Interest and Charges
Oracle FLEXCUBE Universal Banking
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FINANCIAL SERVICES

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1. About this Manual

1.1 Introduction

This manual is designed to help you get acquainted quickly with the Interest and Charges module of Oracle FLEXCUBE.

It provides an overview to the module, and provides information on using the Interest and Charges module of Oracle FLEXCUBE.

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

1.1.1 Audience

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

Role	Function
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

1.1.2 Organization

This manual is organized into the following chapters:

Chapter 1	*About this Manual* gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	*An Overview of Interest and Charge Module* gives you a bird's eye view of the Interest and Charges sub-system in Oracle FLEXCUBE.
Chapter 3	*Maintaining Interest Rules* explains how interest rules can be maintained in the Interest and Charges sub-system.
Chapter 4	*Maintaining System Data Elements* describes the process of setting up system data elements or SDEs.

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Chapter 5	*Giving UDE Values for a Condition* explains the process of specifying actual values for user date elements (UDEs) for an account class and currency.
Chapter 6	*Building Formulae* explains how expressions or formulae can be constructed for the purpose of defining an interest rule.
Chapter 7	*Defining Attributes specific* to an Interest or Charge Product explains the definition of attributes specific to an IC product.
Chapter 8	*Floating Rate Codes for IC Module* explains how floating rate codes for the IC module are created and applied.
Chapter 9	*Applying Interest Product on Account* explains how you can apply an interest product to a customer account or an account class.
Chapter 10	*Checking for Consistency in Data* explains the IC Consistency Check Function and reports inconsistencies in maintained data.
Chapter 11	*Daily Processing of Interest and Charges* explains the interest and charges batch function, which processes liquidations and accruals for each business day.
Chapter 12	*Liquidating Interest Online* explains the online interest liquidation function in the Interest and Charges module.
Chapter 13	*Maintaining Interest Statement Details* explains the maintenance of details pertaining to interest statements given to account holders.
Chapter 14	*Annexure A - Accounting Entries and Advices* explains the suggested accounting entries that can be set up for the Interest and Charges module.
Chapter 15	*Queries and Reports* provides a list of queries and reports that can be generated in this module and also explains their contents.

1.1.3 <u>Related Documents</u>

- The Procedures User Manual

- The Settlements User Manual

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1.1.4 <u>Glossary of Icons</u>

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

Icons	Function
✖	Exit
+	Add row
−	Delete row
⌑	Option List

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2. An Overview of Interest and Charges Module

2.1 Introduction

On the balance type of accounts maintained in your bank, you would want to apply interest and charges. Savings accounts, current accounts, nostro accounts, etc., are examples of balance type accounts. Using the Interest and Charges (IC) sub-system of Oracle FLEXCUBE, you can calculate, and apply, interest and charges on these accounts.

Setting up the Interest and Charges sub-system is a one-time activity. Once set up, Oracle FLEXCUBE automatically computes and applies interest and charges on all balance type accounts in your bank.

In Oracle FLEXCUBE, interest is calculated for all accounts using the interest rules that you define. You can define the interest rules to suit the peculiar requirements of your bank.

2.2 Defining Interest Rule

A 'Rule' identifies the *method* in which interest has to be calculated. For example, to calculate interest for an account, you would require the following data:

- the principal (the amount for which you want to calculate interest)

- the period (the number of days for which you want to apply interest)

- the rate (the rate at which you want to compute interest)

When you define a rule, you define exactly *how* each of these components (the principal, the period, and the rate) is to be picked up from an account for calculating interest. Then, using the logic PNR/100 (or any other, for that matter), you can calculate interest for the account.

2.2.1 Components of Interest Rule

The components required to build an interest rule (the principal, period, and rate) are broadly referred to as 'data elements'. Data elements are of two types:

- System Data Elements (SDEs)

- User Data Elements (UDEs)

The balance in the account for which the interest has to be calculated depends on the activities that take place in the customer account over a period of time. This information is constantly updated in the system and is readily available for computation of interest or charges. Data elements of this sort are called System Data Elements.

Data elements such as the rate at which *you* would like to apply interest, the tier structure based on which *you* would apply an interest rate, etc., are called User Data Elements (UDEs). UDEs fall into three categories:

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- Rate

- Amount

- Number

You can specify different values for a user data element. For example, you can apply *different* interest rates on the basis of the debit balance, as follows:

- balances between 0 upto 10,000: 5%

- balances between 10,000 and 20,000: 7.5%

- balances greater than 20,000: 10%

Using the System Data Elements and the User Data Elements that you define, you can create formulae to compute interest. In other words, formulae connect SDEs to the UDEs to give a result: the interest that applies.

To use a metaphor, SDEs and UDEs are the pillars on which an arch called formula rests. Many arches combine to form a dome called Rule. The things that you choose to put under a dome correspond to the account classes (or accounts themselves) on which the rule applies.

To build an interest rule, you first need to define the System Data Elements that you would use in the Interest Rule. For example, if you would like to apply interest on the basis of the Monthly Minimum Credit Balance, you should define it as an SDE in the System Data Element Maintenance screen. When you apply the interest rule with 'Monthly Minimum Credit Balance' defined as the SDE on an account class, interest will be calculated using the monthly minimum credit balance in the accounts belonging to the account class.

Once you have defined an interest rule, you have to define an *interest product*.

2.3 <u>What is Product?</u>

Your bank will pay and receive different types of interest and charges. For example, you would pay credit interest on credit balances in savings types of accounts. Similarly, on current accounts you would levy a debit interest on debit balances, and so on. Credit interest and debit interest are examples of the products that you can define.

2.3.1 <u>Advantages of Defining Product</u>

An interest rule is merely built with the logic to calculate interest. You still have, however, to specify the accounts on which the logic has to be applied, the types of GLs (expense, income, etc.), and the GLs themselves to which you would like to post the accounting entries. You can define such details for an interest product. When you link an interest rule to an interest product, and apply the product on an account, interest will be calculated for the account using the interest rule, and the accounting entries would be automatically posted to the GLs that you specify for the interest product.

2.4 __Defining 'Conditions'__

You can apply an interest product on an account(s) in two ways:

- By linking an account class to a product, thereby making the product applicable to all the accounts of the class. This method of linking accounts is called the definition of a General Condition.

- By linking an account itself to the product. This method of linking accounts is called the definition of a Special Condition.

2.4.1 __Defining General Condition__

Often, you may calculate interest for several account classes using the same interest calculation method. In such a case, you can apply the same product to all the account classes. You can specify the account class (es) when creating the interest product. However, since the interest rate or tier structure based on which you want to calculate interest may be unique to an account class, you can specify different values for each account class on which you apply the product.

The implications of applying the same product on several account classes are:

- Interest will be calculated for all the account classes on the basis of the interest rule linked to the product.

- The accounting entries generated will be posted to the GLs specified for the product.

- The frequency with which interest is liquidated and accrued will be the same for all the account classes (that defined for the product).

- You can define different UDE values for each account class (on which you apply the product).

The definition of a general condition would be the most commonly used facility at your bank.

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2.4.2 Defining Special Condition

When you define interest attributes for an account itself, rather than for the account class to which it belongs, it is referred to as a Special Condition.

When maintaining an account in the Customer Account Maintenance screen, you can opt to define 'special conditions' for it. If you opt to define special conditions for an account the 'general conditions' defined for the Account Class, to which the account belongs, will NOT apply to this account.

Typically, you would want to maintain a special interest condition for a special customer.

2.5 Using Prevailing Market Rates

The interest rates for a currency can either be fixed or floating. If you want to apply a fixed interest rate for an account class, you can define so for the product. The prevailing market rate for a currency can be maintained in the Rates Maintenance screen. The rates maintained here can be updated every time there is a change. You can apply prevailing rates on an account class by specifying the rate codes (that you assign in the Rates Maintenance screen) in the UDE Values Maintenance screen.

2.6 Combining Accounts

If you have a customer with many accounts, you can combine them for the purpose of application of interest. For example, if you have a corporate customer who has ten current accounts, you can combine them for the calculation and application of interest.

When defining interest details for a customer account (in the Customer Account Maintenance screen) you can maintain the information necessary for the combination of accounts. Combination can be of two types – for **calculation** (this involves combined calculation and booking) or for **booking** only.

- If you specify that the combination is for calculation, the balances in all the accounts will be added to the balance in a specified account and the interest will be calculated on the sum of the balances. When liquidation takes place, the interest and charges will be booked to the specified account.

- If you specify that the combination is for booking only, the interest and charges will be calculated for the individual accounts. When liquidation takes place, the sum of interest and charges for all the accounts will be booked to a specified account.

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2.7 Calculating Charges

To calculate the charges that you would like to levy on an account, you have to specify the basis on which you would like to apply charges. For example, you may want to apply charges on the basis of the debit turnover in an account. When you define a Charge product, you have to specify the Charge basis. When you apply the charge product on an account or an account class, charges for the account will be calculated on this basis. The accounting entries would automatically be posted to the GLs that you specify for the charge product.

You can calculate charges for an account on the following bases:

- Number of Account Statements
- Number of checks returned
- Number of checks issued
- Number of Stop Payments
- Turnover
- Number of transactions
- Number of ad hoc Account Statements

For any charge basis, you can define the number of items that should not be charged. Thus, you can apply a charge only if the number of account statements given to the customer exceeds a certain number, and so on.

2.8 Other Features

- At any point in the day, you can compute (and not apply) interest for an account or account class. This facility enables you to answer an across the counter query on interest applicable for an account.
- You can maintain the format of the Interest Statement that you would like to generate for an account.

2.9 Retrieving Information

Information about the application of interest or charges on accounts can be retrieved in many ways. You can retrieve data in two ways:

- as a report
- as an on line query

When you seek information in the form of a display, on the basis of certain parameters, you perform a 'query'. Typically, you would 'query' (the system) to provide your customer with immediate information, such as the interest accrued on an account, the interest rates applicable, etc.

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A report, on the other hand, is information retrieved mostly in a printed format. However, you can direct a report to one of the following destinations:

- the printer

- the screen (as a display)

- a spool file (stored as a spool file to be printed later)

The reports that you have spooled can be printed, or viewed, through the 'Reports Browser' screen.

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3. Maintaining Interest Rules

3.1 What is a Rule?

A 'Rule' identifies the method in which interest or charge has to be calculated. For example, to calculate interest for an account you would require the following data:

- the principal (the amount for which you want to calculate interest)

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

- the rate (the rate at which you want to compute interest)

Using the formula PNR/100 you can calculate interest for the account. When you define a rule you define exactly how each of these components (the principal, the period, and the rate) is to be to be picked up from the account for calculating interest.

In the case of charges, you may have to specify the conditions for which you would need to apply charges. For example, you may want to apply charges on the basis of the debit turnover in an account. When you define a Rule to calculate the charge, you have to specify how the debit turnover in the account has to be picked up and how the charge has to be applied.

3.2 Data Elements

The components required to calculate interest (the principal, period, and rate) are broadly referred to as 'Data Elements'. Data elements are of two types:

- System Data Elements (SDEs)

- User Data Elements (UDEs)

The balance in the account for which the interest has to be calculated, the turnover of the transactions on which a charge has to be applied, etc., depend on the activities that take place in the customer account over a period of time. This information is constantly updated in the system and is readily available for computation of interest or charges. Data elements of this sort are called System Data Elements.

Data elements like the rate at which interest has to applied, the tier structure based on which interest needs to be computed etc., are called User Data Elements (UDEs). UDEs fall into three types:

- Rate

- Amount

- Number

You can specify different values for a user data element. For example, you can apply different interest rates on the basis of the debit balance, as follows:

- balances less than 0 upto 10,000: 5%

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- balances between 10,000 and 20,000: 7.5%

- balances greater than 20,000: 10%

Using the System Data Elements and the User Data Elements you can create formulae to compute interest and charges. In other words, formulae connect SDEs to the UDEs to give a result which is the interest or charge that has to be applied.

A Rule, therefore, is made up of SDEs, UDEs, and Formula (e).

