Operations

Oracle FLEXCUBE Corporate Lending 12.1.0.0.0

[April] [2016]

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FINANCIAL SERVICES

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1.   About this Manual

1.1 Introduction

This user manual is designed to help you quickly get acquainted with the many functions routinely executed everyday in Oracle FLEXCUBE.

Besides this manual, you can find information relating to specific features and procedures in the Online Help, which can be invoked, by choosing 'Help Contents' from the *Help* Menu of the application. You can obtain information specific to a particular field by placing the cursor on the relevant field, and striking <F1> on the keyboard.

1.2 Audience

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

Role	Function
Back office clerk	Input functions for contracts
Back office managers/officers	Authorization functions
Product Managers	Product definition and authorization
End of Day operators	Processing during End of Day/ Beginning of Day
Financial Controller/Product Managers	Generation of reports

1.3 Organization

This manual is organized into the following chapters:

Chapter 1	*Automated End of Cycle Operations*—provides a snapshot of the functions run routinely everyday as part of the end of cycle (EOC) process.
Chapter 2	*End of Cycle Operations* — details the various stages that are a part of the cycle.
Chapter 3	*Setting up Mandatory Programs for EOD* — describes all activities that need to be completed as part of the End of Cycle.
Chapter 4	*Viewing Unauthorized Records and Transactions* — details the procedure to

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	view the records that are yet to be authorized.
Chapter 5	*Purging and Archival of Data* – Options and maintenances for purging and archiving contract details in Oracle FLEXCUBE.
Chapter 6	*EOC Operations for FX and MM* – explains the maintenances and EOC processing exclusively for the FX and MM modules.
Chapter 7	*Annexure A - List of End of Cycle Functions* – Contains a list of all the mandatory functions run as part of the EOC cycle.

1.4 <u>Related documents</u>

- The Settlements User Manual

- The Core Services User Manual

- The Procedures User Manual

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2. End of Cycle Operations

2.1 Introduction

The End of Cycle operations consists of several stages. In this chapter we shall discuss in details the various stages that are a part of the cycle. The various stages in this cycle have been diagrammatically represented below:
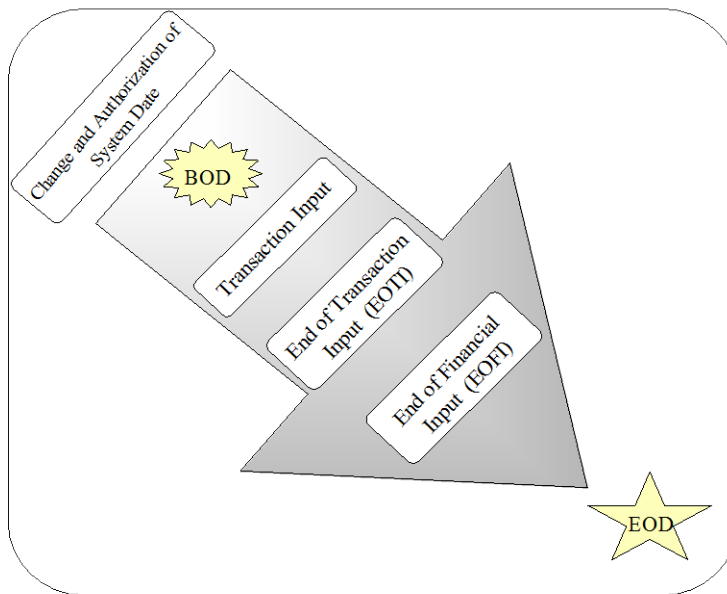
The list of mandatory functions that should be run as part of BOD for each module of Oracle FLEXCUBE *has been listed in Annexure A of this user manual.*

2.2 Changing the System Date

The first task for a business day is to change the system date to the current working date. This date will be used by the system for all purposes that are associated with a date: automatic processes scheduled for the day, the date/time stamp for the activities that take place during the day, etc.

You can maintain details of the system date in the system dates table. From the **Application Browser**, select **System Dates Maintenance** and then **Date Input**. The 'System Dates Maintenance' screen is displayed.

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The default date will be displayed in the screen. For instance, on the first working date 1st of January, 1998; the system dates will be updated to read as follows:

Today's date = 01-Jan-1998

Previous working date = 31-December-1997

Next working date = 02-Jan-1998

'Today's date is defaulted from 'Next working date' of the old record. 'Previous working date' is defaulted from today's date of the old record. The 'Next working date' is picked up from the 'Local branch holiday calendar' as maintained for your branch.

You can change the defaulted values for Today's date and Next working date. Any change to these fields will require an override.

The only time you "add" a record in the system dates table is when Oracle FLEXCUBE is first installed in your branch. Subsequently, you should only modify the record to change the current system date. To modify the dates in the table, take one of the following routes:

- Choose Unlock from the Actions Menu

- Click from the Toolbar when the details of the date change record is displayed

After you have made the necessary changes, save them by choosing 'Save' from the Actions Menu or clicking in the Toolbar.

On saving the record, your User Id will be displayed in the **'Input By'** field at the bottom of the screen. The date and time at which you saved the record will be displayed in the **'Date/Time'** field.

A record that you have created should be authorized by a user bearing a different Login Id, before the EOD process is run.

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Click [icon] to exit the screen. You will be returned to the Application Browser.

Authorizing the Date Change

The date change should be authorized before you can carry out any further activity on the system. Authorization can be carried out only by a user other than the one who carried out the activity being authorized. For example, if you have modified the dates in the System Dates Maintenance table, it should be authorized by a user bearing a different Login ID. Once the record is authorized, the Id of the user who authorized the record will be displayed in the **'Auth By'** field. The date and time at which the record has been authorized will be displayed in the **'Date/Time'** field positioned next to the 'Auth By' field. The status of the record will be displayed in the check box marked 'Authorized'. The field will remain unchecked until the record is authorized.

[STOP icon] To reiterate, you have to authorize the date change immediately. None of the other functions of Oracle FLEXCUBE will run if the date change is unauthorized.

To authorize a system Dates Maintenance record, choose Authorize from the Actions Menu or click [icon] in the Toolbar. You will be prompted to confirm the authorization. The record will be authorized only if you give the confirmation.

After you confirm the authorization, your user-ID will be displayed at the Auth By field. The date and time authorization will be displayed in the Date/Time field. These fields will always show the details of the latest authorization.

[STOP icon] The current system date can be changed only when the EOC status is in 'Date change'. However, after running the Beginning of Day processes for the day and before you mark the EOTI status, you can change the Next Working Day.

Starting the End of Cycle Process

To start the End of Cycle process, choose 'End of Cycle' and the Start EOC option under it.

Stopping the End of Cycle Process

You can stop the End of Cycle process at any stage during the cycle. To stop the EOC process, from the **Application Browser**, choose **EOC Operations** and then **AEOD** and **Stop** under it. The 'Stop AEOD' screen will be displayed prompting you to confirm the stopping of the EOC process.

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Stop AEOD

Are you sure you want to Stop AEOD ?

✔   ✖

2.3 Invoking the End of Cycle Operations Screen

From the **Application Browser** choose **EOC Operations**. Thereafter choose **Branch Status** under it. The 'End of Cycle Operations' screen is displayed.

End of Cycle Operations

Branch Status

| 000 | AMERICAN BANK, MAIN BRANCH | Daily Transactions Input |

Mark Branch Status

Start Txn Input

End Txn Input   End Financial Input

Drop End of Txn Input   End of Day
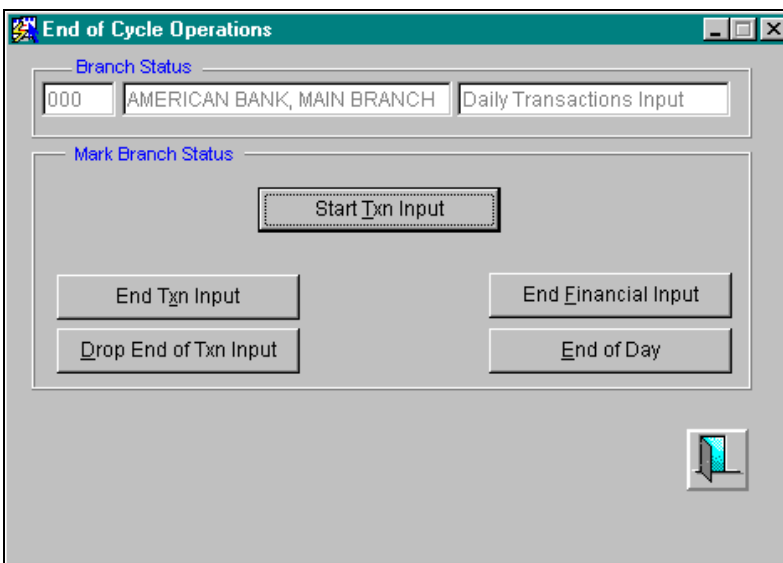
From this screen you can perform the following functions for the branch that you are operating:

- Move the system into the End of Transaction Input status
- Drop End of Transaction Input
- Move the system into the End of Financial Input status
- Move the system into the End of Day status
- Move the system into the Start Transaction Input status

2.3.1 Processing Beginning of Day Operations

Once the system date has been changed and authorized, the system gets into the Beginning of Day mode. The BOD operations consist of:

- Verifying that the previous EOD operation was successful

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- Performing the initialization routines for the new financial day

Many automated processes are run when the system is in the BOD status, for instance, the repayment of interest on a loan where a customer account is to be debited or in the case of a repayment on a deposit where the customer's account is to be credited. These activities should be completed before you enter into any transaction for the day. When the customers of your bank come in to transact business during the day, the accounts will reflect the latest balances.

Processing for the previous day(s) will be done during BOD if there were any holiday(s) between the last working day and today. This however, depends on whether you have chosen to process for holiday(s) on the working day before or after the holiday.

2.3.2 Initiating Daily Transaction Input

The system status should be changed to 'Transaction Input' status after all the BOD functions have been run. To change the status to 'Transaction Input' you can click [Start Txn Input] in the End of Cycle Operations screen. The system will seek a confirmation for going ahead with the marking. The status will be changed after you give the confirmation.
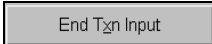
The system is now ready for the input of transactions for the day. The system will remain in this status for most part of the day, when all the users will be putting their transactions.

2.3.3 Indicating End of Transaction Input (EOTI)

The End of Transaction input (EOTI) stage is the first stage in EOD operations. The system should be moved to this status after *all* the transactions for the day have been entered into the system. In addition, all the transactions should be authorized and the relevant messages generated.

🛑 Please note that while it is not mandatory for all the messages to be generated on the same day as transaction input, it is ideally done that way. In an exceptional situation, you can go ahead with the end of day processes without generating a message. This message will remain in the ungenerated status in the Outgoing Message Browser and can be generated on any other day. An ungenerated message will not be archived.

2.3.4 Marking the EOTI status

You can mark the EOTI status by clicking [End Txn Input] from the End of Cycle Operations screen. The system will seek a confirmation for going ahead with the marking. Once you confirm it, the status of the system will be changed. The status field in the 'Mark EOC Status' screen will show "End of Transaction Input".

You will not be allowed to mark EOTI under the following circumstances:

- When transactions that have been input are yet to be authorized
- When the debit and credit totals for the day do not match for some reason

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Under such circumstances, you should examine the transaction(s), which have resulted in the imbalance (with the help of the Transaction Journal) and take the necessary action. The action could be in the posting an extra entry, or moving an entry from one account to another, etc.

After you have moved the system to this status, you will neither be allowed to enter further transactions into the system nor will you be allowed to perform any maintenance functions. All the relevant toolbar actions will also be disabled. However, you can perform queries on the system.

You can run only those automated functions that have been defined for this stage of end of day processing.

2.3.5 Dropping the EOTI status

Sometimes you might need to cancel the EOTI status once it has been marked. The cancellation of the EOTI status might be necessitated when a particular transaction has to be input.

Click Drop End of Txn Input from the End of Cycle Operations screen to drop the EOTI status. The system will seek a confirmation from you before the status is dropped.

When you drop the EOTI status, the system will allow you to enter transactions into the system again. However, before you mark the EOTI status for the second time you have to ensure that all transactions are duly authorized and all the relevant messages generated.

🛑 In case you have to drop the EOTI status after having run any of the post EOTI and pre-EOFI functions in any module, please note that you HAVE to run them all again.

2.3.6 Processing Operations post EOTI

After EOTI has been marked, you will have to run many automatic processes for different modules.

After you complete automatic processing for all the modules, you have to generate a few mandatory reports like the transaction journal, the trial balance report and the GL report. These are vital reports that give information on the transactions during the day, and more importantly, the reports tell you whether the books are balanced for the day. In the unlikely event of they not balancing, the trial balance report will show it and you have to take the necessary action.

You should generate the transaction journal for all the transactions done during the day. This should be irrespective of whether the journal was generated during the day for specific transactions. This report can be spooled and stored in a file located either on the client or the server, so that it can be retrieved later on. The transaction journal can be retrieved any time in the future, as and when necessary. Although there are other ways of getting a history of the transactions this is also a very useful source of information on all transactions done during the day.

Besides, you cannot proceed with the end of day processing for the day without generating the transaction journal for all the transactions that were processed during the day.

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2.3.7 Indicating End of Financial Input (EOFI)

Once you complete all the automatic processes that pass accounting entries, you should move the system to the 'End of Financial Input' status. At this stage no further accounting entries can be passed for the day either through transactions that you have entered or by transactions that are automatically triggered by the system.

To mark the EOFI status click [End Financial Input] from the End of Cycle Operations screen. The system will seek a confirmation for going ahead with the marking. Once you confirm the marking, the status will be changed. The status field in the Mark EOFI Status screen will show "End of Financial Input".

