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1. Preface

1.1 Introduction

This manual is designed to help acquaint you with the Global Liquidity Management application.

This manual provides answers to specific features and procedures that you need to be aware of for the module to function successfully.

This chapter contains the following sections:

- Section 1.2, "Audience"
- Section 1.3, "Documentation Accessibility"
- Section 1.4, "Organization"
- Section 1.5, "Related Documents"
- Section 1.6, "Glossary of Icons"

1.2 Audience

This manual is intended for the following User/User Roles:

| Role | Function |
|-----------------------------------|---|
| Back office data entry Clerks | Input functions for maintenance related to the interface. |
| Back office Managers/ Officers | Authorization functions |

1.3 <u>Documentation Accessibility</u>

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

1.4 Organization

This manual is organized into the following chapters:

| Chapter 1 | About this Manual gives information on the intended audience. It also lists the various chapters covered in this User Manual. |
|--------------|---|
| Chapter 2 | Introduction gives a brief description about the Liquidity Management Application |
| Chapter 3 | Cash Concentration Methods describes the various cash concentration methods supported by the LM application |
| Chapter1 | Setup explains how to maintain the various setups to be maintained to start using the application. |



| Chapter 5 | Structure Maintenance explains the various steps of developing a new structure. |
|---------------|--|
| Chapter 6 | Maintaining Batches explains the various functionalities in the Batch Module |
| Chapter 7 | Simulator explains how to simulate a new structure. |
| Chapter 8 | Dashboards gives detailed information on Dashboards assigned to each 'User Role' and also about the organization of these Dashboards |
| Chapter 9 | Reports discusses the reports that can be generated in the application. |
| Chapter 10 | Security Management discusses the various security features of the GLM |

1.5 Related Documents

The related documents include the SMS User Guide and the Reports Manual.

1.6 Glossary of Icons

This User Manual may refer to all or some of the following icons:

| Icons | Function |
|-------|-------------|
| × | Exit |
| + | Add row |
| | Delete row |
| ď | Option List |
| Ħ | Save |
| C | Get Details |
| Ē | Calender |



2. Integrated Liquidity Management - An Overview

2.1 Introduction

Liquidity Management refers to the services your bank provides to its corporate customers thereby allowing them to optimize interest on their checking/current accounts and pool funds from different accounts. Your corporate customers can, therefore, manage the daily liquidity in their business in a consolidated way.

Customers need to define 'account structures' which form the basis of liquidity management. The account structure reflects the hierarchical relationship of the accounts as well as the corporate strategies in organizing accounts relationships.

Liquidity management services are broadly classified as under:

- Sweeping where physical funds are moved in account structure from child to parent or parent to child.
- Pooling where funds are not physically moved in and out of accounts. Instead, the
 account balances are notionally consolidated and 'interest computations' carried out on
 such notional balances.

The Oracle Global Liquidity Management application supports a multi-branch, multi-currency liquidity management structure using architecture of 'System Accounts'. This enables the system to keep track of balances in accounts in the structure, calculate interest on the accounts in the structure as well as track the history of the sweep/ pool structure.

Note

System accounts are internal accounts created by the system based on the role played by an account in an Account Structure.

This document is broadly classified into the following sections:

- Cash Concentration Methods
- Notional Pooling
- MBCC
- System setup required for GLM
- Building and Maintaining the Structure.
- Balance Build
- Batch Processing
- BVT Handling
- Simulations
- Dashboards
- Reports
- SMS



3. Cash Concentration Methods

GLM supports various form of Sweeps/Cash Concentration methods. You can find a brief description about each method in this chapter. This chapter contains the following sections:

- Section 3.1, "Zero Balance"
- Section 3.2, "Fixed Sweep"
- Section 3.3, "Target Balance/Minimum Balance"
- Section 3.4, "Threshold"
- Section 3.5, "Collor"
- Section 3.6, "Percentage"
- Section 3.7, "Range Based Balancing"
- Section 3.8, "Investment Sweeps"

3.1 Zero Balance

In this method, all the balances from the sub account are automatically transferred into the master account at the EOD with original value dates. The top account will therefore hold the overall net cash position of the company or group of companies. The top account is normally held by the parent company or a group treasury.

1 way Scenario

Here the system will try to z ero balance the child account. The child account balances are swept to leave a zero balance in the child account. If the child account balance is zero or negative, the system will not execute any sweep instruction

2 way Scenario

Here the system will try to bring the child account to zero balance in case it has a negative balance. If the balances in the parent account is not sufficient to cover the overdraft, no sweep transaction is done.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account.

If the child account balance is above zero, the system will sweep the entire balance from child account to the parent account.

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached. If a limit is attached then, s weeps can happen till the limit is utilized but not beyond the specified limit. If the major account is linked with unlimited limit, then sweeps can happen from major to minor till all the minor account balances are zero

3.2 Fixed Sweep

A fixed amount is transferred from the sub account to the main account irrespective of the credit balance in the sub account. If the credit balance in the sub account is below the fixed amount then no transfers are affected.

1 way Scenario

If the minor account balance is above or equal to the fixed amount, the system will sweep fixed amount from the minor account.



If the minor balance is above zero, but less than the fixed amount, the system will not initiate the sweep instruction.

2 way Scenario

The 2 way sweep in this concentration method will transfer only that amount which is required to cover overdrafts on the child accounts i.e. Fixed 2 way sweep only covers the child overdraft balances and will not follow the fixed parameter, provided the parent account has sufficient balance to cover the debit balance on the child account

FIXED

In the fixed method, if the minor is overdrawn, and major balance is above or equal to the fixed amount, the system will use amount, equal to fixed amount for transfer from major to cover minor's overdraft. If, however, the major balance is less thanthe fixed amount, the system will reject the sweep instruction.

If more than one child account is in negative balance the transfer from the parent account will be based on the priority set at the child account. Balance will be transferred from Major account to minor accounts based on priority (Least numeric is given top priority) and availability of funds (Fixed amount) in the major account. In this scenario if the balance available in the major account is not sufficient to carry out multiple fixed amount transfers, system will sweep till the available balance on the major account is exhausted keeping the fixed amount parameter in view.

If the major account is linked with a line then sweeps will be carried out till the line amount is exhausted and if the major account is linked to an unlimited limit then system will sweep balances to all the minor accounts.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account.

3.3 <u>Target Balance/Minimum Balance</u>

There are two different types under this:

- Constant Target Balance/Minimum Balance- Here the system ensures that a specific amount is present in the minor account by moving the balances from the sub accounts to the main account and vice versa. The balances in the sub accounts will be constant and cannot be zero
- Fixed Target Balance Here the system ensures that a fixed target balance is present
 while moving funds from sub accounts to main account. when the sub accounts has a
 debit balance the 2 way sweep from main account to the sub account will be equal to
 the debit amount on sub account which will bring the sub account to zero balance.

1Way - Scenario

If the child account balance is above the minimum balance, the system will sweep the positive difference between the child account balance and minimum balance to the major account (sweep balances above the minimum balance from the child account).

If the child account balance is below or equal to the minimum balance, the system will not execute the sweep instruction.



2Way - Scenario

If the child account balance is below the minimum balance, the system will try to cover the negative difference between the minor balance and minimum balance with funds from the major account.

If the minor balance is below the minimum balance or is overdrawn, and the major balance is negative or not sufficient to cover the OD + minimum balance the system will not execute any sweep instruction

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached, if limit is attached sweeps can happen till the limit is utilized but not beyond the specified limit, but if the major account is linked with unlimited limit sweeps can happen from major to minor till all the minor account balances are zeroised or reach the required levels.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached. If limit is attached then, sweeps can happen till the limit is utilized but not beyond the specified limit, If the major account is linked with unlimited limit, then sweeps can happen from major to minor till all the minor account balances are zero.

3.4 Threshold

Here the funds are moved only when the account has more balance than a set limit. The child account keeps accumulating funds till the threshold is reached and sweeps out all the balances from the child account.

1Way - Scenarios

If the child account balance is equal to or above the Threshold balance amount, the system will sweep the entire balances from the child account. If the child account balance is below the Threshold balance, the system will not execute the sweep instruction.

2Way - Scenario

If the child account balance is below the Threshold balance, the system will not perform any sweeps under any circumstances even if the major account is in credit balance. If the child account balance is below zero, then sweeps will be performed from major account to minor account to bring minor account balance to zero.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached, if limit is attached sweeps can happen till the limit is utilized but not beyond the specified limit, but if the major account is linked with unlimited limit, then sweeps can happen from major to minor till all the minor account balances are zero.

3.5 Collor

Here on reaching a threshold value, funds are swept from the minor account but leaving behind a balance.



1Way - Scenario

If the child account balance is above the Threshold balance amount or equal to the threshold balance amount, the system will sweep balances from the child account leaving behind the pre-set balance in the child account.

If the child account balance is below the threshold, the system will not execute the sweep instruction.

2Way - Scenarios

If the child account balance is below the Threshold balance, the system will not perform any sweeps under any circumstances even if the major account is in credit balance. If the child account balance is below zero, then sweeps will be performed from major account to minor account to bring the minor account balance to zero.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached, if limit is attached sweeps can happen till the limit is utilized but not beyond the specified limit, but if the major account is linked with unlimited limit sweeps can happen from major to minor till all the minor account balances are zero.

3.6 Percentage

Here a certain set percentage of funds available in the minor account is swept out. The system supports both 1 way and 2 way sweeps.

If more than one child account is in negative balance, the transfer from the parent account will be based on the priority set at the child account (Least numeric is given top priority) and the available balance on the major account

The 2 way sweep in this concentrationmethod will transfer only that amount which is required to cover overdrafts on the child accounts i.e. Percentage 2 way sweep only covers the child overdraft balances and will not follow the Peræntage parameter provided the parent account has sufficient balance to cover the debit balance on the child account.

When sweeping from Major account to minor account the major account balance cannot go below Zero if no limit is attached. If limit is attached, then sweeps can happen till the limit is utilized but not beyond the specified limit. If the major account is linked with unlimited limit, then sweeps can happen from major to minor till all the minor account balances are zero

3.7 Range Based Balancing

Here the funds are swept when the available balances are in a certain range. A minimum and a maximum range will be defined baæd on which sweeps are initiated from /to child account to make the child account attain a fixed balance.

For example, If a child account fixed balance is 50, Minimum range amount is 10 and Maximum range amount is 100 then, if the child account balance goes below 10, sweeps to child account will happen to make the child account balance 50 (Sweep of 40), but if the child account balance is more than 100 then balances above 50 will be swept away from the child account.



3.8 <u>Investment Sweeps</u>

System supports investment sweeps wherein funds are invested either in Money Market instruments or term deposits

Steps to achieve investment sweeps are as below:

- Create an account in GLM which will be a Notional account with no balances (This
 account will be created only in GLM and is not present in core banking)
- Create a structure with the notional account as the header
- Pair wise concentration methods to be defined for the structure including for the notional pair (ZBA, Percentage. Etc.)
- Pair wise sweep frequencies to be defined including the notional pair
- Payment instructions to be defined for all the pairs including the notional pair
- While defining payment instructions for the Notional pair either Money market placement or Term deposit creation parameters needs to be captured.
- GLM will generate handoff message for the investment sweeps at the defined frequencies to the core banking system\external system.



4. Notional Pooling

GLM supports notional pooling of accounts for cash concentration benefits. Under notional pooling, balances remain on participating accounts. The bank charges or credits interest on net balance of the pooled accounts thereby mitigating the cost of overdrafts on participant accounts.

Notional Pooling of is a mechanism for calculating interest on the combined credit and debit balances of accounts that a corporate parent chooses to cluster together, without actually transferring any funds. It is ideal for companies with decentralized organizations that want to allow some autonomy to their subsidiaries, including their control over bank accounts.

Pool participant accounts are aggregated for interest compensation purposes. Funds are not physically moved, but are notionally combined. There is no commingling of funds, and the integrity of the individual account position is maintained.

Notional Pooling can be combined within the framework of a global cash concentration structure to provide comprehensive overlay structures to meet even the most complex organization's needs

Notional pooling can have multi-layered overlays like in country pools sweeping into regional pools which in turn sweep into global pools. This type of structure is provided to mirror the corporate's regional treasury arrangements.

Once a company earns interest on the funds in a notional pooling account, interest income is usually allocated back to each of the accounts comprising the pool. For tax management reasons the corporate parent usually charges the subsidiaries participating in the pool for some cash concentration administration expenses related to management of the pool. This scenario works best if the corporate subsidiaries are located in high-tax regions where reduced reportable income will result in reduced taxes.

The main downside of notional pooling is that it is not allowed in some countries. It is difficult to find anything but a large multi-national bank that offers cross-currency notional pooling. Instead, it is most common to have a separate notional cash pool for each currency area.

Notional pooling is normally done within one branch so that the bank gets the right of offset on its balance sheet (from the regulators and clients). Else bank has to set aside capital to cover the gross pooled balances

This chapter contains the following sections:

- Section 4.1, "Benefits of Notional Pooling"
- Section 4.2, "Notional Pooling Structures"
- Section 4.3, "Interest Calculation Methods"
- Section 4.4, "Interest Allocation Methods"
- Section 4.5, "Interest Reallocation"
- Section 4.5, "Interest Reallocation"

4.1 Benefits of Notional Pooling

The benefit of notional pooling can be listed as below:

- Minimizes interest expense and improves balance sheet for corporate by off-setting debit and credit positions
- Single liquidity position without commingling of funds



- Allows each subsidiary company to take advantage of a single, centralized liquidity position, while still retaining daily cash management privileges
- Preserves autonomy, control and record-keeping
- Benefit from off-setting without movement of funds and saving on administrative costs by avoiding foreign exchange costs
- Avoids inter company loans by avoiding the use of cash transfers to a central pooling account
- Automation of interest reallocation
- Reduction in operating expenses by reducing short term borrowings
- Concentration of balances
- Largely eliminates the need to arrange overdraft lines with local banks

4.2 <u>Notional Pooling Structures</u>

Notional Pooling can take any of the following structures:

- Single currency, Single country
- Single currency, Cross border
- Multi-currency, Single country
- Multi-currency, Cross border

4.3 Interest Calculation Methods

Interest on pool participants can be calculated in the following ways:

- Replacement Interest Payment Method/ Interest Method System will have interest suppressed at the participant accounts and will make a single payment/charge as required based on the pool header balance
- Advantage Method Interest is initially calculated without taking the pooling arrangement into account and then a rebate is paid to the group
- Interest Optimization Method (Top up interest payment) Bank arranges preferential
 interest rates for participating accounts without fully offsetting credit and debit balances.
 This option will be used in jurisdictions where full notional pooling is not permitted. Here
 dual interest rates are applied i.e. Balance of the account is segregated into
 compensated and non compensated balances and interest rates applied accordingly
- Interest Enhancement Method This method works by applying preferential pricing across a group of accounts on the basis of predetermined criteria that are typically based on a net aggregate balance threshold.

4.4 <u>Interest Allocation Methods</u>

The interest calculated for notional pooling has to be distributed to the participant accounts. The different allocation models which are supported by LM are as below:

- Central Distribution Model
- Even Distribution Model
- Even Direct Distribution Model
- Percentage Distribution Model
- Fair Share Model
- Reverse Fair Share Model
- Absolute Pro-Rata Model



4.4.1 Central Distribution Model

In this method, the interest\ advantage interest arrived is credited to one central account which can be one of the participant accounts or any other account

System will allow payment of this interest/charge to a particular/nominated account which can be done in two ways:

- Set off Method- Cr/Dr interest is paid to nominated accounts
- Non Set Off Method Net interest is paid to nominated account

Set off method

Here Credit interest is calculated on aggregated daily credit balances and Debit interest is calculated on aggregated daily debit balances. The Debit and credit interests are posted separately to the nominated accounts.

Non-Set off method

Here the net interest position is calculated on the net balance of the pool and paid or charged to the master account.

4.4.2 Even Distribution Model

In this method, the interest\ advantage arrived is evenly distributed amongst the participant accounts

4.4.3 Even Direct Distribution Model

In this method the Interest reward is evenly spread across all accounts with positive balances.

4.4.4 Percentage Distribution Model

In this method, pre-defined percentage of the interest\ advantage arrived is distributed amongst the participant accounts.

4.4.5 Fair Share Model

In this method, If the net pool position is positive, the interest/advantage interest arrived is distributed amongst the positive contributors in the ratio of their contribution (**Both in Interest and Advantage models**).

If the net pool position is negative the interest amount is distributed amongst the negative contributors in the ratio of their contribution (**Interest model**)

If the net pool position is negative, the advantage interest amount is distributed amongst the negative contributors in the ratio of their contribution. For example, the interest calculated at the account level is @10% but the interest calculated at pool level is @8% taking into consideration few positive account contributors (**Advantage model**)

4.4.6 Reverse Fair Share Model

In this method, if the new pool position is positive, the interest/advantage interest arrived is distributed amongst the negative contributors in the ratio of their contribution (**Both in Interest and advantage models**)



If the net pool position is negative, the interest amount is distributed amongst the positive contributors in the ratio of their contribution (**Interest model**)

If the net pool position is negative, the advantage interest amount is distributed amongst the positive contributors in the ratio of their contribution (**Advantage model**)

4.4.7 Absolute Pro -Rata Model

In this method, absolute balances of all accounts would be considered and interest would be shared proportionately to all accounts.

4.5 Interest Reallocation

Interest reallocation is applicable only to central distribution model of interest allocation. The interest/ advantage interest credited to the central account which would be a treasury account is re-distributed amongst the participant accounts using any of the above discussed allocation models.

In allocation models the debit was to the Bank GL, In re-allocation model the debit will be to the central treasury.

Note

- Interest for the pool is calculated in the base currency of the pool header
- Interest reallocation from the header accounts will be in the account currency
- If the beneficiary account of a notional pool is in a different currency to that of the pool header, the interest amount posted is converted from the header account currency to the beneficiary account currency using the agreed FX rate between the two currencies



5. MultiBank Cash Concentration

Multi Bank Cash Concentration (MBCC) are automated cash management systems for corporations with at-least one third party bank account.