3.3 Maintaining Rules for Interest and Charges

You can define Rules in the Interest and Charge Rule Maintenance screens. For a Rule, you can define:

- the System Data Elements applicable

- the User Data Elements applicable

- the formula(e)

In addition to specifying how the SDEs and UDEs are connected through the formulae, you also define certain other attributes for a Rule. You can invoke the 'Interest and Charges Rule Maintenance' screen by typing 'ICDRLMNT' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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Rule Identification

Assign each Rule that you define a unique code. This code should, ideally, represent the type of interest or charge that you are defining. When you want to link a product to a Rule, it should be possible for you to identify the Rule with only the code you have assigned it.

Description

Enter a short description of the Rule, indicating the type of interest in the Description field. This will be used by the system for all display and printing purposes.

Enter at least three characters for the description of the Rule.

Primary Element

Select the System Data Element (SDE) that must be deemed as the principal component for the interest rule you are defining. This is typically done for rules defined for prepayment penalty application for time deposits. The SDE maintained to pick up amounts withdrawn before the maturity date, is typically set as the primary component, for such rules.

Apply Interest

By default, interest will always be applied from the day an account is opened till the day before it is closed. However, you have the option of excluding the month in which the account is opened or closed from being considered for interest application.

- On Account Closure Month

- On Account Opening Month

Example

An account is opened on 10 April 1998. By checking the box adjacent to 'On Account Opening Month' you can indicate that interest has to be applied from 10 April 1998 (the Account Opening Date). If you leave the box unchecked, interest will be applied only from 01 May 1998.

When you do not check the box against the 'Account Opening Month' you indicate that the days in April should be ignored while calculating interest for the account. This will be true even if the account was opened on the 01 April. That is, interest will be applied for the account only from 01 May 1998.

The account closure date is 10 April 1998. By checking the box adjacent to 'On Account Closing Month' you can indicate that interest has to be applied upto 09 April 1998. If you leave the box unchecked, interest will be applied only upto 31 March 1998.

However, while processing interest manually, you have the option to specify a date till which you want to liquidate interest.

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3.3.1.1 <u>Maintaining ILM Parameters</u>

Integrated LM

Choose this option if you want to use the product for Integrated Liquidity Management processing.

Integrated LM Type

Select the type of System Account to which the product ought to be linked from the adjoining drop-down list. This list displays the following values:

- Pool Leader: Indicates that the Rule will apply to Header accounts in a structure.

- Pool Reallocation: Indicates that the rule will apply to Parent and Child Accounts below the Header Account.

3.3.1 <u>System Elements (SDEs)</u>

The first thing that you have to do while defining a Rule is to pick up the System Date Elements that you would use in the rule. You can pick up as many of them as necessary; only those that are picked up here can be used in the formulae for the Rule subsequently.

To recall, an SDE identifies the principal and the period for which you would like to apply interest or charges. The attributes for each SDE is defined through the 'System Data Elements Maintenance' screen. In this screen you can only identify the SDEs which you would like to use to build interest rules.

In order to specify exemption of tax on interest, you will have to use the 'DIRT exempt' SDE provided specifically for this purpose.

Following SDEs are defined:

- DLY_NET_BALANCE (Based on the requirement, SDE for balance will be differed.)

- DAYS

- YEAR

Refer to the SDE chapter of this user manual for details of DIRT exemption.

3.3.2 <u>User Elements (UDEs)</u>

In the same way that you pick up the SDEs applicable for the rule that you are defining, you should identify the UDEs which you would be using in the rule. The UDEs that you pick up could be any of the following types:

- Rate

- Amount

- Number

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The interest that you charge on a debit balance is an example of a debit rate. The interest that you pay on a credit balance is an example of a credit rate.

A User Data Element will be an amount under the following circumstances:

- in the case of a tier structure, the upper and lower limit of a tier or a tier amount;

- in the case of a charge, when it is indicated as a flat amount

- any amount that can be used in the definition of formula(e)

A UDE as a number is typically used for a Rule where interest or charges are defined based on the number of transactions. A UDE under this category can also be used to store a numerical value that may be used in a formula. For example, in the formula you would like to multiply an intermediate result with a certain number before arriving at the final result. The 'certain number' in the formula can be a UDE.

You can enter the actual values of the UDEs (like the interest rate, the upper limit for the tier, etc.) in the IC User Data Element Maintenance screen. This is because you can specify different values for each data element. A rule can, therefore, be applied on different accounts since it just represents a method of interest calculation. The following example illustrates this.

Example

You have different current account classes: one for accounts in the local currency (CLC1) and one for accounts in GBP (CBP1). The method in which you want to apply interest on both types of accounts is the same: that is, on the monthly minimum credit balance. The other conditions that you want to apply on the account classes, such as not applying interest for the account opening and closing months, are also the same for all the accounts.

However, the interest rates that you want to apply for CLC1 is 5%; for CBP1 is 6%.

You can create one rule (RULE 01, for example), using the SDEs and UDEs required, and only change the values for the UDE: that is, the Rate. You can do this in the UDE Values Maintenance screen when you define an interest product (refer the chapter 'Creating Products'). In this screen, you can define different UDE values for each account class on which you apply the RULE 01.

That is, you can specify that the rate to be applied for CLC1 is 5%; the rate to be applied to CBP1, 6%.

You can modify the values of the UDEs that you choose. However, remember to check the formulae where you have used the user data element. The modified data element will apply only from the current interest period. It will not have a retrospective effect.

Following UDEs are defined:

- INT_COMPOUNDING_FREQ (In Days)

- RATE (per annum)

Identifying the UDE Value that should be used for back-period interest calculations

While creating an IC Rule, you have to define the UDEs that will be used in the formulae that you have defined.

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For each UDE that you define for the purpose of calculating tax, you can specify whether the tax should be computed based on the latest value for the UDE element or whether the system should use the UDE value effective for the corresponding liquidation cycle.

If you select Use Current, irrespective of the liquidation cycle to which the calculation belongs, the system picks up the latest UDE value and computes the tax amount. If you indicate that the system should apply the Effective rate of UDE values, the UDE value effective for the liquidation cycle will be picked up.

Example

Let us assume that the tax rates effective 01 December 2000 and 01 Jan 2001 are 25 and 27 respectively. You have indicated that for accounts associated with this product liquidations should be carried out only during month-ends.

On 31st December 2000, the system calculates tax based on the tax rate 25 and applies the tax amount 'X'. However, in January a few back dated entries are posted to December. Consequently, the system triggers recalculation of tax for December.

Interest/tax will be calculated as follows depending on whether you choose the Current UDE vale or the Effective UDE vale:

Scenario I – Use Current

If you specify that the system should pick up the current UDE value, the system will use the rate of 27 for tax adjustment computations done for December 2000.

Scenario I – Use Effective

If you select Use Effective, the system will use the rate of 25 for adjustment tax computations done for December 2000.

However, to compute interest on transactions belonging to the current liquidation cycle the current rate of 27 will be used.

You can select the Use Current option when the formula associated with the rule is of type Tax. However, you have to ensure that you do not set the periodicity to Daily while defining the tax formula.

3.3.3 Compounding Interest

Compounding interest is applied on FCNR deposit. Compounding interest frequency is configured in the UDE.

Example

Principal – 1000000 USD

Interest rate – 2.5% p.a.

Interest compounding frequency – Monthly

Days – 90

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Compounding Cycle	Principal	Calculation	Interest
1	1000000.00	1000000*2.5*30/(36500)	2054.794521
2	1002054.79	1002054.79*2.5*30/(36500)	2059.016701
3	1004113.81	1004113.81*2.5*30/(36500)	2063.247557

Liquidation Interest (compound) Amount will be 6177.059 USD.

The compound interest is arrived based on the IC SDE, UDE and IC Rule. The IC rule is maintained based on the above SDEs, UDEs.

3.3.4 Attributes of Formula

Using the SDEs and the UDEs that you have specified for a Rule, you can calculate interest. You have to specify the method for calculating interest in the form of formulae. Using the SDEs and the UDEs you can create any number of formulae for a Rule. Click 'Formulas' button to invoke 'Formulas' screen.

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The following are the attributes of a formula:

3.3.4.1 Formula Details

Formula Number

Using the SDEs and the UDEs that you have specified for a Rule, you can calculate interest. You have to specify the method for calculating interest in the form of formulae. Using the SDEs and the UDEs you can create any number of formulae for a Rule.

In this field, the formula number that you are defining for a Rule will be displayed.

Book Flag

The Booking Flag of a formula denotes whether the result of a formula should be:

- Booked (that is, if the resulting amount should be posted to the customer account).

- Non-booked (that is, the result of the formula is to be used in another formula and not to be posted to the customer account).

- Tax (that is, the formula is used to calculate tax. The tax can be borne either by the customer or the bank).

Periodicity

The Periodicity of a rule application denotes whether the formula you are defining has to be:

- applied for each change during the interest period (or daily)

- only for the last day of interest period (periodic)

The following example illustrates how the concept of periodicity of application of a formula functions:

Example

CACLY1 is an account class. On all the accounts belonging to this class, you want to apply a credit interest on the minimum monthly balance. The interest liquidation periodicity is every quarter.

Let us consider the liquidation period of January, February and March 1998. The monthly minimum balance in an account belonging to the class is as follows:

- January USD 10,000

- February   USD 15,000

- March   USD 5,000

The current market rate should be applied on the account, and the rate varies as follows for the three months:

- on 31 January   5%

- on 28 February   5.5%

- on 31 March   4.5%

If the application periodicity is daily, the interest will be applied on the account as follows:

- January   5% on 10,000

- February   5.5% on 15,000

- March   4.5% on 5,000

You will notice that the balance considered is the minimum for each month, and the rate applied is the rate as of the end of each month. The sum of the interest for all these months will be the interest for the period.

If the application periodicity is by period, the interest will be applied on the account as follows:

(4.5% on 5,000) * 3

This is because, for the 'by period' application periodicity, the minimum in the month of March will be picked up, on which the rate applicable at the end of the period (which is 4.5% on 31 March) will be applied for the three months.

Note that the periodicity that you enter here is different from the liquidation periodicity. The Periodicity that you define for a rule is a calculation periodicity. The Liquidation Periodicity is the interval between two successive automatic liquidations.

- You can define the liquidation periodicity when you create a product

- You define the periodicity of formula application in this screen

Debit / Credit

The result of a formula will be an amount that has to be either debited from the customer account or credited to it. For example, the debit interest that you charge on an overdraft would be debited from the customer account; while, the credit interest that you pay would be credited to the customer account. In this screen, you indicate this.

Often, when calculating interest for an account, you would want to debit interest under certain conditions and, under certain other conditions, credit interest. In such a case, you can build formulae to suit both conditions. The formula that is used to calculate interest for the account would depend on the condition that is fulfilled.

Example

Requirement:

For overdrafts in Current Account 01 (CLC1) you want to apply debit interest based on the daily net balance in the accounts. If the account is in credit balance throughout the interest period, you would like to pay credit interest.

Solution:

Build a rule with two formulae.

Indicate that if the account is in a debit balance, the result of the formula is to be debited from the customer account. Build a second formula in which you indicate that if the account has a credit balance throughout the interest period, the result of the formula is to be credited to the customer account.

Specify the Booking Flag for both these formulae as Booked (meaning the result should be used to post an entry into the customer account).

When this rule is applied on an account, only one formula will be picked up for interest calculation because only one condition would be fulfilled. Interest would be calculated using the formula that is picked up.

🛑 For a Booking formula, the system automatically checks this box and disables this option.

3.3.4.2 Formula of the IC Rule

Formula - 1

The expression for the SDEs can be viewed by clicking [Formula Wizard]. You can build expressions for SDEs using 'Formula Wizard' screen.

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Formula 2

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The expression for the SDEs can be viewed by clicking [Formula Wizard]. You can build expressions for SDEs using 'Formula Wizard' screen.