🛑 Unlike EOTI, once you mark the EOFI status it cannot be dropped.

After you have moved the system to this status you can generate financial reports for the day now since all the automatic processes have been run for the day and since the balances available will be the latest.

After EOFI is marked, you can generate all advice related messages like reports, tracers and all other information on the day's activities.

2.3.8 Specifying End of Day Status

The EOD process is designed to tie up all the operations for a financial day and prepare the system for the next day. Click [End of Day] from the End of Cycle Operations screen to move the system to this status.

The end of day operations for a branch can begin after all the transactions for the day have been input and authorized. Ideally, all the messages for the day should also be generated before the end of day operations begin. A message should be carried over to a subsequent day only under exceptional conditions.

The end of day status indicates that you have completed all the activities for the day. After EOD for a branch is run, the system will not allow you to run any other operation in the branch, till the system date has been changed to the next working day, and authorized. If you try to run any application, you will be prompted to change the system date first.

2.3.9 Processing for Holidays

Each module has its own Branch Parameters table where in you can specify when the automatic processes like accrual and liquidation, falling due on holidays should be done.

You have the option to specify that the processes should be run either on the:

- Next Working day - 1 or
- Upto system Date

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If you indicate that the processing has to be done upto the Next Working Day - 1, all the automatic events falling due on the holiday will be processed by the batch process as part of the EOD on the last working day before the holiday.

If you indicate that processing has to be done only upto the System Date, then only the events scheduled for today (the last working day before the holiday) will be processed. The events of the holiday are processed by the batch process as part of the BOD process on the next working day after the holiday.

Example

The current branch date is 20, Oct'99. On 21, Oct'99, which is a holiday, the following automatic events fall due:

- The automatic closure of an LC

- Automatic reinstatement of the LC amount

- Automatic accrual of commission and charges

Next working day - 1

If you specify that the processing should be done on the last working day - 1, the above events will be processed on 20 October as part of the batch process run at end-of-day.

System date

If you specify that the processing should be done only upto the system date, then the events scheduled for 21, Oct'97, will be processed as part of the Batch Process run as part of beginning-of-day on 22, Oct'97.

2.3.10 Handing Over the System for End of Day Processes

The Data Center can run the EOD cycle only after all the departments of the bank have handed over the system to the Data Center. Before handing over the system, all the departments should ensure that the following activities have been completed:

- All transactions for the day have been input

- All unauthorized transactions have been authorized

- The various messages for the day have been generated

The EOD activities for the day begin from this point onwards. The first step would be to mark EOTI (End of Transaction input).

2.3.11 Reassigning an Unauthorized Transaction

Ideally, all the transactions input in a module should be authorized before a department hands over the system to the data center for EOD operations. In the rare event of an unauthorized transaction remaining in the system, it can be reassigned to another user, who should subsequently delete the transaction.

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The user assigned to reassign the transaction should ideally be a Supervisor or System Administrator in the Data Center. This user should have the necessary rights to carry out the Contract Reassign function and the function through which the contract should be deleted (i.e., the contract on-line function of the respective modules).

2.3.12 Significance of Reassigning a Transaction

Reassigning assumes importance because in Oracle FLEXCUBE, a contract can be deleted only by the user who input it. Since it is unlikely that the user who input the contract that is yet to be authorized is available during EOD processing, the contract is assigned in the name of another user who should subsequently delete the contract.

As a security measure, only deletion is possible on a reassigned contract. All the activities, the reassigning and the subsequent deletion will be recorded in the audit trail for the day.

Ideally, a note should be sent to the user whose contract was deleted during end of day, so that the user can input it again with a back value date.

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3. Setting up Mandatory Programs for EOD

3.1 Introduction

To recall, there are several stages involved in the End of Cycle operations and the functions that you define for automatic processing can fall into any one of the following stages:

- Beginning Of Day

- Transaction Input

- End Of Transaction Input

- End Of Financial Input and

- End Of Day

There are certain activities that need to be completed as part of the End of Cycle operations. These activities include the successful completion of all automated activities scheduled for the day, closing the account books for the day, generating certain reports, etc. All these activities can be executed through various functions in Oracle FLEXCUBE.

To ensure that you do not miss out on executing a particular function on a day, you can define it as a 'Mandatory' function. Once you define a function as mandatory, Oracle FLEXCUBE ensures that you do not miss out on running the function.

From the **Application Browser**, choose **End of Cycle Maintenance** and the **Mandatory Programs** option under it. The 'Setup Mandatory Programs for a Branch' screen is displayed.

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The Procedure for making a function a mandatory part of End of Cycle is detailed in the following paragraphs.

Step 1

The first step involved is to indicate the name of the function, which is to be set up as a mandatory function. On selecting the function you should indicate the module to which it belongs.

Step 2

On indicating details of the function, you should indicate:

- The stage at which the function should be run

- The frequency at which the function should run

Example

You want to set up the auto liquidation function as a mandatory program for the loans module. In this case, select 'Auto Liquidation' from the function picklist then select 'LD' from the picklist under module.

Indicating the Stage at Which the Program Should Run

The function that you have defined, can be made a mandatory part of any of the following EOC groups:

- Beginning Of Day

- End of Previous Day (EOPD)

- Transaction input

- Pre end of cycle

- End of cycle

The significance of each of these stages has been discussed in the chapter on End of Day Operations.

🛑 The EOPD stage is available for FX and MM modules only. For more details, refer the 'EOC Operations for FX and MM' chapter of the Operations User Manual.

Example

For instance, auto liquidation like loan repayments have to be carried out before any transaction is done for the day. Thus, the liquidation function will be part of the Beginning of Day operations. This ensures that if a customer comes in to do business at anytime during the day, the account will contain the latest balance. Similarly, accruals are performed at end of day i.e., after all the transactions for the day are done, so that all transactions input for the day are considered for accruals.

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Specifying the Frequency at Which It Should Be Run

Each function can be executed at a particular frequency. Some functions can be executed daily, some fortnightly and some on a monthly basis. For instance, you might want to perform accruals for all transactions only on a monthly basis. Since you need not run accrual functions everyday you can specify the frequency level as 'Monthly', etc.

Example

Everyday you may enter into several loan transactions and on a given day the liquidation of several loan transactions may fall due. Hence it becomes necessary for you to run the loans liquidation function every day.

On the other hand, if you perform accruals only at the end of the month or at every quarter, you can specify the frequency for this function as monthly or quarterly. Once you specify the frequency (daily, fortnightly or monthly) at which these programs have to be run, the system will not allow you to proceed further until all the functions have been duly performed at the specified frequency.

Processing for Holidays

Each module has its own Branch Parameters table where in you can specify when the automatic processes like accrual and liquidation, falling due on holidays should be done.

You have the option to specify that the processes should be run either on the:

- Next Working day - 1
- Upto system Date

If you indicate that the processing has to be done upto the Next Working Day - 1, all the automatic events falling due on the holiday will be processed by the batch process as part of the EOD on the last working day before the holiday.

If you indicate that processing has to be done only upto the System Date, then only the events scheduled for today (the last working day before the holiday) will be processed. The events of the holiday are processed by the batch process as part of the BOD process on the next working day after the holiday.

Example

The current branch date is 20, Oct'99. On 21, Oct'99, which is a holiday, the following automatic events fall due:

- The automatic closure of an LC
- Automatic reinstatement of the LC amount
- Automatic accrual of commission and charges

Next working day - 1

If you specify that the processing should be done on the last working day - 1, the above events will be processed on 20 October as part of the batch process run at end-of-day.

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System date

If you specify that the processing should be done only upto the system date, then the events scheduled for 21, Oct'97, will be processed as part of the Batch Process run as part of beginning-of-day on 22, Oct'97.

Indicating the Predecessors of the Function

You may have several functions that need to be run as part of end of cycle processing. Many times, you have to execute these functions in a specific sequence order. You should indicate the sequence in which the functions to be run automatically should be executed.

The system ensures that you run the functions only in the order that you have defined.

Indicating Whether Parallelization is Required

You can split the FX and MM batch programs into multiple streams. These streams will be run in parallel with one another. To enable this, you have to select the 'Parallelization Required' option when setting up the mandatory programs.

However, you will be allowed to select this option only if the 'Queue Population Required' option is also chosen.

Indicating Whether Queue Population is Required

You have to select the 'Queue Population Required' option in order to reduce the processing time during EOTI. If selected, the system will identify all the contracts that have to be processed during the day and populate the respective queues while still in the transaction input stage.

However, the actual processing for the contracts in the queues will be done only when you execute the relevant batches.

For more information on parallelization and queue population, refer the 'EOC Operations for FX and MM' chapter of the Operations User Manual.

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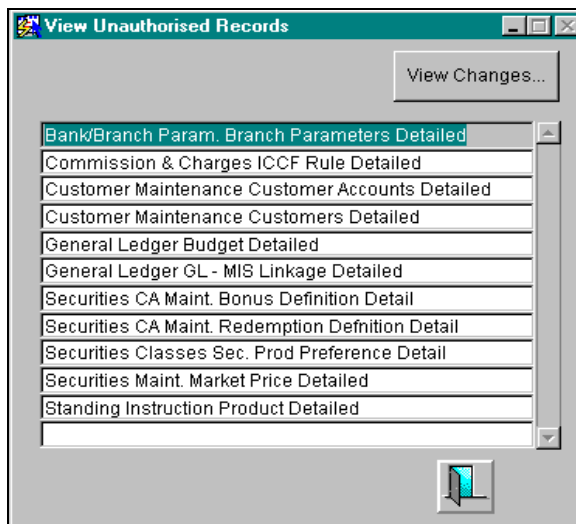# 4.   Viewing Unauthorized Records and Transactions

4.1 Viewing unauthorized maintenance records

All the transactions and maintenance records processed during the day should be authorized before end of day operations can begin. Authorizers in the various departments should authorize transactions before handing over the system to the data center for end of day processing.

In Oracle FLEXCUBE you can get a list of unauthorized transactions and records at any point in time. This information enables the authorizers to easily find out which transactions or records are unauthorized.

You can view the records that are yet to be authorized through the 'View Unauthorized Records' option.

In the **Application Browser**, select **EOC Queries** and **View Unauth Maintenance** under it. The 'View Unauthorized Records' screen is displayed.

At the outset, the View Unauthorized Records screen will have a list of all tables with unauthorized records related to maintenance (not transactions). To view the details of records pending authorization in a table, select the record and click on the View Changes button or double click on a record. The Summary View screen for the table will be displayed. The summary details of the individual records along with the authorization status will be displayed in the screen.

4.2 Viewing Unauthorized Transactions

You can view the details of the all the unauthorized transactions from the View Unauthorized Transactions screen. From the **Application Browser**, choose **EOC Queries** and then **View Unauthorized** under it.

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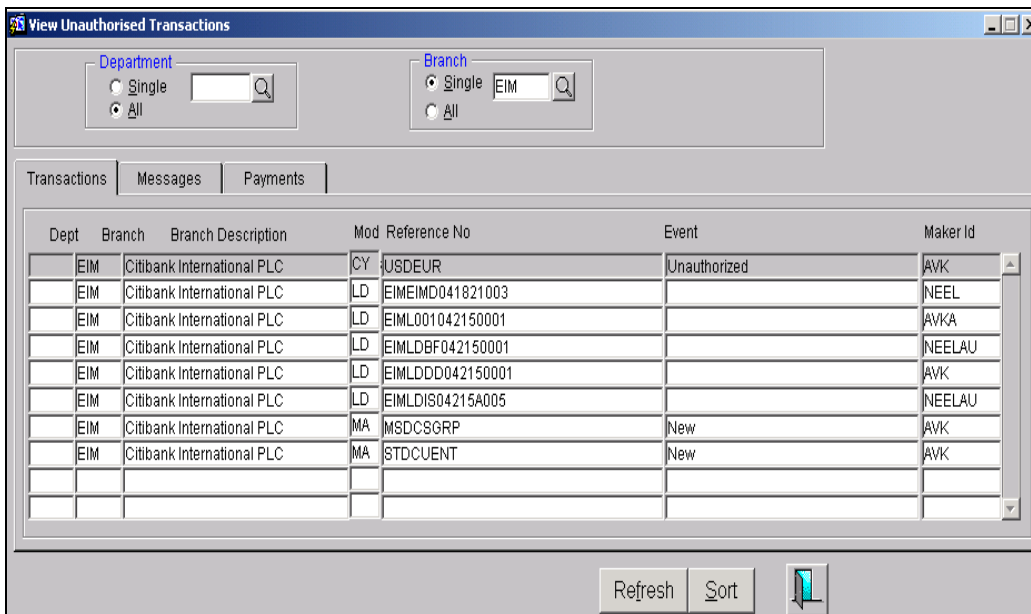
🛑 You can mark EOTI even if there are unauthorized transactions in the system. When you mark EOTI, the following will be done if there are unauthorized transactions in the system:

- New contract creations pending authorization will be put on hold.
- If certain events of an authorized contract are to be authorized, these events, along with unauthorized accounting entries, will be deleted.
- Unauthorized Free Format Messages will be put on hold.

There will be an audit log of all transactions or contracts that have been deleted or put on hold.

Through this screen you can view details of the:

- Messages that are yet to be generated and
- Transactions that are yet to be authorized
- Payments that are yet to be authorized

The following details of the unauthorized transactions and un-generated messages are displayed:

- The branch to which it belongs
- Module to which it belongs
- The reference number of the transaction or message
- The event during which the messages should be generated

On this screen you will also notice six buttons arrayed at the bottom of the screen. The functions that each of these buttons perform are detailed below:

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4.2.1 Refreshing the details

Before the End of Cycle operations begin you have to authorize all the transactions that were entered for the day. While you are viewing details of the transactions that are yet to be authorized, another user who is logged on from a different terminal might be authorizing some, or may enter more transactions.