It is an automated means of centralizing balances held at third-party banks of the corporate (In this process liquidity is either transferred to the various TPB accounts or Liquidity is pulled out of various TPB accounts)

It caters to the corporate need to maintain important third-party local bank relationships for rendering truly localized services while optimizing the potential yield from liquidity consolidated with a global concentration bank

This chapter contains the following sections:

- Section 5.1, "Benefits of MBCC"
- Section 5.2, "Features in MBCC"
- Section 5.3, "Sweep Mechanism"
- Section 5.4, "MBCC System Setup"

5.1 Benefits of MBCC

The benefit of MBCC can be listed as below:

- Consolidates Cash balances effectively
- Enhances yield on surplus cash
- Better overview and easier access to group-wide liquidity
- Timely access to information and improved liquidity management

5.2 Features in MBCC

The following features are provided for MBCC in LM:

- Automated movement of funds across multiple third party bank accounts, currencies, banks and geographic regions
- Multi Bank Cash Concentration though SWIFT using MT940\MT941,MT942,MT950
- Flexibility to add or delete accounts in the MBCC structure
- Flexibility of movement at end of day, intra day, weekly (particular day of a week) or Monthly (particular day of a month)
- Flexible sweep types such as Zero / Target / Threshold / Collar balancing / Percentage
- Multicurrency multi bank cash concentration
- For sweeps (both inward and outward) which involve a currency conversion the FX rate would be a picked up from maintenance

5.3 **Sweep Mechanism**

This following steps lists out the sweep mechanism through MT920 requests:

- Mirror account & a linked CASA account for all the third party accounts are created
- MT920 generation frequencies, MT920 start time and end time are defined for each mirror account



- Cut-off time for MT101 generation for sweep ins and cut off time for MT103 generation for sweep outs are defined for each mirror account
- Cut-off time for balance update on the mirror accounts from DDA system (Post recon of MT101 with MT103) to be set.

5.3.0.1 Sweep In

The steps followed for sweep in are as below:

- Account balances from the third party accounts are collected by Generating MT920 (Requesting MT940 or MT941 or MT942) as per the pre-defined frequency parameters and time intervals for each mirror account.
- System will be capable of handling incoming MT940/MT941,MT942,MT950 which need
 not be in response to an outgoing MT920 i.e. incoming MT940,MT941,MT942,MT950
 may or may not be in response to outgoing MT920
- Mirror account balances will be updated by processing the response/incoming MT940.MT941.MT942
- Balances will be updated based on either MT940 (Customer Statement) or MT941 (Balance report) or MT942 (Interim transaction report)
- MT 940: Balance can be updated based on the closing available balance tag of the message and duplicates can be checked based on statement number/sequence number tag.
- MT941: Balance can be updated based on the closing available balance tag of the message and duplicates can be checked based on statement number tag
- When a MT942 (Interim transaction report from the last statement or balance report or the last interim report) is received the current available balance in the external account will be determined
- The same is achieved by taking the balance from the previous MT940 or MT942 and credits are added and debits are subtracted
- If the response/incoming MT940,MT941,MT942 updates a Credit balance in the mirror account, MT101 has to be generated at the cut off time for requesting a sweep-in.
- The processing of MT103 which is received in response to MT101 will update the designated CASA Account
- MT101 generation will cater to the following sweep types on third party accounts:
 - Zero balance sweep
 - Target balancing (Fixed)
 - Threshold balancing
 - Collar balancing
 - Percentage sweep

While generating MT101 request for funds, system will take in to consideration the sweep parameters set at theother bank (can be own bank or third party bank) to arrive at the amount. In some cases there can be combination of these parameters at work.

| МТ | MT Message | Purpose |
|-----|----------------------------------|---|
| 920 | Request Message | Requests the account servicing institution to send an MT 940, 941, 942 or 950 |
| 940 | Customer Statement Message | Provides balance and transaction details of an account to a FI on behalf of the account owner |



| МТ | MT Message | Purpose |
|-----|----------------------------------|--|
| 941 | Balance Report | Provides balance information of an account to a financial institution on behalf of the account owner |
| 942 | Interim Transaction Report | Provides balance and transaction details of an account, for a specified period of time, to a financial institution on behalf of an account owner |
| | | It is used to transmit detailed and/or summary information about entries debited or credited to the account since: |
| | | The last statement or balance report, or |
| | | The last interim transaction report (sent in the period since the last statement or balance report). |
| 950 | Statement Message | Provides balance and transaction details of an account to the account owner |

5.3.0.2 Sweep Out

The steps followed for sweep in are as below:

- If the response\ incoming MT940,MT941,MT942 updates a Debit balance in the mirror account, then a MT103 will be generated at the cut off time maintained for a sweep-out to regularize the debit balance on the third party account
- System will follow the sweep parameters set at the account level when arriving at the amount to be transferred via a MT103.
- The sweep parameters can be set as the following as an independent or a combination:
 - Zero balance sweep
 - Target balancing (Fixed)
 - Threshold balancing s
 - Collar balancing
 - Percentage sweep

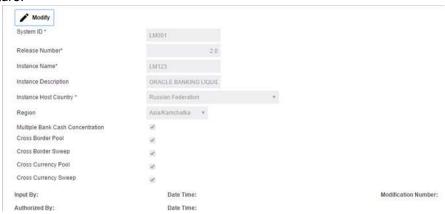
5.4 MBCC System Setup

The following maintenance screens has to be configured to set up multi bank cash concentration structure:



5.4.1 System Set-Up Maintenance Screen

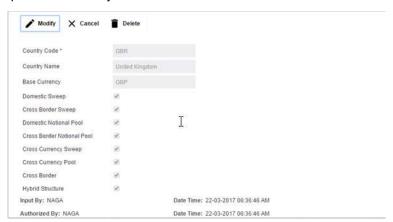
Allow multiple bank, Allow cross-border transaction and Allow cross-currency transaction options must be enabled at system level maintenance screen to allow bank to provide this feature.



5.4.2 Country Maintenance

The regulatory system must allow corporate to set-up MBCC in the country where liquidity management instance is running.

While defining a MBCC group the system will validate whether multiple bankfacility is allowed in particular country.



5.4.3 Bank Maintenance

The following parameters must be enabled at bank level to support MBCC

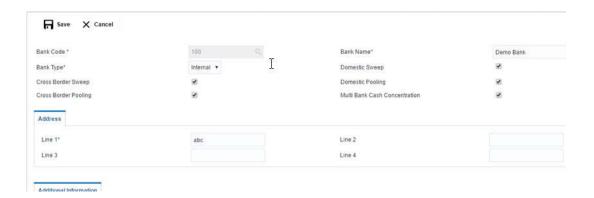
Bank type field is required to identify the bank as internal bank or external bank.

Group name is captured to identify the accounts belonging to different banks of same group as host bank account. Based on the liquidity management products offered by bank the following options should be selected

- Domestic sweep
- Cross border sweep



Multi Bank Cash Concentration

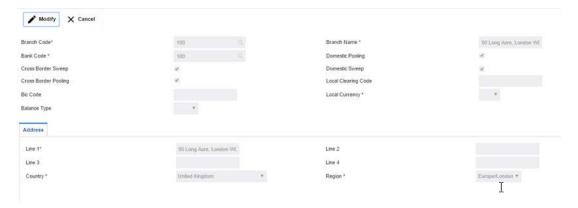


5.4.4 Branch Maintenance

The following parameters must be enabled at branch level to support MBCC

Based on the liquidity management products offered by bank the following options should be selected

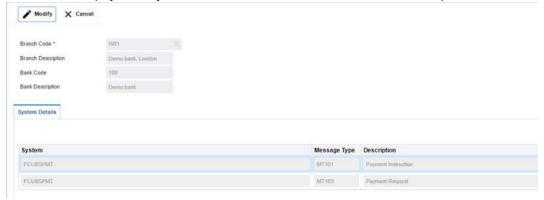
- Domestic sweep
- Cross border sweep





5.4.5 Payment Instruction Maintenance

You can maintain payment parameter values at bank level for all the internal and external banks participating in liquidity management structure. The values captured in this screen will be handed off to payment systems to initiate domestic or cross border sweep.



5.4.6 MBCC Currency Cut Off Maintenance

Branch level & Currency level cut off are maintained in here. If the message arrives after the cut-off time, balance will not be considered for upcoming sweep schedule.

Exception messages will be logged separately.







6. Maintaining Parameters for Global Liquidity Management

6.1 Introduction

You need to maintain certain parameters before you define account structures for global liquidity management process. They are:

- System Setup
- Country Regulatory Compliance Setup
- Bank Setup
- Branch Setup
- Payment Instruction Setup
- Currency Setup
- Currency Pair Setup
- Currency Exchange Setup
- Branch Holiday Setup
- Currency Holiday Setup
- Customer Setup
- Account Setup
- Sweep Frequency Setup
- External System Setup
- Sweep Product Setup
- Sweep Instruction Setup
- MBCC Currency Cutoff Setup
- Interest Rule Setup
- Interest Product Setup
- Interest UDE Setup
- Interest Product Mapping Setup
- File Upload

This chapter contains the following sections:

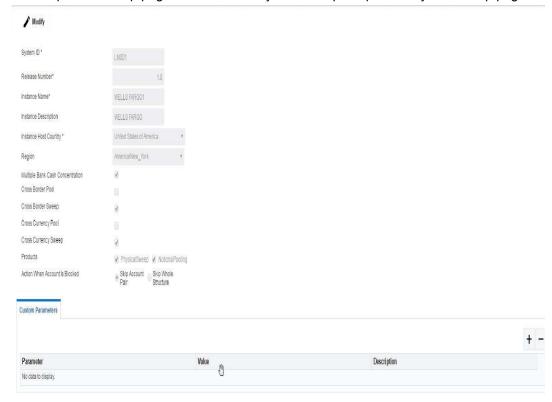
- Section 6.2, "Maintaining System Setup"
- Section 6.3, "Maintaining Bank Setup"
- Section 6.4, "Maintaining Branch Details"
- Section 6.5, "Maintaining Payment Instructions"
- Section 6.6, "Maintaining Currency Definitions"
- Section 6.7, "Maintaining Country Regulatory Compliance Setup"
- Section 6.8, "Maintaining Currency Exchange Setup"
- Section 6.9, "Maintaining Branch Holiday Setup"
- Section 6.10, "Maintaining Currency Holiday Setup"
- Section 6.11, "Maintaining Customer Setup"
- Section 6.12, "Maintaining Account Setup"
- Section 6.13, "Maintaining Sweep Frequency Setup"



- Section 6.14, "Maintaining External System Setup"
- Section 6.15, "Maintaining Sweep Product Setup"
- Section 6.16, "Maintaining Sweep Instruction Setup"
- Section 6.17, "Maintaining Currency Cut off Setup"
- Section 6.18, "Maintaining Interest Rule Setup"
- Section 6.19, "Maintaining Interest Product Setup"
- Section 6.20, "Maintaining Interest UDE Setup"
- Section 6.21, "Maintaining Interest Product Mapping Setup"
- Section 6.22, "Maintaining File Upload"

6.2 <u>Maintaining System Setup</u>

You can use the System Setup for maintaining the system level parameters. Click on Setup Tab to open the setup page. Now click on System Setup to open the system setup page.



You are required to input the following details in this screen:

System ID

Specify the unique system ID. This is usually a back-end upload.

Release No

Specify the LM release number. This is usually a back-end upload.

Instance Name

Specify the name of the LM instance. This is usually a back-end upload

Instance Description

Specify a description if any for the instance. This is usually a back-end upload.



Instance Host Country

Select the ISO code of the country in which the instance has been installed from the drop down list.

Region

Select the region in which the instance is installed from the drop down list.

Multiple Bank Cash Concentration

Check this box to allow set up of Multi Bank Cash Concentration Liquidity Structures.

Cross Border Pool

Check this box to allow cross border pairs in pool liquidity structures.

Cross Border Sweep

Check this box to allow cross border pairs in sweep liquidity structures.

Cross Currency Pool

Check this box to allow cross currency structures in pool Liquidity Structures.

Cross Currency Sweep

Check this box to allow cross currency structures in sweep Liquidity Structures.

Products

Select the type of products allowed in the structure. The options are:

- Physical Sweeping Check this box to allow only sweep structures in the system
- Notional Pooling Check this box to allow only pooling structures in the system

Action When Account Is Blocked

Indicate the action to betaken by the system when an account in the structure is blocked. You can select one the following options;

- Skip Account Pair Skip the account pair and continue with the rest of the structure
- Skip Whole Structure Skip the whole structure

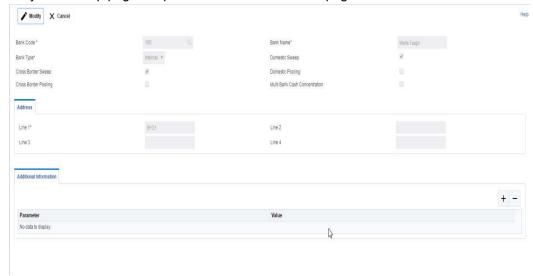
Custom Parameters

Specify any custom parameters specific to the instance. Click '+' to add a row and specify the **Parameter**, **Value** and **Description** of the same.Click '-' to remove a row.



6.3 Maintaining Bank Setup

Bank setup maintenance captures details of the banks participating in Liquidity Management. This set up is done both for the Host bank and the External banks. Click on Bank Setup link in the System Setup page to open the Bank Maintenance page.



You are required to input the following details in this screen:

Bank Code

Specify the bank code. You can select the bank code from the option list.

Bank Name

The system displays the bank name based on the selected bank code.

Bank Type

Select the bank type from the drop down list. The options are:

- Internal This is the bank that is implementing the GLM
- External These banks are different from the implementing bank

Domestic Sweep

Check this box if selected banks allow domestic sweeps.

Cross Border Sweep

Check this box if selected banks allow cross border sweeps

Domestic Pooling

Check this box if selected banks allow domestic pooling.

Cross Border Pooling

Check this box if selected banks allow cross border pooling.

Multi Bank Cash Concentration

Check this box if the selected banks is to participate in MBCC.

If the Bank is internal and this box is selected, it means that the host bank supports MBCC.

If the Bank is external and this box is selected, it means that the host bank can create MBCC structures involving these banks



Address

Specify the address of the bank.

Additional Information

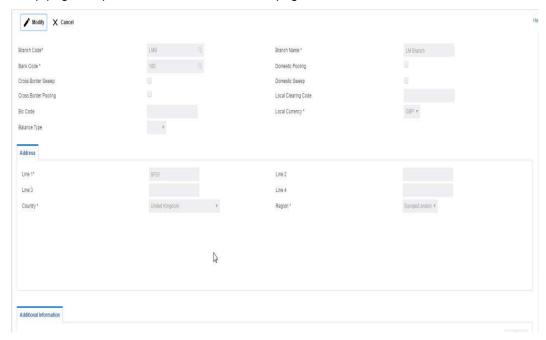
Specify additional parameters if any. Click '+' to add a row and specify the **Parameter**, **Value** of the same. Click '-' to remove a row.

Upload

Click Upload button to upload the bank details using excel sheet.

6.4 Maintaining Branch Details

Branch setup allows you to maintain the branch details. Click on Branch Setup link in the Setup page to open the Branch Maintenance page



You are required to input the following detail in this screen:

Branch Code

Specify the branch code.

Branch Name

Specify the name of the branch.

Bank Code

Specify the bank code. You can select the bank code from the option list. The list displays all the bank codes maintained in the system.

Domestic Sweep

Check this box if the selected branch allows domestic sweeps.

Cross Border Sweep

Check this box if the selected branch allows cross border sweeps.

Domestic Pooling

Check this box if the selected branch allows domestic pooling.



Cross Border Pooling

Check this box if the selected branch allows cross border pooling.

Local Clearing Code

Specify local clearing code for the selected branch.

BIC Code

Specify BIC code relevant for the branch.

Local Currency

Select the local currency used by the branch from the drop down list.

Balance Type

Select the balance type from the drop down menu. The options are:

- Online The account balances are fetched from DDA when sweep happens
- Offline The account balances maintained in LM by file upload are fetched for sweeps

Address

Specify the address of the branch in the text fields.

Additional Information

Specify additional information if any. Click '+' to add a row and specify the **Parameter** and **Value**. Click '-' to remove a row.

6.5 <u>Maintaining Payment Instructions</u>

Payment Instructions are maintained to define cross border payments for banks. Click on Payment Instruction Setup link in the Setup page to open the Payment Instruction Setup page..



Click on **New** button to add a new payment instruction. You are required to input the following details in this screen:

Branch Code

Specify the branch code for which the instruction is to be set. You can select the relevant bank code from the option list. The list displays all the branch codes maintained in the system.

Branch Description

The system displays the name of the branch based on the selected branch code.

Bank Code

The system displays the bank code to which the selected branch belong to.

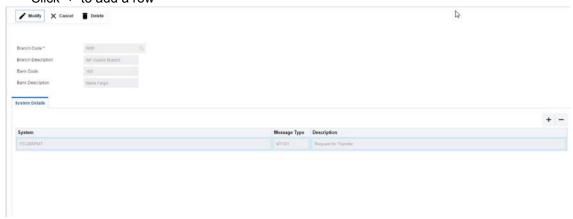


Bank Description

The system displays the name of the bank.

6.5.1 Maintaining System Details

Click '+' to add a row



You can specify the following system details:

System

Specify the payment system to be used for payment. It can be SWIFT, local Clearing etc

Message Type

Specify the message type used for the system.

Description

Specify a description for the message type.

Click '-' to remove a row.

6.5.2 Maintaining Payment Parameters

Specify the payment parameters for each system. Select the System for which the payment parameters are to be set. Click '+' to add a row.



You can specify the following details:

Parameter Name

Specify the parameter name.

Parameter Value

Specify the parameter value. Dynamic values are entered as #.