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Formula Wizard -- Web Page Dialog

Formula Wizard

	Expression	Case	Result
	1		DAYS / INT_COMP_FREQ

Element DAYS

Functions

Operators

Logical Operators

Ok   **Exit**

Formula 3

Formulas -- Web Page Dialog

Formula Number	3	Book Flag Booked	Periodicity Daily
Debit/Credit Credit		Days in a Month Actuals	Days in a Year Actuals
☑ Accruals Required		☐ Interest Method Default From Currency Definition	☑ Rounding Required

Tax Category

Calculation Parameters

Basis Percent

☐ Local Currency Basis

Booking

☐ Book Tax To Expense Account

Tax Payable Currency Flag

Basis Amount

Option

Method

Decimals

Units

Tax Amount

Option

Method

Decimals

Units

Formula Wizard

Ok   **Exit**

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Consolidated IC Rule Formula is as follows:

Formula	Book Flag	Dr/Cr	Expression	Case	Result
1	Non-Booked		1		INT_RATE * (INT_COMP_FREQ / YEAR)
2	Non-Booked		1		DAYS / INT_COMP_FREQ
3	Booked	Cr	1	DAYS > INT_COMP_FREQ	(DLY_NET_VD_BAL * POWER ((1 + (FORMULA1 / 100)),FORMULA2)) - DLY_NET_VD_BAL
			2		DLY_NET_VD_BAL * (INT_RATE / 100) * (DAYS / YEAR)

Principal – 1000000 USD

Interest rate – 2.5% p.a.

Interest compounding frequency – Monthly

Days – 90

Formula 1(Non Booking Formula)

(F1) = RATE * INT_COMPOUNDING_FREQ / YEAR

F1 = (2.5 * 30)/365 = 0.205479452

Formula 2 (Non Booking Formula)

(F2) = DAYS / INT_COMPOUNDING_FREQ

F2 = 90/30 = 3

Formula 3 (Booking Formula)

Int_compounding_Freq if greater than days formula (a) will be applied, otherwise formula (b) will be applied.

(a) Interest = (DLY_NET_BALANCE (1 + F1/100) ^ F2) – DLY_NET_BALANCE

(b) Interest = DLY_NET_BALANCE*DAYS*RATE/YEAR/100

As Days is greater than Compounding frequency first interest formula will be considered.

Interest = (DLY_NET_BALANCE (1 + (F1/100)) ^ F2) – DLY_NET_BALANCE

Interest = (1000000 * ((1+ (0.205479452/100)) ^ 3) - 1000000)

    = 6177.059

Interest amount 6177.059 will be liquidated.

3.3.4.3 <u>Arriving at Number of Days for Interest Calculation</u>

The method in which the 'N' of the formula for interest calculation, PNR/100, has to be picked up is specified for a formula. This is done through two fields: Days in a month and Days in a year.

Days in a month

The number of interest days for an account can be arrived at in three ways. One, by considering:

- one by considering the actual number of days in a month
- two, the US method of considering 360 days in a year
- three, the Euro method of considering 360 days in a year

Example

If you indicate that you want to take the actual number of days in a month for calculating the interest days:

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- 31 days be considered in January
- 28 days would be considered in February (for a non-leap year)
- 29 days would be considered in February (for a leap year)

If you indicate that 30 days should be considered as the interest days in a month:

- 30 days would be considered in January;
- 30 days would be considered as interest days in February (irrespective of leap or non-leap year);
- 30 days in March would be considered as interest days; and so on, irrespective of the actual number of days in the month.

Based on your input here, the number of days will be picked for a *'complete'* month for which interest has to be applied. Elaborating:

You have indicated that the actual number of days in a month should be considered for interest calculation. Interest was last liquidated on an account on 31 December '97 and the interest liquidation cycle is quarterly. You would like to liquidate on 15 March '98. The number of days considered, in this case, for interest calculation would be:

January   31 days

February   28 days

March   14 days (unless you specify during liquidation that it has to be 15 days)

If you had said *30 days* should be considered for interest calculation in a month, the days would be:

January   30 days

February   30 days

March   14 days (unless you specify during liquidation that it has to be 15 days)

In the latter case, if you are liquidating on 28 February, as of 27 February, it will be:

January   30 days

February   27 days

If you liquidate on 28 February, as of 28th February, it will be:

- 30 Days for February (in case of a non-leap year)
- 28 days for February (in case of a leap year)

If you liquidate as of 29 February on a leap year, it will be:

- 30 Days for February

If you specify that the actual days in a month should be used for calculation of interest days, all calculations will be according to the calendar. The value will be the exact number of days in the relevant period, for example, 31 days in January, 28 days in February, 29 days if it is a leap year and so on.

If you choose to consider each month as having 30 days all calculations will be based on this assumption. Irrespective of the number of days in the relevant month according to the calendar, the value will be calculated on the assumption that there are 30 days in every month.

Days in a year

The interest rate is always taken to be quoted per annum. You must therefore indicate the denominator value (the total number of days in the year) based on which interest has to be applied. You can specify the days in a year as

- Actual number of days (leap year will be 366, non leap year will be 365)

- 360 days

- 365 days (leap and non leap will be 365)

If you specify that the actual days in a year should be used for calculation of interest days, all calculations will be according to the number of calendar days in the year. For example, if it is a leap year, 366 days will be taken as the total period.

In case you choose to consider each year as having 360 days, all calculations will be based on this assumption. Irrespective of the number of days in the relevant year according to the calendar, the value will be calculated on the assumption that there are 360 days in the year.

In conclusion, the number of days to be used for calculation of interest can be any of the following combinations:

- Actual/Actual (the actual number of days in a month/Actual number of days in a year)

- Actual/360

- 360/Actual

- 360/360

- 360/365

The following table illustrates how this is achieved in Oracle FLEXCUBE:

Days to be considered	Specification in Oracle FLEXCUBE
Actual/Actual	Click on Actuals in 'Days in a Month' field. Click on Actuals in 'Days in a Year' field.
Actual / 360	Click on Actuals in 'Days in a Month' field. Click on 360. days in 'Days in a Year' field.
360/Actual	Click on 30 days in 'Days in a Month' field. Click on Actuals in 'Days in a Year' field.
360/360	Click on 30 days in 'Days in a Month' field. Click on 360 days in 'Days in a Year' field.

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Accruals Required

Only if you indicate that interest should be accrued (for a formula) will it be done. You can opt to accrue the interest due to one formula and choose not to accrue the interest due to another formula that you are defining for the same rule.

🛑 Only a booking formula can have accruals.

You can indicate, as a preference (in the Product Preferences screen), if all the accrual entries generated can be passed for a product rather than for individual accounts linked to the product.

The interest that is accrued can be posted into different accounts. The result of each formula is an accounting role and you can map each into a different GL/SL (Accounting Head).

Rounding Required

When building an interest rule, you can indicate if the results of non-booking formulae should be rounded-off by choosing the Round Results option.

Tax Category

If the formula that you are creating is a tax formula, you have to specify if the tax amount would be borne by the customer or the bank. For example, if the tax on the credit interest that you pay your customer is borne by the customer, you need to indicate this here.

If, on the other hand, you charge a customer interest on the debit balance and bear the tax on your income, you should indicate that the bank would bear the tax.

In either case, when you have to pay tax ultimately, one entry would involve the Tax Payable GL. The accounting Role, in both cases would be 'Tax'. Choose the GL/SL head depending on whether the customer or the bank bears the tax.

🛑 When the formula is Tax, you will invariably be using the result of a previous formula (e), which would return the actual interest that is applied. The tax formula should then indicate the method in which tax should be calculated on this interest. Note that a tax formula will not be accrued. It is suggested that a tax formula be 'periodic'.

For specifying exemption of tax, you will have to use the 'DIRT exempt' SDE in building the rule.

When you create a product, the accounting roles available would depend on the formulae that you have defined. For example, only if you have built a tax formula for an interest rule, would the accounting role 'Tax' be available for the product.

3.3.5 Applying Prepayment Penalties on Deposits

For time deposits, you can choose to apply prepayment penalties on any withdrawals before the maturity date.

Prepayment penalties are computed based on the following bases:

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- The amount withdrawn prior to the maturity date

- The period that has elapsed between the start date of the deposit and the withdrawal date**.**

- The period that has elapsed between the last liquidation date and the withdrawal date.

For an account foreclosure, prepayment penalty is computed during online liquidation, and for partial withdrawals, it is computed at maturity.

3.3.6 **Maintenance for Prepayment Penalties**

As part of the Interest and Charges module maintenance in your bank, you must maintain details that will enable the system to pick up the different elements that will be used in the calculation of prepayment penalties. These parameters (including products) need to be operative on the account classes that you have specified as time deposit account classes.

Accordingly, the following system defined elements (SDE's) are available as inbuilt parameters in Oracle FLEXCUBE, which you can use to set-up an Interest and Charges rule:

- An SDE for the amount withdrawn during a foreclosure or early withdrawal ('PENALTY_BASIS').

- An SDE for the number of days elapsed between the start date of the deposit and the withdrawal date ('DAYS_FROM_START').

- An SDE for the number of days elapsed between the last liquidation date and the withdrawal date ('DAYS_FRMLAST_LIQ').

- An SDE to indicate if a withdrawal has occurred prior to the maturity date for a time deposit account ('PENALTY_APPLY', to which a value of 1 is assigned if there is a premature withdrawal on the TD account).

Using the above SDEs (which are inbuilt in Oracle FLEXCUBE), you must maintain an interest rule for the calculation of prepayment penalties, which will include these SDE's mentioned above, and which will be linked to the appropriate interest product that you have maintained for calculation of time deposit interest. The rule for penalty must be an additional rule, in addition to the rule for computation of normal interest on the time deposit account.

Also, in the transaction code used for debit entries to time deposit accounts, you must indicate the computation of penalties on debit entries due to withdrawals from the account before the maturity date. You must select the IC Penalty Inclusion check box to indicate this.

You can invoke the 'Transaction Code Maintenance' screen by typing 'STDTRCOD' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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Refer to the Core Services module user manual for details about maintaining transaction codes.

In the interest rule that you maintain for prepayment penalty application, you must also indicate that the SDE that you have maintained for the withdrawal amount must be a principal component. You can indicate this by specifying the SDE in the 'Primary Element' field in the 'IC Rule Maintenance' screen.

The expression for the SDEs can be viewed by clicking 'Formula Wizard' button. You can build expressions for SDEs using 'Formula Wizard' screen.
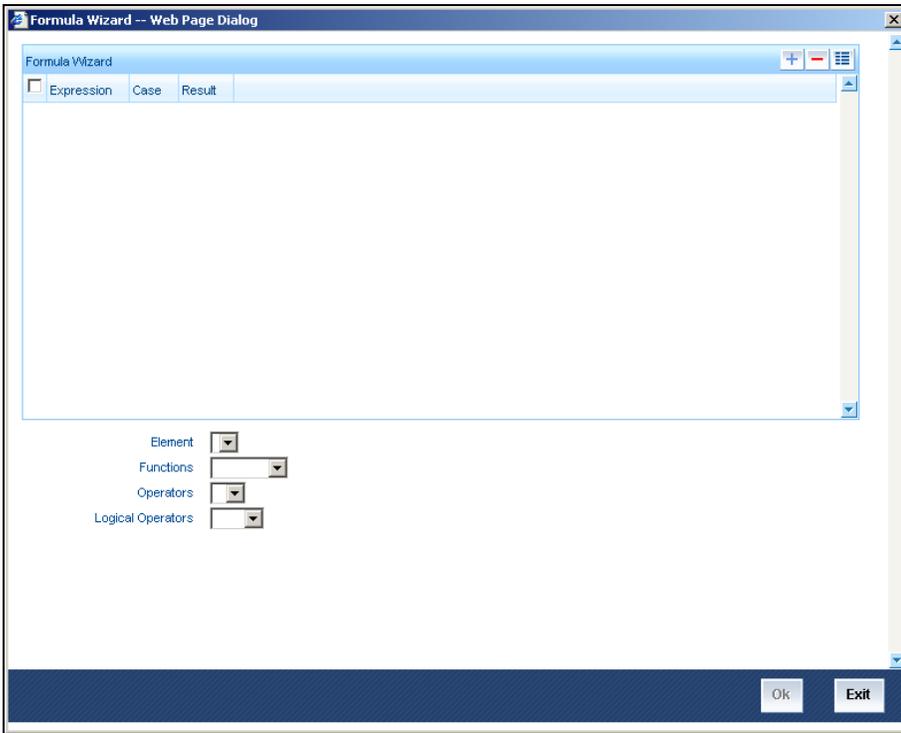
3.4 Maintaining Rounding Details for Tax

You can maintain Rounding Details for Tax through the 'Formulas' screen. This screen is available in the screen that is getting launched by clicking 'Formulas' button on the main screen.