While in this screen, if you click on the 'Refresh' button, the latest list of unauthorized transactions will be displayed.

4.2.2 Specifying the sort order

You can sort the transaction details on any column that is shown. Select the column on which you want to sort, then click on 'Sort'. Information will be sorted alphabetically on this column.

Example

You want to view details of the transactions input for a particular day through the LC module, Highlight an item from the Module column and click the 'Sort' button. Thereafter, select the code that identifies the LC module. The information of all the unauthorized LCs will be sorted alphabetically on this column.
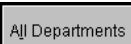
4.2.3 Viewing unauthorized records branch wise

To view details of the unauthorized records for specific branches you can click 'By Branch', a list of branches of your bank will be displayed. Choose the branch for which you want to view unauthorized records and click on OK. A list of all the unauthorized records for the specified branch will be displayed.

You can click 'All Branches' if you want to view the list of unauthorized records for all the branches.

4.2.4 Viewing unauthorized records department wise

To view details of the unauthorized records for a specific department, you can click , a list of all the departments of your bank will be displayed. Select the department for which you want to view unauthorized records and click OK. A list of all the unauthorized records for the selected department will be displayed in the screen.

You can click if you want to view the list of unauthorized records for all the departments of your bank.

4.3 Viewing pending programs

At any point in time and at any stage in the EOC cycle you can view the mandatory programs that are yet to be executed for the given EOC cycle stage. To do so, from the **Application Browser**, choose **EOC Queries** and then **View Pending Programs** under it.

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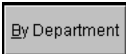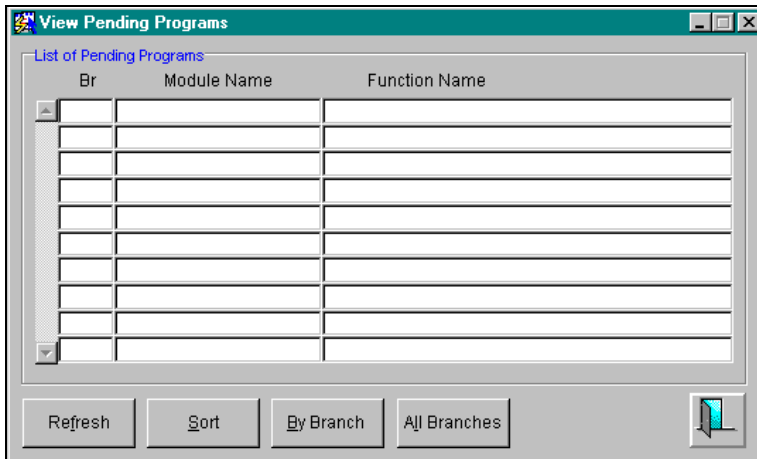
The following details of a pending program are displayed:

- The branch at which the program is pending
- Module to which the program belongs

4.3.1 <u>Selection Options</u>

On this screen you will also notice four buttons arrayed at the bottom of the screen. The functions that each of these buttons perform are detailed below:

Refresh

Use this button to update the table with the latest status of the pending programs.

Sort

You can sort the details that are displayed on the screen based on the fields on the screen. For example you want to sort details on the basis of the branch to which they belong. Place your cursor in the branch field and click 'Sort' the pending programs will be sorted based on the branch to which it belongs.

By Branch

Use this option to view details of the pending programs for a specific branch. In the window that is displayed select the code of the branch for which you want details.

All Branches

Use this option to view details of the programs that are pending in all the branches of your bank.

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5.   Purging and Archival of Data

5.1 Introduction

Purging is the process of ejection of old dynamic data from the production database. Dynamic data refer to contract details. While purging data, you have the option of archiving the purged data in a separate database. You may wish to exercise this option in order to retain data for future requirements like audits, reference and queries.
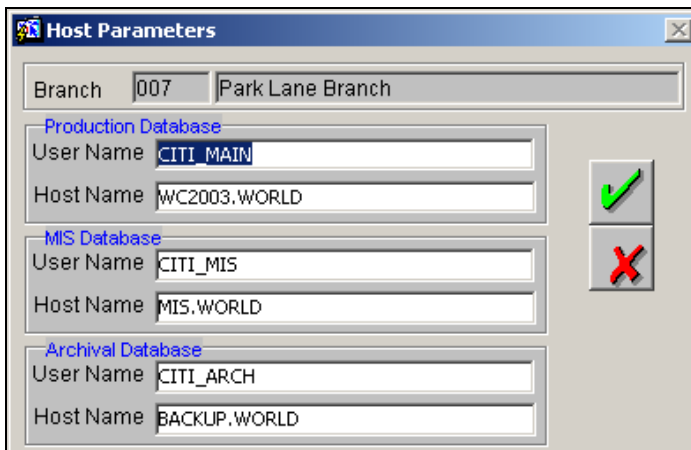
5.2 Archiving Transaction Details

Oracle FLEXCUBE allows you to archive contract details from the Funds Transfer module, as well as Accounting details, for future reference and queries.

For archival, Oracle FLEXCUBE offers you a parallel database. This archival database is set up for you at the time of installing Oracle FLEXCUBE. This can be set up at any location and can reside on a server different from the one on which the production database resides. You need to maintain the schema user name and the name of the host server where the archival database for your branch resides.

5.2.1 Maintaining User and Host Name for the Archival Database

Click the HOST button in the **Branch Parameters** screen to invoke the 'Host Parameters' screen.

Specify the schema user name and the name of the host server for each of the Production, MIS and Archival databases.

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### 5.2.2 Maintaining User Roles for Access to the Archival Database

The archived database can only be viewed – you cannot perform any other operation on it. View rights to the archival database can be given to a user in the User Roles screen in Security Maintenance.

Please refer to the manual on Security Management Systems to find out how to maintain user roles.

5.2.3 Migrating to the Archival Database

In the Oracle FLEXCUBE menu, select **Options** and then **Change Database** to invoke the 'Change Database' screen:
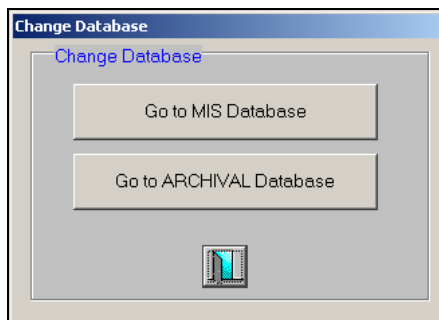
This allows you to migrate to the archival database. To revert to the production database from the archival database, follow the same operations.
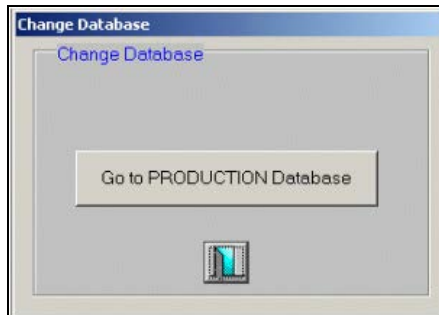
5.2.4 Maintaining Purge Details

For each module, you can specify the criteria which should be observed for purging dynamic data. You can set up purge parameters in the 'Purge Details Maintenance' screen. You can invoke this screen from the **Application Browser** under **Bank Parameters** and then **Purge Parameters**.

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Use the option list for selecting the module for which you wish to set purge parameters. The module name is defaulted.

Status

You need to mention which status a contract should have reached before it can be purged.

The options available are:

- Closed
- Liquidated
- Reversed
- System Date Relative
- Match Relative
- Closed Match
- Closed External Statement
- Write-off
- None

Retention Period

At the time of purge, you may not wish to prevent recent data (contract details) from being purged. You need to specify the number of days of data that should be retained at the time of purging.

Example

For the FX module, you specify the number of retention days as 90. You also specify that only 'Liquidated' contracts can be purged.

You are processing a purge operation on April 15, 2003.

FX contracts liquidated after January 15, 2003 will not be purged.

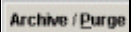ORACLE®

Archive Data

Check the 'Archive Data' field if you wish to archive the purged contract details.

5.2.5 <u>Running the Purge Process</u>

From the **Application Browser**, click the **Purge Operations** option and then **Common** to invoke the 'Data Archival/Purge' screen:
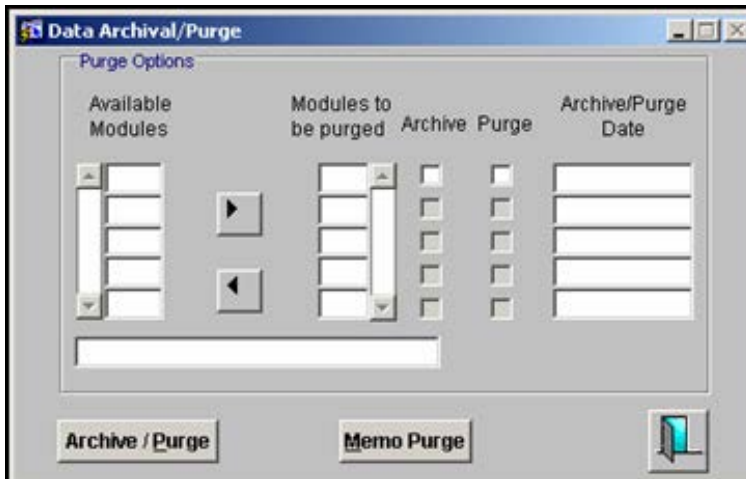
From the list of available modules for which you have maintained purge details, you can select the modules to be purged. The Purge check box is checked for all the modules that you select. The Archive check box is checked for those modules for which you have enabled the 'Archive Data' option in the Purge Details Maintenance screen. You cannot make any changes here.

Click the Archive / Purge button to run the purge process. Archival takes place automatically for modules marked for archival.

5.2.6 <u>Refreshing Snapshots of Static Data in the Archival Database</u>

Before you purge and archive dynamic data, you may wish to ensure that snapshots of the static data in the archival database are updated.

To ensure this, migrate to the archival database and select the Refresh Snapshots screen:

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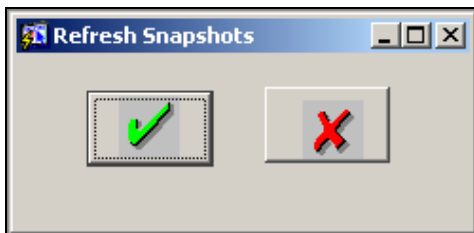
Once the refresh happens, you can revert to the Production Database and proceed with the purge/archival process.

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6. EOC Operations for FX, MM, IC and LD modules

6.1 Purging and Archival of contracts

The number of transactions processed on a day-to-day basis may eventually result in large database sizes. Archival and purging are the two mechanisms that will facilitate the optimization of system performance by reducing the database size.

Archival is the process of removing liquidated or reversed contracts from the contract tables (core table where day to day contract details reside) and placing them into archival tables. This will reduce the size of the contract tables and thereby speed up the various operations performed in Oracle FLEXCUBE. Both contract tables and archive tables reside on the Production database.

Purging is the process of removal of old data from the production database. You can choose to do a soft purge to move data into temporary/history tables in the Archival Database, residing on the Archival Server. This option will allow you to retain data for future requirements like audits, references and queries. A hard purge would permanently delete the data from the history tables.

Both archival and purging will be based on the parameters maintained for your branch. Typically, data would be stored/removed in the following sequence:

Archival ---------> Soft Purge ---------> Hard Purge

The maintenances required for archiving/purging are explained in the following sections of this document.

6.2 Maintaining Archive/Purge parameters for the branch

You have to maintain the parameters based on which the system will archive/purge in the 'Purge Details Maintenance' screen available in the **Application Browser**.

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The archival/purge criteria are maintained for the branch and module combination. You can select the module from the option-list provided. The other parameters are discussed below.

🛑 You can archive/purge contracts belonging to the FX, MM, LD, MS, MI, SI, GL, AC and IC modules only.

6.2.1 Specifying the archive parameters

You can specify the following archive parameters:

Archival Required

You have to select this option to indicate whether the contract tables should be archived or not. If you select this option, the contracts will be archived subject to certain validations. Archival will result in movement of data from the contract tables to the archival tables. The archival tables also reside on the production database.

Retention Period

Here, you should specify the period for which data should be retained in the system before being archived. The system will automatically archive the contract information after the lapse of the period, from the date of contract reversal or liquidation, as the case may be. Archival will be done as part of the EOD processing on the day it becomes due. The period will always be specified in days.

🛑 The retention period is mandatory if you have opted for archival of data. Also note that the retention period is always calculated on a calendar day basis, from the date of contract liquidation/reversal and not the value date of liquidation or reversal.

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6.2.2 Specifying the soft purge parameters

You can specify the following soft purge parameters here:

Soft Purge Required

You have to select this option if you wish to move the contracts to the temporary tables/history tables. The history tables reside in the archival database on the archival server. Data would be soft purged directly from the contract tables if archival option has not been chosen and from the archival tables if you have opted for the 'Archival Required' option.

Retention Period

This will indicate the period upto which data will be retained in the contract tables/archive tables before being marked for soft purge. This period will be expressed in days and will be calculated from the contract liquidation or reversal date, as the case may be. However, to remove the data, you have to manually initiate the soft purge after the specified time interval. If not initiated, data will continue to remain in the contract tables even after the lapse of the period specified.

🛑 You have to maintain the retention period as mandatory information if you select the 'Soft Purge Required' option.

6.2.3 Specifying the hard purge parameters

You can specify the following hard purge parameters:

Hard Purge Required

You have to select this option if you wish to delete the contracts permanently from the history tables. However, it is mandatory to soft purge the data before marking them for hard purge/permanent removal.

Retention period

This will indicate the period upto which data will be retained in the history tables before being marked for hard purge. This period will be expressed in days and will be calculated from the contract liquidation or reversal date, as the case may be.