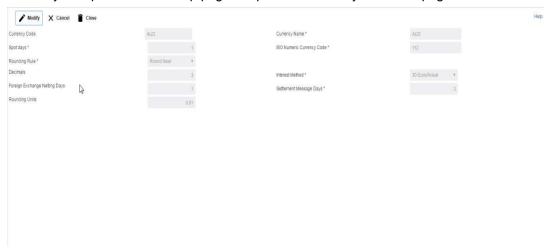
Click '-' to remove a row.



Click Save button to save the changes.

6.6 <u>Maintaining Currency Definitions</u>

Currency setup allows to maintain and define the currencies supported by the bank. Click on Currency Setup link in the Setup page to open the Currency Definition page.



Click on **New** button to add a new currency. You are required to input the following details in this screen:

Currency Code

Specify the currency code of the currency.

Currency Name

Specify the name of the currency.

Spot Days

Specify the spot days for the foreign exchange of currency.

ISO Numeric Currency Code

Specify the ISO numeric currency code for the added currency.

Rounding Rule

Select the rounding rule for the currency from the drop down menu. The options are:

- Truncate
- Up
- Down
- Round Near

Decimals

Specify the decimals allowed for the currency.

Interest Method

Select the interest method for the currency from the drop down list. The options are:

- 30 Euro/360
- 30- US/360
- Actual/360
- 30 Euro/365
- 30- US/365



- Actual/365
- 30 Euro/Actual
- 30- US/Actual
- Actual/Actual

Foreign Exchange Netting Days

Select the foreign exchange netting days for the currency.

Settlement Message Days

Select the settlement message days for the currency.

Rounding Units

Specify the rounding units for the currency

Click Save to save the details.

6.7 Maintaining Country Regulatory Compliance Setup

Country Regulatory Compliance setup allows you to define country level liquidity management regulatory compliance. Click on Country Regulatory Compliance Setup link in the Setup page to open the Country Regulatory Compliance Setup page.\



Click on **New** button to add regulatory compliance for a country. You are required to input the following details in this screen:

Country Code

Specify the country code of the country for which the compliance is to be set. You can select the relevant country code from the option list. The list displays all the country codes maintained in the system

Country Name

Specify the name of the country.

Domestic Sweep

Check this box to allow domestic sweep for the accounts in the country.

Cross Border Sweep

Check this box to allow cross border sweep for the accounts in the country.

Domestic National Pool

Check this box to allow domestic notional pool for the accounts in the country.



Cross Border Notional Pool

Check this box to allow cross border notional pool for the accounts in the country.

Cross Currency Sweep

Check this box to allow cross currency sweeps for accounts in the country

Cross Currency Pool

Check this box to allow cross currency pools for accounts in the country

Cross Border

Check this box to allow cross border account pairs in the country

Hybrid Structure

Check this box to allow hybrid structures in the country

Allowed Account Type

Select the account type allowed in the country from the drop down list. The options are:

- Resident
- Non Resident
- Both
- Not Applicable

Click Save to save the details.

6.8 Maintaining Currency Exchange Setup

Currency Exchange setup allows you to define the currency exchanges rates for pairs. Click on Currency Pair Setup link in the Setup page to open the Currency Pair Maintenance page.\



Click on **New** button to setup currency exchange rates. You are required to input the following details in this screen:

Currency 1

Specify the first currency for the pair.

Currency 2

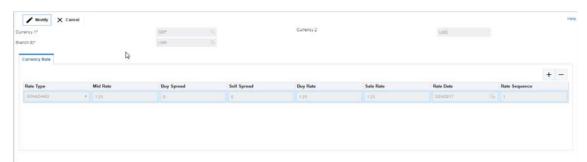
Specify the second currency for the pair.



Branch ID

Specify the branch ID for which the currency exchange rate is created. You can select the branch ID from the option list. The list displays all the branch IDs maintained in the system.

Click '+ button to add rows in **Currency Rate** section.



You can specify the following details:

Rate Type

Select the rate type from the drop down list. The options are:

- TC
- BILLS
- CASH
- DD
- STANDARD
- REVAL
- LREPAY

Mid Rate

Specify the mid rate for the currency pair.

Buy Spread

Specify the buy spread rate for the currency pair.

Sell Spread

Specify the sell spread rate for the currency pair.

Buy Rate

Specify the buy rate for the currency pair.

Sale Rate

Specify the sale rate for the currency pair.

Rate Date

Specify the rate date for the currency pair.

Rate Sequence

Specify the rate sequence for the currency pair.

Click Save to save the details.



6.9 Maintaining Branch Holiday Setup

Branch Holiday setup allows you to define the holiday dates for a country. Click on Branch Holiday Setup link in the Setup page to open the Branch Holiday Set-Up page.



6.9.1 **Uploading Branch Holidays**

The holiday lists for any particular branch is usually uploaded either using CSV files orthrough web-service. Click on 'Upload' button to open the upload window.



Click 'Browse' to search for the file and click 'Upload'.

6.9.2 Adding Adhoc Holidays

To add ad hoc holidays, click on **New** button. You are required to input the following details in this screen:

Branch Code

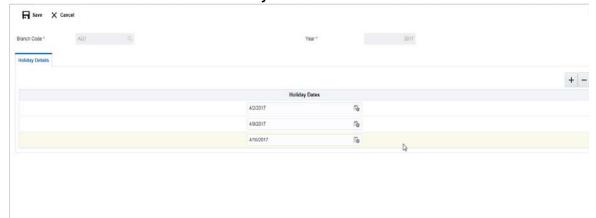
Specify the branch code for which to set holidays

Year

Specify the year to set dates



Click '+ button to add rows in Holiday Dates section.

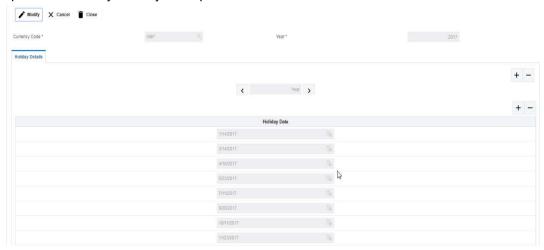


Click Save to save the details.

The holidays added will also be updated in the DDA.

6.10 Maintaining Currency Holiday Setup

Currency Holiday setup allows you to define the dates on which there will be no settlement of prior transactions for a currency. Click on Currency Holiday Setup link in the Setup page to open the Currency Holiday Set-Up..\



Click on **New** button to setup holiday dates for a currency. You are required to input the following details in this screen:

Currency Code

Specify the currency code for which the holiday dates are to set. You can also select it from the option list. The list displays all the currencies maintained in the system.

Year

Click '+ button to add row under year section. Specify the year for which the holidays are to be set.

Holiday Date

Click '+ button to add row under Holiday Date section. Specify the holiday dates. You can select the holiday dates using the calender.

Click Save to save the details.



6.11 Maintaining Customer Setup

Customer setup allows you to define the customers. Click on Customer Setup link in the Setup page to open the Customer Maintenance page..\



Click on **New** button to add customer. You are required to input the following details in this screen:

Customer ID

Specify the customer ID.

Customer Name

Specify the name of the customer.

Description'

Specify a description for the added customer.

Branch Code

Specify the branch code to which the customer belong to. You can select the branch code form the option list. The list displays all the branch codes maintained in the system.

Bank Code

The system displays the bank code as per the selected branch code.

Parent Customer ID

Specify the parent customer of the new customer. You can select the parent customer ID from the option list. The list displays all the customer IDs maintained in the system

Address

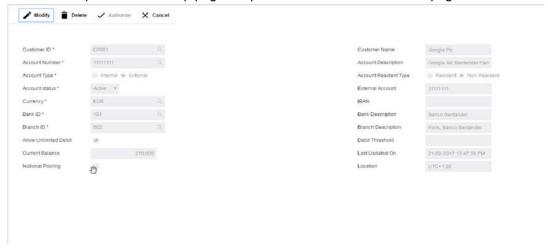
Specify the address of the customer.

Click Save to save the details.



6.12 Maintaining Account Setup

Account setup allows you to define the participating accounts for a customer ID. Click on Account Setup link in the Setup page to open the Account Maintenance page..\



Click on **New** button to add an account. You are required to input the following details in this screen:

Customer ID

Specify the customer ID. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system

Customer Name

The system displays the name of the customer.

Account Number

Specify the account number of the customer.

Account Description

Specify a description for the account.

Account Resident Type

Indicate the resident type of the account to be maintained. The options are:

- Resident
- Non Resident

Account Status

Select the status of the account from the drop down list. The options are:

- Active
- Blocked

Account Type

Indicate the type of the account to be maintained. The options are:

- Internal
- External

External Account

Specify the external account number. The field will be enabled only if the account type selected is External.



Currency

Specify the currency of the account. You can select the currency from the option list. The list displays all the currencies maintained in the system

Bank ID

Select the Bank associated with the account. You can select the bank ID from the option list. The list displays all the bank IDs maintained in the system

Bank Description

The system displays the description of the bank.

Branch ID

Select the Branch associated with the account. You can select the branch ID from the option list. The list displays all the branch IDs maintained in the system

Branch Description

The system displays the description of the branch.

Allow Unlimited Debit

Check this box to allow unlimited debit for the account.

Debit Threshold

Specify the debit threshold amount to be set. This fieldwill be disabled if the 'Allow Unlimited

Debit' field is selected.

Current Balance

Specify the current balance of the account.

Last Updated On

The system displays the date of last update.

Notional Pooling

Check this box to allow notional pooling for this account.

Location

Specify the location of the account.

6.12.1 Maintaining MT Parameters

You can enter the following details:

Start Time MT920

Specify the start time from which to accept MT920 messages.

End Time MT920

Specify the end time till which to accept MT920 messages.

Generate Frequency Hour MT920

Specify the frequency of MT920 messages.

Cut Off MT101

Specify the cut off time after which the MT101 messages wont be accepted.

Cut Off MT103

Specify the cut off time after which the MT103 messages wont be accepted.

Click Save to save the details.



6.13 Maintaining Sweep Frequency Setup

Sweep Frequency setup allows you to define custom frequencies for sweeps. Click on Sweep Frequency Setup link in the Setup page to open the Frequency Maintenance page..\



Click on **New** button to add an new frequency. You are required to input the following details in this screen:

Frequency ID

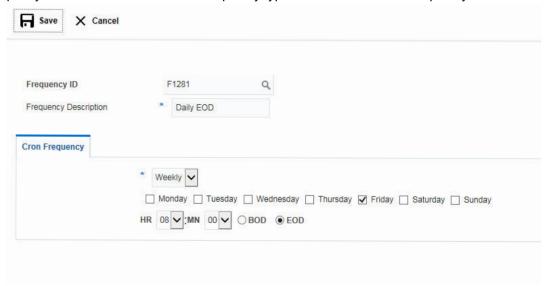
Specify a frequency ID.

Frequency Description

Specify a description for the new frequency.

6.13.1 Maintaining Cron-based Frequency

Specify the details for Cron-based frequency type to set a time based frequency.



You are required to input the following details in this screen:

Frequency

Select the frequency in which the sweep is to be executed from the drop down menu. The options are:

Daily -



- Weekly
- Monthly
- Yearly

Depending on the frequency selected, the system displays more options to set the correct frequency.

Click Save to save the details.

6.14 Maintaining External System Setup

External System setup allows you to define DDA interface. Click on External System Setup link in the Setup page to open the DDA Interface page.



Click on **New** button to add an new DDA interface. You are required to input the following details in this screen:

Branch ID

Specify the Branch ID. You can select the branch ID from the option list. The list displays all the branch IDs maintained in the system

Branch Description

The system displays the branch description.

Bank ID

The system displays the bank ID of the branch.

Bank Description

The system displays the bank description.

6.14.1 <u>Maintaining External System Details</u>

Click '+ button to add row under this section. You can input the following details:

DDA

Specify the core application with which ILM is to be interfaced.

Method Name

Specify the method name to be interfaced



Service Description

Specify a description for the method.

Integration Type

Select the type of integration to be done. The options are:

- WEB_SERVICE
- JMS_QUEUE

6.14.2 Maintaining Parameters

You can set customizable parameters for DDAs added. Select the DDA for which the parameters are to be added. Click '+ button to add row under 'Parameter' section.

You can input the following details:

Param Name

Specify the name of the parameter which has to be added.

Param Value

Specify the value for the parameter which has to be added.

6.15 Maintaining Sweep Product Setup

Sweep Product setup allows you to maintain details of different sweep products, which are taken from the core banking system. Click on Sweep Product Setup link in the Setup page to open the Sweep Product Maintenance page.





You are required to input the following details in this screen:

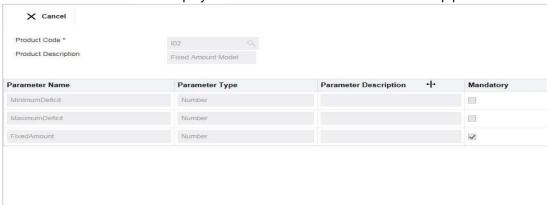
Product ID

Specify the sweep product ID, which is to be maintained. You can select the product ID from the option list. The list displays all the product IDs maintained in the system.

Product Description

The system displays the product description of the selected product.

Click **Get Details** button to display the related details of the selected sweep product.



The details are as below:

Parameter Name

The system displays the parameter name.

Parameter Type

The system displays the parameter type.

Parameter Description

The system displays the description of the parameter.

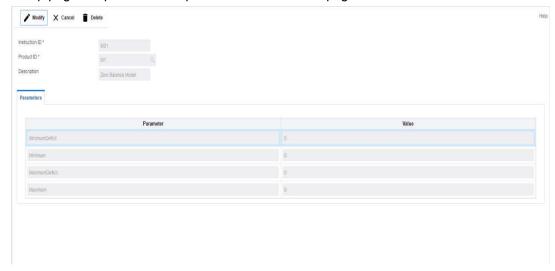
Mandatory

The system displays if the parameter is mandatory or not. If the check box is selected, the parameter is mandatory.



6.16 Maintaining Sweep Instruction Setup

Sweep Instruction setup allows you to maintain the different sweep instructions in LM system which are fetched from the core banking system. Click on Sweep Product Setup link in the Setup page to open the Sweep Product Maintenance page.



Click on **New** button to add an new sweep instruction. You are required to input the following details in this screen:

Instruction ID

Specify the instruction ID. You can select the instruction ID from the option list. The list displays all the instruction IDs maintained in the system.

Product ID

Specify the product ID. You can select the product ID from the option list. The list displays all the product IDs maintained in the system.

Description

The system displays the description of product.

Parameter

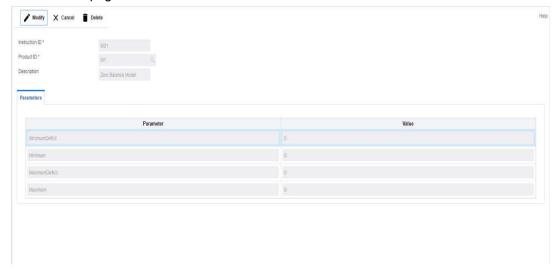
The system displays the list of parameters associated with the selected product ID and their values. You can enter the parameter values.

Click Save to save the details.



6.17 Maintaining Currency Cut off Setup

Currency Cutoff setup allows you to define the currency cut off times for a country. Click on MBCC Currency Cutoff Setup link in the Setup page to open the MBCC CCY Cut Off Maintenance page.



Click on **New** button to add currency cut off for a country. You are required to input the following details in this screen:

Country Code

Specify the country code to set up the currency cut off. You can select the country code from the option list. The list displays all the country codes maintained in the system

Country Description

The system displays the country description.

Region

Select the region from the drop down list. The list displays all the regions of the selected country.

6.17.1 Maintaining Cut Off Times

You can input the following details here:

Currency

Specify the currency for which the cut off time is to be set. You can select the currency from the option list. The list displays all the currencies maintained in the system

Message Type

Specify the message type to be associated with the currency. You can select the message type from the option list. The list displays all the message type maintained in the system

Incoming Cut Off Time (HH: MM)

Specify the incoming cut off time for the currency.

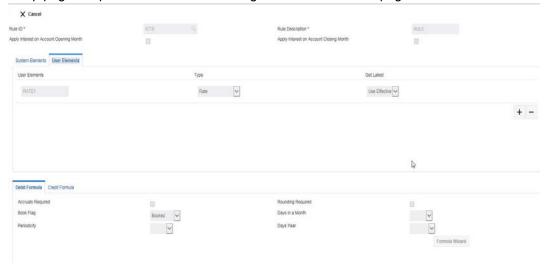
Outgoing Cut Off Time (HH: MM)

Specify the outgoing cut off time for the currency



6.18 Maintaining Interest Rule Setup

Interest Rule setup allows you to maintain previously maintained UDEs to create formula which is used by the system for interest calculations. Click on Interest Rule Setup link in the Setup page to open the Interest and Charge Rule Maintenance page..\



Click on **New** button to add a new rule. You are required to input the following details in this screen:

Rule ID

Specify a rule ID.

Rule Description

Specify a description for the rule.

Apply Interest on Account Opening Month

Check this box to apply the interest on the account opening month.

Apply Interest on Account Closing Month

Check this box to apply the interest on the account closing month.

6.18.1 Maintaining System Elements

To calculate interest or charges for an account, you require the following data:

- Principal The amount for which you want to calculate interest
- Interest period The number of days for which you want to apply interest
- Interest rate

These components, required to calculate interest, are called 'data elements' (the elements that provide the required data to calculate interest). Data elements are of two types:

- System Data Elements (SDEs)
- User Data Elements (UDEs)

System Data Elements (SDEs) can include be any of the following:

- Values for data elements like the balance in an account, on which interest has to be applied
- Number of transactions in a day



Information, such as the ones listed above, is constantly updated in the system and is readily available for computation of interest. They are therefore called SDEs.

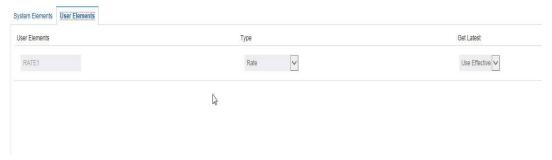
Click '+ button to add system elements.



