entity short name.</p> <p>Mapped Business Partner InternalID to legal entity external reference.</p>
2.0.0	SAP	186813	SAP-144	Enh	<p>Issue – SAP GL Scheduled Task is updating attributes and status without transporting the Payload to GL.</p> <p>Fix - Added transport type 'test' in SAP GL scheduled task which can be used for testing purposes.</p>
2.0.0	SAP	185558	SAP-140	Enh	<p>Issue - Posting ID is not populated in SAP GL Report.</p> <p>Fix - Changes made to populate Note tag in AccountingDocument with Document ID and Posting ID.</p>

Version	Component	HelpDesk	Issue	Type	Description
2.0.0	SAP	184001	SAP-135	Issue	<p>Issue – PartyIdentifierTypeCode tag should set all contact types defined in domain “IdentificationContactType”.</p> <p>Fix - Changed SAP business partner interface behavior to support multiple contact types in domain “IdentificationContactType”.</p>
2.0.0	SAP		SAP-132	Issue	<p>Issue – Imported msg remains in CREATED status when MT900 has O900 in BLOCK2.</p>
2.0.0	SAP		SAO-130	Issue	<p>Issue – When incoming MT900/910 has alphanumeric value in tag 20, it is rejected. It should be created.</p> <p>Fix - Corrected SAP interface behavior to handle alphanumeric reference id corresponding to payment confirmation message sent from SAP.</p>
2.0.0	SAP	183658	SAP-125	Enh	<p>Issue – By default, legal entities are created as Non Financial.</p> <p>Fix – Financial industry sector codes need to be added to the domain “SAPFinancialIndustrySectorCodes” in the form Value = &lt;IndustryClassificationSystemCode&gt; &lt;IndustrialSectorCode&gt;.</p> <p>Example: Value = A B</p>
2.0.0	SAP	183470	SAP-123	Enh	<p>Issue – When the name of the MT101 template is customized, the incoming MT900 does not find the MT101 message.</p> <p>Fix – The system is now handling the customization of the MT101 template name provided it contains the string “MT101”. Example “MT101SAP”.</p>
2.0.0	SAP		SAP-118	Issue	<p>Issue – SOAP response msg does not include &lt;ID&gt; when receiving ACTC.</p> <p>Fix - Corrected response message corresponding to payment confirmation message in SAP interface.</p>
2.0.0	SAP	182646	SAP-115	Enh	<p>Issue – Scheduled Task SAP_GL_REPORT generates GL file with more than 6 decimals.</p> <p>Fix - Made changes to round posting amount sent to SAP GL service based on currency default definition.</p>

Version	Component	HelpDesk	Issue	Type	Description
					Added calypso mapping MaxDecimals to configure maximum decimals allowed for posting amount send to SAP GL. Default value is 6.
2.0.0	SAP	182647	SAP-113	Issue	Issue - Scheduled Task SAP_GL_REPORT resend option is omitting reversal postings. The reversals should be sent.
2.0.0	SAP	182528	SAP-109	Issue	Issue - SAP PE is sending response even when the incoming message is not processed in Calypso.  Fix - Made changes to send NACK response with Rejected status when incoming payment confirmation message is not processed.
2.0.0	SAP	182527	SAP-107	Issue	Issue - Scheduled Task SAP_GL_REPORT throws Null Pointer Exception.  Fix - Code re-factoring to prevent run time exceptions in GL interface.
2.0.0	SAP	178136	SAP-103	Enh	Issue - Creation of auto trade while processing of MT900/MT910 message.  Fix - Added support to process incoming MT900/910 message and create a corresponding trade when its related reference does not exist in calypso.
2.0.0	SAP	180511	SAP-99	Enh	Issue - Wrong Values for Cost and Profit Center: SAP GL Interface.  Fix - Added support to display profit center, cost center and funds center based on account property and its value configured in Calypso Mapping window.
2.0.0	SAP	180405	SAP-96	Issue	Issue - The confirmation message that Calypso sends back as a response for the incoming MT900/910 will now have the MessageId.
2.0.0	SAP	179480	SAP-94	Issue	Issue – Addressed the issue with web service URL concatenation.
2.0.0	SAP	179477	SAP-87	Issue	Issue - The posting status will be updated to SENT once the postings are sent and acknowledgement is received.
2.0.0	SAP	174746	SAP-80	Enh	Issue - GL Task fails when RM Protocol is not enabled at server side.