🛑 You have to maintain the retention period as mandatory information if you select the 'Hard Purge Required' option.
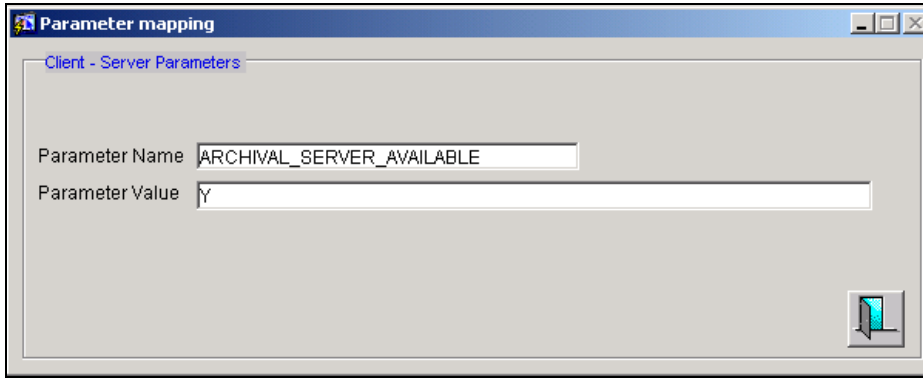
The retention periods maintained should be in the following order:

Hard Purge Retention Period > Soft Purge Retention Period > Archival Retention Period

The system will display the 'Last Archival Date' and the 'Last Soft Purged Date' for the selected module and branch combination. The dates will get updated as and when an archival or soft purge is processed in the system.

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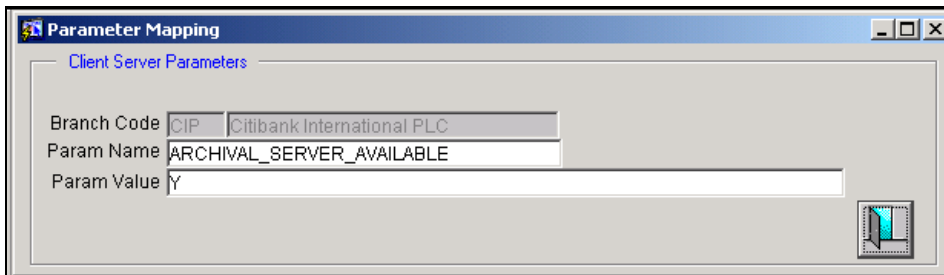### 6.2.4 Maintaining parameter to indicate the availability of the Archival Server

As part of maintenance, you should also indicate the availability of the archival server for the production database. This specification is maintained at the bank level, in the 'Parameter Mapping' screen, if you are setting up a single instance of Oracle FLEXCUBE.

In this screen, you can maintain the above requirement as a parameter (say Archival Server Available) and indicate the value as 'Y' or 'N' depending on whether you wish to have the purge history tables in the production server or maintain a separate archival server.

For a multi instance of Oracle FLEXCUBE, the same parameter will have to be maintained at the branch level, in the screen displayed below.

If you choose to maintain a separate archival server, the users at your bank/branch will be given access to the archival server from the production server.

6.2.5 Allowing a function id in the archival database

All the functions available in the system are identified by a unique function-id. In the archival database, you can view only those functions ids that are allowed on the Archival Database. To make the function ids (screens, in other words) available for viewing, you have to select the 'Allow In Archival Database' option when you define a function in the Function Definition screen.

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Refer the manual on Security Management Systems (SMS) for details on maintaining function ids.
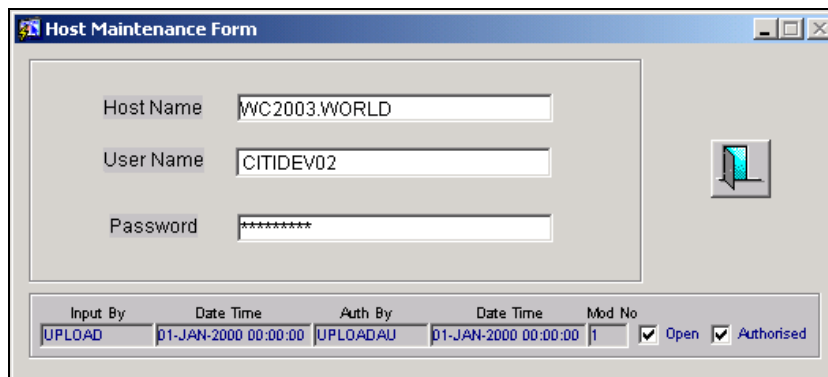
6.2.6 <u>Maintaining user roles for access to the archival database</u>

A User Profile defines the activities that a user can carry out on the system. For a user, you can define roles individually for the production database and for the archival database. The archival database holds the archived contract information and can only be viewed – you cannot perform any other operation on it. To allow the user to view the archived information, you have to attach the relevant roles at the time of defining user profiles and roles. This is in addition to allowing the function id in the archival database.

Refer the manual on Security Management Systems for details on maintaining user profiles and defining roles for users.

6.2.7 <u>Maintaining the logon details for the Archival Database</u>

The archival database is set up at the time of installing Oracle FLEXCUBE. As stated earlier, you can choose to maintain this database on a separate archival server. You can maintain the archival database logon details in the 'Host Maintenance Form' screen.

You have to maintain the name of the host server, the user name and the password as mandatory information to allow access to the Archival Database for any user from the production database.

6.2.8 <u>Maintaining host parameters at the branch level</u>

In addition to the logon details for the Archival Server, you have to maintain the server details for each branch. This is specified in the 'Host Parameters' screen. Click the [HOST] button in the **Branch Parameters** screen to invoke it.

In this screen, you have to provide the username and name of the archival server, if applicable for your branch. The password need not be given. When you attempt to access the archival server from your branch, the system will automatically access the details and the password from the host details maintained earlier (in the Host Details Maintenance screen) and then logon to the relevant archival server.

6.3 <u>Executing the archival process</u>

The batch process run at EOD will automatically archive the contracts that meet the archival criteria.

The system will do the following as part of the archival processing:

- Contracts that were liquidated or reversed before the number of days maintained for the branch (Retention Period) will be archived.

- The system will check the delinquency status of contracts that are eligible for archival. The contracts that have an active delinquency status will not be archived.

- After a contract is identified for archival, the contract information will be moved to the respective archive tables.

- In addition to the core contract information, the following subsystems will also be archived:

  - ➤ Brokerage
  - ➤ Advices
  - ➤ Events
  - ➤ Interest & Charges
  - ➤ Settlements
  - ➤ Tax
  - ➤ User Defined Fields

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The following will not be done as part of contract archival:

- Accounting details will not be archived. Instead, they will be removed as part of accounting purge.

- Likewise, messages will be archived as part of message archival

- The system will update the MIS table with the last event date of the contract and archival required as 'Yes'. This will identify the records that have to be archived as part of the MIS purge.

- Limit related information also, will not be archived

- Delinquency details will not be archived

The following section of this document lists the validations that are done during the archival of FX (Foreign Exchange) and MM (Money Market) contracts.

6.3.1 <u>Validations performed during FX contract archival</u>

The validations that are carried out during FX contract archival are discussed below.

Validation for externally netted contracts for both Sold and Bot Leg

For child contracts that are externally netted, the system will first check for their respective leg parents and then check whether the parent contracts are eligible for archival or not. The eligibility for archival will be decided by the contract status and the last event date of the contract. To maintain the parent-child contract structure, the system will not archive the contract even if any other child contract related to the same parent is not eligible for archival.

For a netted parent type of contract, the system will validate whether the associated child contracts are eligible for archival or not.

Validation for option take-up child and parent contracts

If a contract is an option-take up child type of contract, the eligibility for archival will depend on the parent contract. The child contract will be archived only if the parent contract is eligible (reversed or liquidated) and the archival date is past. However, in the case of an option-take up parent type of contract, archival will be done based on the contract status and the latest event date.

Validation for FT netted contracts

If a contract is netted internally, the eligibility of the contract to be archived will be decided by the existence of the corresponding FT contract(s) in the system. The FX contract will be qualified for archival only after you have archived/purged the associated FT contract(s). Therefore, you have to execute the archival/purge process for the FT module before triggering the FX archival batch.

Validation for FX revaluation

For an FX contract, the system will always check whether any reversal of revaluation is pending or not before archiving the same. If reversal of revaluation is pending, data is not archived from the contract tables.

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Validation for contracts linked to other modules

The system will archive an FX contract that is linked to other modules like BC etc only if the linked contract is purged from the system. Hence, you have to run the purge process for modules which have contracts linked to FX contracts before triggering the FX archival batch process.

Validation for swap contracts that involve a combination of two FX products

For a swap kind of FX contract, all the above criteria will hold good and then the same will be checked for the second leg of the contract. The contract will be archived only if both the legs satisfy all the conditions discussed above.

6.3.2 Validations performed during MM contract archival

The validations that are carried out during MM contract archival are discussed below.

Validation for contract linkages

The system will archive an MM contract that is linked to any other type of contract only if the linked contract is liquidated and the last event date of the contract falls before the archival date. If the contract is linked to an account, there will not be any validation for the account linkage.

Validation for rollover

If the rollover mechanism for a particular contract is spawned or linked type, the system will check the immediate child rolled over contract. The parent contract will be archived only if the child contract is completely liquidated and past the archival date or the contract is reversed or the contract is not there. If the child contract is active or liquidated within the archival period, the parent contract will not be archived.

Rollover specific validation will not be applicable if the rollover mechanism results in a new version of the contract.

6.4 Viewing the archived contract details

You can view the archived contract information on the production database for both FX and MM modules. The date on which the contract was archived will be displayed on the relevant screens.

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6.4.1 <u>Viewing the archived details for the FX module</u>

You can view the main contract details in the 'FX Contract – Archival' screen. To access this screen, select **FX Archival** in the **Application Browser**, click **Contract History** and then select the **Detailed** option under it.

You can use the following buttons in the screen to view the other contract details:

E.. - To view the Event details

D.. - To view the Advices generated for the contract

S - To view the settlement instructions for the contract

C.. - To view the details of the externally netted sibling contracts

M.. - To view the MIS details for the contract

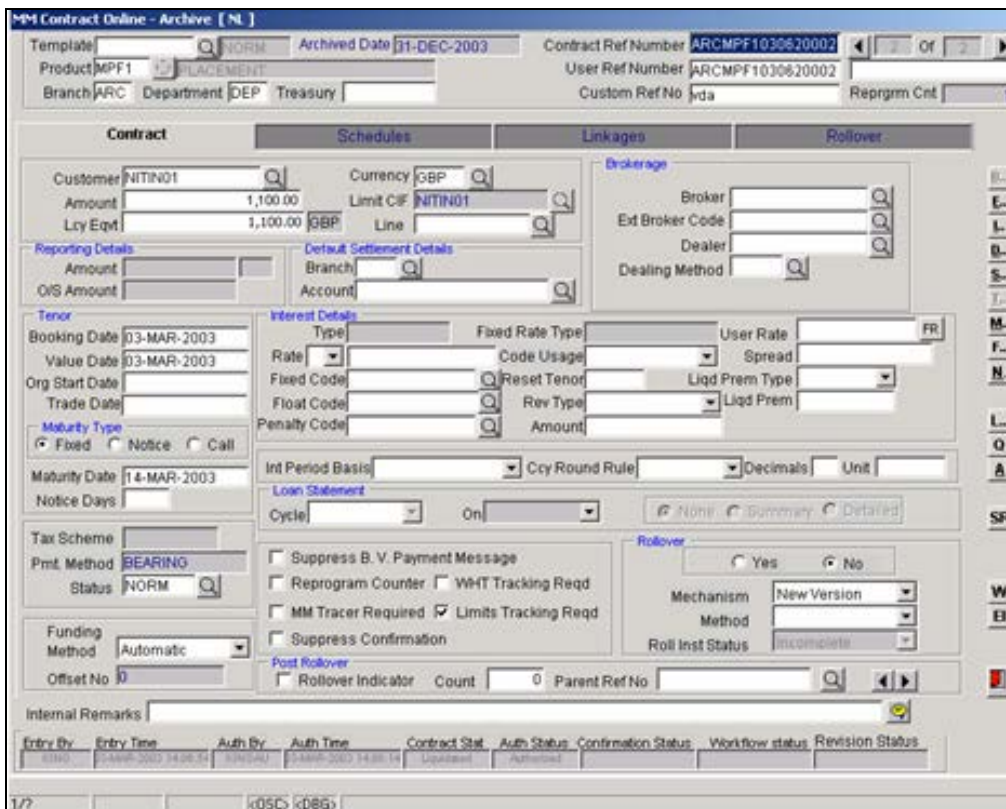F... - To view the user defined fields for the contract

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 - To view the details of child contracts for an option take up parent contract

Refer the following user manuals for more information on the above:

- *Foreign Exchange*
- *Settlements*
- *MIS*
- *User Defined Fields*

6.4.2 <u>Viewing the archived details for MM module</u>

To view the main contract details, select **MM Archival** in the **Application Browser**, click **Contract History** and then select the **Detailed** option under it. The 'MM Contract Online – Archive' screen will be displayed.

You can use the following buttons in the screen to view the other contract details:

 - To view the tax details for the contract

 - To view the interest calculation parameters

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N - To view the charge details

E.. - To view the Event details

D.. - To view the Advices generated for the contract

S - To view the settlement instructions for the contract

M... - To view the MIS details for the contract

F... - To view the user defined fields for the contract

The 'MM Schedule Payment Archive' screen will display the repayment schedules for the deal.

The 'MM – Value Dated Amendment – Archive' screen will display the amended details for an MM deal.