Specify the system elements. You can select the system elements from the option list.

6.18.2 Maintaining User Elements

A rule consists of System Data Elements and the User Data Elements. Click '+ button to add User Elements under this section.



You can specify the following details:

User Elements

Specify a user element.

Type

Select the type of user element from the drop down list. The options are:

- Amount
- Rate
- Number
- Rate Code As Rate

Get Latest

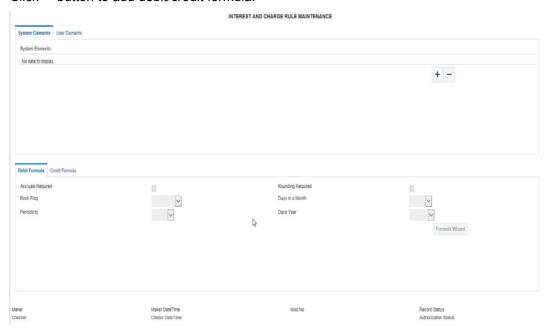
Select the option which is to be used as latest. The options are:

- Use Current
- Use Effective



6.18.3 Maintaining Debit/ Credit Formula

Click '+ button to add debit/credit formula.



You can specify the following details:.

Accruals Required

Check this box if accrual are required.

Rounding Required

Check this box if rounding is required.

Book Flag

Select the book flag from the drop down list. The options are:

- Booked
- Non Booked
- Tax

Days in a Month

Select the number of days to be considered in a month from the drop down list. The options are:

- Actual
- 30 Days'
- Euro-30

Periodicity

Select the frequency of using the formula from the drop down list. The options are:

- Daily
- Periodic

Days Year

Select the number of days to be considered in a year from the drop down list. The options are:

Actual



- 360 Days'
- 365 Days'

6.18.4 Formula Wizard

To apply interest or charges on an account, you require certain data. For example, to calculate interest for an account you would require the following data:

- the principal (the amount for which you want to calculate interest)
- the period (i.e., the number of days for which you want to apply interest)
- the rate (the interest rate)

When you want to apply charges on an account, you may have to specify the conditions for which you would need to apply charges. The amount that is charged may be different for different conditions. For example, you may want to apply charges on every extra account statement that has to be given to the customer.

When you define a 'Rule', you specify exactly how such data is to be picked up for calculating either the interest or charge. A 'Rule' identifies the method in which interest or charges have to be calculated.

The data required to calculate interest and charges are broadly referred to as 'data elements'. Data elements are of two types:

- System Data Elements
- User Data Elements

Using the System Data Elements and the User Data Elements that you define for a rule, you can create formulae. Formulae connect SDEs and UDEs to give a result. The result of a formula is the interest or charge that has to be applied on an account.

Click on the Formula Wizard button to open the Debit/Credit Formula wizard to create rules the result as per the set



Note

You can define any number of formulae for a rule.

6.18.4.1 **Building Blocks of Formulae**

Element



To build a formula you require certain building blocks. These blocks could be SDEs, UDEs or (the result of) other formulae that you have previously created.

Operators

Operators are symbols that you would use to build mathematical expressions while defining a formula. The following is a list of symbols that you would require to build a formula.

| Operator | Description |
|----------|-------------|
| + | Plus |
| - | Minus |
| 1 | Divide by |
| * | Multiply |

Logical Operators

Logical Operators are indicators of certain conditions that you specify while building a formula. The following is a list of logical operators that you would require to build a formula: 'AND' 'OR' and:

| Operator | Description |
|----------|---|
| AND | the conjunction 'and' |
| OR | the conjunction 'or' |
| > | greater than |
| >= | greater than or equal to (please note that there is no space between the two symbols) |
| < | less than |
| <= | less than or equal to (please note that there is no space between the two symbols) |
| <> | Not equal to (please note that there is no space between the two symbols) |
| = | equal to |

Functions

The following are the functional operators available while defining a formula:

| Operator | Description |
|----------|--------------------|
| ABS | Absolute value of |
| LEAST | minimum of |
| GREATEST | maximum of |
| SUM | the total value of |
| ROUND | round to |



| TRUNC | integer part of |
|---------|-----------------------------------|
| FLOOR | round off to the (lower) nearest |
| CEILING | round off to the (higher) nearest |
| POWER | to the power of |
| MOD | the remainder |

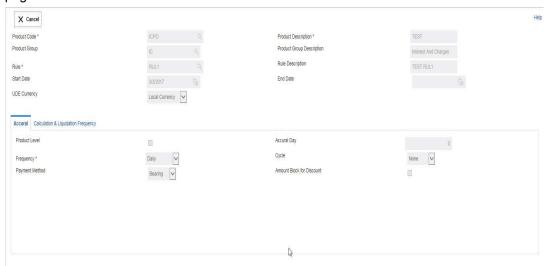
6.18.4.2 **Building Formulae**

Using the building blocks discussed earlier, you can create or build formulae. You can build any number of formulae for a rule using the SDEs, UDEs and the results of formulae that you have defined for the rule

Click Save to save the details.

6.19 Maintaining Interest Product Setup

Interest Product setup allows you to create, edit and update various products in LM. Click on Interest Product Setup link in the Setup page to open the Interest Product Maintenance page..\



Click on **New** button to add a new interest product. You are required to input the following details in this screen:

Product Code

Specify a product code for the new interest product.

Product Description

Specify a description for the new interest product.

Product Group

Specify the product group under which the new product is based. You can select the product group from the option list. The list displays all the product groups maintained in the system

Product Group Description

The system displays the description for the selected product group.



Rule

Specify the rule to be associated with the interest product. You can select the rule from the option list. The list displays all the rules maintained in the system

Rule Description

The system displays the description for the selected rule.

Start Date

Specify the date from which the interest product will be active.

End Date

Specify the date till which the interest product will be active.

UDE Currency

Select the UDE currency to be associated with the product from the drop down list. The options are:

- Account Currency
- Local Currency

Main Interest Rate UDE

Specify the main interest rate UDE. You can select the interest rate from the option list. The list displays all the interest rate UDEs maintained in the system

6.19.1 Maintaining Accrual

Product Level

Check this box if the interest accrual is to be done at product level.

Accrual Day

Specify the day the accrual should happen.

Frequency

Select the frequency of accrual from the drop down list. The options are:

- Daily
- Monthly
- Quarterly
- Semi Annual
- Annual
- On Liquidation

Cycle

Select the cycle for the accrual from the drop down list.

Payment Method

Select the payment method for interest accrual from the drop down list. The options are:

- Bearing
- Discounted

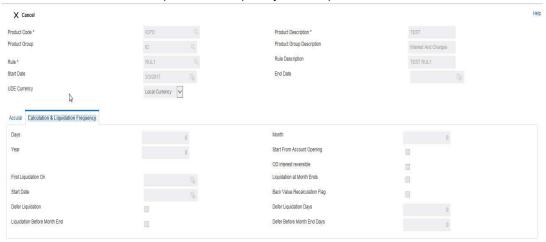
Amount Block for Discount

Check this box to block amount for discount.



6.19.2 Maintaining Calculation and Liquidation Frequency

Click on Calculation and Liquidation Frequency tab to open it.



You can enter the following details:

Days

Enter the number of days after which the interest will get calculated and accrued regularly.

Month

Enter the number of months after which the interest will get calculated and accrued regularly along with the days.

Year

Enter the number of years after which the interest will get calculated and accrued regularly along with the months and days.

For example, if Days= 15 and Months= 1, Interest will get computed for every one and half month.

Start from Account Opening

Check this box to start the calculation of liquidation from the start of account opening.

Refund Tax on Pre Closure

Check this box to refund tax on pre closure.

OD Interest Reversible

Check this box if OD interest is reversible.

First Liquidation On

Specify the date for calculation of first liquidation.

Liquidation at Month Ends

Check this box to allow liquidation at month ends.

Start Date

Specify the start date of liquidation.

Back Value Recalculation Flag

Check this flag to allow back value recalculation.



Defer Liquidation

Check this flag to allow deferring of liquidation.

Defer Liquidation Days

Specify the number of days by which the liquidation can be deferred.

Liquidation Before Month End

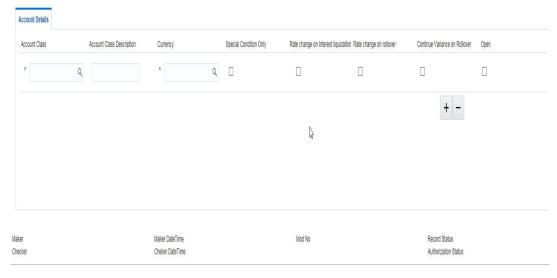
Check this box to allow deferring of liquidation before month end.

Defer Before Month End Days

Specify the number of days by which the liquidation can be deferred before month end.

6.19.3 Maintaining Account Details

Click '+ button to add row under Account Details section.



Enter the following details:

Account Class

Specify the account class. You can select the account class from the option list. The list displays all the account classes maintained in the system

Account Class Description

The system displays the description for the selected account class.

Currency

Specify the currency. You can select the currency from the option list. The list displays all the currencies maintained in the system

Special Condition Only

Check this box

Rate Change on Interest Liquidation

Check this box to allow change of rate on interest liquidation.

Rate Change on Rollover

Check this box to allow change of rate on rollover.

Continue Variance on Rollover

Check this box to continue the variance on rollover.

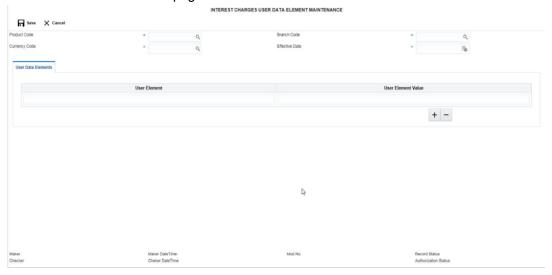


Open

Check this box to keep

6.20 Maintaining Interest UDE Setup

Interest UDE setup allows you to create, edit and update user data elements like interest and tax. Click on Interest UDE Setup link in the Setup page to open the Interest Charges User Data Element Maintenance page..\



Click on **New** button to add a new product. You are required to input the following details in this screen:

Product Code

Specify the product code You can select the product code from the option list. The list displays all the product codes maintained in the system

Branch Code

Specify the branch code. You can select the branch code from the option list. The list displays all the branch codes maintained in the system

Currency Code

Specify the currency code. You can select the currency code from the option list. The list displays all the currency codes maintained in the system

Effective Date

Specify the date from which this will be effective.

User Data Elements

Click '+ button to add row under this section. Specify the User Element and User Element Value.

Click Save to save the details.



6.21 Maintaining Interest Product Mapping Setup

Interest Product Mapping setup helps you in account class maintenance. Click on Interest Product Mapping setup Setup link in the Setup page to open the Interest Account Product Mapping page..\



Click on **New** button to map a new product. You are required to input the following details in this screen:

Account No.

Specify the account number to be mapped. You can select the account number from the option list. The list displays all the account numbers maintained in the system.

Interest Product

Specify the interest product. You can select the interest products from the option list. The list displays all the interest products maintained in the system.

Click Save to save the details.



6.22 Maintaining File Upload

File upload allows you to do all the setups using file uploads. You can also view the upload status here. Click on File Upload link in the Setup page to open the File Uploads and Upload Status page..\



You can view Click on **New** button to upload a new file. You are required to input the following details in this screen:

Functions ID

Select the function ID for which the upload is to be done

Operations

Select the operation for which the upload is to be done

Input File

Specify the excel file that is to be upload. Browse for the file and upload.

6.22.1 Viewing the upload status

Enter the following details to view the upload status:

Function ID

Select the function ID for which the upload status is to be viewed from the drop down menu. The options are:

- Bank Setup
- Branch Setup
- Payment Network Setup
- Currency Cutoff Setup
- Country Regulatory Setup
- Currency Pair Setup
- Customer Setup
- Participating Account Setup
- Balance Upload
- Currency Definition
- Currency Pair Setup



- Currency Exchange Setup
- Interest UDE Setup
- Interest Product Mapping Setup

From Date

Specify the start date from which the upload status has to be generated.

To Date

Specify the end date till which the upload status has to be generated.

File Upload Status

Enter the details and click **Get Details** button. The system displays the file upload status for the selected criteria. You can view the following details for the upload:

- Record Identifier
- Processed On
- Status
- Errors
- Warnings
- Record Data



7. Structure Maintenance

7.1 Introduction

Multiple structures have to be created within a framework to add accounts to allow sweeps/ notional pooling. Structure maintenance allows you to do the following:

- Create Structures
- Add accounts to it.
- Assign instruction to pair of accounts
- Assign frequencies to marked instructions

System allows you to add as many accounts and as many hierarchies as required. It also enables hybrid structures, where both pool and sweep can be configured. Hybrid structures are basically pool over sweep structures.

7.2 <u>Creating Structure</u>

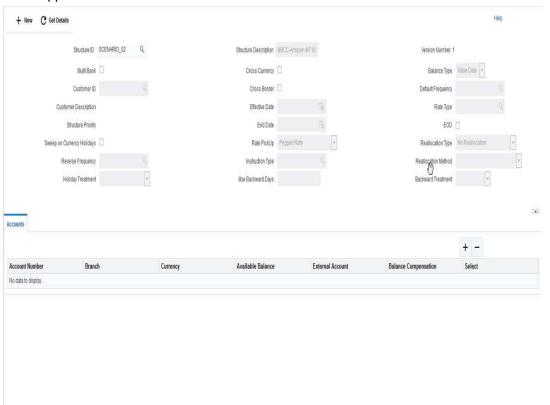
This section contains the following topics:

- Section 7.2.1, "Creating a New Structure"
- Section 7.2.2, "Maintaining Accounts in the Structure"
- Section 7.2.3, "Maintaining a Structure"
- Section 7.2.4, "Validating the structure"
- Section 7.2.5, "Setting Instruction Details"
- Section 7.2.6, "Specifying Payment Details"
- Section 7.2.7, "Modifying Structure"



7.2.1 Creating a New Structure

You can invoke the 'Structure Maintenance' page by clicking on the Structure Maintenance tab in application..



Click **New** button to add a new structure. Specify the following details:

Structure ID

The system displays the auto generated unique structure ID.

Structure Description

Specify a description for the new structure.

MultiBank

This field will get automatically selected on save if the underlying structure created has external bank accounts.

Cross Currency

This field will get automatically selected on save if the underlying structure is created with accounts which are in different currencies.

Customer ID

Specify the customer. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system

Customer Description

The system displays the description of the customer selected.

Cross Border

This field will get automatically selected on save if the underlying structure is created with accounts which are from two or more different countries.



Default Frequency

Specify the default frequency at which the structure should be executed. You can select the frequency from the option list. The list displays all the frequencies maintained in the system.

The frequency defined at the structure level will get defaulted to all the account pairs in the structure, but you can over ride and define a specific frequency for a specific pair of account.

This changed preference will override the global preference.

Effective Date

Specify the date from which the structure becomes effective. This date cannot be less than the system date but can be a future date.

Rate Type

Specify the rate type to be used in case the underlying structure has cross currency pairs.

End Date

Specify the date till which the structure is effective. This date should always be greater than the effective date.

EOD

Check this box to execute the structure at end of day.

Allow Sweep on Currency Holidays

Check this field to allow sweep on currency holidays.

Rate PickUp

Specify the rate pick up for the sweeps on currency holidays from the drop down list. The option are:

- Previous Days Rate
- Last Swept Rate for the Pair (when sweep frequency is not daily)
- Past 5 day Average Rate

Note

This field is active only if 'Allow Sweep on Currency Holidays' is selected.

Reallocation Type

Specify the type of interest reallocation to be done from the drop down list. System should do reallocation whereby the interest component is allocated back to the participating entities from the designated cash concentration accounts based on the instructions. The options are:

- No Reallocation No interest is paid back to the child accounts
- Reallocation without benefits Interest is allocated back to child account but without the additional benefits of accumulation.
- Reallocation with benefit Interest is allocated back to the child account with the additional benefits of accumulation.

Reverse Frequency

Specify the frequency at which the balance is remitted back to the child account. You can select the reverse frequency from the option list. The list displays all the reverse frequencies maintained in the system.



Instruction Type

Specify the instruction type to be applied to the structure. You can select the instruction type from the option list. The list displays all the instruction types maintained in the system.

Reallocation Method

Specify the reallocation method for the structure from the drop down list. This refers to the method in which the interest is shared with the participating account entities. The options are:

- Central Distribution Here the interest arrived at is credited to one central account, which can be any one of the participating accounts or a separate account.
- Even Distribution Here the interest is evenly distributed among the participating accounts.
- Even Direct Distribution HereInterest reward is evenly spread across all accounts with positive balances
- Percentage Based Distribution Here pre defined percentage of the interest is distributed among the participating accounts.
- Fair Share Distribution Here if the interest is positive, it is distributed among the positive contributors in the ratio of their contribution and if the interest is negative, it is distributed among the negative contributors in the ratio of their contribution.
- Reverse Fair Share Distribution Here if the interest is positive, it is distributed among
 the negative contributors in the ratio of their contribution and if the interest is negative,
 it is distributed among the positive contributors in the ratio of their contribution.
- Absolute Pro-Data Distribution Here absolute balances of all accounts are considered and the interest would be shared proportionally to all accounts.

Holiday Treatment

Specify the action to be taken on the structure in case of a holiday from the drop down list. The options are:

- Next Working Date Perform the action on the next working day.
- Previous working Date Perform the action on the previous working day
- Holiday Perform the action on the designated day itself

Max Backward Days

Specify the maximum number of days the system can go back to execute the structure when the execution day falls on a holiday.

Note

This field will be enabled only if 'Holiday Treatment' is selected as 'Previous Working Date'.

Backward Treatment

When the 'Holiday Treatment' is selected as 'Previous Working Day' and the 'Max Backward Days' set is also falling on a holiday, then the system decides on the day of execution of the action based on the Backward Treatment.