Version	Component	HelpDesk	Issue	Type	Description
					Fix - Added configuration 'wsrmEnabled' in SAP GL property file to enable/disable WS-RM protocol on client side.  Made WSA and WSRM namespace configurable from SAP GL property file.
2.0.0	SAP	172291	SAP-77	Enh	Issue - SAP GL scheduled task is appending the webservice name to the End Point URL.  Fix - Only the property 'webservice.url' is now used for the URL and not 'webservice.name'.  If the webservice name is needed in the URL, it must be added to the 'webservice.url' property.
2.0.0	SAP	172062	SAP-73	Issue	Issue - SAP GL scheduled task fails to run when date format is dd/MM/yyyy.  It is now responsive to the locale.
2.0.0	SAP	166381	SAP-59	Enh	Issue - Add support for specific attributes in SAP Business Partner service and save them as Legal Entity attributes.

## 9.20 Changes in Version 2.0.1

Version	Component	HelpDesk	Issue	Type	Description
2.0.1	SAP	192707	SAP-203	Issue	Issue – If all roles are removed from a BP, the Calypso LE moves to Disabled status. If role are added back to the BP, the Calypso LE should move to Pending status but it remains in Disabled status.  Fix - Made changes to amend disabled legal entity when create request is received from SAP business partner.
2.0.1	SAP	192860	SAP-201	Enh	Issue – There is no password encryption for SAP interfaces.  Fix - Added encryption validation for passwords in SAP property files for passwords encrypted using the TEA algorithm.

## 9.21 Changes in Version 2.0.2

Component	HelpDesk	Issue	Type	Description
SAP 2.0.2	193884	SAP-211	Issue	<p>Issue – Mapping between SAP BP and Calypso for the First Name, Last Name, and Title fields is incorrect as these fields are not provided in case of Organization business partner. They should not override manual updates.</p> <p>Added - Added flag SkipContactNameMapping in Calypso Mapping window to skip resetting of contact first name, last name and title fields when values are not sent from SAP when Calypso Value = true.</p>
SAP 2.0.2	192707	SAP-208	Issue	<p>Issue – Role issue when disabled LE is enabled from SAP.</p> <p>Fix - Corrected SAP Business Partner interface behavior to set roles only from incoming roles when disabled LE is enabled from SAP.</p>

## 9.22 Changes in Version 2.0.3

Component	HelpDesk	Issue	Type	Description
SAP 2.0.3	195212	SAP-215	Issue	<p>Issue – Revert changes done in SAP-203 and SAP-208.</p> <p>Fix - LE is not disabled when its last role is removed from SAP BP instead the request is rejected and a task is created in Task Station.</p>

## 9.23 Changes in Version 2.1.1

Component	HelpDesk	Issue	Type	Description
SAP 2.1.1	193494	SAP-221	Enh	<p>Issue - Imbalance postings are reported to SAP in GL Payload.</p> <p>Fix – The logic to group postings in a SAP document has been modified as described below:</p> <p>To handle Liquidation scenario, postings having same Book ID, Underling Product ID and Effective date are sent across one SAP document.</p> <p>To handle Rollover cases, postings having same Original Trade ID, Product ID and Effective date are sent across one SAP document.</p>

Component	HelpDesk	Issue	Type	Description
				<p>To handle repo products, postings having same Trade ID, Book ID and Effective Date are sent across one SAP document.</p> <p>Mirror Trades: Postings related to mirror trades are sent as one document where key is original Trade ID, mirror Trade ID and Effective Date.</p> <p>Trade Level: For the rest of the cases postings having same Trade ID, Product ID and Effective Date are sent across one SAP document.</p>
SAP 2.1.1	196525	SAP-218 SAP-227	Issue	Issue – Parsing error when sending MT message over SOAP as CDATA is not encapsulated within SOAP Envelope.
SAP 2.1.1	195212 192707	SAP-214	Issue	<p>Issue – Role issue when disabled LE is enabled from SAP.</p> <p>Fix - LE is not disabled when its last role is removed from SAP BP instead the request is rejected and a task is created in Task Station.</p>
SAP 2.1.1	193884	SAP-210	Issue	<p>Issue – Mapping between SAP BP and Calypso for the First Name, Last Name, and Title fields is incorrect as these fields are not provided in case of Organization business partner. They should not override manual updates.</p> <p>Fix - Added flag SkipContactNameMapping in Calypso Mapping window to skip resetting of contact first name, last name and title fields when values are not sent from SAP when Calypso Value = true.</p>
SAP 2.1.1	192860	SAP-200	Enh	<p>Issue – There is no password encryption for SAP interfaces.</p> <p>Fix - Added encryption validation for passwords in SAP property files for passwords encrypted using the TEA algorithm.</p>