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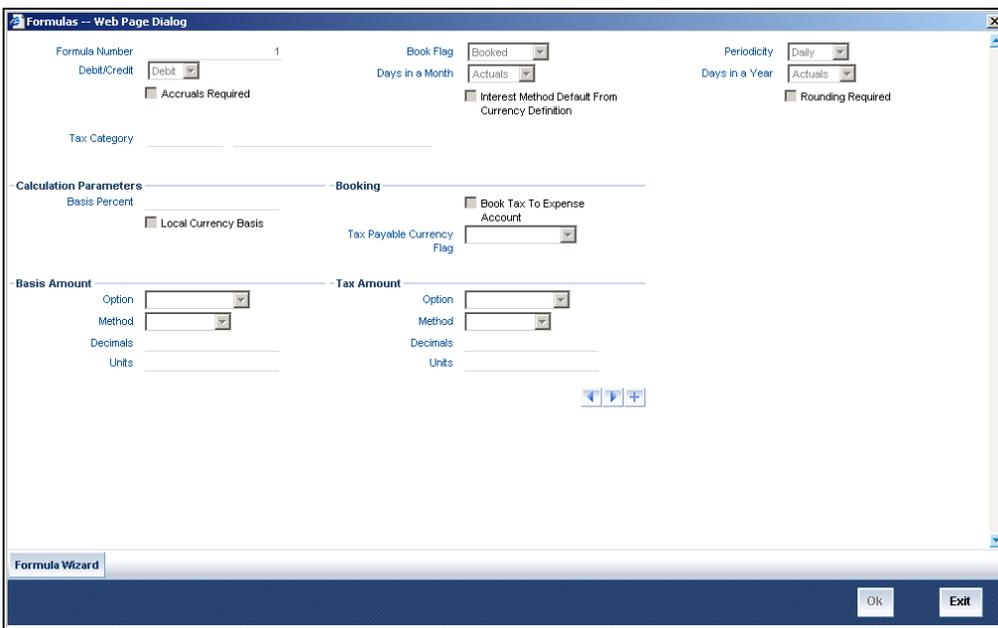
3.4.1.1 <u>Tax Details</u>

Tax Category

Specify the 'tax category' to which the Tax Rule belongs, from the option list provided. Only valid categories (open and authorized) are maintained here. If the tax category is not maintained, then the tax booked under this tax rule will not be considered for waiver/tax computation processing. However, normal tax processing will occur as usual.

3.4.1.2 <u>Calculation Parameters</u>

Local Currency Basis

Check this option to indicate that the Basis Amount on which the tax is going to calculated, should be converted to local currency.

Basis %

Specify factor for computation of the taxable amount. The basis percentage should be greater than 0 and less than or equal to 100. The basis amount would first be multiplied by this percentage to arrive at the actual basis amount on which tax needs to be computed. The inverse of the same factor would then be applied to the calculated tax amount to arrive at the actual tax amount.

3.4.1.3 <u>Booking</u>

Book Tax To Expense Account

Indicate whether or not the tax on interest and charges should be processed as an Expense type of tax and booked into a Tax Expense account, to be paid to the Government.

Tax Payable Currency Flag

Specify the currency in which the tax on interest and charges should be paid.

3.4.1.4 <u>Rounding Parameters</u>

3.4.1.5 <u>Basis Amount</u>

Option

Specify the rounding option for conversion of the amount to calculation currency. It could either be Currency Default or Specific.

'Currency Default' indicates that the rounding details would be taken from the rounding parameters defined in the Currency Maintenance screen. 'Specific' indicates that the rounding parameter would be defined/picked up from the Tax Rule itself.

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Method

This field is enabled only if the Calculation Currency Rounding Option is selected as 'Specific'. Select either of the following options:

- Truncate
- Round Up
- Round Down
- Round Near

Truncate indicates that the amount would be rounded to the number of decimals specified for the currency

Round Up indicates that the amount would be rounded up based on the number of decimals and the nearest rounding unit for the currency

Round Down indicates that the amount would be rounded down based on the number of decimals and the nearest rounding unit.

Round Near indicates that the amount would be rounded up or down based on the number of decimals and the nearest rounding unit

Decimals

This field is enabled only if the Calculation Currency Rounding Option is selected as 'Specific'.

Specify the number of decimals up to which the rounding/truncation has to be done. The rounding decimals defined here should be less that or equal to the decimals defined in the Currency Maintenance screen.

Units

This field is enabled only if the Calculation Currency Rounding Option is selected as 'Specific'.

This represents the least amount that can be measured in a particular currency. You need to specify the unit up to which the amount should be rounded. The unit defined here should be a multiple of the unit defined in the Currency Maintenance screen.

3.4.1.6 <u>Tax Amount</u>

Option

Specify the rounding option for conversion of the amount to tax currency. This could either be Currency Default or Specific.

'Currency Default' indicates that the rounding details would be taken from the rounding parameters defined in the 'Currency Maintenance' screen.

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'Specific' indicates that the rounding parameter would be defined/picked up from the Tax Rule itself.

Method

This field is enabled only if the calculation rounding option is selected as 'Specific'. Specify the method in which the rounding should be done for calculating the actual tax amount. It could be either of the following:

- Truncate
- Round Up
- Round Down
- Round Near

Truncate indicates that the amount would be rounded to the number of decimals specified for the currency.

Round Up indicates that the amount would be rounded up based on the number of decimals and the nearest rounding unit for the currency.

Round Down indicates that the amount would be rounded down based on the number of decimals and the nearest rounding unit.

Round Near indicates that the amount would be rounded up or down based on the number of decimals and the nearest rounding unit.

Decimals

This field is enabled only if the Calculation Currency Rounding Option is selected as 'Specific'.

Specify the number of decimals up to which the rounding/truncation has to be done. The rounding decimals defined here should be less that or equal to the decimals defined in the Currency Maintenance screen.

Units

This field is enabled only if the Calculation Currency Rounding Option is selected as 'Specific'.

Specify the unit up to which the amount needs to be rounded. The unit defined here must be a multiple of the unit defined in the Currency Maintenance screen.

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4. Maintaining System Data Elements

4.1 Introduction

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

- Principal - The amount for which you want to calculate interest

- Interest period - The number of days for which you want to apply interest

- Interest rate

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

- System Data Elements (SDEs)

- User Data Elements (UDEs)

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

- Values for data elements like the balance in an account, on which interest has to be applied

- Number of transactions in a day

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

As a corollary, these values will necessarily be picked up by the system while applying interest. You cannot, for example, indicate to the system that a certain amount should be picked up as the balance if that is not the balance in the account. On the other hand, you can indicate to the system that interest should be applied at a specific rate. For a certain period, you can indicate that interest should be calculated at five percent. While, for some other period, you can indicate that interest should be applied at six percent.

Thus, the interest rate is a value that you have control on and whose value you can specify. Such elements are called User Data Elements (UDEs). Another example for UDEs is the tier or slab structure based on which interest has to be applied on an account (since you would specify the slab and the tier structure).

SDEs and UDEs are used to build formulae that result in the amount of interest that has to be applied.

Example

You pay interest on the minimum credit balance in a customer's account during the month. 'Monthly Minimum Credit Balance' is an example of an SDE. (You cannot provide the value for any given month, for every account in your branch. The system would have to pick up the actual value from each account, for the month).

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You charge interest on a customer's daily debit turnover. 'Daily Debit Turnover' is an example of an SDE. (Again, you cannot define the value; the system picks up the value.)

If you have defined 'Monthly Minimum Credit Balance' as a SDE, the system will pick up the monthly minimum credit balance from every account, and use it to compute interest for the month.

Similarly, if you have defined 'Daily Debit Turnover' as a SDE, the system will pick up the daily debit turnover in each account and use it to calculate charges. The manner, in which interest is applied, based on an SDE, is defined for an interest product.

4.2 Maintaining System Data Elements

You will have different types of accounts in your bank, such as current accounts, savings accounts, etc. On each of these accounts you would want to apply interest differently. On a savings account, for example, you may want to apply credit interest on the basis of the minimum credit balance during the month. On a current account you may want to apply charges on the basis of the turnovers, or, levy debit interest on the basis of overdrafts. Similarly, there may be various criteria based on which you would want to apply interest on an account.

Each such criterion (which the system has to pick up) has to be defined as an SDE in the 'Interest & Charges System Data Element Maintenance' screen. You can invoke the 'Interest & Charges System Data Element Maintenance' screen by typing 'ICDSDEM' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

SDEs should be combined with UDEs into formulae to arrive at a method in which interest or charge has to be calculated.

Follow the example below, which illustrate transactions that typically take place in a current account, to understand how SDEs are defined.

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The balance in Cavillieri and Barrett Finance Corporation's current account with you, on 01 March 1998, is USD 10,000.

Subsequently, the following are the transactions involving the account:

No.	Booking Date	Value Date	Amount	Dr/Cr
1	3 March	3 March	50,000	Cr
2	3 March	5 March	20,000	Dr
3	3 March	1 March	10,000	Dr
4	10 March	10 March	50,000	Dr
5	25 March	25 March	60,000	Cr
6	30 March	30 March	50,000	Dr

Element

Enter a unique ID for the System Data Element that you are maintaining.

Description

Enter a description of the SDE that you are maintaining in this field.

Nature

Once you fix the 'basis' on which you want to apply interest for the SDE that you are defining (either balances or turnovers which, in turn, could be as of the booking date or the value date), you have to specify the nature of the balance or turnover. The nature could be:

- Debit

- Credit

- Net

In the example discussed in the beginning of this section, we have seen various types of balances: on certain days there is a debit balance while on certain other days there is a credit balance in the account. These are referred to as debit balances and credit balances respectively.

Each balance in turn will have a periodicity and an aggregation operation attached to it. These two are explained subsequently.

Basis

Interest can be applied on this account differently, using different data as the basis. That is, you can apply interest on the basis of 'item count', the balance, or the turnover in the account. In Oracle FLEXCUBE, Balances and Turnovers are referred to as 'Basis'. While balances will typically be used for interest application, turnovers could be considered for charges.

🛑 A 'turnover' is any movement in an account.

Balances and turnovers, in turn, can be considered *as of* the 'booking date' or the 'value date' of a transaction.

The booking date is the date on which a transaction is captured in the system. However, the date on which a transaction takes effect (that is, the date as of which the accounting entries are passed and the balances updated) could either be the booking date itself, or a date in the past, or future. This date is called the value date of the transaction. The following are examples of value dates and booking dates:

- Ms. Yvonne Cousteau, withdraws cash from her account today. The booking date and the value date of the transaction are the same (that is, today's date).

- You pass a loan interest recovery transaction into your customer's account, as of a date in the past. The booking date of the transaction will be today while the value date will be the date as of which the transaction has to take effect. The account will be debited as of the value date.

- A customer presents a cheque which has to be sent for clearing. The float period for clearing is three days. The booking date for this transaction is today's date and the value date three days hence.

The Basis could be one of the below:

- Balance

- Turnovers

- Loan Outstanding

A system data element based on Loan Outstanding gives outstanding amount of the loan account after deducting the balance in the savings account from the principal amount. Interest for a mortgage account is calculated on the basis of this outstanding amount.

Balance

The balance in an account will be different when you consider it to be as of the booking date or as of the value date.

In the example discussed in the beginning of this section, the booking dated net balances are as follows:

03 March 1998	30,000 Cr
10 March 1998	20,000 Dr
25 March 1998	40,000 Cr
30 March 1998	10,000 Dr
31 March 1998	10,000 Dr

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The value dated net balances on these days and the other value dates discussed, would be as follows:

01 March 1998	Nil
03 March 1998	50,000 Cr
05 March 1998	30,000 Cr
10 March 1998	20,000 Dr
25 March 1998	40,000 Cr
30 March 1998	10,000 Dr
31 March 1998	10,000 Dr

If you want to apply interest on an account based on the balance in the account, you have to first specify whether you would want to consider booking dated or value dated balances. Subsequently, you have to specify other characteristics for the balance.