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Refer the following user manuals for more information on the above:

- *Money Market*
- *Settlements*
- *MIS*
- *User Defined Fields*
- *Interest*
- *Tax*
- *Charges*

6.4.3 Archiving implications

After you archive the contract information, the reports generated will not contain the archived data. However, you can generate a detailed account statement. You cannot perform any operations on the archived data. Archived information can only be viewed on the production database.

🛑 Note the following:

- For FX contracts, confirmation status will not be supported for archived contracts.
- Account statements, however, will contain the details of the archived contracts as well.

6.5 Executing the Soft Purge process

You can do a soft purge either directly on the contract tables or after the contract information have been archived. The soft purge process has to be triggered manually after the specified time interval (retention period as maintained in the Purge Details Maintenance screen).

You can use the 'Foreign Exchange – Soft Purge' screen to initiate the soft purge process in the system. The system will display the date on which you initiate the process:

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As part of soft purge, the system will do the following:

- Apply all the validations done for archival if you have not selected the 'Archival Required' option.

- If you are soft purging the archived data, the validations will be done with respect to the last event date of the contracts residing in the archival tables on the production server. Subsequently, contract information will be moved from archival tables to the temporary tables on the same database.

- If you are running the soft purge without archiving, the system will move the data from the contract tables to the temporary tables.

- Data will be removed from the temporary tables on the production server as part of End of Day processing. Hence, you would have to perform the import on to the archival database after marking EOFI and before marking EOD in the production database.

- The archival server will be soft purged automatically every day to ensure that the data copied to temporary tables are copied to permanent tables without fail. The system will do no validations when the data is being copied. After the business copy is taken, the temporary tables on the archival server are removed to ensure that redundant data is not stored.

6.5.1 Logging into the archival server

You can view the soft purged contract details on the archival database from the production database. To access the archival database, select 'Options' from the main menu and then click 'Change Database'. The following screen will be displayed:

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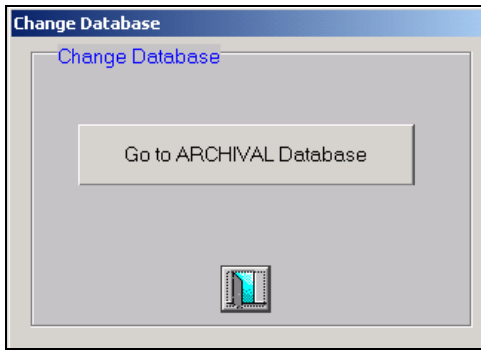
STOP You will be allowed to perform this operation from your respective home branches only.

When you click 'Go to ARCHIVAL Database' in the screen above, the system will obtain the username and password from the logon details maintained in the 'Host Details Maintenance' screen.

Refer to the section titled 'Maintaining the logon details for the Archival Database' of this document for more details.

After you login to the archival server, the menu will be populated only if you have made the relevant function ids available on the Archival database (this is done while maintaining function descriptions) and attached the appropriate archival roles to your profile.

Refer to the sections titled 'Allowing a function id in the archival database' and 'Maintaining user roles for access to the archival database' of this document for more details.

You will be allowed to only view and query the contracts in the archival database.

The Application Browser in the Archival Database will be as follows:

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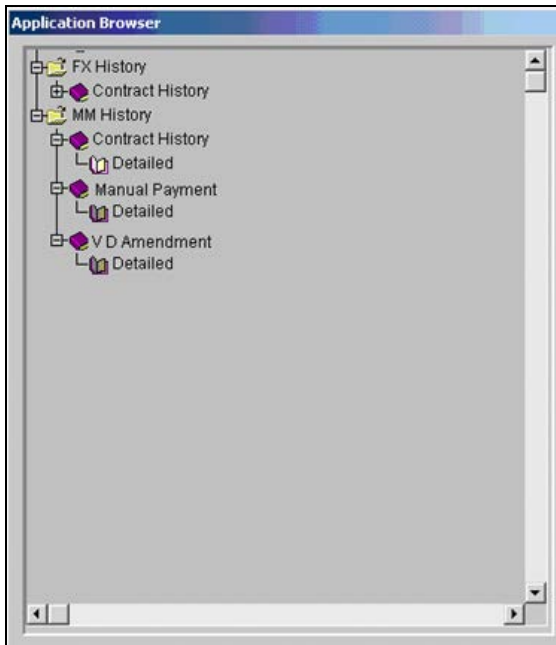
6.5.2 Viewing the soft purged contracts for the FX module

You can view the soft purged contract information in the 'FX Contract History' screen. To access this screen, select **FX History** in the **Application Browser**, click **Contract History** and then select the **Detailed** option under it

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You can view the other contract details by using the appropriate buttons in the screen above.

6.5.3 <u>Viewing the soft purged contracts for the MM module</u>

To view the main contract details, select 'MM History' in the **Application Browser**, click **Contract History** and then select the **Detailed** option under it. The 'MM Contract Online – History' screen will be displayed.

You can view the other contract details by using the appropriate buttons in the screen above.

The 'MM Schedule Payment History' screen will display the repayment schedules for the deal.

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The 'MM – Value Dated Amendments – History' screen will display the amended details for an MM deal.

🛑 Logging out directly from the archival server would not be allowed. The user needs to go back to the production server to log out.

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6.6 Initiating the Hard Purge process

A hard purge will result in permanent deletion of the data from the archival database. Just as the soft purge, you have to trigger the hard purge manually after the specified time interval (retention period as maintained in the Purge Details Maintenance screen).

The 'Foreign Exchange – Hard Purge' screen is used to initiate the hard purge:

The system will display the date on which you initiate the process.

The following will be carried out as part of hard purge processing:

- The contracts will be identified from the purge history tables for hard purge based on the last event date. If the last event date is less than or equal to the hard purge date (arrived at based on the retention period), the contract information will be deleted from the history tables.

- While doing hard purge, data is removed from the purge history tables of the archival database and the data will no longer be available in either of the databases.

6.7 Processing the EOD cycle

The end of day operations consists of several stages. It is the most crucial activity of your bank and has to be executed separately for different branches of your bank.

The various stages involved in the End of Cycle operations are as follows:

- Executing the Pre-EOTI Programs

- Marking EOTI (End of transaction input)

- Executing the post EOTI Programs

- Marking EOFI (End of financial Input)

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- Executing the post EOFI Programs

- Marking EOD (End of day)

- Changing the date

- Executing the BOD (Beginning of day) Programs

- Marking TI (Transaction Input)

🛑 The following sections of this document will highlight the EOD processing that is specific to the FX and MM modules alone.

Refer the Operations User Manual for a generic and detailed explanation of the EOD cycle.

6.8 Executing the Pre-EOTI Programs

Pre-EOTI programs are executed during TI (Transaction Input), before marking EOTI (End of Transaction Input) for the day. The following processing will be done during Pre-EOTI:

- Process queue population

- FX External Revaluation (also run during EOTI)

- MM Accrual Processing (also run during EOTI)

6.8.1 Populating the process queues

While still in the transaction input stage, the system will identify all the contracts that have to be processed during the day and populate the respective queues. This is done prior to marking the end of transaction input (EOTI) for the day so as to reduce the processing time during EOTI. However, the actual processing for the contracts in the queues will be done only when you execute the relevant batches.

The following queues are available for this purpose:

- FX External Reval Queue

- FX Auto Liquidation Queue

- MM Accrual Queue

- MM Forward Initiation Queue

- MM Auto Liquidation Queue

Since the process queues are populated during TI, the system will reevaluate the contracts when you process new contracts, make amendments to existing contracts or cancel contracts after the queue population.

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6.8.1.1 <u>Maintaining parameter to indicate that queue population is required</u>

The online-queue population process will be available only if you have indicated so for your branch. You can do this by defining a parameter, QUEUE_REQUIRED, in the Parameter Mapping screen at the branch level and indicating the value as 'Y'. It is, therefore, essential to choose the parameter if you opt for parallelization for any of the FX and MM batches.

The 'QUEUE_REQUIRED' parameter with the value set to 'Y' will make the process queues available in the system. However, the system will populate the process queues only if you select the 'Queue Population Required' option in the 'Setup Mandatory Programs for a Branch' screen.

The process queues will be populated in the following manner:

6.8.1.2 <u>For FX External Reval Queue and FX Auto Liquidation Queue</u>

When you process a new contract, the system will evaluate the details and check whether revaluation or liquidation is due for the day. If the contract is pending revaluation, it will be routed to the Reval Queue. Likewise, if liquidation is due, the system will forward the contract to the Liquidation Queue.

If you amend a contract, the system will re-evaluate the changed details and then populate the appropriate queue depending on whether revaluation or liquidation is due.

If you cancel a contract, the same will be removed from the Reval/Liquidation Queue.

6.8.1.3 <u>For MM Forward Init Queue and MM Auto Liquidation Queue</u>

After you save and authorize a new contract, the system will evaluate the details and check whether the contract is due for initiation or liquidation. Depending on the criteria satisfied, the respective queue will be populated.

On amendment of a contract, the system will re-evaluate the changed details and then populate the appropriate queue.

If you process a manual payment and liquidate the contract, the system will remove it from the Liquidation and Accrual Queue. Similarly, if a manual payment of a liquidated contract is reversed, then the contract will be evaluated for Accrual and Liquidation Queue.

If you cancel a contract, the details will be removed from the respective queue.

6.8.2 <u>Initiating the FX External Revaluation Program</u>

As part of Pre-EOTI, you can initiate external revaluation of FX contracts. The FX external revaluation batch can be executed as soon as the exchange rates (NPV file) handed off by the external system is uploaded into Oracle FLEXCUBE. When the system becomes ready for marking EOTI, you can stop the process mid way. When you re-execute the batch during EOTI, it will pick up only the unprocessed contracts from the FX External Reval Queue.

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6.8.3 Initiating the MM Accrual Processing

Similarly, you can initiate the MM Accrual Processing during the transaction input stage. All the contracts for which processing is complete will be stored in a separate location on the database. Just as in the case of FX revaluation, you can stop the process halfway through. When the accrual process is run during EOTI, it will skip all the contracts that have already been processed and pick up the unprocessed ones from the MM Accrual Queue.

Both FX revaluation and MM accrual can be initiated through the 'EOC Operations' screen available in the **Application Browser**.
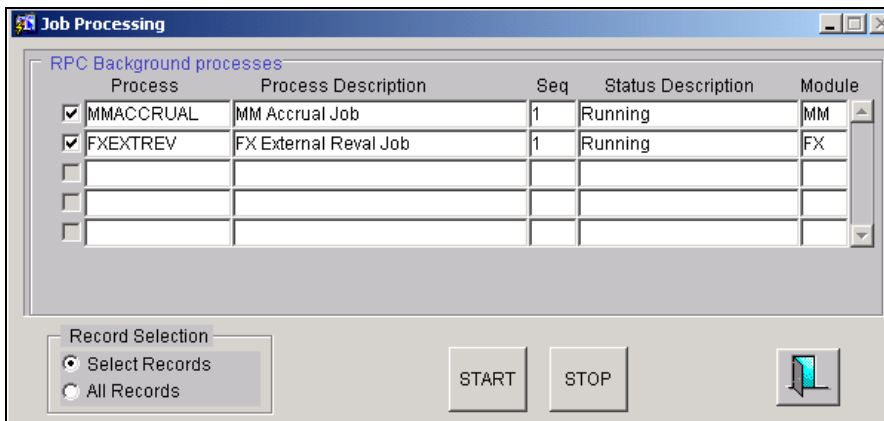
(stop) Please note that since the FX Revaluation and MM Accrual programs are run during transaction input, you may find that some of the contracts are locked for amendment or are in the unauthorized status. In such cases, the system will skip the processing of the contracts and pick them up again when the program is executed as part of EOTI. Therefore, you have to ensure that such programs are run during transaction input and also run in the EOTI stage.

6.8.4 Initiating the IC End of Day Processing

While still in the transaction input stage, when IC end of day is run, the system processes maintenance resolution, back valued calculations and calculations that are due for that day.

When system is ready for marking EOTI then the process can be stopped in between. When ICEOD process is restarted after marking EOTI, the pending maintenance resolution and calculation are completed and all accruals and liquidations due for the day are processed.

6.8.5 Processing multiple jobs for LD batch programs during EOTI

You can process the following batch programs during EOTI.

6.8.5.1 Processing LD Accruals

You can run LD accrual batch process from the LD accrual screen. You can execute this batch from the 'LD Accrual' screen, available in the **Application Browser**.

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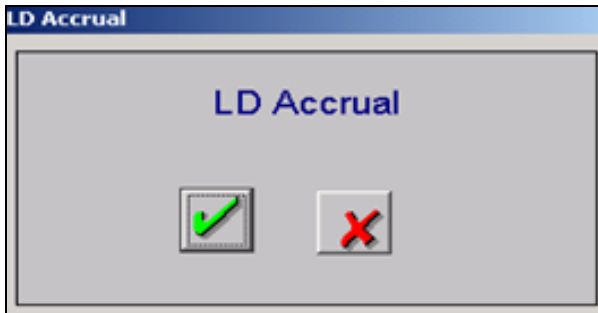
While still in the transaction input stage the system is ready for processing the LD accrual batch. The LD accrual batch process can be stopped in between if system is ready for marking EOTI and it will skip all the contracts that have already been processed.

The LD accrual process is run as part of the LD auto daily batch during EOTI.