## 9.24 Changes in Version 2.1.2

Component	HelpDesk	Issue	Type	Description
SAP 2.1.2	198151	SAP-236	Issue	<p>Issue - GL payload does not consider backdated postings.</p> <p>Fix – The start date specified in the template is now taken into account if any.</p>



Component	HelpDesk	Issue	Type	Description
SAP 2.1.2	00002678	SAP-234	Enh	<p>Issue – Add tag LocalCurrencyAmount to GL payload.</p> <p>Fix - Added LocalCurrencyAmount tag and provided configuration in Calypso Mapping window to enable/disable this tag in SAP GL interface.</p> <p>Name = SAPGL/Config</p> <p>Interface Value = LocalCurrencyAmount</p> <p>Calypso Value = true to enable the LocalCurrencyAmount tag, or false otherwise</p>
SAP 2.1.2	00001581	SAP-231	Enh	<p>Issue - Add mapping for the Swift template name.</p> <p>Fix – Added the following mapping:</p> <p>Interface = SAP/TemplateName</p> <p>Interface Value = &lt;SAP template name&gt;, example MT101C</p> <p>CalypsoValue = &lt;Calypso template name&gt;, example MT101</p>

## 9.25 Changes in Version 2.1.3

Component	HelpDesk	Issue	Type	Description
SAP 2.1.3	00001644	SAP-240	Enh	<p>Issue - Avoid sending same Day Reversal Postings in SAP GL.</p> <p>Fix – Added support to suppress same day reversals based on configuration of SkipSameDayReversals in Calypso Mapping window.</p> <p>Name = SAPGL/Config</p> <p>Interface Value = SkipSameDayReversals</p> <p>Calypso Value = true to suppress same day reversals, or false otherwise</p>

## 9.26 Changes in Version 2.1.4

Component	HelpDesk	Issue	Type	Description
SAP 2.1.4	00003872	SAP-244	Issue	<p>Issue - SAP interfaces (PE) is failing while using SSL setup.</p>

## 9.27 Changes in Version 2.1.5

Component	HelpDesk	Issue	Type	Description
SAP 2.1.5	00003924	SAP-248	Issue	<p>Issue - SAPGATEWAY message gets stuck in REPROCESSING status and does not move to COMPLETED status even after correcting the errors in the configuration.</p> <p>Fix - Corrected SAP BP behavior for reprocessing in case of translation errors.</p>

## 9.28 Changes in Version 2.1.6

Component	HD/Case	Issue	Type	Description
SAP 2.1.6	00005440	SAP-260	Issue	<p>Issue - The SAP_GL_REPORT Scheduled Task looks at the Posting Type instead of Original Event FX_REVALUATION when generating the payload.</p>

## 9.29 Changes in Version 2.1.7

Component	HD/Case	Issue	Type	Description
SAP 2.1.7	00009161	SAP-274	Issue	<p>Issue - Extra space and comma are added when BP Street/House number is stored in Calypso LE address.</p>
SAP 2.1.7	00009463	SAP-276	Enh	<p>Issue - Add "ValueDate" tag to each line in GL Posting report.</p> <p>Fix – Added &lt;ValueDate&gt; tag populated with the Booking Date to the GL Posting report,</p>

## 9.30 Changes in Version 2.1.8

Component	HD/Case	Issue	Type	Description
SAP 2.1.8	00012089	SAP-285	Issue	<p>Issue - SWIFT contact is not getting propagated to all contact types.</p> <p>Fix – Removed filtering logic based on domain "IdentificationContactType" so that SWIFT code is populated across all contacts.</p>

### 9.31 Changes in Version 2.1.9

Component	HD/Case	Issue	Type	Description
SAP 2.1.9	00020859	SAP-296	Enh	<p>Issue - The Payload generated by the SAP GL interface has an imbalance of a few cents between the total debit and credit amounts.</p> <p>Fix – Added "ImbalanceToleranceLevel" mapping. If the difference between the total debit and credit amounts is within the tolerance, the postings are adjusted of the difference. The adjustment is made in the SAP GL report only.</p> <p>Mapping example:</p> <p>Name = SAPGL/Config</p> <p>Interface Value = ImbalanceToleranceLevel</p> <p>Calypso Value = 0.01</p>