Select the backward treatment to be applied from the drop down list. The options are:

- Move Forward The action is performed on the next working day
- Holiday Perform the action on the holiday



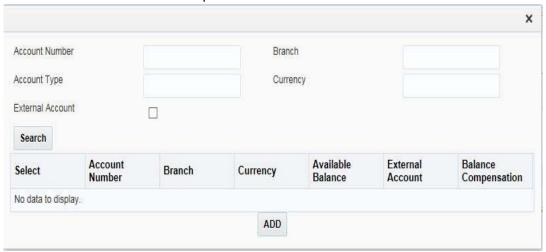
Note

This field is enabled only if 'Holiday Treatment' is selected as 'Previous Working Date'.

Parameters like Frequency, Reverse Frequency and Instruction type which are defined at the structure level will be applicable at each account pair level in the structure however user can change these parameters at the account pair level. If the user changes them at the account pair level the system will ignore the structure level set up and go by the pair level settings

7.2.2 <u>Maintaining Accounts in the Structure</u>

Accounts have to be added to create a structure. Click '+' button under the **Accounts** section to add accounts. The search box opens.

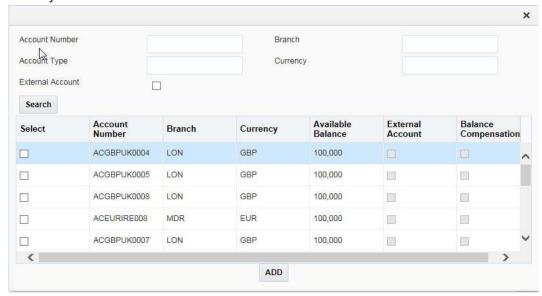


You can search for an account using the following parameters:

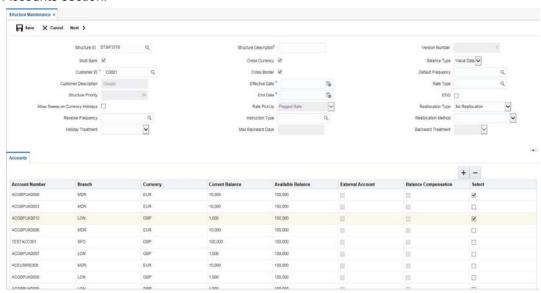
- Account Number
- Branch
- Account Type
- Currency
- External Account



Click 'Search' button without giving any parameters for viewing all the accounts maintained in the system for the selected customer.



Select the accounts to be added and click **ADD** button. The accounts get listed under the Accounts section.



You can view the following details of the added accounts:

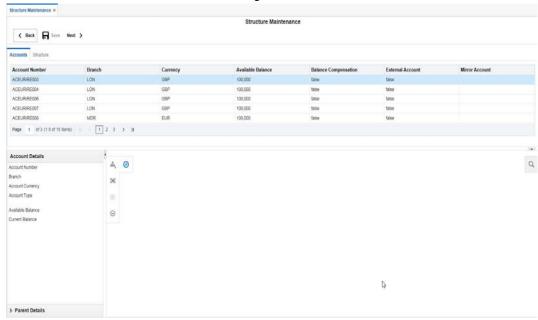
- Account Number The account number of the account
- Branch The branch to which the account belong to
- Currency The currency of the account
- Current Balance The current balance in the account
- Available Balance The available balance in the account
- External Account If the account is linked to external account or not
- Select Check this box to select the accounts and delete if not required.

Click 'Save' button to save the details.



7.2.3 <u>Maintaining a Structure</u>

After the participating accounts for a structure are selected, you can start creating the structure. Click **Next** button to start creating a structure.



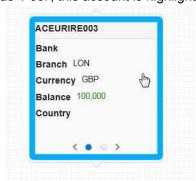
You can drag and drop accounts into the drawing plane to make the structure. For any account selected, click on the account to view the account details in the 'Account Details' section in left. You have to enter the following details:

Account Type

Select the account type of the account from the drop down list. The options are:

- Pool
- Sweep

When an account is set as 'Pool', this account is highlighted in blue in the system.

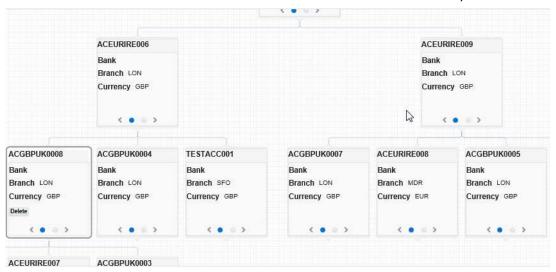




To set account as a child account, drag and drop the accounts onto the parent account.



Mouseover the account to view the '+' link. Click on it to view the structure expanded.



You can mouseover the account to view the '-' link. Click on it to compress the structure.

When an account selected is an external account, this account is highlighted in amber colour...



To view the parent account details of an account, select the account and click on the 'Parent Details' link in the left side of the application. You can view the following details:

- Parent Account Number
- Parent Account Bank
- Parent Account Branch



- Parent Branch Currency
- Parent Account Balance
- Parent Account Country
- Parent Account Type
- Parent Account Customer

7.2.3.1 <u>Isolating an account from the structure</u>

Mouseover an account in a structure to view the isolate link. Click on it to isolate the account and view its details. This will be helpful in case of complex structures.



To restore back and view the entire structure, you can click the restore link.





7.2.3.2 Deleting an account in the structure

Click on the account in the structure to view the 'Delete' button enabled. Click on this button to delete the account..



7.2.3.3 Maintaining the Control Panel

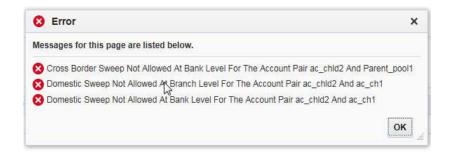
A control panel allows you to view the designed structure better. Click the control panel icon to open it. The table below briefs the icon and their functions in the control panel.

| Icons | Function | Description |
|-------|--------------------|--|
| 0 | Control Panel | Click this icon to open and close the control panel |
| 6 A B | Structure Panel | Click this icon to view the designed structure in various inbuilt views. |
| | Zoom to Fit | Click this icon to view the map zoomed to fit the screen |
| • | Zoom In | Click this icon to zoom in and get a closer look |
| 0 | Zoom Out | Click this icon to zoom out and get an overall look. |

7.2.4 Validating the structure

Once the structure is set, click 'Validate' button to validate the structure. The system checks the validations set up at the various setup screens and throws error, if the structure formed is not complying.

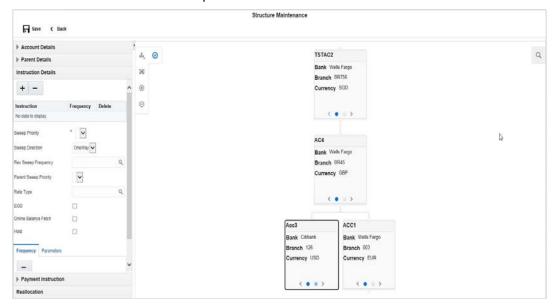




If all the validations are met, system displays a message 'Structure Validated Successfully'. Click 'OK'.

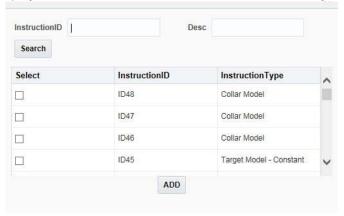
7.2.5 Setting Instruction Details

Click 'Next' to set the instruction parameters.



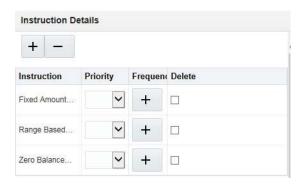
Click on a child account to set the instruction details for that child-parent account pair.

Click 'Instruction Details' link in the left of the application. Click '+' button to add instruction ID. An option list is displayed with all the instruction IDs maintained in the system.





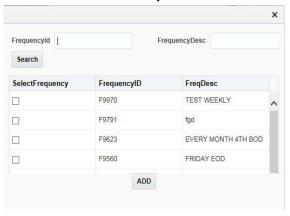
You can select the instruction ID from the option list. One or more instruction IDs can be selected for an account. Click 'ADD' to add them.



In case of multiple Instruction IDs, you can select the instruction priority from the drop down list

Setting Frequency

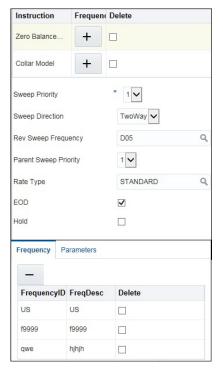
To set frequencies for the selected Instruction ID, click on '+' button. An option list is displayd with all the frequencies maintained in the system.



You can select the frequencies from the option list. One or more frequencies can be selected for an instruction. Click 'ADD' to add them.



You can click on the Instruction set and view the selected frequencies for it under the tab Frequency.



Delete

Select the check box and click '-' button to delete the frequency.

Viewing Parameters

You can view the parameters values set for an instruction. Select the Instruction and Click on Parameter tab to view the parameter values set for it.



Specifying Instruction Details

You can enter the following details in the Instruction Details section:

Sweep Priority

When a parent has more than one child accounts sweeps are executed based on the Sweep priority. During the sweep execution the least account priority pair will get executed first

Select the sweep priority for the account pair from the drop down list.

Sweep Direction

Select the sweep direction from the drop down list. The options are:

One Way - Credit balances are only swept out of the account



 Two Way - Sweepin is also supported when the balance of the child account are overdrawn

Rev Sweep Frequency

Reverse sweep frequency is the frequency at which the swept funds are remitted back to remitter account. Specify the frequency of reverse sweep. You can select the frequency from the option list. The list displays all the frequencies maintained in the system.

Parent Sweep Priority

The system provides prioritized sweeps to child accounts if a parent has multiple child accounts in debit balances and the Master/parent account does not have sufficient funds to cover all child account overdrafts during the 2 way sweep

The child account having the least priority will get the funds first.

Instruction Priority

Select the instruction priority from the drop down list. When more than one instruction is set up between a pair of accounts the instruction priority comes in to picture, the instruction with the least number will get executed first

Rate Type

Specify the rate type of the account pair. You can select the rate type from the option list. The list displays all the rate types maintained in the system

EOD

Check this box to execute the instructions at EOD.

Hold

Check this box to hold the execution of instruction of the account pair.

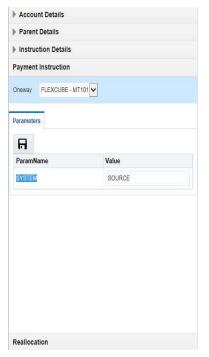
7.2.6 Specifying Payment Details

Payment details are set for the account pair based on which payment parameters will be sent to DDA to fetch the balances.

If the account pair is set for one way, only one way parameter can be viewed on screen. Else both one way and two way options can be viewed. Select the one way and two way parameters from the drop down list. The list displays all the parameters that are set for the account in payment parameters setup.



Payment Instruction for Beneficiary Account details are displayed on the payment instruction panel.



Click Save to save the structure.

7.2.7 <u>Modifying Structure</u>

Any structure which is designed can be modified by opening the structure and clicking on the Modify button. The following modifications can be done:

- Add or delete accounts in the structure
- Change the Instruction parameters set for an account pair

You cannot change the header account of a structure..



8. Balance Build

GLM is a standalone system with accounts and balances being mirrored from DDA\s. The actual accounts and balances are on DDA.

GLM will either pull the account turnover data from DDA and build the balance for the account or DDA will push the actual value dated balances to GLM tables based on which GLM will update the account balances and carry out its function of sweeping and pooling

8.1 <u>Maintaining Balance Upload</u>

Balance fetch parameter maintained at Branch Setup maintenance will govern the mode of balance update on GLM.GLM supports two modes of balance update, Online and Offline

8.1.1 Online Mode

In the online mode, the balances for the accounts in the branch will be fetched through a Web Service from the DDA. Basically it's a pull by GLM from DDA. The balance build always happens before the sweep/pool execution hence the sweeps/pool will always be performed on the latest balances on the account.

GLM builds online balances in the following manner.

8.1.1.1 Value Date Build

In this scenario GLM will fetch balances from the DDA. The balance fetch includes previous day (T-1) closing value date account balance and the account turnover for the current book date (T) based on which the balance is built for the account, The account turnover considers transaction posted by the DDA and the transactions posted by GLM as well (which may be due to Intraday/time based sweeps)

As part of account turnover fetch GLM can receive the following:

- Only current value dated (T) turnover. In this situation the TO is clubbed with previous day's value date balance to arrive at today's value date balance
- Both current value dated (T) turnover and back dated turnover (T-X, where X is the number of days) or
- Only back dated turnover (T-X, where X is the number of days).

8.1.1.2 DDA Turnover(BVT Turnover)

In this scenario GLM will only fetch the turnover for all the days in the BVT period without including the transactions that are posted by LM. This is used for BVT processing.

8.1.2 Offline Mode

In offline mode, the balances for the accounts in the branch will be fetched from the backend tables of GLM. These balances are updated through a periodic file upload from DDA. Basically it's a push from DDA to GLM. DDA will keep periodically pushing the balance files to GLM and the periodicity is governed by the DDA. GLM will refer to itsbackend tables before the start of sweep/pool.

In offline method GLM will build balances on actual value dated balances of the participant accounts (based on the last file upload from DDA)



Note

All transaction posted in DDA from GLM, will have a unique transaction code.



9. Maintaining Batches

9.1 Introduction

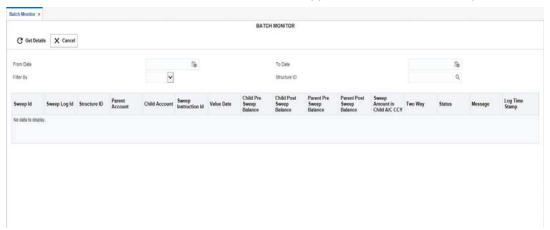
This chapter deals with the various batches maintained in the Global Liquidity Management Application.

This chapter contains the following sections:

- Section 9.2, "Sweep Monitor"
- Section 9.3, "BVT Monitor"
- Section 9.4, "Sweep Batch"
- Section 9.5, "Job Scheduler"
- Section 9.6, "Pool Batch"
- Section 9.7, "EOD Batch"

9.2 **Sweep Monitor**

This option enables you to view the batches for a structure according to structure ID and date. To invoke this screen, click 'Batch' tab on the application and select 'Sweep Monitor'.



You can enter the following details:

From Date

Specify the start date from which to view the batches.

To Date

Specify the end date till which to view the batches.

Filter By

Select the filtering criteria of the output from the drop down menu. The options are:

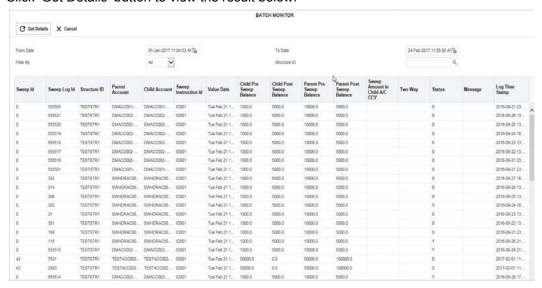
- All
- Exceptions
- Pending
- Success

Structure ID



Specify the structure ID for which the batches are to be viewed. You can select the structure ID from the option list. The list displays all the structure IDs maintained in the system.

Click 'Get Details' button to view the result below.



The report generated displays the following

| Column | Description |
|-----------------------------------|---|
| Sweep ID | Displays the sweep ID used to query transaction details and account information |
| Sweep Log ID | Displays the Sweep Log ID |
| Structure ID | Displays the structure ID of the executed structure |
| Sweep Instruction ID | Displays the sweep instruction ID that was executed |
| Parent Account | Displays the parent account number |
| Parent Pre Sweep Bal- ance | Displays the balance in the parent account before the execution of the sweep |
| Parent Post Sweep Bal- ance | Displays the balance in the parent account after the execution of the sweep |
| Child Account | Displays the child account number |
| Child Pre Sweep Bal- ance | Displays the balance in the child account before the execution of the sweep |
| Child Post Sweep Bal- ance | Displays the balance in the child account after the execution of the sweep |



| Column | Description |
|--|---|
| Sweep Amount in Child Account CCY | Displays the sweep amount in child account currency |
| Value Date | Displays the value date of the execution |
| Two Way | Displays if the sweep is a two way sweep. The values displayed are 'Y' or 'N' |
| Status | Displays the status of the sweep. The values displayed can be 'S', 'P' or 'E' representing Success, Pending and Exception respectively. |
| Message | Displays any exception message generated |
| Log Time Stamp | Displays the system time of the sweep execution |

9.3 BVT Monitor

This option enables you to view the back value dated transactions executed. To invoke this screen, click 'Batch' tab on the application and select 'Sweep Monitor'.



You can enter the following details:

From Date

Specify the start date from which to view the batches.

To Date

Specify the end date till which to view the batches.

Filter By

Select the filtering criteria of the output from the drop down menu. The options are:

- All
- New
- Exceptions
- Pending
- Success



Account Number

Specify the account number for which the BVT details need to be viewed.

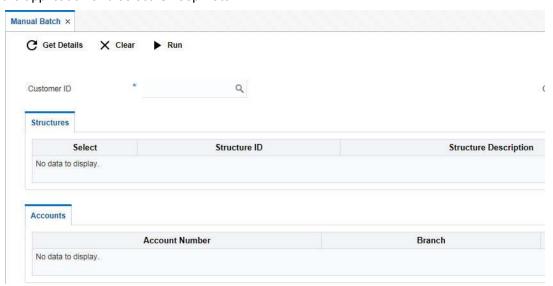
9.3.1 BVT Report

You can view the following details in this section:

| Column | Description |
|---------------------|---|
| BVT ID | Displays the BVT ID |
| Account Number | Displays the account number |
| Value Date | Displays the value date of the transaction |
| Transaction Date | Displays the execution date of the transaction |
| Log Time Stamp | Displays the time at which the transaction executed |
| Status | Displays the status of the BVT. The values can be SUCCESS, PENDING or EXCEPTION |
| Message | Displays the exception message |
| Amount | Displays the amount in the transaction |

9.4 Sweep Batch

Using this option, you can do a sweep manually. To invoke this screen, click 'Batch' tab on the application and select 'Sweep Batch.'.