6.8.5.2 Initiating the LD Floating Rate Revision batch

You can run LD Floating Rate Revision batch process from the 'LD Floating Rate Revision' screen. You can execute this batch from the following screen, available in the **Application Browser**.
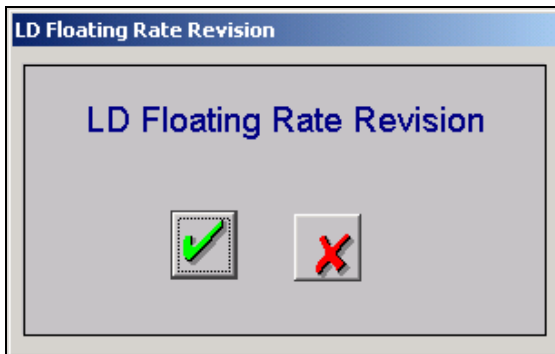
While still in the transaction input stage the system is ready for processing the LD Floating Rate Revision. However, if the system is ready for marking EOTI then the process can be stopped in between. When LD Auto Daily is run after marking EOTI, the new maintenances done after LD Floating Rate Revision process will be picked up by LD Auto Daily process.

The LD Floating Rate Revision is run as part of the LD auto daily batch process during EOTI.

6.8.5.3 Initiating LD Holiday Upload

You can run LD Holiday Upload process from the 'LD Holiday Upload' screen. You can execute this batch from the following screen, available in the **Application Browser.**

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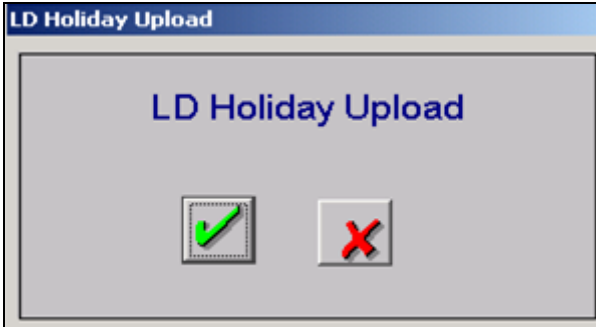
While still in the transaction input stage the system is ready for processing the LD Holiday Upload. However, if the system is ready for marking EOTI then the process can be stopped in between. When LD Auto Daily process is restarted, the new maintenances done after the process will be picked up during the LD Auto Daily process.

The LD Holiday Upload is run as part of the LD auto daily batch process during EOTI.

6.8.6 Initiating Post EOFI Programs

The following MIS programs are changed to be run in the back up server:

- GLMISUPD

- REMISUPD

- MIREFCOL

When these programs run on the back up server then you also have to run the following programs on the back up server:

- MIS Date Change – When financial cycle changes this program will also do MIS year end processing and propagate balances on date change.

To execute the MIS date change the 'MIS date change Program' screen, available in the **Application Browser** is invoked.

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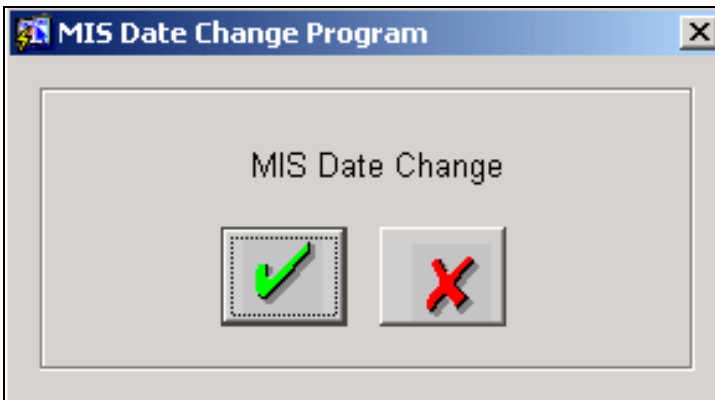
- MIS Purge – MIS purge should be run on the backup server to soft purge MIS tables. Soft purge is done to move the contract level information to another database to reduce the size of the database and therefore improve the performance.

6.8.7 Executing the deferred balance update for GLs and Accounts

When you update the GLs and account balances online, multiple processes may try to post to the same GL/account, resulting in update failure. To handle incidents of such contention, Oracle FLEXCUBE allows you to defer the balance update for GLs and customer accounts. The same can be updated offline, during batch processing.

You can defer the update for the following batch processes:

- FX Liquidation
- MM Liquidation

6.8.7.1 Maintaining the parameters for deferring balance update

To enable this feature, you have to specify your preferences in the Branch Parameters - Preferences screen.

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Deferring the balance update for customer accounts

At the time of defining the preferences for your branch, you can specify that you want to defer the balance update for all the accounts. The 'Online Update During Batch' option, if not selected, will enable you to avail this feature.

As the name suggests, if you select this option, balance update would be done online.
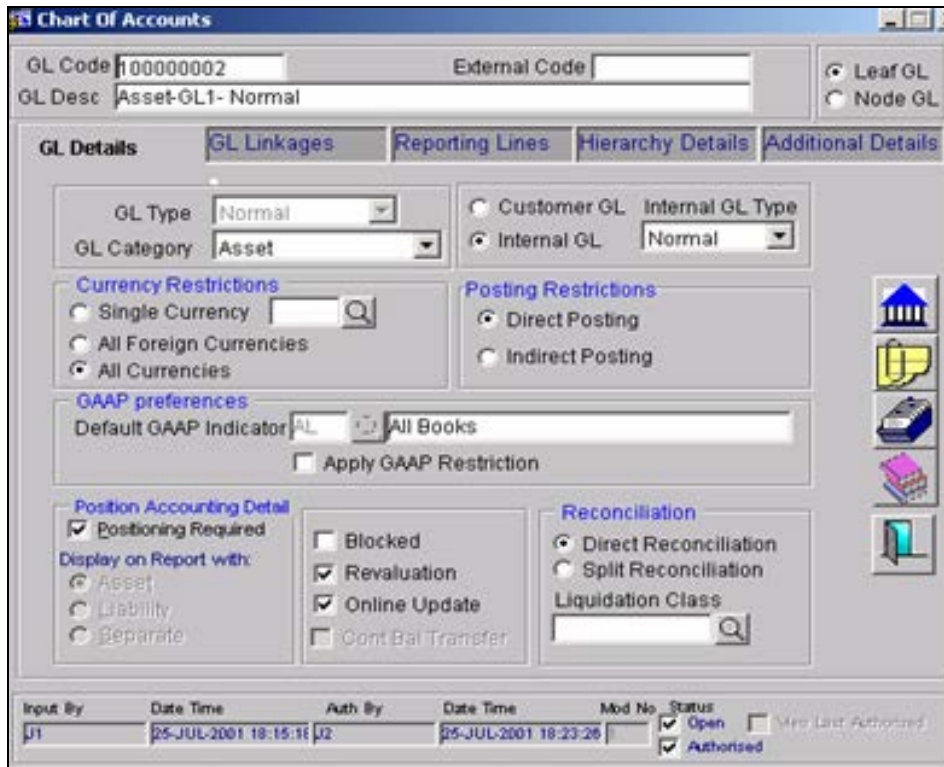
Deferring the balance update for GLs

The system will do an online update of GL balances if you select the 'Online GL Update' option. To defer the update of GL balances, do not opt for online GL update.

🛑 In addition to deferring the GL update program at the branch level, you have to defer the program at the individual GL level also to avail this feature.

Deferring the balance update at the GL level

During on-line transaction processing, the system will defer the update of GL balances, if you do not choose the 'Online Update' option when maintaining the Chart of Accounts for your branch.

6.8.8 Maintaining UDFs

You can maintain the UDFs pertaining to the customer using the 'Field Name to Value Definition' screen. Toc invoke this screen, click the 📇 button on the Application toolbar of the 'Chart of Accounts' screen.

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You can maintain the following UDFs in this screen:

- Escrow Type

- Trade Reclass Required – Select whether trade reclassification is required or not for the account from the adjoining option list. The list displays the following values:

  - Y

  - N

You should manually maintain the UDF value as 'Y' for the GLs for which the reclassification should be performed during EOD batch processing. If the UDF value is 'N', the system will not include those account for trade reclassification. If UDF value is blank, the system will by default consider it as 'N'.

🛑 Reclassification will not be done if the UDF value is blank or 'N', even though the 'SLT Borrower Reclass Required' box is checked in the 'Loans Parameter' screen.

To avoid reclassification, accounts in both the legs (Debit and Credit) should be maintained with 'Trade Reclass Required' as 'N' or blank. Similarly, Reclassification is done only when both the accounts are maintained with 'Trade Reclass Required' as 'Y' and this should be operationally controlled.

6.8.8.1 Maintaining UDFs for Escrow Accounts

System provides the following User Defined Field (UDF) of 'Escrow type' with values ESC1, ESC2, ESC3, and ESC6. By default, the value of these UDFs is null.

Escrow Type	Remarks
Escrow 1 (ESC1) – Tax Escrow	General Ledger account used for tax payments.

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Escrow Type	Remarks
	Funds are credited to escrow from external source, and debited by bank to remit tax payments when due.
Escrow 2 (ESC2) – Insurance Escrow	General Ledger account used for Insurance payments. Funds are credited to escrow from external source, and debited by bank to remit insurance payments when due.
Escrow 3 (ESC3) – Can be split into multiple escrows: Replacement Reserves, Collateral, Rehab Reserve, Equity Funds, Agency Funds	Customer Account used for replacement reserves, collateral, rehab reserve, equity funds or agency funds. Each of these types will have a separate escrow account. Funds are credited to escrow from external source, and debited by bank to remit funds when due.
Escrow 6 (ESC6) – Suspense Account	General Ledger account used when funds received from the borrower against amounts due against the loan cannot be immediately applied to the loan (for legal reasons or if amount may not be exact). Funds remitted by customer are first credited to this account by the bank and later debited.

Note the following:

- The 'Escrow Type' UDFs can be maintained during creation of customer/GL account. Customer Accounts and General Ledger accounts where this UDF has a value can be linked to loan contracts as Escrow Accounts.

- If you do not define a value for a UDF during customer/GL account creation, then you can unlock the account and maintain a value. Once the value of this UDF is maintained, user cannot change the value or remove the existing value as long as the customer/GL account is linked to an active contract.

- If the customer account/GL is not linked to any active contract, you can change or remove the UDF value.

- Escrow type ESC3 is mapped to customer accounts, and ESC1, ESC2, and ESC6 types are mapped to General Ledger accounts. This must be operationally controlled, and system will not validate the escrow type mapped to an account.

6.8.8.2 Marking the 'Deferred' status

The system will set the GL balance update to the deferred status only if you have not opted for Online GL update at the branch level as well as at the GL level.

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During EOD batch processing, if entries are being posted as part of FX or MM batches, the system will defer the balance update of GL as well as customer accounts, only if you have not selected the 'On-line Update During Batch' option for the branch.

If you opt for online GL update for the branch and choose to do an offline update at the GL level, the system will defer the balance update for the individual GL alone. Online GL update will continue at the branch level for other GLs which have been marked for online update.

6.8.8.3 Unmarking the 'Deferred' status

For customer accounts, you can execute the AC Offline Update program to process the entries for which balance update was deferred. This program is available in the Application Browser.
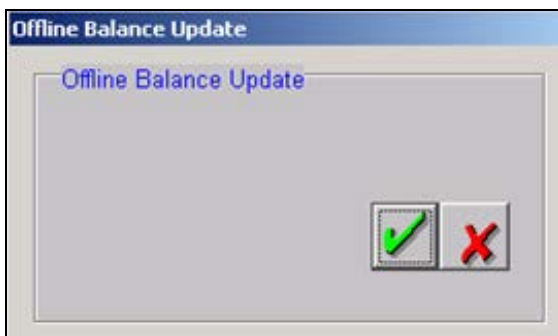
The following would be processed as part of this batch:

- The system will identify all the customer accounts for which balance update was deferred.

- The accounts that do not require limits and IC processing will be grouped together and the balance update will be done by a single transaction into the respective accounts.

- Accounts that require limits processing or IC validations will be processed for every transaction for the day and the balance will be updated.

- Value dated balances will also be updated through this batch

For GLs, the deferred balances will be updated as follows:

- The system will identify the deferred GL accounting entries and update them at the following stages:
  - ➢ Marking EOTI
  - ➢ Before Account Revaluation
  - ➢ Marking EOFI

- In addition, value dated balances will also be updated

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6.8.8.4 Validations performed on account with deferred balance status

After you mark the deferred status for a customer account, you have to ensure that the deferred entries are processed before doing any balance based account operations like sweeps, account revaluation or IC processing.

To ensure that such operations are not done, the system will perform the following validations:

- At the time of marking EOTI, the system will check whether you have selected the 'Online Update During Batch' option at the branch level. If the option is not chosen, it will mark the online update status as 'Pending'.

- The system will mark the online update status processed only after you update the deferred account balances (by executing the Account Offline Update program. Therefore, it is mandatory to trigger this batch after FX and MM batch processes, if the 'Online Update During Batch' option is not chosen.

- Before processing sweeps, account revaluation and ICEOD programs the system will ensure that the on-line update status is marked as 'Processed'.

- In addition, the system will mark the EOFI for the day only if the on-line update status is 'Processed'.

6.8.9 Processing multiple jobs for FX and MM batch programs

In order to reduce the processing time during the post EOTI stage, you can split the FX and MM batch programs into multiple streams. These streams will be run in parallel with one another.

6.8.9.1 Indicating whether parallelization is required

You can use this feature only if you have indicated so at the time of defining the mandatory programs for your branch (in the 'Setup Mandatory Programs for a Branch' screen).

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Select the 'Parallelization Required' option to indicate that multiple streams are to be forked at the time of running FX and MM batch programs. However, you will be allowed to select this option only if the 'Queue Population Required' option is also chosen.

6.8.9.2 <u>Maintaining parameter to define the number of jobs to be processed</u>

If you have allowed processing of multiple jobs at your branch, you should also indicate the number of jobs that can be executed in parallel, during the EOD run. You can maintain this as a parameter, 'NO_OF_PARALLEL_BATCH_JOBS', and then assign a numeric value to indicate the actual number of jobs.