### 9.32 Changes in Version 2.1.10

Component	HD/Case	Issue	Type	Description
SAP 2.1.10	00020859	SAP-321	Issue	<p>Issue - ArrayOutOfBounds error when running SAPGL scheduled task.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper – Adjusting empty checks.</p>

### 9.33 Changes in Version 2.1.11

Component	HD/Case	Issue	Type	Description
SAP 2.1.11	00020859	SAP-328	Issue	<p>Issue - SAPGL interface has an imbalance issue for reversal postings and posting other amount not being updated.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper - The adjustment amount is only visible in the generated payload XML report and does not update the posting amount.</p>

## 9.34 Changes in Version 2.1.12

Component	HD/Case	Issue	Type	Description
SAP 2.1.12	00020859	SAP-331	Issue	<p>Issue – The changes regarding the imbalance issue in the SAPGL interface have been reverted: SAP-296, SAP-321 and SAP-328.</p> <p>Impact Analysis – The ImbalanceToleranceLevel mapping has been removed.</p>

## 9.35 Changes in Version 2.1.13

Component	HD/Case	Issue	Type	Description
SAP 2.1.13	00036490	SAP-338	Issue	<p>Issue – Reversal of Reversal not sent to General Ledger.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper – Sending reversal of reversal correctly.</p>

## 9.36 Changes in Version 2.1.14

Component	HD/Case	Issue	Type	Description
SAP 2.1.14	00038470	SAP-343	Enh	<p>Issue – SOAP Webservice Timeout issue.</p> <p>Fix – Added property webservice.connectionTimeout to “calypso_sap_config.properties” property file to define the timeout value in seconds. Default is 120.</p>

## 9.37 Changes in Version 2.1.15, 2.1.16, 2.1.17, 2.1.18

Component	HD/Case	Issue	Type	Description
SAP 2.1.15	00038564	SAP-350	Issue	<p>Issue – Performance issue in SAP_GL_REPORT scheduled task.</p> <p>Fix – Local impact to GLInterfaceHelper – No need to load trades for POSITION_VALUATION postings.</p>
SAP 2.1.16	00038470	SAP-353	Issue	<p>Issue - webservice.connectionTimeout property not working.</p> <p>Impact Analysis – Local impact to SAPIEAdapter – Fixed timeout issue.</p>

Component	HD/Case	Issue	Type	Description
SAP 2.1.17	00049511	SAP-361	Issue	Issue – Additional performance issue in SAP_GL_REPORT scheduled task.  Fix – Local impact to GLInterfaceHelper – No need to load trades for FX_REVALUATION postings.
SAP 2.1.18	00050383	SAP-364	Issue	Issue - Document ID is incorrect in XML file generated SAP_GL_REPORT scheduled task for Reversal of Reversal postings.  Fix – Local impact to GLInterfaceHelper – Generating Document ID correctly.

### 9.38 Changes in Version 2.1.19

Component	HD/Case	Issue	Type	Description
SAP 2.1.19	00057680	SAP-374	Issue	Issue – SAP_GL_REPORT scheduled task is failing due to NullPointerException.  Impact Analysis – Local impact to SAPMessageUtil – Preventing NullPointerException.

### 9.39 Changes in Version 2.1.20

Component	HD/Case	Issue	Type	Description
SAP 2.1.20	00057592	SAP-377	Issue	Issue - FX Conversions are having new Document ID when the postings are sent using the SAP_GL_REPORT.  Impact Analysis – Local impact to GLInterfaceHelper – Setting the Document ID correctly.

### 9.40 Changes in Version 2.2.0

Component	HD/Case	Issue	Type	Description
SAP 2.2.0	00005440	SAP-259	Issue	Issue - The SAP_GL_REPORT Scheduled Task looks at the Posting Type instead of Original Event FX_REVALUATION when generating the payload.
SAP 2.2.0	00003924	SAP-247	Issue	Issue - SAPGATEWAY message gets stuck in REPROCESSING status and does not move to COMPLETED status even after correcting the errors in the configuration.