You can enter the following details here:

Customer ID

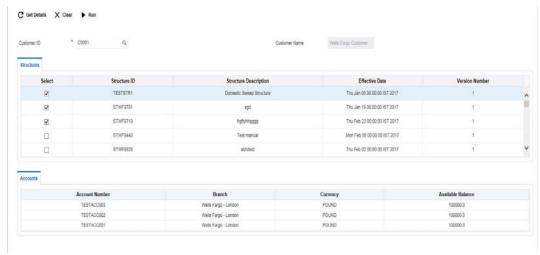
Specify the customer ID for which manual batches are to be run. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system



Customer Name

The system displays the name of the selected customer.

Click 'Get Details' button to view the structures linked to the customer ID and accounts linked to each structure.



Structures

You can view the following details in this section:

| Column | Description |
|--------------------------|---|
| Structure ID | Displays the structure ID |
| Structure Description | Displays the description for the structure |
| Effective Date | Displays the date from which the structure is effective |
| Version Num- ber | Displays the version number of the structure |

Accounts

Click on a Structure ID row to view the details of accounts linked to the structure. You can view the following details in this section:

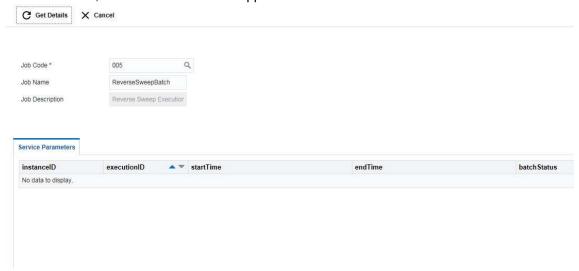
| Column | Description |
|----------------------|--|
| Account Number | Displays the account number |
| Branch | Displays the branch to which the account belongs |
| Currency | Displays the currency of the account |
| Available Balance | Displays the available balance in the account |

Click 'Select' check box to select the structure IDs and click 'Run' button to execute the selected structures.



9.5 Job Scheduler

Using this option you can view the satus of various jobs executed in the LM sysem. To invoke this screen, click 'Batch' tab on the application and select 'Job Scheduler.'.



You can enter the following details here:

Job Code

Specify the job code for which the scheduler is to run. You can select the job code from the option list. The list displays all the job codes maintained in the system

Job Name

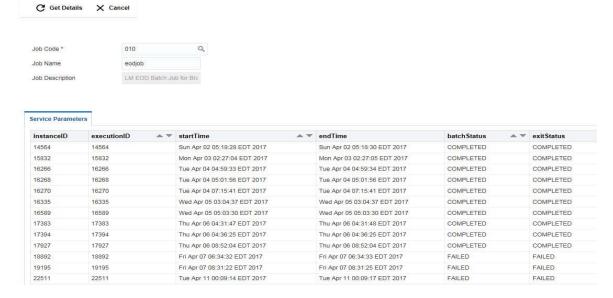
The system displays the name of the job selected.

Job Description

The system displays the description for the selected job.

9.5.1 <u>Service Parameters</u>

Click 'Get Details' button to view the parameters details in this section.





You can view the following details:

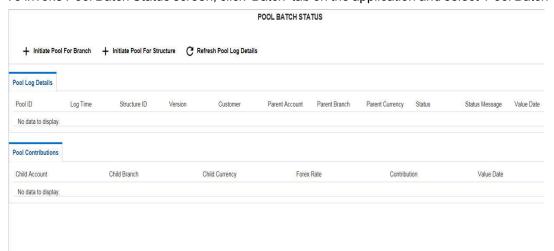
| Column | Description |
|--------------|---|
| Instance ID | Displays the Instance ID |
| Execution ID | Displays the Execution ID |
| Start Time | Displays the start time of the batch |
| End Time | Displays the end time of the batch |
| Batch Status | Displays the status of the batch execution. The values displayed can be 'RUNNING', 'FAILED' or 'COMPLETED'. |
| Exit Status | Displays the exit status of the batch. The values displayed can be 'FAILED' or 'COMPLETED'. |

Click 'Cancel' to close the page.

9.6 Pool Batch

LM system provides pool functionalities through batch, Online and for Simulations. Pool is used to pool the funds to get benefits. Pool structures are created using Structure Maintenance Screen with certain rules and pool business validations. Once created, pool can be run through Pool Batch Status Screen by different use case flows provided. The details of pool log and contributions are displayed on the screen for run results. For more detailed reports we can use report module to generate detailed reports. Pool for a prospect or existing customer can be simulated using simulations module.

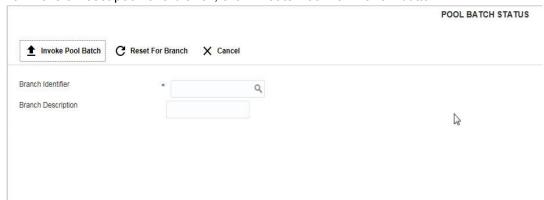
To invoke Pool Batch Status screen, click 'Batch' tab on the application and select 'Pool Batch





9.6.1 Initiating Pool for Branch

To invoke or reset pool for a branch, click 'Initiate Pool For Branch' button.



Branch Identifier

Specify the branch for which the pool has to be executed or reset. You can also select the branch code from the option list. The list displays all the branch codes maintained in the system.

Branch Description

The system displays the description for the selected branch.

9.6.1.1 Invoke Pool Batch

Click on 'Invoke Pool Batch' button to start the pool batch for the selected branch. You get a message saying 'Pool Batch for the selected branch has started'. Click 'OK'.

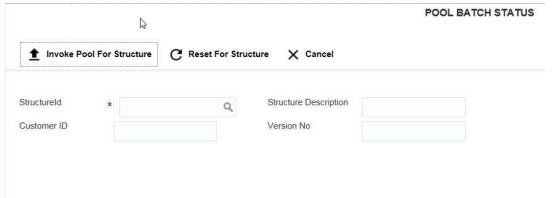
9.6.1.2 Reset Pool Batch

Click on 'Reset Pool Batch' button to reset the pool batch for the selected branch. You get a message saying 'Pool Batch for the selected branch is reset'. Click 'OK'.

Click 'Cancel' to cancel the page and go back to the home page.

9.6.2 Initiating Pool for Structure

To invoke or reset pool for a structure, click 'Initiate Pool For Structure' button.



Structure ID

Specify the structure for which the pool has to be executed or reset. You can also select the structure ID from the option list. The list displays all the structure IDs maintained in the system.



Structure Description

The system displays the description for the selected structure.

Customer ID

The system displays the customer ID associated with the selected structure.

Version No

The system displays the version number of the selected structure.

9.6.2.1 Invoke Pool Batch

Click on 'Invoke Pool For Structure' button to start the pool batch for the selected structure. You get a message saying 'Pool Batch for the selected structure has started'. Click 'OK'.

9.6.2.2 Reset Pool Batch

Click on 'Reset For Structure' button to reset the pool batch for the selected structure. You get a message saying 'Pool Batch for the selected structure is reset'. Click 'OK'.

Click 'Cancel' to cancel the page and go back to the home page.

9.6.3 Refreshing Pool Log Details

Click on 'Refresh Pool Log Details' button to view the pool log details.

9.6.4 **Pool Log Details**

You can view the following details under the Pool Log Details section:

| Column | Description |
|-----------------|---|
| Pool ID | Displays the pool ID |
| Log Time | Displays the log time |
| Structure ID | Displays the ID of the structure being executed |
| Version | Displays the version of the structure |
| Customer | Displays the name of the customer |
| Parent Account | Displays the parent account number |
| Parent Branch | Displays the branch to which the parent account belong to |
| Parent Currency | Displays the currency of the parent account |
| Status | Displays the status of the execution |
| Status Message | Displays the status message |
| Value Date | Displays the value date of execution |



9.6.5 Pool Contributions

You can view the following details under the Pool Contributions section:

| Column | Description |
|----------------|--|
| Child Account | Displays the child account number |
| Child Branch | Displays the branch of the child account |
| Child Currency | Displays the currency of the child account |
| Forex Rate | Displays the forex rate fixed |
| Contribution | Displays the amount contributed by the child account |
| Value Date | Displays the value date of the execution |

9.7 EOD Batch

LM system allows you to perform EOD operations manually using the EOD batch screen. The EOD tasks are performed in a given order for a given branch. The order of jobs invoked during the EOD is as below:

- BVT Sweep
- EOD Sweep of Account Pairs
- EOD Sweep of Structures
- EOD Pool
- EOD IC
- EOD Date Flip

To invoke EOD Batch Status screen, click 'Batch' tab on the application and select 'EOD Batch;



9.7.1 Invoking EOD Batch

Enter the following details:

Branch Code

Specify the branch for which the EOD is to be initiated. You can also select the branch code from the option list. The list displays all the branch codes maintained in the system.



Branch Description

The system displays the description for the selected branch code.

Click 'Invoke EOD Batch' button to initiate EOD batch. System displays a message saying 'EOD batch for selected branch has started.'

9.7.2 Invoking DateFlip

Select the branch for which the date flip has to be done from the option list.

Click on 'Invoke DateFlip' button to move the application to the next working date.

Click 'Cancel' button to close the current page and view the home page.

9.7.3 Invoking EOD IC

Select the branch for which the EOD IC has to be done from the option list.

Click on 'Invoke EOD IC' button to start the EOD IC for the selected branch

Click 'Cancel' button to close the current page and view the home page.

9.7.4 Viewing EOD Status

To view the status of the EOD jobs executed, you can fetch the details using Job Scheduler.

For more information on 'Job Scheduler' refer to the section ""Job Scheduler" on page 6' in this User Manual.



10. BVT Handling

During the balance build process, whenever system receives a transaction for which value date is less than the system date of the branch (booking date), system will mark that transaction/s as BVT.

During the EOD processing, GLM will identify accounts and their related structures for which back value dated transaction has to be processed. The BVT processing will always be done at the structure headers EOD.

The system rebooks the sweeps (in case of physical pooling) and adjusts the interest amount that had been accrued and settled in the accounts when you input a transaction with a back value date. In case of a change in the Account Structure in the interim between the Back Value Transaction (BVT) date and current date, the system uses the account structure existing on the execution days.

10.1 BVT Handling

Any back valued transaction will result in rebooking of sweeps from that particular BVT date. If the Account Structure had undergone a change in the period between the BVT date and current date, system will take the appropriate previous structure information into account while replaying the sweeps

System will carry out the following steps during BVT processing

| Condition | Action |
|---|---|
| Reversal of Sweeps | System Reverses all the sweep instructions executed on relevant structures from back value date to current date |
| BVT balance adjustments | System adjusts the balances of an account based on BVT transactions |
| Re-play sweep instructions | System replays all the sweep instructions from Back value date to current date for all related structures, taking into account the BVT adjusted balances. |
| BVT update to Core Bank- ing System | Send post-BVT, post-sweep balance corrections for all effected accounts, considering BVT adjustments to Core Banking System |

System will process BVT only for Value Date based sweeps.

Whenever a BVT transaction hits an account, the corresponding Account that was active on that effective date is taken into consideration for pre-liquidity management and post-liquidity management balances.

10.1.1 Replay of Sweeps

Replay of sweeps will be an internal process to GLM and are carried out in the following manner:

 All the sweep transactions, if any, of affected structures are to be reversed on the BVT date



- Considering the BVT sweep adjustments, the System will replay all the sweeps in order to ensure that value dated balances for Parent Account as well as other Child Accounts in the structure are correctly updated
- Considering the updated System account balances, the system will reverse the sweep transactions, including the reverse sweeps, and then replay the sweep cycle till the current processing date
- Replayed sweeps (re-booked entries) will have the booking date as the processing date (date on which BVT is processed which would be the current system date for the account) and the value date will be in back period
- While processing multiple BVT entries for an account the system will start processing the BVTs from the earliest value date.
- The Post Sweep Balances are updated accordingly for the Account + Effective Date + Account Combination

The accounting entries hand off to the core banking system will be done according to the payment instruction maintenance parameters maintained at the branch level.

10.1.2 Pool Structures

For pooling structured affected by BVT transactions, system will get all the contribution made to the LM contributions table from the BVT date and adjust the contribution table for all the structures which had BVT accounts.

10.1.3 Multicurrency

While replaying sweep instructions, system considers exchange rates for the particular date in the back period, where cross currency sweeps are involved

10.1.4 BVT with Structural Changes

While replaying sweep instructions, system considers appropriate historic structures



11. Simulation of Liquidity Structures

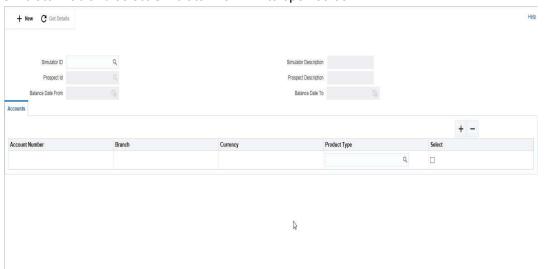
11.1 Introduction

Banks/Customers can simulate the structure, perform the sweep and check the balances using the sample data for a specific period of time. If the results are satisfactory, this structure can be saved for real time use. Simulation structure provides the following benefits:

- Check post sweeping balances using historical data
- Make account level changes and simulate to observe changes in balances
- Create new structures based on user requirements and simulate with user input data
- Convert simulated structures to real structure
- Copy the interest rates and terms & conditions while converting the simulated structure into real structure and redefine if required

11.2 Simulation with New Data

You can use the Simulator screen to simulate new data and generate structures. Click on Simulator Tab and select Simulator New link to open screen..



Click New button to start a new simulation. You can specify the following details here:

Simulator ID

The system displays the simulator ID that is auto generated.

Simulator Description

Specify a description for the simulator ID.

Prospect ID

The system displays the auto generated prospect ID.

Prospect Description

Specify a description for the prospective customer.

Balance Date From

Specify the start date for the simulation.



Balance Date To

Specify the closing date for the simulation. The To date should be more than the From date.

11.2.1 Adding Accounts for the Structure

To add accounts click on Sample File button to download the excel file from the system. You can enter the account details and Click Upload button to upload the file.

Product Type

Specify the product from the pick list. All the accounts uploaded will be assigned this product type.

Click on '+' button to add accounts. All the uploaded accounts will be listed here. You can select the accounts and click 'ADD'.

Click 'Next' button to start creating the structure. The liquidity structure can be designed and the balances can be viewed in as in the normal structure maintenance.

For more information on 'Structure Maintenance' screen refer to the section "Maintaining a Structure" on page 7' in this User Manual.

Once the structure is designed and parameters are set, you can click on 'Simulate' button. The structure will be saved and sweeps will be executed.

Note

The simulation will be executed only if the balances uploaded are for the period in which the simulation is executed.

You will be directed to the Reports screen. ,

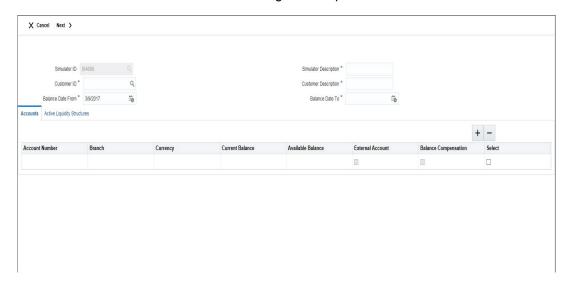


Click on 'Submit for Approval' or 'Discard'.



11.3 Simulation with Existing Data

You can use the Simulator screen to simulate existing data and generate structures. Click on 'Simulator' Tab and select 'Simulator Existing' link to open screen..



Click New button to start a new simulation. You can specify the following details here:

Simulator ID

The system displays the simulator ID that is auto generated.

Simulator Description

Specify a description for the simulator ID.

Customer ID

Specify the customer ID. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system.

Customer Description

Specify a description for the prospective customer.

Balance Date From

Specify the start date for the simulation.

Balance Date To

Specify the closing date for the simulation. The To date should be more than the from date.



11.3.0.1 Simulating with Active Structure

For simulating an existing active structure, click on 'Active Liquidity Structure' tab.



Click on + button to view all the active structures listed out. Select the structure required and click 'ADD'.

You can add new accounts for the selected structure if required. Click on 'Account' tab to open it. Click on '+' button to add accounts. All the uploaded accounts will be listed here. You can select the accounts and click 'ADD'.

After the structure selection (also if required account selection) click 'Next' button to go to the next screen. Here you can view the structure selected and the new accounts selected. Now you can start adding account to the structure. The liquidity structure can be designed and the balances can be viewed in as in the normal structure maintenance.

For more information on 'Structure Maintenance' screen refer to the section "Maintaining Accounts in the Structure" on page 5' in this User Manual.

Click on 'Simulate' button to save the simulation structure. Sweeps will get executed and you will be directed to reports screen.



Click on 'Submit for Approval' or 'Discard'.



12. Dashboards

12.1 Introduction

The global liquidity management dashboard provides various information to the user who logs in based on the role associated. The key features of the dashboard are as follows.

- Easy access to alerts and exceptions based on the role.
- Easy view of the data of the customers.
- Summary of the transactions for bank managers to view logically categorized applications for easy analysis and processing

You can view the following Dashboards based on the 'User Role' you are mapped to:

- Banker dashboards
- RM/Corporate dashboard

Each 'User Role' would not require all of the above, hence the system enables grouping of these Dashboards based on the 'User Role'.

Every LM will have a factory shipped branch called the LMB branch in which the currency exchange rates are maintained. All the currencies shown in the dashboard are converted based on these rates.

The following sections explain, in detail, the features associated with each Dashboard, the groups, and the 'User Role' associated with each group.