The above requirement can be maintained in the screen below, available in the Application Browser:
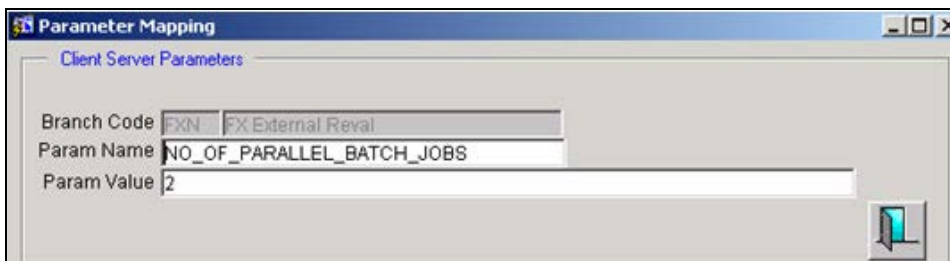
The FX and MM batch programs will pickup contracts from the process queues and split them into multiple jobs based on your maintenance. The processing for each batch is explained in the following sections.

6.8.9.3 <u>FX External Revaluation Batch</u>

- The FX External Revaluation Batch will identify the contracts pending revaluation from the Revaluation Queue and process them in parallel streams.

- The number of parallel processes will be determined based on the number of jobs maintained.

🛑 Parallelization is to be maintained for the FX External Revaluation batch run in the EOTI stage only. As stated earlier, you would be executing this batch in the Transaction Input stage also. If you are executing this batch as part of Transaction Input, only the 'Queue Population Required' option should be selected. You need not opt for parallelization.

6.8.9.4 <u>FX Liquidation Batch</u>

- The FX Liquidation batch program will pickup the contracts due for liquidation from the Liquidation Queue and process them in parallel.

- The number of parallel processes will be determined based on the value maintained for the miscellaneous parameter.

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6.8.9.5 MM Accrual Batch

- This batch program will pickup the contracts from the Accrual Queue and process them in parallel streams.

- The number of parallel processes will be determined based on the value maintained for the miscellaneous parameter.

- The accrual processing will be done individually for each contract that is processed on the day.

- If you have opted for product level accounting (in the MM Branch Parameters Maintenance screen), the system will process the product level accounting for each product after all the contracts (jobs) are processed.

You can execute this batch from the following screen, available in the Application Browser:
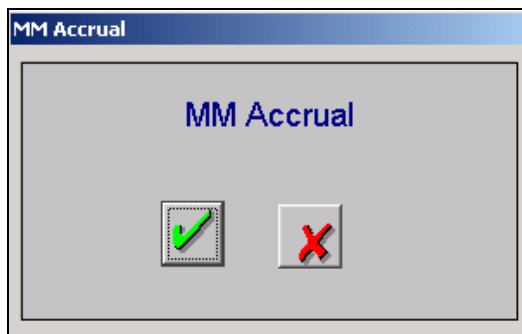
6.8.9.6 MM Forward Init Batch

The following will be processed as part of this job:

- The Forward init batch will identify the contracts that have to be initiated during the day from the Forward Init Queue and then, process them in parallel.

- The number of parallel processes will be determined based on the value maintained for the miscellaneous parameter.

You can execute this batch from the following screen, available in the Application Browser:

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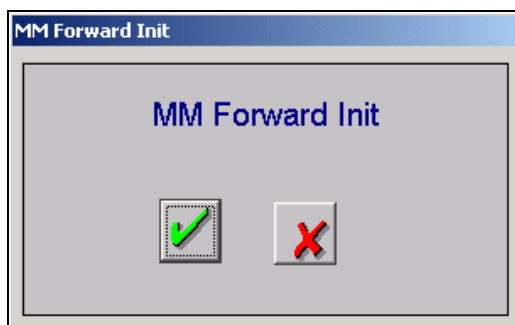
6.8.9.7 <u>MM Auto Liquidation Batch</u>

The following will be processed as part of this batch:

- This program will pickup the contracts due for liquidation from the Liquidation Queue and run them in parallel.

- The number of parallel processes will be determined based on the value maintained for the miscellaneous parameter.

- If the batch run includes holidays, the system will process each contract for every day of the batch run. For instance, if the batch is executed from 20th February 2004 to 22nd February 2004, the system will process each contract for 20th Feb, 21st Feb and 22nd Feb 2004.

You can execute this batch from the following screen, available in the Application Browser:
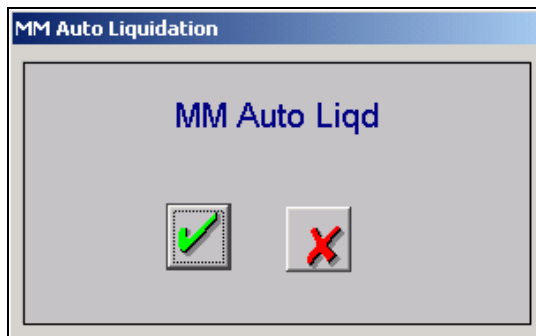
For each of the above batch programs, the system will check whether the process queues have been populated for the day. If not, it will first process the queue population and then continue with the rest of the batch processing.

The system will mark the program as successful only after each program is completed successfully. Even if there is a single job failure, the program status will be marked as 'Unsuccessful'. However, before marking this status, the system will wait for other jobs to be complete.
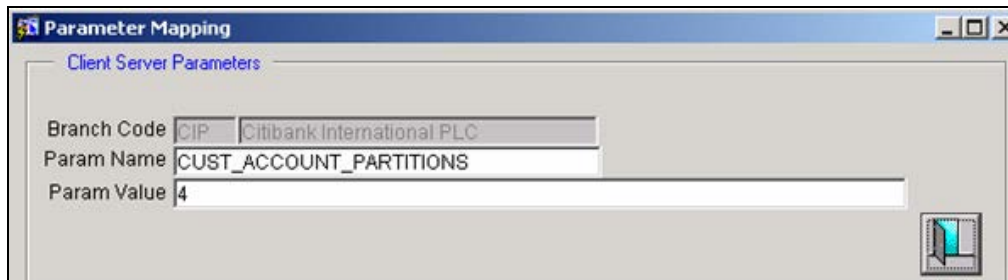
6.8.10 <u>Processing multiple jobs for ACCREVAL (Account Revaluation) program</u>

Just as you process multiple jobs for FX and MM batch programs, you can opt for parallel processing of the ACCREVAL batch program also. This will also be based on the parameters maintained at the time of setting mandatory programs for the branch.

You have to select the 'Parallelization Required' and 'Queue Population Required' options in the 'Setup Mandatory Programs for a Branch' to be able to run multiple jobs for ACCREVAL.

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6.8.10.1 Maintaining parameter to define the number of jobs to be processed

Just as we maintain the number of parallel jobs to be processed for FX/MM batch programs as a parameter, we need to maintain the number of parallel processes required for ACCREVAL. This can be maintained as a parameter (CUST_ACCOUNT_PARTITIONS) at the branch level and the value that you assign to this parameter will indicate the number of partitions into which the customer account table should be split. This is also the number of account revaluation jobs that you can process in parallel.

6.8.10.2 Processing for ACCREVAL

The ACCREVAL program typically processes GLs and Accounts. The number of jobs maintained will be assigned to process all the customer accounts. A separate job would be fired for processing the GLs.

The processing will be done as follows:

- All the GLs will be grouped under one sequence number.

- When you execute the Account revaluation batch, a job for each customer account sequence and a job for GLs will be submitted.

- Each job will process the accounts belonging to that particular sequence. The GL job will do the revaluation for all the GLs.

- Accounts or GLs that fail during the processing will be logged into an exception.

- After all the jobs are completed successfully, the process will be marked as 'Completed'.

6.8.11 Processing multiple jobs during accounting entry upload

During the upload of accounting entries, you can run multiple jobs in parallel either during the transaction input stage or when marking the EOTI for the day. This will speed up the processing of the uploaded accounting entries.

The maintenance required for the same are discussed below.

6.8.11.1 Indicating whether multiple jobs should be used

You have to indicate this specification when defining the interface details in the Interface Definition screen.

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To process multiple jobs during upload, you have to select the 'Job Mode' option.

6.8.11.2 Maintaining parameter to define the number of upload jobs

You can maintain the maximum number of jobs that can be processed at the same time, as a parameter (MAXIMUM_ITR_JOBS). This is done at the branch level.

6.8.11.3 Processing for the upload job

This batch will process the accounting entry upload in multiple jobs run in parallel. You can execute this batch during transaction input and when marking the end of transaction input for the day.

The following processing will be done as part of this batch:

- The system will check the directories containing the upload files (ITR files) and identify the ones that haven't been processed for the day.

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- The batch will set off an oracle job if it finds an unprocessed file in any one of the directories.

- It will continue to poll the other directories and if it finds another file, it will spawn off another job. This process will continue until it reaches the maximum number of jobs specified for upload.

- The job will be successful after all the files are marked as 'Processed'.

- If any of the file fails to get uploaded, it is notified to the tracker after all the remaining files are uploaded.

6.8.11.4 Updating the account balances for the uploaded entries

Account balances will get updated later for the accounts that get uploaded in the job mode. You have to execute another batch process to update the account balances for such entries. You can execute this program through the following screen available in the Application Browser.

This batch should be processed immediately after you complete the upload process.

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6.8.11.5 Tracking the upload job

You can track the upload job processing through the job processing screen available in the Application Browser.
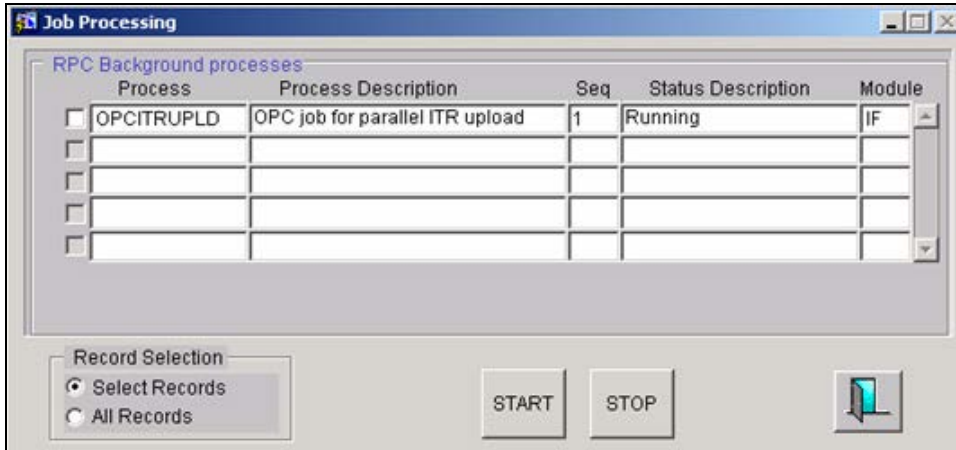
You can stop the upload job midway during the TI stage. After you stop the job, the system will continue to process the jobs that are already running and stop after they get completed.

After marking the end of transaction input, you can continue the upload job for the unprocessed upload files.

6.8.11.6 Maintaining Parameter for Parallelization IC Batch Programs

IC batch programs can be divided into multiple streams thereby reducing the run time taken by post EOTI programs. CUST_ACCOUNT_PARTITIONS indicate the number of partitions into which the customer account table should be split.
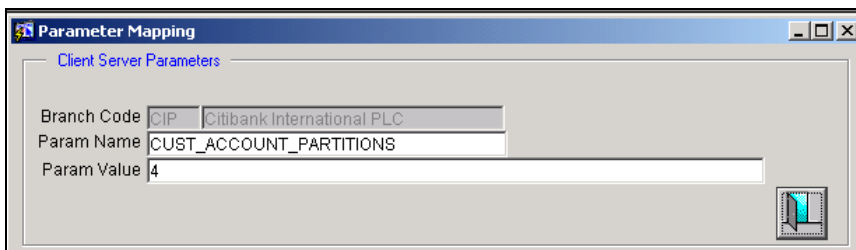
This will distribute the accounts to be processed for IC into equal groups based on the number of parallel streams maintained. Any new account will automatically be moved to the first stream. To prevent over loading any particular stream, the program has to be run on a periodic basis to redistribute the new accounts which have been added after the previous split.

This EOD batch function will fork parallel batches and each stream will process accounts based on the sequencing.
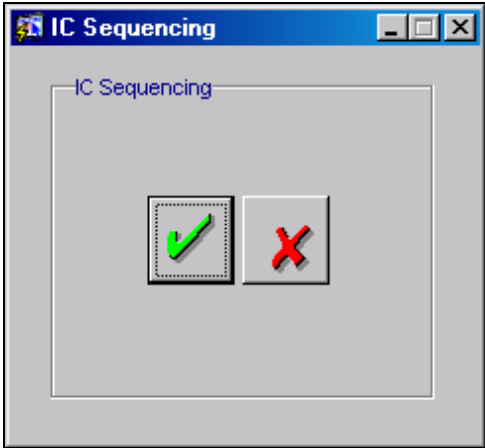
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6.9 Deferring the EOD for the branch

To speed up the process of marking the Transaction Input, Oracle FLEXCUBE provides you the option to move some of the non-critical programs performed as part of marking EOD to the transaction input stage.

6.9.1 Indicating whether the EOD process should be deferred

At the time of maintaining branch parameters, you can indicate that you wish to defer the EOD process for the branch. This can be specified as a preference in the Branch Parameters - Preferences screen.