Component	HD/Case	Issue	Type	Description
				Fix - Corrected SAP BP behavior for reprocessing in case of translation errors.
SAP 2.2.0	00003872	SAP-243	Issue	Issue - SAP interfaces (PE) is failing while using SSL setup.
SAP 2.2.0	00001644	SAP-239	Enh	<p>Issue - Avoid sending same Day Reversal Postings in SAP GL.</p> <p>Fix – Added support to suppress same day reversals based on configuration of SkipSameDayReversals in Calypso Mapping window.</p> <p>Name = SAPGL/Config</p> <p>Interface Value = SkipSameDayReversals</p> <p>Calypso Value = true to suppress same day reversals, or false otherwise</p>
SAP 2.2.0	198151	SAP-235	Issue	<p>Issue - GL payload does not consider backdated postings.</p> <p>Fix – The start date specified in the template is now taken into account if any.</p>
SAP 2.2.0	00002678	SAP-233	Enh	<p>Issue – Add tag LocalCurrencyAmount to GL payload.</p> <p>Fix - Added LocalCurrencyAmount tag and provided configuration in Calypso Mapping window to enable/disable this tag in SAP GL interface.</p> <p>Name = SAPGL/Config</p> <p>Interface Value = LocalCurrencyAmount</p> <p>Calypso Value = true to enable the LocalCurrencyAmount tag, or false otherwise</p>
SAP 2.2.0	00001581	SAP-230	Enh	<p>Issue - Add mapping for the Swift template name.</p> <p>Fix – Added the following mapping:</p> <p>Interface = SAP/TemplateName</p> <p>Interface Value = &lt;SAP template name&gt;, example MT101C</p> <p>CalypsoValue = &lt;Calypso template name&gt;, example MT101</p>
SAP 2.2.0	196525	SAP-226	Issue	Issue – Parsing error when sending MT message over SOAP as CDATA is not encapsulated within SOAP Envelope.

## 9.41 Changes in Version 2.2.1

Component	HD/Case	Issue	Type	Description
SAP 2.2.1		SAP-264	Issue	Issue - Terminator for Sybase should be "go" not ";".

## 9.42 Changes in Version 2.2.2

Component	HD/Case	Issue	Type	Description
SAP 2.2.2	00009161	SAP-271	Issue	Issue - Extra space and comma are added when BP Street/House number is stored in Calypso LE address.

## 9.43 Changes in Version 2.2.3

Component	HD/Case	Issue	Type	Description
SAP 2.2.3	00009463	SAP-277	Enh	Issue – Add tag <ValueDate> to SAP GL payload. Fix - Tag <ValueDate> has been added.

## 9.44 Changes in Version 2.3.0

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.3.0	00009463		SAP-275	Enh	Issue – Add tag <ValueDate> to SAP GL payload. Fix - Tag <ValueDate> has been added. Already in version 2.2.3
SAP 2.3.0			SAP-265	Issue	Issue - Terminator for Sybase should be "go" not ";". Already in 2.2.1
SAP 2.3.0	00009161		SAP-270	Issue	Issue - Extra space and comma are added when BP Street/House number is stored in Calypso LE address. Already in 2.2.2
SAP 2.3.0	00012089		SAP-283	Issue	Issue - SWIFT contact is not getting propagated to all contact types. Fix – Removed filtering logic based on domain "IdentificationContactType" so that SWIFT code is populated across all contacts.

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.3.0		RPM-4313	SAP-289	Enh	Issue – Technical issue - Changes for using “internal” Data Uploader module.

## 9.45 Changes in Version 2.4.0

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.4.0		RPM-5914	SAP-275	Enh	Issue – Upgrade commons-lang libraries to version 3.12.0.

## 9.46 Changes in Version 2.5.0, 2.5.1

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.5.1	00020859		SAP-300	Enh	<p>Issue - The Payload generated by the SAP GL interface has an imbalance of a few cents between the total debit and credit amounts.</p> <p>Fix – Added "ImbalanceToleranceLevel" mapping. If the difference between the total debit and credit amounts is within the tolerance, the postings are adjusted of the difference. The adjustment is made in the SAP GL report only.</p> <p>Mapping example:</p> <p>Name = SAPGL/Config</p> <p>Interface Value = ImbalanceToleranceLevel</p> <p>Calypso Value = 0.01</p>

## 9.47 Changes in Version 2.6.0

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.6.0	00020859		SAP-300	Enh	<p>Issue - The Payload generated by the SAP GL interface has an imbalance of a few cents between the total debit and credit amounts.</p> <p>Fix – Added "ImbalanceToleranceLevel" mapping. If the difference between the total debit and credit amounts is within the tolerance, the postings are adjusted of the difference. The adjustment is made in the SAP GL report only.</p>