When you are setting up the SDE, you can use normal balance or the balance due to the IC transactions. The basis for such SDEs is IC balance.

If the basis of an SDE is IC balance, then by rule, the nature of the SDE will be Net, the type of the SDE will always be the value dated balance and no further operations will be allowed on the SDE.

Turnovers

The charges that you apply on an account can be based on the turnover in the account. Turnovers can either be debit or credit in nature.

The sum of all the debit transactions in an account, in a day, is the daily debit turnover of the account. When calculating the debit turnover, the credit transactions involving the account would not be considered. If there are, say, two debit transactions in an account in a day, the debit turnover for the day would be the sum of the two - irrespective of the credit transactions involving the account on that day. The same concept applies to credit turnovers also. You could have monthly debit or credit turnover also.

Going back to the example, the booking dated debit turnover, in the account, for the month of March is 130,000. That is, the sum of the following debit transactions in the course of the month:

03 March 1998	30,000
10 March 1998	50,000
25 March 1998	NIL
30 March 1998	50,000

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The booking dated credit turnover in the account for the month of March is 110,000.

That is, the sum of the following credit transactions in the course of the month:

03 March 1998	50,000
10 March 1998	NIL
25 March 1998	60,000
30 March 1998	NIL

The value dated debit and credit turnovers will be calculated in a similar fashion.

Note that an SDE based on turnovers will be applied on an account only if the transaction code of the transaction is defined with 'Include for Account Turnover = Yes.'

Type

If you have indicated that the system data element is to be calculated on the turnover of an account, you should specify the date to be used for calculation. The calculation date can either be:

- The Booking dated
- The Value date of the turnovers

Periodicity

The periodicity decides the period over which a balance or a turnover should be considered for interest application. This periodicity could be daily, monthly, quarterly (three months), semi annual (six months), or annual. When a balance or turnover has to be picked up for interest application, it will be picked up for this period.

An example for a balance with daily periodicity could be the daily net balance in the account. Similarly, the monthly minimum credit balance, monthly maximum debit balance, etc. are examples of a balance with monthly periodicity. Similarly, you could consider the minimum credit balance over a quarter for interest application.

This periodicity is for picking up the value of an SDE. It is *not* the periodicity at which interest is liquidated. The periodicity with which interest is liquidated is called 'Liquidation Frequency'. Whenever interest has to be liquidated (either according to the liquidation frequency or on an ad-hoc basis, the balance will be picked up based on the SDE periodicity and applied for the entire liquidation period.

The following example accentuates the difference between SDE periodicity and liquidation periodicity.

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The SDE based on which interest has to be applied is Monthly Minimum Credit Balance. The SDE periodicity is monthly. If the liquidation frequency for an account is quarterly, interest will be calculated as follows:

- Total interest for the liquidation period (three months) would be:

  - interest on the minimum credit balance for the first month + interest on the minimum credit balance for the second month + interest on the minimum credit balance for the third month.

On the other hand, if the SDE periodicity is quarterly, the SDE would be the minimum credit balance over the quarter. Hence, the interest for the liquidation period would be the interest on the minimum credit balance during the entire three-month period.

The periodicity that you define for an SDE is not the same as the periodicity of rule application (defined for an interest rule). The periodicity of rule application (which could be daily or by periodic) also has a role in the way an SDE is picked up (please refer the chapter 'Maintaining Rules' for details).

Operation

An aggregation operation denotes the method in which a balance or turnover should be picked up over its periodicity. As discussed under 'Periodicity', for the 'Minimum' credit balance that has to be picked up over a month, the 'Maximum' debit balance for the month, the 'Minimum' and 'Maximum' denote an aggregation operation. Another aggregation operation would be the 'average'. For example, you could have the average monthly debit balance or the average monthly credit balance as the attributes of an SDE.

In the example discussed under Defining SDEs, the monthly minimum credit balance is zero (this is because the account went into debit balance during the month). If the account was in credit throughout the month, the minimum of the balances would be returned by this SDE.

Similarly, the monthly maximum debit balance for the month of March would be 20,000.

The monthly average credit balance for the account will be the average of the credit balances in the account throughout the month. To recall, the Value Dated balances for the account we are discussing are as follows:

01 March 1998	Nil
03 March 1998	50,000 Cr
05 March 1998	30,000 Cr
10 March 1998	20,000 Dr
25 March 1998	40,000 Cr
30 March 1998	10,000 Dr
31 March 1998	10,000 Dr

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Balances in the account, for differing number of days, would be as follows:

From	To	Balance	Number of days
01 March 1998	02 March 1998	0	2
03 March 1998	04 March 1998	50,000 Cr	2
05 March 1998	09 March 1998	30,000 Cr	5
10 March 1998	24 March 1998	20,000 Dr	15
25 March 1998	29 March 1998	40,000 Cr	5
30 March 1998	31 March 1998	10,000 Dr	2

The monthly average credit balance in this account for March 1998 would be:

$[(50,000 * 2) + (30,000 * 5) + (40,000 * 5)] / 31$

Hence, the monthly average credit balance works out to be: 17741.93.

The monthly average debit balance in this account would be:

$[(20,000 * 15) + (10,000 * 2)] / 31$

Hence, the monthly average debit balance works out to be: 10322.58

The average net balance for the month in this account would be:

$[(50,000 * 2) + (30,000 * 5) + (40,000 * 5) + (- 20,000 * 15) + (- 10,000 * 2)] / 31$

Hence, the average monthly net balance for the month works out to be 4193.54

If you choose to apply interest on the basis of the credit, debit or the net balance, you can specify that the balance to be considered is:

- the minimum
- the maximum
- the average balance in the account, over the period specified by you

If the periodicity for an SDE is daily and the basis is balance, the balance taken will always be the net balance for the day. It cannot be the minimum, maximum or average balance.

The aggregation operation of 'sum' can be used when you want the SDE to return a value that is a sum of a few values. A typical usage of this aggregation operation will be when you want the sum of turnovers (debit or credit), or a sum of debit or credit items, over a period.

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Days from Start

You can enter a value in this field if you want to compute interest for an account on the monthly minimum credit balance or the maximum monthly debit balance or the average balance for a specific period.

The balance in the account, between the date that you specify here and the date that you specify in the 'Last Day of Calculation' field, will be picked up for the purpose of calculation of interest.

The default value in this field should be specified as '1'. However, you can enter any date here. For example, if you want to calculate interest from the 15th of a month enter '15' here.

Last Day of Calculation

You may have a requirement wherein you have to consider the balances or turnovers, only during a specific period of the month. For example, in some countries, credit interest for Savings Bank accounts is given for the minimum credit balance in the account during the month, between the 10 and 25 of the month. To define an SDE that returns the minimum balance between 10 and 25 of the month, you should define it as follows:

Basis	Balance
Nature	Credit
Type	Value dated
Periodicity	Monthly
Operation	Minimum
Days from Start	10
Last Day of Calculation	25

The minimum balance between 10 and 25 (both inclusive) will be returned by this SDE. However, the number of interest days will be the entire month, unless you specify otherwise while defining the interest calculation formulae for an Interest Rule involving the SDE (Please refer the chapter 'Building formulae').

The following is a list of the SDEs already available in the system:

- ACCOUNT_LIMIT
- ACCOUNT _TOD
- LINE_AMOUNT
- REPORTING_AMOUNT
- DAYS
- MONTH
- YEAR

- MIN_BAL_REQD
- CURRENT_BAL
- OPENING_BAL

4.3 Maintaining SDE for Interest Calculation on Daily Average Balance

You need to maintain an SDE as shown in the screen for interest calculation on daily average balance.

This SDE gives the difference between the 'PRINCIPAL_EXPECTED' and the value dated balance of the CASA account.

The system calculates interest on the minimum of the 'PRINCIPAL_EXPECTED' and the value dated balance of the CASA account. If the CASA account balance is greater than the 'PRINCIPAL_EXPECTED' amount, the system calculates the savings interest on the PRINCIPAL_EXPECTED amount only. For calculating interest on the balance over and above the PRINCIPAL_EXPECTED amount, an SDE basis 'Differential Balance' is provided in 'Interest & Charges - System Data Element Maintenance' screen. This SDE gives the difference of PRINCIPAL_EXPECTED component in the loan account and the balance in the CASA account.

CASA Balance (USD)	MO Loan Principal Expected (USD)	CL_EXPECTED (USD)
10000	15000	0
5000	10000	0
15000	10000	5000
8000	8000	0

Example

Consider the following details:

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Loan Amount   : 100,000 USD

CASA Balance   : 500,000 USD

EMI   : 5,000 USD

During liquidation, the system settles 5,000 USD towards principal and recalculates the tenor of the loan. The SDE based on Differential Balance fetches the differential balance, i.e. 500000 – 95000 = 405000 USD.

Similarly, you need to create another SDE by name 'CL_LINKED'. This SDE can be used to check whether the CASA account is linked to a savings component of a contract for offsetting the interest.

You also need to define the purpose formula for calculating interest on the excess amount.

4.4 **Maintaining SDE for Tax Exemption**

Deposit Interest Retention Tax (DIRT) is payable on interest on deposits and accounts. Customers belonging to certain customer categories can be exempt from paying DIRT.

For maintaining DIRT exemption for accounts, you need to use the SDE provided for this purpose.

By attaching this 'DIRT _TEST' SDE to a rule, building that rule into an interest product and attaching the product to an account class, you can ensure that no DIRT is deducted from the interest on accounts under that account class. You have to specify the parameters for this SDE in line with the parameters that you set for the other SDEs that you use to calculate interest in the same rule.

4.5 **Maintaining SDEs for Computing TDS**

Oracle FLEXCUBE provides you the facility to compute TDS (Tax Deducted at Source) on interest earned for a customer. The IC products are classified as Tax and Non-tax product. Non-Tax products are used to compute the credit interest for the account and the Tax products are used to calculate the TDS amount and also book.

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All the accounts belonging to product, for which the check box 'Include for TDS Calc' is enabled, will be taken for computing the TDS.

Three new SDEs are created for this purpose:

- TDS_AMOUNT

- TOT_INT_AMOUNT

- INTEREST_AMOUNT

For computing TDS on interest earned for a customer, you need to use the following SDEs available in the system:

- TDS_AMOUNT – the total TDS amount deducted from the customer account.

- TOT_INT_AMOUNT - the total interest amount for the customer for the current financial year. This encapsulates the credit interest accrued across the customers account.

- INTEREST_AMOUNT – captures the interest amount for the period for the particular customer account. This is the amount used for computing the TDS amount.

By attaching these SDEs to a rule, building that rule into an interest product and attaching the product to an account class, you can ensure that these SDEs are used in the formula for computing the TDS amount for accounts under that account class. You have to specify the parameters for these SDEs in line with the parameters that you set for the other SDEs.

Refer to the chapter titled 'Building Formulae' of this user manual for more details on creating a formula.

4.6 Maintaining Changes in SDEs

TOT_INT_FOR_YEAR

SDE "TOT_INT_FOR_YEAR" is populated with the sum of interest earned/accrued/projected on all the term deposits of the customer's grouped based on "TAX CIF ID" (Primary customer) and branch.

If the interest paid/accrued on all the term deposits of the customer's grouped based on "TAX CIF ID" (Primary Customer) is greater than TDS limit then tax is deducted on interest pay outs of all the term deposits of the customer's grouped based on "TAX CIF ID".

TAX_WAIVER_LIMIT

SDE "TAX_WAIVER_LIMIT" is populated with the Waiver limit based on the gender of the linked "TAX CIF ID" (Primary Customer).