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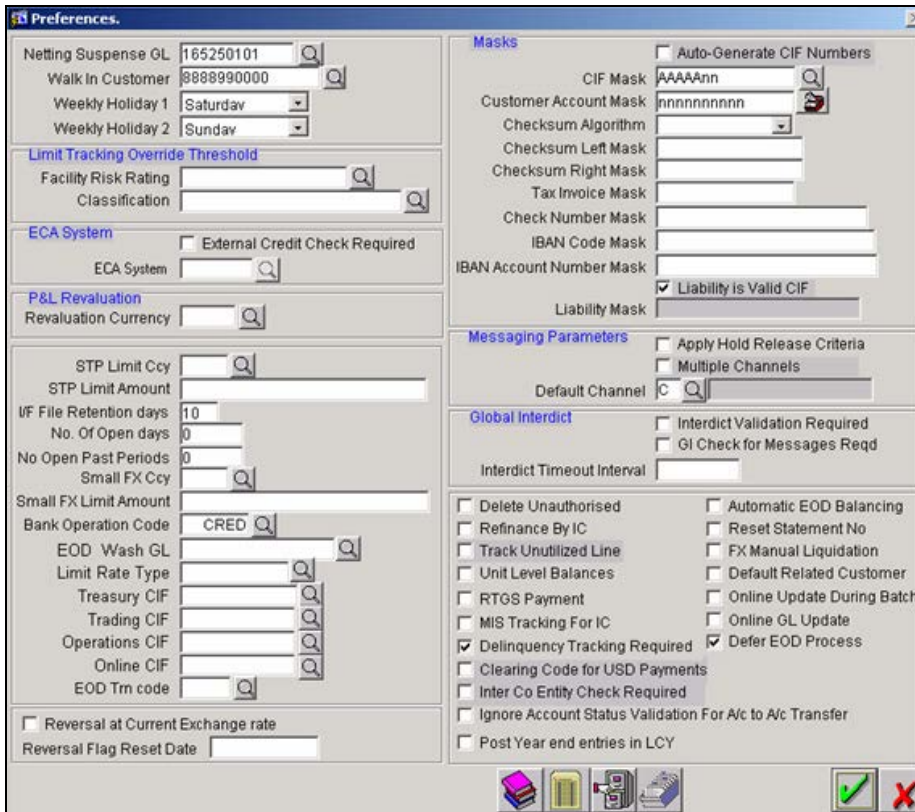
You have to select the 'Defer EOD Process' option to exercise this feature. All non critical processes that are done during marking of EOD will be processed as a batch which will be triggered during the transaction input stage.

You can access the batch from the Application Browser. The screen is as displayed below:
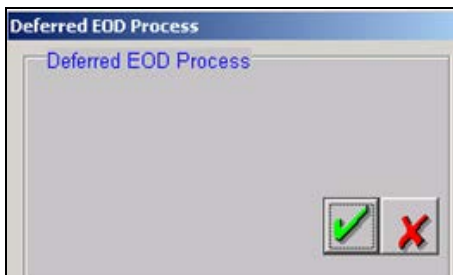
The following activities will be processed by this batch:

- Movement of account entries from daily log table to history table.

- Messaging archival

- Payments archival

- Cleanup activities of upload and interface tables

- Reversal of Account Revaluation

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- Marking and Unmarking the Dormancy Status for Customer Accounts

- Archival Processing for FX and MM modules.

- Clearing of temporary purge tables in FX, MM modules.

6.10 Processing the Post BOD Programs

You are in the BOD stage after you change the system date and authorize the same. The post BOD programs refer to the ones that are executed after the transaction input has been marked for the day.

The following activities will be performed during this stage:

- FX Reval Reversal Program

- SGEN Batch

- LD Auto batch

- IC Beginning of Day Batch

- SI Payments Batch

However, to enable the processing of the above programs during the TI stage, you have to select the appropriate EOC Group during which the selected programs should be executed since programs for the current day will also be executed during this stage. This is done at the time of setting up mandatory programs for the branch.

The IC beginning of Day Batch and SI Payments batch are modified to be run after TI has been marked.

The MM tracer program is allowed to run in TI. You can execute this from the following screen, available in the Application Browser:
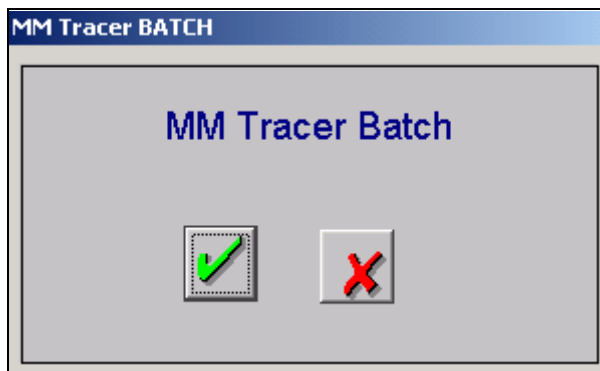
The contracts that have gone to the Batch exception will be processed. These contracts can also be manually processed from the Batch Exception Browser.

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6.10.1.1 Specifying the state for processing the post BOD programs

At the time of maintaining the parameters for the above programs, you have to select 'EOPD (End of Previous Day)' as the EOC Group. This will indicate that the program being run in TI belongs to the EOD batch process of the previous day.

EOPD Processing

The processing will be done as follows:

- At the time of marking the transaction input, the system will check whether any programs are maintained for EOPD processing.

- If no such programs are maintained, the system will identify the mandatory programs maintained for transaction input and populate them into the mandatory program queue.

- If any such programs are maintained, then the system will only populate EOPD programs into pending mandatory program list. This will indicate that the previous day has not been completed.

- Only after all the EOPD programs are executed successfully, the system will mark the process as completed.

- It will not be possible to mark end of transaction input, if the programs marked for EOPD is not completed.

If any of the BOD programs are being processed during EOPD, then it is also mandatory to maintain the deferred EOD batch in EOPD. This will be the last batch program in EOPD and it can be run only after successful completion of the rest of the EOPD programs. On successful completion of this program, the system will mark the previous EOD as completed.
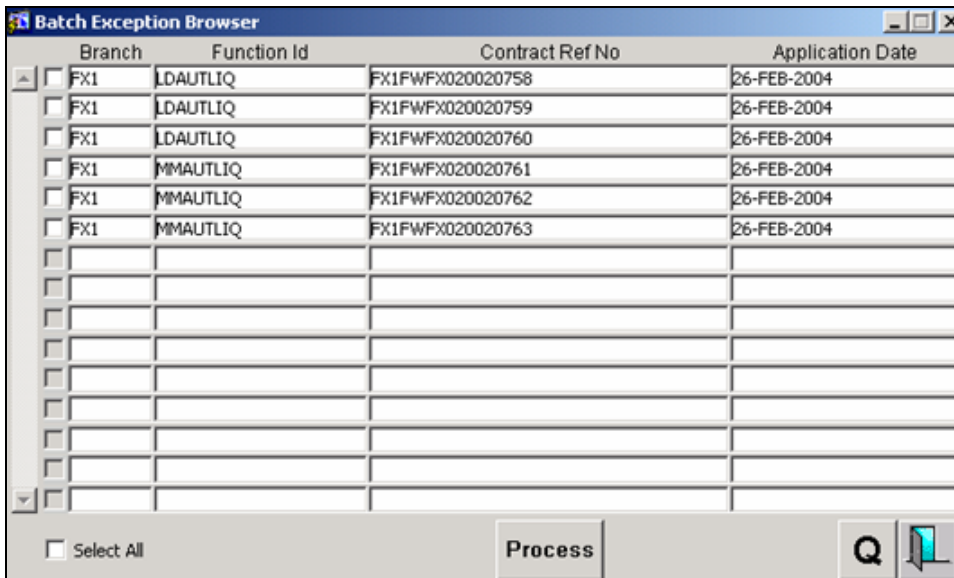
🛑 Soft purge will be allowed during transaction input only if the previous day's EOD status is marked as 'Processed'.

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6.10.1.2 Viewing the exceptions encountered for post BOD programs

When the LD batch is running during TI, you will not be allowed to perform any activities on the existing contracts. However, you can process new contracts during this stage. In all the post BOD batches, if a contract processing fails, the system will log an exception and continue with batch processing. After the batch processing is complete, all the contracts that have gone into exception will be reprocessed. If the contract processing fails even after the second attempt, the batch will be marked as unsuccessful.

The 'Batch Exception Browser' will show all the contracts that have gone into exception during processing of the above mentioned batches.

	Branch	Function Id	Contract Ref No	Application Date
□	FX1	LDAUTLIQ	FX1FWFX020020758	26-FEB-2004
□	FX1	LDAUTLIQ	FX1FWFX020020759	26-FEB-2004
□	FX1	LDAUTLIQ	FX1FWFX020020760	26-FEB-2004
□	FX1	MMAUTLIQ	FX1FWFX020020761	26-FEB-2004
□	FX1	MMAUTLIQ	FX1FWFX020020762	26-FEB-2004
□	FX1	MMAUTLIQ	FX1FWFX020020763	26-FEB-2004
□				
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All the unprocessed contracts can be reprocessed. Once all the contracts have been processed the programs will be marked as successful.

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7.   Annexure A - List of End of Cycle Functions

7.1 Introduction

This Annexure contains details of all the mandatory functions that should mandatorily run as part of the following stages of the EOC cycle:

- Beginning Of Day (BOD)
- Pre-End of Day
- End of Day (EOD)

The contents of this Annexure are organized on the basis of the module to which the function belongs.

7.2 Beginning of Day (BOD) functions for all the modules

The mandatory functions for BOD are marked with a 'Yes' under the Mandatory Column.

Module	Function	Frequency	Mandatory
SMS	Change time	Daily	
Core	Posting of tank	Daily	
DE	Till opening	Daily	Yes
	Cash movement function	Daily	
FT	Auto init	Daily	Yes
	FT exception report	Daily	Yes
	Contract release processed by FT rate update function	Daily	
LD	Auto Daily	Daily	
	Auto Initiation	Daily	
	Auto liquidation	Daily	
MM	MM activation of forward contracts	Daily	Yes
	MM auto liquidation of	Daily	Yes

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Module	Function	Frequency	Mandatory
	contracts		
	MM auto liquidation of interests	Daily	Yes
	MM auto rollover execution	Daily	Yes
	MM maturity report	Daily	
	MM exception report	Daily	Yes
BC	Accruals	Daily	Yes
	AutoLiq	Daily	Yes
	Autochange of Acceptance to Advance	Daily	Yes
	Auto status control	Daily	
	Floating rate change	Daily	
	Tracer generation	Daily	
LC	LCEOD	Daily	Yes
SI	Sweeps	Daily	
AEOD	Refinance rates	Input	
	Currency rates	Input	
	Forward rates	Input	
	Discount rates	Input	

7.3 End of Day (EOD) functions for all the modules

The mandatory functions for EOD are marked with a 'Yes' under the Mandatory Column.

Module	Function	Frequency	Mandatory
SMS	Log of events	Daily	
	Security violations report	Daily	
Core	Financial balancing	Daily	

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Module	Function	Frequency	Mandatory
	Date change	Daily	
	Accounting entries history	Daily	
	Currency position update	Daily	
	Auto revaluation	Daily	
	Account statement	Daily	
	Brokerage liquidation	Daily	
	Brokerage liquidation report	Daily	
	Limits updation	Daily	
DE	Daily cash movement function	Daily	Yes
	Daily cash movement report	Daily	Yes
	Batch totals report	Daily	
	Transaction journal	Daily	Yes
	Daily teller transaction report	Daily	
	Till balancing exception report	Daily	Yes
	Till closing position (history)	Daily	Yes
CASA	Amount block	Daily	
	Stop payment	Daily	
FT	FT activity journal	Daily	Yes
	FT contract report	Daily	
FX	FX contract revaluation	Daily, Monthly	Yes
	FX contract auto liquidation	Daily	Yes

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Module	Function	Frequency	Mandatory
	FX auto rollover	Daily	Yes
	FX settlement message generation	Daily	Yes
	FX fetch unauthorized	Daily	Yes
	FX netting of (settlements amounts)	Daily	Yes
	FX contracts purge	Optional	
LD	Auto daily	Daily	
	Auto interest liquidation	Daily	
	Auto liquidation	Daily	
	Auto rollover	Daily	
MM	MM activation forward contracts	Daily	Yes
	Auto liquidation of MM contracts	Daily	Yes
	MM auto liquidation of interests	Daily	Yes
	Generation of payment messages, days before actual date	Daily	Yes
	MM auto rollover execution	Daily	Yes
	MM interest rate revision	Daily	
	MM fetch unauthorized	Daily	
	MM maturity report	Daily	
	MM daily movement	Daily	Yes
	MM exception report	Daily	Yes
BC	Accruals	Daily	Yes
	Auto liq	Daily	Yes
	Autochange of	Daily	Yes

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Module	Function	Frequency	Mandatory
	acceptance to advance		
	Auto status control	Daily	
LC	LCEOD	Daily	Yes
	LC tracer general	Daily	Yes
IC	Liquidation	Daily	
	Interest advices	Daily	
	Accruals	Daily	
SI	SI Batch Process	Daily	Yes
GL	GL report	Daily	
	Cash flow report	Daily	
MIS	Product profitability	Daily	
	Customer profitability	Daily	
	Pool profitability	Daily	
	MS clause wise report	Daily	
AEOD	Change time level	Daily	

7.4 <u>Pre-End of Day functions for all the modules</u>

The mandatory functions for BOD are marked with a 'Yes' under the Mandatory Column.

Module	Function	Frequency	Mandatory
BC	Auto status control	Daily	
LC	LCEOD	Daily	Yes
IC			
SI	Payments	Daily	

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The following is the list of pre-EOC functions that have to be executed after EOTI has been marked:

Module	Function	Frequency	Mandatory
BC	Auto status control	Daily	
LC	LCEOD	Daily	Yes
SI	Payments	Daily	

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