Component	HD/Case	RPM	Issue	Type	Description
					Mapping example: Name = SAPGL/Config Interface Value = ImbalanceToleranceLevel Calypso Value = 0.01

## 9.48 Changes in Version 2.7.0

Component	HD/Case	RPM	Issue	Type	Description
SAP 2.7.0		RPM-10795	SAP-316	Sec	Issue – Security - Use stronger SSL protocol. Impact Analysis – Local impact to SAPMessageUtil – Replaced SSLContext = "SSL" with SSLContext = "TLSv1.2".

## 9.49 Changes in Version 2.8.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
	SAP 2.8.0			SAP-335	Sec	Issue – Security - Secure JAXB unmarshaller. Impact Analysis – Updated infosec library to version 4.1.19
Integration Static Data Integration Cross	SAP 2.8.0	00020859		SAP-326	Issue	Issue - SAPGL interface has an imbalance issue for reversal postings and posting other amount not being updated. Impact Analysis – Local impact to GLInterfaceHelper - The adjustment amount is only visible in the generated payload XML report and does not update the posting amount.
Integration Static Data Integration Cross	SAP 2.8.0	00038564		SAP-348	Issue	Issue – Performance issue in SAP_GL_REPORT scheduled task. Impact Analysis – Local impact to GLInterfaceHelper – No need to load trades for POSITION_VALUATION postings.
Integration	SAP 2.8.0	00020859		SAP-323	Issue	Issue - ArrayOutOfBounds error when running SAPGL scheduled task.

Capability	Component	HD/Case	RPM	Issue	Type	Description
Static Data Integration Cross						Impact Analysis – Local impact to GLInterfaceHelper – Adjusting empty checks.

## 9.50 Changes in Version 3.0.0, 3.0.1

Component	HD/Case	RPM	Issue	Type	Description
SAP 3.0.1	00020859		SAP-297	Enh	<p>Issue - The Payload generated by the SAP GL interface has an imbalance of a few cents between the total debit and credit amounts.</p> <p>Fix – Added "ImbalanceToleranceLevel" mapping. If the difference between the total debit and credit amounts is within the tolerance, the postings are adjusted of the difference. The adjustment is made in the SAP GL report only.</p> <p>Mapping example:</p> <p>Name = SAPGL/Config</p> <p>Interface Value = ImbalanceToleranceLevel</p> <p>Calypso Value = 0.01</p>

## 9.51 Changes in Version 3.1.0

Component	HD/Case	RPM	Issue	Type	Description
SAP 3.1.0			SAP-317	Issue	<p>Issue – Security - Use stronger SSL protocol.</p> <p>Impact Analysis – Local impact to SAPMessageUtil – Replaced SSLContext = "SSL" with SSLContext = "TLSv1.2".</p>

## 9.52 Changes in Version 3.2.0

Important Note – Changes to Web Services setup and processes – See issue SAP-369 for details.

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration	SAP 3.2.0	00050383		SAP-370	Issue	Issue - Document ID is incorrect in XML file generated SAP_GL_REPORT scheduled task for Reversal of Reversal postings.

Capability	Component	HD/Case	RPM	Issue	Type	Description
Cross						Fix – Local impact to GLInterfaceHelper – Generating Document ID correctly.
Integration Static Data Integration Cross	SAP 3.2.0	00051513		SAP-369	Enh	<p>Issue - SAP BP Interface / Service not working in V17.</p> <p>Impact Analysis - The SOAP web services are registered in calypsoservicesinterfaceserver.properties. They need to be enabled by setting: calypso.ws.enabled=true</p> <p>The following servers needs to be started: calypsoservicesinterfacems.bat sharedservices.bat</p> <p>See <a href="#">Property Files</a> for details.</p>
Integration Static Data Integration Cross	SAP 3.2.0	00036490		SAP-365	Issue	<p>Issue – Reversal of Reversal not sent to General Ledger.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper – Sending reversal of reversal correctly.</p>
	SAP 3.2.0		RPM-10844	SAP-337	Sec	<p>Issue - Secure JaxbUnmarshaller.</p> <p>Impact Analysis – Addressed security issue with JaxbUnmarshaller.</p>
	SAP 3.2.0	00020859		SAP-328	Issue	<p>Issue - SAPGL interface has an imbalance issue for reversal postings and posting other amount not being updated.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper - The adjustment amount is only visible in the generated payload XML report and does not update the posting amount.</p>
Integration Static Data Integration Cross	SAP 3.2.0	00038564		SAP-349	Issue	<p>Issue – Performance issue in SAP_GL_REPORT scheduled task.</p> <p>Fix – Local impact to GLInterfaceHelper – No need to load trades for POSITION_VALUATION postings.</p>
	SAP 3.2.0		APL-3877	SAP-347	Sec	<p>Issue - Extend data and hashicorp property support to SAP properties.</p> <p>Impact Analysis – Extended data and hashicorp property support to SAP properties.</p>