Example (TDS computation):

Current financial year	:	FY2010 (01-Apr-2010 to 01-Mar-2011)
Computation basis	:	30/360
TDS Limit	:	10000
Surcharge limit	:	50000
TDS rate	:	10%
Surcharge rate	:	10%
Additional tax rate	:	3%
"TAX CIF ID" (Primary customer)	:	CUST1
Waiver limit for "TAX CIF ID"	:	50000
TDS computation method	:	Projected

Account details:

Branch	Customer	Accountno	Principal	Booking date	Interest rate	Maturity date	Projected Interest amount for financial year
CHO	CUST1	AC0001	100000	1-May-10	10%	31-Jan-11	7500
CHO	CUST2	AC0002	800000	1-May-10	10%	31-Jan-11	60000

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Liquidation schedule

Date	Account no	Liquidation amount	Total interest earned	TDS to be deducted @ 10%	Surcharge to be deducted @ 10%	Additional TDS to be deducted @ 3%
	A0001	2500		250	25	8.25
31-Jul-10	A0002	20000	22500	2000	200	66
	A0001	2500		250	25	8.25
31-Oct-10	A0002	20000	22500	2000	200	66
	A0001	2500		250	25	8.25
31-Jan-11			22500	2000	200	66

The projected interest for all the term deposits of the customers linked to the same "TAX CIF ID (Primary Customer) during the financial year is 67500. Since the projected interest is greater than the taxable limit and surcharge limit, both tax and surcharge is deducted. The following tax related entries are passed during subsequent liquidation cycles.

On 31-Jul-10

TDS_amount

DR	CUSTOMER	2250
CR	TAX_PAY	2250

Surcharge amount

DR	CUSTOMER	225
CR	TAX_PAY	225

Additional TDS amount

DR	CUSTOMER	74.25
CR	TAX_PAY	74.25

On 31-Oct-10

TDS_amount

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DR	CUSTOMER	2250
CR	TAX_PAY	2250

Surcharge amount

DR	CUSTOMER	225
CR	TAX_PAY	225

Additional TDS amount

DR	CUSTOMER	74.25
CR	TAX_PAY	74.25

On 31-Jan-11

TDS_amount

DR	CUSTOMER	2250
CR	TAX_PAY	2250

Surcharge amount

DR	CUSTOMER	225
CR	TAX_PAY	225

Additional TDS amount

DR	CUSTOMER	74.25
CR	TAX_PAY	74.25

The following SDE values are populated for the above:

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Account no: AC0001

DATE	TOT_INT_FOR_YEAR	INT_FOR_PERIOD	TAX_RATE	TDS_LIMIT	SURCHG_LIMIT	TAX_WAIVER_LIMIT	SURCHG_RATE	ADL_TAX_RATE2	DATE	TOT_INT_FOR_YEAR	INT_FOR_PERIOD
31-Jul-10	67500	2500	10	10000	50000	50000	10	3	31-Jul-10	67500	2500
31-Oct-10	67500	2500	10	10000	50000	50000	10	3	31-Oct-10	67500	2500
31-Jan-11	67500	2500	10	10000	50000	50000	10	3	31-Jan-11	67500	2500

Account no: AC0002

DATE	TOT_INT_FOR_YEAR	INT_FOR_PERIOD	YEAR_END	YEAR_END_TAX	YEAR_END_SURCHG	YEAR_END_ADDTAX2	TAX_RATE	TDS_LIMIT	SURCHG_LIMIT	SURCHG_RATE	ADL_TAX_RATE2
31-Jul-10	67500	20000	10	10000	50000	50000	10	3	31-Jul-10	67500	20000
31-Oct-10	67500	20000	10	10000	50000	50000	10	3	31-Oct-10	67500	20000
31-Jan-11	67500	20000	10	10000	50000	50000	10	3	31-Jan-11	67500	20000

4.7 **Maintaining SDEs for Computing Advance Interest**

You can maintain SDE for advance interest calculation on the withdrawal amount from the customer account. All accounts belonging to a product, for which the option 'Advance Interest' in 'Notice Preferences' screen is enabled, are taken up for computing the Advance Interest.

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For computing the advance interest you have to specify the preferences as follows:

- Element - ADV_INT_BASIS

- Description - ADV_INT_BASIS

- Basis - 'Advance Interest

- Periodicity - 'Liquidation Cycle'

- Nature - 'Net'

- Type - 'Booking Dated'

- Operation - 'No operation'

4.7.1 Maintaining SDEs for Deducting Charges on Dormant Accounts

Oracle FLEXCUBE provides you the facility to collect charges on customer accounts that are dormant. The dormancy period is determined by the number of days the accounts have been inactive in the current liquidation cycle. However, the period for which the accounts have a full amount block will not be included for calculation of dormancy days. The accounts may be blocked either internally for being linked to loans availed by the customers or specifically, at the customer's request.

For computing charges on accounts with dormant status, you need to use the following SDEs available in the system:

- Ac-Dormancy-Days: As stated earlier, charge will be computed based on the number of days the account was dormant in the current liquidation cycle.

- Ac-Dormant: This SDE will indicate whether the account is dormant or not depending on the dormancy period that you maintain.

You can then, attach these SDEs to a charge computation rule maintained through the 'Interest & Charges Rule Maintenance' screen.

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Refer to the chapter titled 'Maintaining Interest Rules' of this user manual for more details on defining a rule.

Subsequent to defining a rule, you can create a formula to compute the charges. The result obtained by using the formula will give you the charge that has to be applied on a dormant account.

Refer to the chapter titled 'Building Formulae' of this user manual for more details on creating a formula.

The 'Rule' can then be linked to the appropriate product that you have maintained for calculation of charge on dormant accounts. You may link the product to an account class (in the Interest Product Preferences screen) if you want to apply the same rule for all accounts reporting to a specific account class (General Condition). To define a special charge for a specific customer, you can link the product to the account itself (special condition) rather than linking it to an account class.

Refer to 'Interest Application' chapter of this user manual for more details on applying interest/charge product on an account.

4.7.2 Implications of Working with User Defined Fields

To associate different tax statuses with individual customers belonging to the same account class, you may choose to associate the corresponding SDE with a user-defined field maintained at the customer account level.

Example

For each customer of your bank, at the Customer Accounts Maintenance level, you have created a user-defined field (UDF) called **TAXABLE**. The options available for this field are as follows:

- 1 – indicating that the tax should be levied on interest earned by the particular customer.

- 0 – indicating that tax should be waived

Let us assume that you are defining an SDE called **Apply Tax** in the SDE Maintenance screen. You identify **TAXABLE** as the user defined field that is to be associated with this SDE. However, when defining the TAXABLE field through the User Defined Values screen in the Core Services module, ensure that you have marked TAXABLE as a mandatory field.

Select 1 from the option list to indicate that tax needs to be levied on the interest earned by the particular customer. Select zero to indicate that tax on interest can be waived.

5. Giving UDE Values for Condition

5.1 <u>Introduction</u>

You will recall that when you create a product you link it to a rule. A rule consists of System Data Elements and the User Data Elements. A rule identifies the method in which interest or charge is to be calculated. When building a rule you do not identify the values of UDEs.

When you apply a product on an account class (in the Product Preferences screen), interest for all the accounts will be calculated according to the interest rule that you have linked to the product. That is, the principal, period and type of rate (not the numeric value) will be picked up from the accounts in the same manner. However, the numeric value for the rate can be different for each account class.

You can enter the actual values of the UDEs, for each account class to which you link the product, in the 'Interest & Charges User Data Element Maintenance' screen. You can invoke the 'Interest & Charges User Data Element Maintenance' screen by typing 'ICDUDVAL' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

When interest is calculated for the account classes, the principal, period and the rate will be picked up in the same manner. However, the value of the rate that is to be applied on each account class will be different.

Maintaining Different Effective Dates for UDEs

Example

You have defined a product 'SAUSD1'. While creating the product, you linked it to the rule 'CRIN'. For CRIN, you specified the SDE as 'Monthly Minimum Credit Balance' and the UDE as 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4.

You have two classes of savings accounts: 'Smart Save Money' and Save Money'. You calculate interest for savings bank accounts based on the monthly minimum credit balance. In the Product Preferences screen you can, therefore, apply 'SAUSD1' to both these account classes (since the interest calculation method is the same).

However, the interest rates that you want to apply on each account class is different.

On Smart Save Money accounts you want to pay the following rates of credit interest:

Amount 1	> 5000 >= 10000		15%	(Rate 1)
Amount 2	> 10000 >= 12500		15.5%	(Rate 2)
Amount 3	> 12500 >= 15000		16%	(Rate 3)
Amount 4	> 15000		16.5 %	(Rate 4)

On Save Money accounts you want to apply the following rates of credit interest:

Amount 1	> 1000 >= 2000		9%	(Rate 1)
Amount 2	> 2000 >= 2500		11%	(Rate 2)
Amount 3	> 2500 >= 3000		12%	(Rate 3)
Amount 4	> 3000		14%	(Rate 4)

Now, in the UDE Maintenance screen, you can maintain *separate* records for each of these account classes. The record that you maintain would contain the actual values of the UDEs for each account class.

When interest is calculated for Smart Save Money accounts, the actual values for 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4 will be picked up from (the record that you have maintained for Smart Save Money) the UDE Maintenance Screen.

Similarly, when interest is calculated for Save Money accounts, the actual values for 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4 will be picked up from (the record that you have maintained for Save Money) the UDE Maintenance screen.

You must maintain the UDE values for each account class and currency combination on which you apply a product. If not, the system will assume all UDE values to be zero.

Product Code

Every product that you create is linked to a rule. When you build a rule, you identify the UDEs that would be required to calculate interest or charges. You do not give the UDE a value. This is because you can link a rule to many products and apply a product to many account classes (for which interest or charge is calculated using the same method but which have different UDE values).

For each account class (and currency) on which you apply a product, you should specify the values of the UDEs (which you identified for the rule that is linked to the product) in the UDE Values Maintenance screen.

The UDE values that you maintain here for a condition will be picked up when interest or charge is calculated for the account class.

Example

When you create CRIN, an interest rule, you identify the SDE as 'Monthly Minimum Credit Balance' and the UDE as Rate 1. At this stage, you do not define the value of Rate 1.

You link CRIN to PROD1, an interest product. You apply PROD1 to two savings account classes: SMTMN 1 (Smart Money local currency) and SMTMN 2 (Smart Money USD).

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Interest for these account classes will be calculated using the monthly minimum credit balance in the accounts.

Now, you want to apply different rates of interest on each of these account classes: 10% on the monthly minimum credit balance in Smart Money 1 accounts; and 10.5% on the monthly minimum credit balance in the Smart Money 2 accounts.

In the UDE maintenance screen, you have to maintain the value of Rate 1 for SMTMN 1 (as 10%) and the value of Rate 1 for SMTMN 2 (as 10.5%), individually.

Branch Code

You must specify the code of the branch for which the UDE Values being maintained are applicable as a general condition.

The branch code is displayed based on the Common Branch Restrictions for ICRATES for your branch. The branches that are allowed for your home branch are displayed in the option list for Branch Code. This occurs only if 'ICRATES' has been maintained as a Restriction Type in the Common Branch Restrictions screen. If not, all Branch Codes are displayed including the 'ALL' option.

If your home branch is HO, then the Branch Code option list displays 'ALL' in addition to the list of branches allowed for your Home Branch.

If you try to maintain a UDE value for a specific branch, the system will check if the UDE value has been first maintained with Branch Code 'ALL'. If it has not been maintained, an error message will be displayed forcing you to first maintain the UDE value for the Branch Code 'ALL'.

The Rate Code option list will show all the rate codes maintained in the IC Rate Code Branch Availability screen. During UDE maintenance for a specific branch, if the Rate Code chosen is not available for the specific Branch, then a configurable override will be displayed.

The value for TD Rate Code will default from the rate code maintained in the Floating Rate Maintenance screen. Rule for TD Rate Code UDE consists of only one type of rate as rate code.

Example:

IC Rate Code Branch Availability screen

Rate Code	Allowed branches
RTCD1	000, 001
RTCD2	002

Common Branch Restrictions screen

Home branch	Allowed branches
000	000, 001, 002
001	001
002	002

🛑 000 is the HO Branch

User 1 with Home branch as 000

The Branch Code option list will display 000, 001, 002 and ALL. If he chooses 'ALL,' the Rate Code option list will display RTCD1 and RTCD2. However, if he is doing a specific maintenance for Branch 001 and he chooses RTCD2, then a configurable override will be displayed.