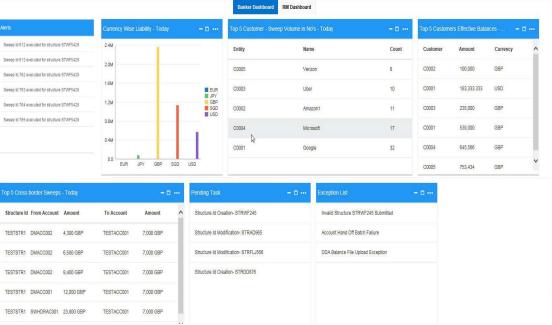
12.2 Banker Dashboard

In the Banker Dashboard, the application allows you to do the following:

 View a system wide summary of the LM transactions as well as system alerts and exceptions based on the role.



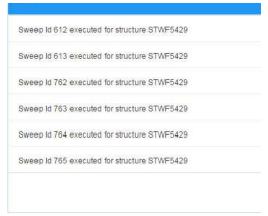
View the data of all the customers you have access to.



Various widgets for bankers are discussed under the following headings.

12.2.1 Alerts

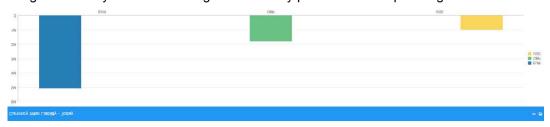
This widget displays the system alerts generated by all the maintenance screens to the banker. This real time notification to the banker can reduce the turnaround time on roadblocks.



12.2.2 Currency Wise Liability

This widget displays the currency wise liability balances across regions in five maincurrencies (USD, EUR,GBP,JPY and SGD). This is shown as a bar graph. You can view the balances by hovering over the graph.

This gives a ready reference on regional currency positions for FX planning.



12.2.3 <u>Top Five Customers Effective Balances</u>

This widget lists the top five customers based on the total available balance. The balances are segregated for sweep structures and pool structures and the cumulative balances are shown for both.

This helps to identify the top liquidity customers in a period of time and strategize the sale and customer retention accordingly.

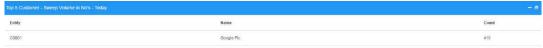


The various columns in the widget are as below:

| Column | Description |
|----------|---|
| Customer | Displays the customer name |
| Amount | Displays the balance amount of the customer |
| Currency | Displays the currency of the balance amount |

12.2.4 <u>Top Five Customers - Sweep Volume in Numbers</u>

This widget displays the most active sweep customers for the day. It can help in estimating revenue from each customer when charges are sweep based.



The various columns in the widget are as below:

| Column | Description |
|-----------|------------------------|
| Entity ID | Displays the entity ID |

| Column | Description |
|--------|-----------------------------------|
| Name | Displays the name of the Customer |
| Count | Displays the count of sweeps |

12.2.5 <u>Top Five Cross Border Sweeps</u>

This widget displays the top five cross border sweeps for the day in terms of sweep amount. You can drill down and view the details of the sweep.

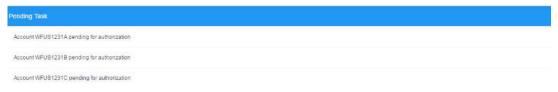


The various columns in the widget are as below:

| Column | Description |
|--------------|---|
| Structure ID | Displays the Structure ID |
| From Account | Displays the account number from which the sweep was done |
| Amount | Displays the amount in the account |
| To Account | Displays the account number to which the sweep was done |
| Amount | Displays the amount in the account |

12.2.6 **Pending Task**

This widget lists all the pending authorization tasks. You can drill down the list to view the authorization screen. This helps to prioritize and ascertain the authorizations.



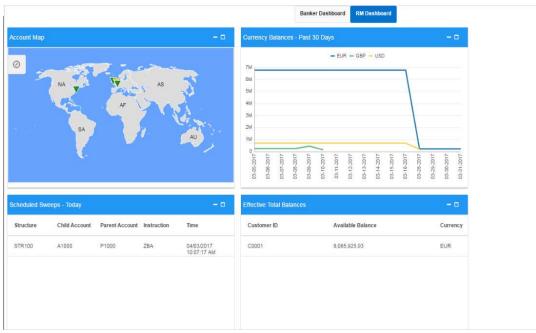
12.2.7 Exception List

This widget lists out all the exceptions encountered for the day and pending for clearance.



12.3 RM Dashboard

Click the **RM Dashboard** tab on the screen. The system displays the list of customers. Select the customer for which the dashboard is to be displayed by clicking the '**Select**' link. The dashboard for the selected customer will be displayed.



RM dashboard allows you to view summary of LM transactions and relevant system alerts

Various dashboards for corporate are discussed under the following headings.

12.3.1 Account Map

In this widget, you can view the currency wise balances of a corporate across all structures in a particular location. You can hover over the dots in a region to see the balances.



The colour of the dots are different depending on the balances.:

| Colour of the Dot | Description |
|-------------------|--|
| Green | The location has positive balances across the currencies |
| Amber | The location has both positive and negative balances across the currencies |
| Red | The location has negative balances across the currencies |

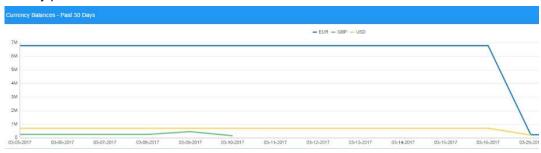
A control panel allows you to view the maps better. Click the control panel icon to open it. The table below briefs the icon and their functions in the control panel.

| Icons | Function | Description |
|-------|------------------|--|
| 0 | Control Panel | Click this icon to open and close the control panel |
| 96 | Zoom to Fit | Click this icon to view the map zoomed to fit the screen |
| • | Zoom In | Click this icon to zoom in and get a closer look |
| 0 | Zoom Out | Click this icon to zoom out and get an overall look. |

12.3.2 Currency Balances - Past 30 days

This widget displays the corporate currency wise total positions on a particular day for the past 30 days. The currency balance refers to the EOD balances

This will help to ascertain the global currency positions of the corporate and the changes in currency positions



12.3.3 Scheduled Sweeps - Today

This widget displays the list of sweeps scheduled for the day. The scheduled sweeps will be displayed as per the logged in user's time zone.



The various columns in the widget are as below:

| Column | Description |
|-------------------|--|
| Structure ID | Displays the Structure ID |
| Child Account | Displays the child account number |
| Parent Account | Displays the parent account number |
| Instruction | Displays the instruction that the pair is assigned |

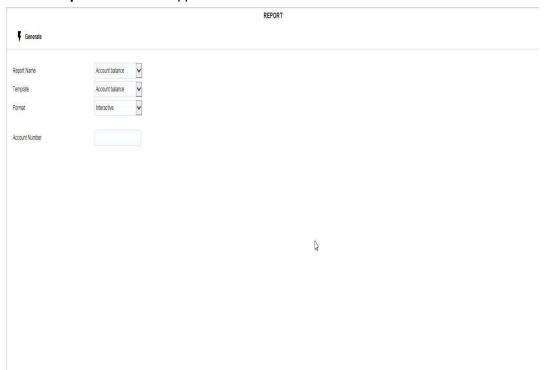
13. Reports

13.1 Introduction

Reports allow you to retrieve information on the several operations that were performed during the day. This chapter discusses the various reports which can be generated using the Oracle Global Liquidity Management application.

13.2 **Generating Report**

You can generate the various reports using the reports screen. To invoke the report screen, click on **Reports** tab on the application.



Specify the following general details:

Report Name

Select the name of the report to be generated from the drop down list. The list displays the following options:

- Interest Accrual Report
- Sweep Reject Report
- Sweet Structure Report
- Sweep Summary Report

Template

The system displays the template of the report based on the report to be generated.



Format

Select the format in which the report is to be generated from the drop down list. The list displays the following options:

- Interactive
- PDF
- HTML
- RTF
- EXCEL
- PowerPoint

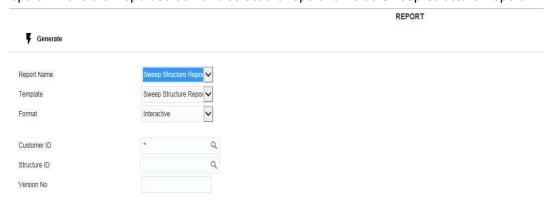
Click Generate button to generate the report in the selected format.

This section contains the following topics:

- Section 13.2.1, "Sweep Structure Report"
- Section 13.2.2, "Sweep Reject Report"
- Section 13.2.3, "Sweep Summary Report"
- Section 13.2.4, "Interest Accrual Report"

13.2.1 Sweep Structure Report

This report provides details on all the Sweep structures maintained with details of the sweep agreements between the participant accounts. You can view it as Daily report and Range report. Invoke the Report screen and select the report name as Sweep Structure Report.



Specify the following additional details:

Customer ID

Specify the customer ID for which the report is to be generated. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system.

Structure ID

Specify the structure ID for which the report is to be generated. You can select the structure ID from the option list. The list displays all the structure IDs maintained in the system.

Version No.

Specify the version number for which the report is to be generated.

Click **Generate.** The report will be generated as below:

Structure ID Structure Report

Structure ID Structure ID Structure Report

Structure ID Structure ID Structure ID Structure Valid From Date Structure Valid From Date ID DATE

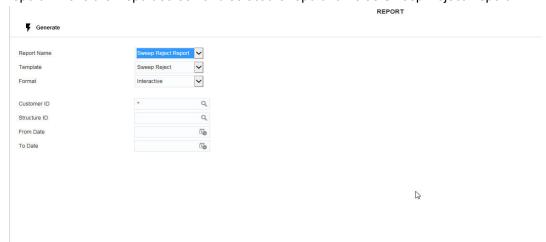
The table below describes the various columns in the report:

| Column | Description |
|----------------------------------|--|
| Structure ID | Displays the Structure ID of the sweep structure |
| Structure Description | Displays the description for the structure ID |
| Customer ID | Displays the customer ID |
| Customer Description | Displays the description of the customer |
| Header Account ID | Displays the ID of the header account |
| Header Account Description | Displays the description for the header account |
| Structure Valid From Date | Displays the date from which the structure is valid |
| Structure Valid To Date | Displays the date till which the structure is valid |
| Structure Version No | Displays the version number of the structure |
| Cross Border | Displays if the cross border sweep is allowed for the structure |
| MBCC | Displays if the Multi Bank Cash Concentration is allowed for the structure |
| Cross Cur- rency | Displays if cross currency sweep is allowed for the structure |
| Child Accoun | t Details |
| | |

| Column | Description |
|---------------------------------|---|
| Account Number | Displays the child account number |
| Account Description | Displays the description for child account |
| Branch Code | Displays the branch code of the child account |
| Branch Name | Displays the branch name of the child account |
| Account Cur- rency | Displays the currency set for the account |
| Sweep Concentration Method | Displays the sweep concentration method assigned to the pair |
| Parent Accou | nt Details |
| Account Number | Displays the parent account number |
| Account Description | Displays the description for parent account |
| Branch Code | Displays the branch code of the parent account |
| Branch Name | Displays the branch name of the parent account |
| Account Cur- rency | Displays the currency set for the parent account |
| Other Parame | ters |
| Sweep Frequency | Displays the sweep frequency set for the account pair |
| Two Way | Displays if two way sweep is set for the pair |
| Reverse Sweep | Displays if reverse sweep is set for the pair |
| Reverse Sweep Fre- quency | Displays the reverse sweep frequency set for the account pair |

13.2.2 Sweep Reject Report

This report provides details of Sweeps rejected along with reason for rejection as a Daily report. Invoke the Report screen and select the report name as Sweep Reject Report.



Specify the following additional details:

Customer ID

Specify the customer ID for which the report is to be generated. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system.

Structure ID

Specify the structure ID for which the report is to be generated. You can select the structure ID from the option list. The list displays all the structure IDs maintained in the system.

From Date

Specify the start date from which to generate the report.

To Date

Specify the end date till which to generate the report.

Click **Generate.** The report will be generated as below:

| | | | | | | Sweep | Reje | ect Rep | ort | | | | | | PACLE |
|-----------------|---------------|---------------------------------------|-------------------|------------------------------|----------------|--------------------------|-------------------------|-----------------------------------|-------------------|-------------------------------|----------------|-----------------------------|---------|---|-------------------------|
| | | | | | Sweep Or | igin Account | | | | weep Destin | ation Ac | count | | | |
| Sweep Log ID | Structure ID | Structure Description | Account Number | Account Description | Branch Code | Branch Name | Account Currenc Y | Sureep Concentration Method | Account Humber | Account Description | Branch Code | Branch Name | Account | Sweep Reject Reason | Date & Tim Of Reject |
| 9822393 | SCENARDO_DI_A | MBCC- Domestic- Anazon - EUR | OCTACHDENBORS | Scenario SA Child Account | LON | Deutche Bank - Madrid | B/R | TargetHodel | nctn-bet-wort | Scenario SA Header Account | MOR | sveils Fargo - London | BIR. | Child Balance is less than Target Amount | |
| 1494058 | SCENARIO_DI_A | MBCC- Domination Amazon - (EIR) | исысновики | Scenario 1A Child Account | LON | Deutche Bank - Madrid | 即乘 | TargetNodel | HC144DRE/RXX1 | Scenario IA Header Account | MOA. | tivels Fargo - London | BIN. | Child Balance Is less than Target Amount | |
| 4176425 | SCENARDO_RI_A | MBCC- Domestic- Amazon - BURL | OCIACHDB/RIGIZ | Semanie 1A Child Account | LON | Dwutche Bank - Madrid | DIR | TargetModel | HICHAHDREHRING | Somario (A Header Account | MOR | Wells Fargo - London | EUR | Orld Balance is less than Target Amount | |
| 4094713 | SCENARGO_01_A | MBCC- Domestic- Amazon - Bull | (ACSACHOELROS) | Scenario 1A Child Account | LON | Deutche Bank - Madrid | DIR | TargetHodel | UCIA-DRE/RINI | Scenario JA Header Account | MOR | sveits Fargo - London | DIE | Child Salance Is: less than Target Amount | |
| 8919028 | SCENARDO_01_A | MBCC- Domestic- Arragon - EUR | UCLACHOB/RIXIZ | Somario 1A Child Account | LON | Deutche Bank - Madrid | EV#L | TargetHodel | DOMESTICAL | Soviano SA Header Account | MOR: | svelte Fango - London | ELIK | Chéd Balance Is loss than Target Amount | |
| 6776367 | SCENARDO_DI_A | MBCC- Domestic- Amazon - BUR | UCIACHDRIRING | Scenario 18 Child Account | LON | Deutche Bank - Madrid | D.R. | TargetModel | OCTRHONE/BOX | Scenario SA Header Account | MDR | Wells Fargo : London | DIR | Child Balance is less than Target Amount | |

-



Sweep Reject Report

Sweep Origin Account Sweep Destination Account

| Sweep Log ID | Structure ID | Structure Description | Account Number | Account Description | Branch Code | Branch Name | Account Currency | Sweep Concentration Method | Account Number | Account Description | Branch Code | Branch Name | Account Currency | Sweep Reject Reason | Date & Time Of Reject |
|-----------------|--------------|--------------------------|-------------------|------------------------|----------------|------------------------------|---------------------|----------------------------------|----------------|------------------------|----------------|---|---------------------|------------------------|--------------------------|
| 8.0 | STWF9360 | Test | WFGSAN123 | WFGTestSante nder | S01 | Paris, Banco Santander | EUR | Zero Balance Model | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 34 | 3/1/17 12:18 AM |
| 5.0 | STWF9360 | Test | WFGBNP123 | WellsDemo | B01 | Paris Branch, BNP Paribas | EUR | Target Model - Constant | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 26 | 2/28/17 11:38 PM |
| 2.0 | STWF9360 | Test | WFGSAN123 | WFGTestSante nder | S01 | Paris, Banco Santander | EUR | Zero Balance Model | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 13 | 2/28/17 11:18 PM |
| 6.0 | STWF9360 | Test | WFGSAN123 | WFGTestSante nder | S01 | Paris, Banco Santander | EUR | Zero Balance Model | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 30 | 2/28/17 11:38 PM |
| 3.0 | STWF9360 | Test | WFGBNP123 | WellsDemo | B01 | Paris Branch, BNP Paribas | EUR | Target Model - Constant | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 17 | 2/28/17 11:31 PM |
| 4.0 | STWF9360 | Test | WFGSAN123 | WFGTestSante nder | S01 | Paris, Banco Santander | EUR | Zero Balance Model | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 21 | 2/28/17 11:31 PM |
| 10.0 | STWF9360 | Test | WFGSAN123 | WFGTestSante nder | S01 | Paris, Banco Santander | EUR | Zero Balance Model | WFG1231A | WellsTestAcco unt | 100 | 90 Long Acre, London WC2E 9RA | GBP | 36 | 3/1/17 12:21 AM |

The table below describes the various columns in the report:

| Column | Description | | | | | | | |
|------------------------------------|--|--|--|--|--|--|--|--|
| Sweep Log ID | Displays the sweep log ID of the rejected sweep | | | | | | | |
| Structure ID | Displays the structure ID to which the rejected sweep belong to | | | | | | | |
| Structure Description | Displays the description of the structure | | | | | | | |
| Sweep Origin | Account | | | | | | | |
| Account Number | Displays the account number from which the sweep was to occur | | | | | | | |
| Account Description | Displays the description for account | | | | | | | |
| Branch Code | Displays the branch code of the sweep origin account | | | | | | | |
| Branch Name | Displays the branch name of the sweep origin account | | | | | | | |
| Account Cur- rency | Displays the currency set for the sweep origin | | | | | | | |
| Sweep Con- centration Method | Displays the sweep concentration method assigned to the pair | | | | | | | |
| Sweep Destin | ation Account | | | | | | | |
| Account Number | Displays the account number to which the sweep was occur | | | | | | | |
| Account Description | Displays the description for sweep destination account | | | | | | | |
| Branch Code | Displays the branch code of the sweep destination account | | | | | | | |
| Branch Name | Displays the branch name of the sweep destination account | | | | | | | |
| Account Cur- rency | Displays the currency set for the sweep destination account | | | | | | | |
| Other Parame | ters | | | | | | | |
| Sweep Reject Rea- son | Displays the reason for the sweep reject | | | | | | | |
| Date and Time of Reject | Displays if the date and time at which the sweep reject occurred | | | | | | | |

13.2.3 Sweep Summary Report

This report provides the summary of sweeps done on a specified date\ specific period for a customer or a structure. It states the sweep reference number, sweep amount, the accounts involved, reference number and the value date. Invoke the Report screen and select the report name as Sweep Summary Report.