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.2.0	00038470		SAP-342	Issue	Issue - webservice.connectionTimeout property not working.  Impact Analysis – Local impact to SAPIEAdapter – Fixed timeout issue.
Cross Functional System Operations Cross	SAP 3.2.0			SAP-360	Issue	Issue – Additional performance issue in SAP_GL_REPORT scheduled task.  Fix – Local impact to GLInterfaceHelper – No need to load trades for FX_REVALUATION postings.
	SAP 3.2.0	00020859		SAP-322	Issue	Issue - ArrayOutOfBounds error when running SAPGL scheduled task.  Impact Analysis – Local impact to GLInterfaceHelper – Adjusting empty checks.

### 9.53 Changes in Version 3.2.1

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.2.1	00057592		SAP-375	Issue	Issue - FX Conversions are having new Document ID when the postings are sent using the SAP_GL_REPORT.  Impact Analysis – Local impact to GLInterfaceHelper – Setting the Document ID correctly.

### 9.54 Changes in Version 3.2.2, 3.2.3, 3.2.4

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.2.2	00074098		SAP-391	Issue	Issue - Password inconsistency between SAP_GL and SAP_PE due to encryption key.  Impact Analysis – Local impact to GLInterfaceHelper – Using correct key to decipher the password.
Integration Static Data Integration	SAP 3.2.3	00083543		SAP-399	Issue	Issue - SAPGL scheduled task failing due to NullPointerException error.

Capability	Component	HD/Case	RPM	Issue	Type	Description
Cross						Impact Analysis - Local impact to GLInterfaceHelper - Cheking for null accounting event config.
Integration Static Data Integration Cross	SAP 3.2.3	00100860		SAP-413	Issue	<p>Issue - SAP GL - CLOSING type postings do not have CostCenterID and ProfitCenterID as there is no associated book.</p> <p>Impact Analysis – When there is no book, &lt;CostCenterID&gt; and &lt;ProfitCenterID&gt; are taken from account attributes “Cost Center” and “Profit Center”.</p> <p>Or from the following mapping if not set:</p> <p>Name = SAPGL/Config Interface Value = CreditDefaultCostCenter Calypso Value = &lt;cost center&gt;</p> <p>Name = SAPGL/Config Interface Value = CreditDefaultProfitCenter Calypso Value = &lt;profit center&gt;</p>

## 9.55 Changes in Version 3.3.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.3.0	00057592		SAP-376	Issue	<p>Issue - FX Conversions are having new Document ID when the postings are sent using the SAP_GL_REPORT.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper – Setting the Document ID correctly.</p>

## 9.56 Changes in Version 3.4.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.4.0	00074098		SAP-390	Issue	<p>Issue - Password inconsistency between SAP_GL and SAP_PE due to encryption key.</p> <p>Impact Analysis – Local impact to GLInterfaceHelper – Using correct key to decipher the password.</p>

## 9.57 Changes in Version 3.5.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.5.0	00083543		SAP-401	Issue	Issue - SAPGL scheduled task failing due to NullPointerException error.  Impact Analysis - Local impact to GLInterfaceHelper - Cheking for null accounting event config.

## 9.58 Changes in Version 3.6.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.6.0	00100860		SAP-414	Issue	Issue - SAP GL - CLOSING type postings do not have CostCenterID and ProfitCenterID as there is no associated book.  Impact Analysis – When there is no book, <CostCenterID> and <ProfitCenterID> are taken from account attributes “Cost Center” and “Profit Center”.  Or from the following mapping if not set: Name = SAPGL/Config Interface Value = CreditDefaultCostCenter Calypso Value = <cost center> Name = SAPGL/Config Interface Value = CreditDefaultProfitCenter Calypso Value = <profit center>

## 9.59 Changes in Version 3.8.0

Important Note - You need to set the trustStoreUser property in “calypso\_sap\_gl\_interface.properties”.