User 2 with Home Branch as 001

The Branch Code option list will display 001. If he chooses 001, the Rate Code option list will display RTCD1. If he chooses RTCD2, then a configurable override will be displayed.

Effective Date

The 'Effective Date' of a record is the date from which a record takes effect. You can maintain different values for a UDE, for different effective dates for each account class (and currency) on which you apply a product. When interest is calculated on a particular day for the account class, the value of the UDE corresponding to the date will be picked up.

The UDE values of a condition can be different for different dates. Typically, you would want to open records with different Effective Dates if the values of UDEs vary within the same liquidation period.

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Example

REQUIREMENT 1

In your bank, you have maintained 'Save Money LCY' as an account class. On this class of accounts, you want to pay credit interest based on the monthly minimum credit balance. You have defined the credit balance in terms of a slab structure and wish to pay a different rate of interest for each slab, as follows:

Amount 1	> 1000 >= 2000	6%	(Rate 1)
Amount 2	> 2000 >= 3000	7%	(Rate 2)
Amount 3	> 3000 >= 5000	7.5%	(Rate 3)
Amount 4	> 5000	10%	(Rate 4)

You would like to liquidate interest for this account class every six months. The current liquidation cycle begins on 1-1-98.

SETUP PROCEDURE

Step 1

You define 'Monthly Minimum Credit Balance' as an SDE (in the SDE Maintenance screen). You define a rule, 'CRIN', to calculate interest based on the monthly minimum credit balance (in the Rule Maintenance screen).

While creating the rule you identified the SDE as Monthly Minimum Credit Balance and the UDEs as Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3 and Rate 4.

Step 2

You link this rule to a credit interest product that you have defined (in the Product Definition screen). You apply this product to the 'Save Money LCY' class of accounts (in the Product Preferences screen). You define the liquidation cycle as half yearly.

The first liquidation will be in June and the next will be in December (since the current liquidation cycle begins on 1-1-98).

Step 3

In the UDE maintenance screen you must specify the UDE values as follows:

Product Code   CRIN

Account Class   Save Money

Currency   LCY

Effective Date   01/01/98

Amount 1	> 1000 >= 2000	=	Rate 1:	6%
Amount 2	> 2000 >= 3000	=	Rate 2:	7%
Amount 3	> 3000 >= 5000	=	Rate 3:	7.5%

Amount 1	> 1000 >= 2000	=	Rate 1:	6%
Amount 4	> 5000	=	Rate 4:	10%

RESULT

Unless you change the UDE values, the values that you have specified in this record will be picked up when you calculate interest for 'Save Money LCY'. That is, for balances between 1000 and 2000 in accounts linked to 'Save Money LCY', interest will be calculated at the rate of 6%, and so on.

REQUIREMENT 2

Now in April, you change the interest rate for the first tier, that is, Amount 1. You change the rate from 6% to 6.5%. The other tier limits and rates remain the same. In order that the new rates apply to accounts from 1-4-98, you must maintain a new record (for the 'Save Money LCY').

SETUP PROCEDURE

You must open a record in the UDE maintenance screen with the following details:

Product Code   CRIN

Account Class   Save Money

Currency   LCY

Effective Date   01/04/98

Amount 1	> 1000 >= 2000	=	Rate 1	6.5%
Amount 2	> 2000 >= 3000	=	Rate 2	7%
Amount 3	> 3000 >= 5000	=	Rate 3	7.5%
Amount 4	> 5000	=	Rate 4	10%

GRAND RESULT

For the same account class - currency and rule combination, the Rate has been changed. This is effective from 1st April.

Now, the first half-yearly liquidation is in June. For the first three months (January - March), the values specified in the record dated *01-1-98* will be applicable. For the period from April to June, the values specified in the record dated *01-04-98* will be applicable.

Rule

Every product that you create is linked to a rule. So when a product is selected from the Option list, the rule which is linked to it gets defaulted here.

Account Class

The different accounts in your bank may be classified into account classes. The different types of current accounts and savings accounts that you maintain are examples of account classes.

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In this field, the account class gets defaulted from the interest product.

Currency Code

In this field, the currency code gets defaulted from the interest product.

User Element Amounts Currency

A User Data Element could be of 'Amount' type when it indicates a tier structure, a slab structure or just an amount that you would want to use in a formula. In this field, the currency in which the UDE is specified gets defaulted from the interest product.

Product Accruals

In this field, the product accrual gets defaulted from the interest product.

Accrual Frequency

The interest on an account can be accrued over a period. The term accrual frequency refers to the interval between two successive automatic accruals.

In this field, the accrual frequency gets defaulted from the interest product.

Rate Chart Allowed

Check this box if you do not want to allow floating rate code during Term Deposit account creation. Checking this box ensures the maintenance of the LD/MM rate for the Term Deposit.

Liquidation Frequency

The term 'liquidation frequency' refers to the interval between two successive periodic liquidations.

In this field, the liquidation frequency gets defaulted from the interest product

5.1.1 Implications of Closing UDE Record

Continuing with the example, if you close the UDE record with Effective Date 01 January 1998, in May 1998, for the entire liquidation period the UDE values specified for 01 April 1998 will apply for the product CRIN.

Only if the periodicity (specified while creating a rule) is '*Daily*' will the UDE values that you define for different effective dates be picked up. If you specified the rule application periodicity as *'Periodic'* the UDE value *as of* the liquidation date will be picked up.

The following example illustrates this.

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Example

You maintain a rule: RULE 01 and specify the *periodicity of application* as 'Monthly'. This means that the rule will be applied on an account class or account every month. You identify the UDE for this rule as RATE 1.

You link this rule to a product 'CRIN'. You specify the *liquidation* periodicity of the product as 'Quarterly'. Next, you apply CRIN to the 'Smart Money' class of accounts. This means that the interest that is calculated for Smart Money accounts will be liquidated every three months.

You define the value of the UDE (Rate 1) as 6% in the UDE Maintenance screen and specify the Effective Date as 01 January 1998. On 15 March 1998, you want to apply a different rate (6.5%) of interest. When interest is liquidated on 31 March 1998 for Smart Money accounts, interest will be calculated for the period between 01 January 1998 and 30 March 1988 the rate of interest will be 6.5% for the whole period.

Please note that interest will *not* be calculated for the period between 01 January 1998 and 14 March 1998 at the rate of 6% and for the period between 15 April 1998 and 30 March 1998 at 6.5%.

However, if you defined the periodicity for the rule as 'Daily', the rule will be applied daily on the accounts and the UDE value that is applicable for the period (for which you are calculating interest) will be picked up. In this case, interest for the period between 01 January 1998 and 14 March 1998 will be calculated at 6% and for the period between 15 March 1998 and 30 March 1998 at 6.5%.

5.1.2 Identifying and Specifying Values for UDEs

For each account class, you must specify the values of all the UDEs that you identified while building the rule. The UDE value that you specify here will be picked up while calculating interest for the account class.

All the UDEs that you have identified for the rule (to which the product is linked) will be displayed here. The UDEs that are displayed here can be of four types. They are:

- Rate
- Amount
- Number

The interest that you charge on a debit balance is an example of a debit rate. The interest that you charge on a credit balance is an example of a credit rate.

A User Data Element will be an amount under the following circumstances:

- in the case of a tier structure, the upper and lower limit of a tier or a tier amount
- in the case of a charge, when it is indicated as a flat amount
- any amount that can be used in the definition of formula(e)

When you build a rule you will indicate the UDE to be a number if the interest or charge is defined based on the number of transactions or the number of account statements. A UDE under this category can also be used to store a numerical value that may be used in a formula.

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Now, for each of the UDEs that are displayed, you must specify the values. If the type of UDE that you have identified for the rule is a 'Rate' element, you can either specify a Rate Code or enter a 'value' for the Rate element.

If you specify a Rate Code for the UDE, the value that you have maintained for the rate code will be picked up while calculating interest. However, if you choose to enter a 'spread' for the Rate Code, the appropriate value will be computed. (A 'Spread' is a positive or negative value that you add or deduct to the value specified for the Rate Code). If you do not specify a spread, the rate maintained for the Rate Code will be picked up.

If the type of UDE is an amount, the value that you enter will be in the currency that you specified in the UDE amounts currency field (in the Interest Preferences screen). If you specified the UDE amounts currency as the local currency and the account class is in a foreign currency, all UDE values will be converted to the local currency. Currency conversions will be on the basis of the exchange rates maintained for the day.

5.1.3 <u>Maintaining Rate Codes</u>

An Interest Rule is made up of SDEs, UDEs and formulae (refer the chapter 'Maintaining Rules' for details). While creating a rule you only identify the UDEs that you would be using to calculate interest. UDEs can be of the following types:

- Amount

- Number

- Rate

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You enter the values of UDEs such as Amount and Number in the UDE Maintenance screen. The Debit or Credit rate is the rate at which interest has to be calculated for the accounts linked to the Interest Rule. These rates can be either:

- Fixed
- Floating

If the rates are fixed, you can specify their values in the UDE Maintenance screen. If you want to apply floating rates, you should link the rate type UDEs (identified for the interest rule) to a Rate Code in the UDE Maintenance screen. You can also specify a spread.

Typically, you would apply different rates of interest to different types of accounts. For example, you would apply different interest rates for current and savings accounts. For each currency, therefore, you will have to maintain different interest rates. The following example illustrates this.

Example

You have the following types of accounts in your bank:

- Savings Bank accounts (in USD)
- Current accounts (in USD)

Now, the rate of interest that you pay on current accounts in USD would be different from that which you pay on savings accounts in USD.

In the Rates Maintenance screen, therefore, you would have to maintain two different interest rates. One, which you would want to apply to savings accounts, and another which you would want to apply to current accounts.

You must assign the different rates that you maintain for a currency unique Rate Codes. For example, for savings accounts in USD you can define a Rate Code such as 'SBUSD'. When you calculate interest for USD savings accounts linked to the rate code 'SBUSD', the rate that you maintain here will be picked up.

5.1.4 Defining Effective Date for Rate Code

Each rate that you maintain for a Rate Code and Currency combination should have an Effective Date associated with it. The 'Effective Date' of a record is the date on which a record takes effect.

The Effective Date that you specify for a rate is the date on which the rate comes into effect. Once a rate comes into effect, it will be applicable till a rate with another Effective Date is given for the same Rate Code and Currency combination. The following example illustrates this.

Example

Rate Code   SBUSD

Currency   USD

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Effective Date   Interest Rate

01 Jan '98   12.5%

14 Jan '98   12.0%

31 Jan '98   13.0%

These rates will be applicable for the following periods:

Period   Interest Rate

01 Jan to 13 Jan '98   12.5%

14 Jan to 30 Jan '98   12.0%

31 Jan to one day before the rate is changed 13.0%

Note the following:

- The Effective Date for a particular rate should be later than the Effective Date of the first rate that you have maintained for the Rate Code.

- The dates from which the debit and credit rates are effective can be different.

- There can be only one rate for an Effective Date

- The same rate cannot be entered for two consecutive dates for a Rate Code

- Note that only if you defined the application periodicity for the rule (to which you link a product) as daily will the changes in rate apply for accounts linked to the product. If the application periodicity is periodic, the rate as of the liquidation date will be applied.

5.1.5 Closing Rate for Date

This feature may be used if you do not want to use a rate for back-dated processing done, past the date. For example, you are on 31 March 1998 and your rate table has got rates for 01 March 1998, 15 March 1998, and 31 March 1998. If you close the rates for 01 March and 15 March, any back-dated processing that is done today, or subsequently, the rates defined for 01 March or 15 March will not be used. The rate as of 31 March will be used.

You will recall that subsequent to the definition of an interest product, you will associate the interest product with an account class and define the numeric values for the user data elements linked to the product. (Refer to the chapter 'Giving UDE Values for a condition' for further details)

5.2 Modifying UDE Values for Select Customer Accounts

To recall, when you associate an interest product with an account class, you have to define the values for the user data elements (UDEs) identified for the product. The values specified for the UDEs would apply on all accounts that are part of the account class. However, your bank may want to change the UDE values for select accounts. Oracle FLEXCUBE allows you to change UDE values for specific accounts, based on specified criteria.