Specify the following additional details:

Customer ID

Specify the customer ID for which the report is to be generated. You can select the customer ID from the option list. The list displays all the customer IDs maintained in the system.

Structure ID

Specify the structure ID for which the report is to be generated. You can select the structure ID from the option list. The list displays all the structure IDs maintained in the system.

Log Time From

Specify the start time from which to generate the report.

Log Time To

Specify the end time till which to generate the report.

Click **Generate.** The report will be generated as below:

| Summary Report | Summ

ORACLE



Sweep Summary Report

| | | | | | Sweep | Origin / | Account Detai | ls | | | Sweep Destination Account Details | | | | | | | | | |
|-----------------|--------------|--------------------------|-------------------|-------------------------------|----------------|------------------------------------|----------------------------------|----------------------------|---------------------------|---------------------|-----------------------------------|------------------------|----------------|---------------------------|---------------------|---|-----------------------------------|---------------------|------------------|-------------------------------|
| Sweep Log ID | Structure ID | Structure Description | Account Number | Account Description | Branch Code | Branch Name | Sweep Concentration Method | Balance Before Sweep | Balance After Sweep | Account Currency | Account Number | Account Description | Branch Code | Branch Name | Account Currency | Value Date of Sweep | Date & Time Of Sweep | Two Way Sweep | Reverse Sweep | Reverse Sweep Frequency |
| 91.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Zero Balance Model | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T10:45:27.626- 05:00 | | | Daily At 1:00 PM |
| 88.0 | STWF5429 | Structure Use Case 2 | WFGSAN131B | WFGSAN13 1B | S02 | Paris, Banco Santand er | Target Model - Constant | 230000 | 250000 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T05:03:21.579- 05:00 | | | Daily At 1:00 PM |
| 92.0 | STWF5429 | Structure Use Case 2 | WFGSAN131B | WFGSAN13 1B | S02 | Paris, Banco Santand er | Target Model - Constant | 230000 | 250000 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T10:45:27.644- 05:00 | | | Daily At 1:00 PM |
| 105.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Zero Balance Model | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-14T04:48:36.000- 04:00 | TwoWay | | Daily At 1:00 PM |
| 87.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Zero Balance Model | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T05:03:21.556- 05:00 | TwoWay | | Daily At 1:00 PM |
| 91.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Zero Balance Model | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T10:45:27.626- 05:00 | TwoWay | | Daily At 1:00 PM |
| 88.0 | STWF5429 | Structure Use Case 2 | WFGSAN131B | WFGSAN13 1B | S02 | Paris, Banco Santand er | Zero Balance Model | 230000 | 250000 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T05:03:21.579- 05:00 | TwoWay | | Daily At 1:00 PM |
| 105.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Target Model - Constant | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | | 2017-03-14T04:48:36.000- 04:00 | | | Daily At 1:00 PM |
| 91.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Target Model - Constant | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T10:45:27.626- 05:00 | TwoWay | | Daily At 1:00 PM |
| 88.0 | STWF5429 | Structure Use Case 2 | WFGSAN131B | WFGSAN13 1B | S02 | Paris, Banco Santand er | Target Model - Constant | 230000 | 250000 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- 05:00 | 2017-03-02T05:03:21.579- 05:00 | TwoWay | | Daily At 1:00 PM |
| 105.0 | STWF5429 | Structure Use Case 2 | WFGBNP1231A | WellsTestDe moUseCase 2 | B01 | Paris Branch, BNP Paribas | Zero Balance Model | -20000 | 0 | EUR | WFGLON123A | | W01 | Wells Fargo, London | EUR | 2017-03- 02T00: 00: 00.000- | 2017-03-14T04:48:36.000- 04:00 | | | Daily At 1:00 PM |

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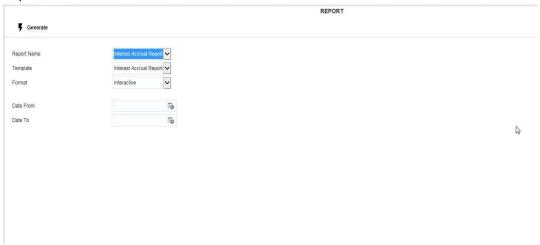
The table below describes the various columns in the report:

| Column | Description | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|
| Sweep Log ID | Displays the sweep log ID | | | | | | | |
| Structure ID | Displays the structure ID | | | | | | | |
| Structure Description | Displays the description of the structure | | | | | | | |
| Sweep Origin | Account | | | | | | | |
| Account Number | Displays the account number from which the sweep should happen | | | | | | | |
| Account Description | Displays the description for account | | | | | | | |
| Branch Code | Displays the branch code of the sweep origin account | | | | | | | |
| Branch Name | Displays the branch name of the sweep origin account | | | | | | | |
| Account Cur- rency | Displays the currency set for the sweep origin | | | | | | | |
| Sweep Concentration Method | Displays the sweep concentration method assigned to the pair | | | | | | | |
| Sweep Destin | ation Account | | | | | | | |
| Account Number | Displays the account number to which the sweep should happen | | | | | | | |
| Account Description | Displays the description for sweep destination account | | | | | | | |
| Branch Code | Displays the branch code of the sweep destination account | | | | | | | |
| Branch Name | Displays the branch name of the sweep destination account | | | | | | | |
| Account Cur- rency | Displays the currency set for the sweep destination account | | | | | | | |
| Other Parame | ters | | | | | | | |
| Value Date of Sweep | Displays the date of the sweep | | | | | | | |
| Date and Time of Sweep | Displays if the date and time at which the sweep occurred | | | | | | | |
| Two Way | Displays if two way sweep is set for the pair | | | | | | | |

| Column | Description |
|---------------------------------|---|
| Reverse Sweep | Displays if reverse sweep is set for the pair |
| Reverse Sweep Fre- quency | Displays the reverse sweep frequency set for the account pair |

13.2.4 Interest Accrual Report

This report provides the interest accrued on the account till date. You can view the Daily/Range report. Invoke the Report screen and select the report name as Interest Accrual Report.



Specify the following additional details:

Date From

Specify the start date from which to generate the report.

Date To

Specify the end date till which to generate the report.

Click **Generate.** The report will be generated as below:

| Branch: 209,TD Branch | | | | | Accrual Control List Report | | | Module: IC | |
|--|--------|-----------|-------------|-----------------|-----------------------------|-----------------|---|--|--|
| Branch Date: 06-APR-2016 User ID: DEEPIKAAUT | | | | | | | | Run Date & Time: 05-JAN-2017 12:25:38 Page No: Page 1 of 11 | |
| Report Options Date From 05-APR-2016 Date To 06-APR-2016 | | | | | | | | | |
| crual Date 05-APR-16 | | | ₹-16 | | | | | | |
| Account | | 20900000 | 112062 | Description | Staurt Broad | | | | |
| Product | Formul | a Number | CCY | Current Accrual | Accruals To Date | Accrual Account | P&L Account | Current Accrual in LCY | |
| TDSM | 1 | | GBP | 13.56 Cr | | 251110002 | 411000002 | 13.56 Cr | |
| | | | | | | | | | |
| Account 20900000012100 | | 012100 | Description | Staurt Broad | | | | | |
| Product | Formul | a Number | CCY | Current Accrual | Accruals To Date | Accrual Account | P&L Account | Current Accrual in LCY | |
| CAR1 | 1 | | GBP | 0.00 Dr | 0.00 Dr | 131120009 | 414000007 | 0.00 Dr | |
| | | | | | | | | | |
| Account 20900000012105 | | 012105 | Description | 2090000012105 | | | | | |
| Product | Formul | a Number | CCY | Current Accrual | Accruals To Date | Accrual Account | P&L Account | Current Accrual in LCY | |
| TDSM | 1 | | GBP | 2.73 Cr | 13.66 Cr | 251110002 | 411000002 | 2.73 Cr | |
| | | | | | | | | | |
| Account 20900000 | | 012111 | Description | 2090000012111 | | | | | |
| Product | Formul | a Number | | Current Accrual | Accruals To Date | Accrual Account | P&L Account | Current Accrual in LCY | |
| TDSM | 1 | | GBP | 2.18 Cr | 4.37 Cr | 251110002 | 411000002 | 2.18 Cr | |
| | | | | | | | | | |
| Account 20900000012348 | | 012348 | Description | Staurt Broad | | | | | |
| Product | Formul | a Number | CCY | Current Accrual | Accruals To Date | Accrual Account | P&L Account | Current Accrual in LCY | |
| TDFF | 1 | | GBP | 0.00 Cr | 23.77 Cr | 251110002 | 411000002 | 0.00 Cr | |
| | | | | | | | 100000000000000000000000000000000000000 | | |
| Account | | 209000000 | 012368 | Description | Staurt Broad | | | | |
| Product | Formul | a Number | | Current Accrual | | Accrual Account | P&L Account | Current Accrual in LCY | |
| TDSM | 1 | | GBP | 7.48 Cr | | 251110002 | 411000002 | 7.48 Cr | |

The table below describes the various columns in the report:

| Column | Description | | | | | |
|------------------------------|--|--|--|--|--|--|
| Account | Displays the account number | | | | | |
| Description | Displays the description for account | | | | | |
| Product | Displays the product code | | | | | |
| Formula Number | Displays the formula number | | | | | |
| CCY | Displays the currency of the transaction | | | | | |
| Current Accrual | Displays the current accrual | | | | | |
| Accrual To Date | Displays the net accrual till date | | | | | |
| Accrual Account | Displays the accrual account number | | | | | |
| P& L Account | Displays the P & L account number | | | | | |
| Current Accrual in LCY | Displays the current accrual in local currency | | | | | |

14. Security Management

14.1 Introduction

Controlled access to the system is a basic parameter that determines the robustness of the security in banking software. In Oracle Banking Liquidity Management, we have employed a multi-pronged approach to ensure that this parameter is in place.

Only Authorized Users Access the System

First, only authorized users can access the system with the help of a unique User ID and a password. Secondly, a user should have access rights to execute a function.

User Profiles

The user profile of a user contains the User ID, the password and the functions to which the user has access.

Restricted Number of Unsuccessful Attempts

You can define the maximum number of unsuccessful attempts after which a User ID should be disabled. When a User ID has been disabled, the Administrator should enable it. The password of a user can be made applicable only for a fixed period.

Restricted Access to Branches

You can indicate the branches from where a user can operate in the Restricted Access screen.

All Activities Tracked

Extensive log is kept of all the activities on the system. You can generate reports on the usage of the system anytime. These reports give details of unsuccessful attempts at accessing the system along with the nature of these attempts. It could be an invalid password attempt, the last login time of a user etc.

Audit Trail

Whenever a record is saved in the module, the ID of the user who saved the record is displayed in the 'Input By' field at the bottom of the screen. The date and time at which the record is saved is displayed in the Date/Time field.

A record that you have entered should be authorized by a user, bearing a different login ID, before the EOD is run. Once the record is authorized, the ID of the user who authorized the record will be displayed in the 'Authorized By' field. The date and time at which the record was authorized is displayed in the 'Date/Time' field positioned next to the 'Authorized By' field.

The number of modifications that have happened to the record is stored in the field 'Modification Number'. The Status of the record whether it is Open or Closed is also recorded in the 'Open' check box.

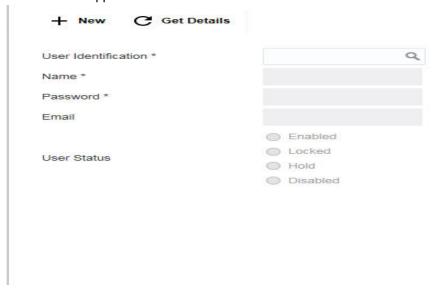
This chapter contains the following sections:

- Section 14.2, "User Creation Setup"
- Section 14.3, "Role Creation Setup"
- Section 14.4, "User Role Mapping"
- Section 14.5, "Password Policy Setup"



14.2 <u>User Creation Setup</u>

You can create a user with this option. To invoke the user creation setup page, click on **SMS** tab on the LM application and select **User Creation** link.



Click **New** button to create a new user. You can specify the following details here:

User Identification

Specify a unique User ID, which identifies the user.

Name

Specify a description for the user.

Password

Specify a unique password for the user. This password should adhere to the Password Policy Maintenance

Email

Specify email address of the user

User Status

Indicate the user status. The options are:

- Enabled
- Locked
- Hold
- Disabled

Click Save to save the user and password in the database



14.3 Role Creation Setup

You can create roles using this option. To invoke the Role Maintenance setup page, click on **SMS** tab on the LM application and select **Role Creation** link.



Click New button to create a new role. You can specify the following details here:

Role ID

Specify a unique ID for the new role.

Role Description

Specify a description of the role.

14.3.1 Maintaining the Role Details

You can assign the rights to the new role using this option. Click '+ button to add row under Role Details section. Specify the following details here:

Function ID

Select the function for which the rights are to be set from the drop down menu.

New

Check this box to give rights to create a new entity.

View

Check this box to give rights to view the details of the selected feature of LM.

Delete

Check this box to give rights to delete an existing entity.

Update

Check this box to give rights to modify or update an existing entity.

Click Save button to save the details in the system.

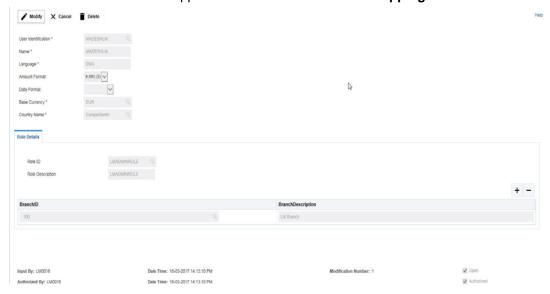


Note

LMADMINROLE is a factory shipped role and is the master role having access to all the functionalities.

14.4 User Role Mapping

You can map the roles to users using this option. To invoke the Role Maintenance setup page, click on **SMS** tab on the LM application and select **User Role Mapping** link.



Click **New** button to set the user for role mapping. You can specify the following details here:

User Identification

Specify the user ID for which the role mapping is to be done. You can select the user ID from the option list. The list displays all the user IDs maintained in the system

Name

The system displays the name of the user selected.

Language

The system displays the language of the selected user. You can modify this if required.

Amount Format

Select the amount format for the user from the drop down list. The options are:

- #,##0.00 Amount rounded to two decimal points only
- #.00## Amount displayed to more than two decimal points

Date Format

Select the date format for the user from the drop down list. The options are:

- dd:MM:yyyy
- dd.MM.yyyy
- dd-MM-yyyy
- MM/dd/yyyy
- MM:dd:yyyy
- MM.dd:yyyy



- MM-dd-yyyy
- yyyy/MM/dd
- yyyy-MM-dd
- yyyy:MM:dd
- yyyy.MM.dd

Start Date

Specify the start date from which the role mapping is active.

End Date

Specify the end date till which the role mapping is active.

Base Currency

Specify the base currency of the user. You can select the currency from the option list. The list displays all the currencies maintained in the system.

All the dashboard values for the user will be displayed in the base currency selected.

Country Name

Specify the country of the user. You can select the country from the option list. The list displays all the countries maintained in the system

14.4.1 Maintaining Role Details

You can map the role to the selected user and select the branches for which this mapping is active using this option. You can indicate the branches from where the user can operate. You can specify the following details here:

Role ID

Specify the role ID to be mapped to the user. You can select the role ID from the option list. The list displays all the role IDs maintained in the system

Role Description

The system displays the description of the selected role.

Click '+ button to add row under Role Details section. Specify the following details here:

Branch ID

Specify the branch ID in which the role mapping will be enabled. You can select the branch ID from the option list. The list displays all the branch IDs maintained in the system

Branch Description

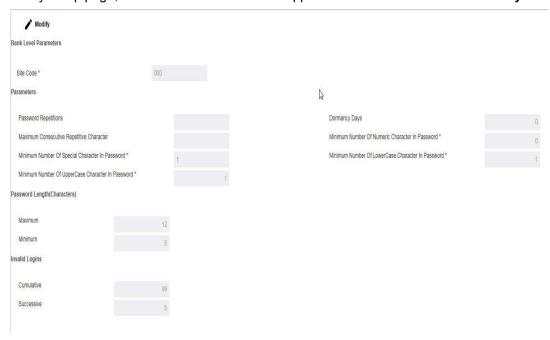
The system displays the description for the selected branch ID.

Click **Save** button to save the details in the system.



14.5 Password Policy Setup

You can set the password policy for your system using this option. To invoke the Password Policy setup page, click on **SMS** tab on the LM application and select **Password Policy** link.



Click **Modify** button to set the password policy for the system. You can specify the following details here:

Bank Level Parameters

Site Code

Specify the site code for which the password policy is to be set.

Parameters

Password Repetitions

Specify the number of times after which a password can be repeated.

Dormancy Days

Specify the number of days the password can be dormant after which the password would be disabled.

Maximum Consecutive Repetitive Character

Specify the number of times a character can be repeated consecutively in a password.

Minimum Number of Numeric Character in Password

Specify the minimum number of numerics which should be included in the password.

Minimum Number of Special Character in Password

Specify the minimum number of special characters which should be included in the password.

Minimum Number of Lower Case Character in Password

Specify the minimum number of lower case characters which should be included in the password.



Minimum Number of Upper Case Character in Password

Specify the minimum number of upper case characters which should be included in the password.

Password Lenght

Maximum

Specify the maximum length of the password allowed.

Minimum

Specify the minimum lenght of the password allowed.

Invalid Logins

Cumulative

Specify the number of cumulative logins after which the user should be disabled.

Successive

Specify the number of successive invalid logins after which the user should be disabled.

Click Save button to save the details in the system.