Capability	Component	Case	APL	Issue	Type	Description
Integration Static Data Integration Cross	SAP 3.8.0	00128480		SAP-444	Enh	Issue - Property trustStore causing issue in SAP_GL scheduled task as it is used as key to decipher the password and as trustStore location.  Impact Analysis – Added property trustStoreUser to “calypso_sap_gl_interface.properties” to be used as key to decipher the password.

Capability	Component	Case	APL	Issue	Type	Description
						Property trustStore is now only used as trustStore location.
	SAP 3.8.0		APL-11480	SAP-445	Sec	Issue – Security – Upgrade org.springframework:spring-* library to version 5.3.39.

## 9.60 Changes in Version 3.9.0

Capability	Component	Case	APL	Issue	Type	Description
	SAP 3.9.0		APL-12883	SAP-464	Sec	Issue – Security - Upgrade the com.thoughtworks.xstream:xstream library to version 1.4.21.

## 9.61 Changes in Version 4.5.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
Integration Static Data Integration Cross	SAP 4.5.0	00100860		SAP-415	Issue	<p>Issue - SAP GL - CLOSING type postings do not have CostCenterID and ProfitCenterID as there is no associated book.</p> <p>Impact Analysis – When there is no book, &lt;CostCenterID&gt; and &lt;ProfitCenterID&gt; are taken from account attributes “Cost Center” and “Profit Center”.</p> <p>Or from the following mapping if not set:</p> <p>Name = SAPGL/Config Interface Value = CreditDefaultCostCenter Calypso Value = &lt;cost center&gt;</p> <p>Name = SAPGL/Config Interface Value = CreditDefaultProfitCenter Calypso Value = &lt;profit center&gt;</p>
	SAP 4.5.0			SAP-421	Sec	Issue – Security - Upgrade commons-lang3 library to version 3.14.0 and commons-configurations2 library to version 2.9.0.

## 9.62 Changes in Version 4.6.0

Capability	Component	HD/Case	RPM	Issue	Type	Description
	SAP 4.6.0			SAP-408	Enh	Issue – Technical - Caller fixes to use Refactored QD classes for JoinParameters.  Impact Analysis – Updated PaymentConfirmationMessageHandler to use Refactored QD classes for JoinParameters.
	SAP 4.6.0			SAP-428	Sec	Issue – Security – Upgrade the following libraries:  com.github.dozermapper:dozer-core to version 7.0.0  spring to version 6.1.6

## 9.63 Changes in Version 4.7.0

Important Note - You need to set the trustStoreUser property in “calypso\_sap\_gl\_interface.properties”.

Capability	Component	Case	APL	Issue	Type	Description
Integration Static Data Integration Cross	SAP 4.7.0	00128480		SAP-443	Enh	Issue - Property trustStore causing issue in SAP_GL scheduled task as it is used as key to decipher the password and as trustStore location.  Impact Analysis – Added property trustStoreUser to “calypso_sap_gl_interface.properties” to be used as key to decipher the password.  Property trustStore is now only used as trustStore location.
	SAP 4.7.0		APL-10801, APL-11372	SAP-447	Sec	Issue – Security – The following libraries have been upgraded:  spring.springframework:spring to version 6.1.11  camel to version 4.7.0



## 9.64 Changes in Version 4.8.0

Capability	Component	Case	APL	Issue	Type	Description
	SAP 4.8.0		APL-12280	SAP-450	Sec	Issue - Security - Upgraded the org.springframework:spring-webmvc library to version 6.1.15.

## 9.65 Changes in Version 4.9.0

Capability	Component	Case	APL	Issue	Type	Description
Integration Static Data Integration Cross	SAP 4.9.0	00138609		SAP-462	Enh	Issue – Add legal entity attribute SAMA_Sanctioned_Status.  Impact Analysis – The following legal entity attributes have been added:  SAMA_Sanctioned_Status SAMA_Sanctioned_Reason SAMA_Sanctioned_Code

## 9.66 Changes in Version 4.10.0

Capability	Component	Case	APL	Issue	Type	Description
	SAP 4.10.0		APL-13635	SAP-467	Sec	Issue - Security - Upgraded the spring-* library to version 6.1.16.