You can modify UDE values in the 'User Defined Elements Values Maintenance' Query screen. Invoke this screen from the Application Browser. You can invoke the 'Interest & Charges User Data Element Amendment' screen by typing 'ICDUDEUL' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.
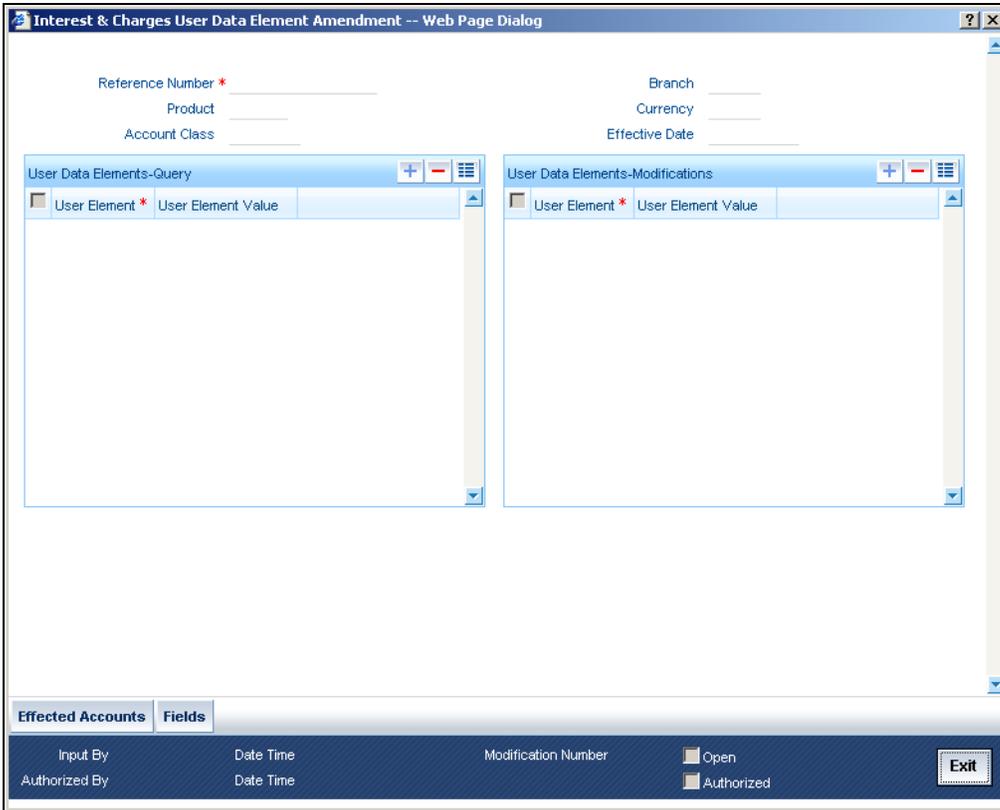
Reference Number

Reference number is auto generated by the system. First three characters are taken as current branch.

Branch

This indicates the branch code for maintaining Interest and Charges User Defined Element Values. It gets defaulted to the current branch.

The branch code is displayed based on the Common Branch Restrictions for ICRATES for your branch. The branches that are allowed for your home branch are displayed in the option list for Branch Code. This occurs only if 'ICRATES' has been maintained as a Restriction Type in the Common Branch Restrictions screen. If not, all Branch Codes are displayed including the 'ALL' option.

If your home branch is HO, then the Branch Code option list displays 'ALL' in addition to the list of branches allowed for your Home Branch.

If you try to maintain a UDE value for a specific branch, the system will check if the UDE value has been first maintained with Branch Code 'ALL'. If it has not been maintained, an error message will be displayed forcing you to first maintain the UDE value for the Branch Code 'ALL'.

The Rate Code option list will show all the rate codes maintained in the IC Rate Code Branch Availability screen. During UDE maintenance for a specific branch, if the Rate Code chosen is not available for the specific Branch, then a configurable override will be displayed.

Example:

IC Rate Code Branch Availability screen

Rate Code   Allowed branches

RTCD1   000, 001

RTCD2   002

Common Branch Restrictions screen

Home branch   Allowed branches

000   000, 001, 002

001   001

002   002

🛑 000 is the HO Branch

User 1 with Home branch as 000

The Branch Code option list will display 000, 001, 002 and ALL. If he chooses 'ALL,' the Rate Code option list will display RTCD1 and RTCD2. However, if he is doing a specific maintenance for Branch 001 and he chooses RTCD2, then a configurable override will be displayed.

User 2 with Home Branch as 001

The Branch Code option list will display 001. If he chooses 001, the Rate Code option list will display RTCD1. If he chooses RTCD2, then a configurable override will be displayed.

In this screen, you can specify that the customer accounts:

- associated with a particular interest product
- belonging to a particular account class
- maintained in a specific currency
- effective date from which interest rate is picked

should be queried and retrieved for the application of new values for calculating interest.

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It is not necessary for you to indicate all the three conditions. For example, if want to change the interest calculation parameters only for accounts belonging to a particular account class, specify only the account class.

🛑 At the time of selecting the account class and currency, the system will display only the account classes and currencies associated with the interest product (this is only if you have specified an interest product).

You also need to specify the date from which the new values have to become effective.

In the 'Query' section of the screen, click on option list in the 'User Data Elements' field. The user data elements associated with the interest product will be displayed. (If you have not specified an interest product, UDE's associated with all the interest products will be displayed). Select the user data element whose value has to be changed and enter the value of the UDE that has to be changed.

In the 'Modifications' section of the screen, select the UDE again and specify the new value for the UDE.

For example

Let us assume that you want to change the fixed interest rate for all individual customers' savings accounts:

- associated with the interest product CRIN

- belonging to the account class INDSBL

- in the currency USD

from 5% to 6.5% effective from 1st October 2001.

To modify the interest calculation parameters, make the following entries:

- Interest Product – CRIN

- Account Class- INDSBL

- Currency –USD

- Effective Date – 01-OCT-2001

Let us assume that the UDE associated with the product CRIN is Rate1. In the 'Query' section, select the UDE Rate1 and enter the element value as 5. This is to instruct the system to query for all USD accounts associated with the product CRIN, belonging to the account class INDSBL for which the interest rate is 5%.

To change the interest rate to 6.5%:

In the 'Modifications' section, select the UDE 'Rate1' and enter the UDE value as 6.5. Consequently, system will change the interest rate to 6.5% on all accounts that have been retrieved through the query. An interest of 6.5% will be applied on all accounts that satisfy the specified condition from 1st October 2001 onwards.

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⬤ **STOP** To apply a different interest rate on the same set of accounts from 15th October 2001, you will have to maintain another record (with the same interest product-account class-currency combination) with the effective date as 15th October 2001.

System will check all the customer accounts and displays the accounts that will be affected because of the change in the value of the interest calculation parameters. Click 'Effected Accounts' to view the accounts that have been affected.

The system will display a message if the new value of the interest calculation parameters has not affected any accounts.

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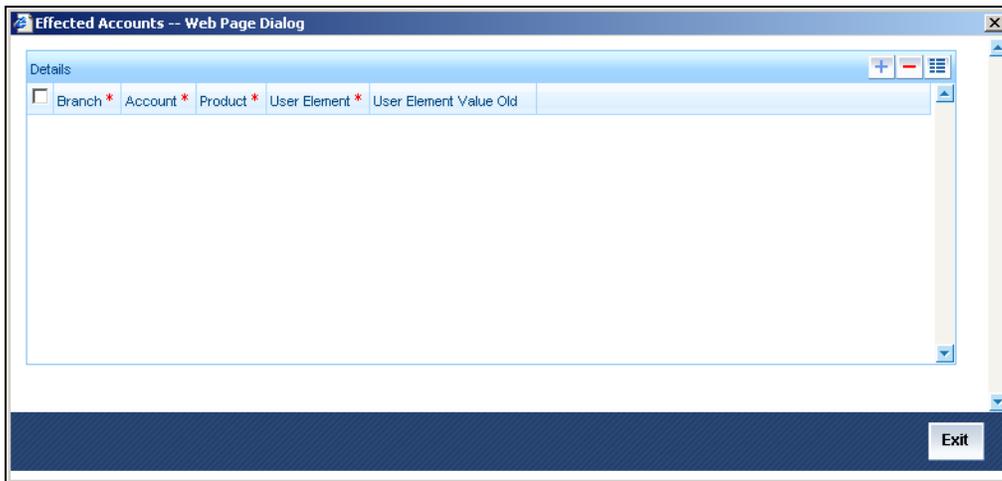
6. Building Formulae

6.1 <u>Introduction</u>

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

- the principal (the amount for which you want to calculate interest)

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

- the rate (the interest rate)

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

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

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

- System Data Elements

- User Data Elements

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

To use a metaphor, SDEs and UDEs are the pillars on which an arch called formula rests. Many arches combine to form a dome called Rule. The things that you choose to put under a dome correspond to account classes (or accounts themselves) to which the rule applies.

You can build arches (formulae) to complete the domes (rules) that you are creating in the 'Formula Wizard' screen.

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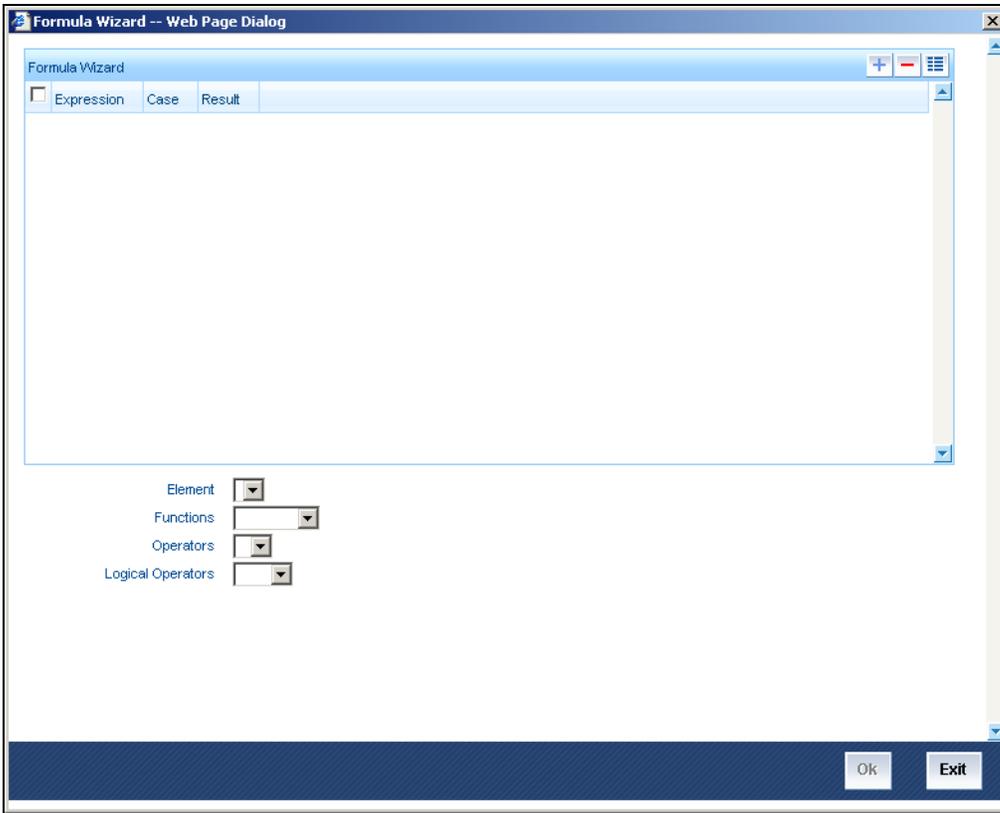
 You can define any number of formulae for a rule.

6.2 **Building Blocks of Formulae**

Element

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

Operators

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

Operator	Description
+	Plus
-	Minus
/	Divide by
*	Multiply

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Logical Operators

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

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

Functions

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

Operator	Description
ABS	Absolute value of
LEAST	minimum of
GREATEST	maximum of
SUM	the total value of
ROUND	round to
TRUNC	integer part of
FLOOR	round off to the (lower) nearest
CEILING	round off to the (higher) nearest
POWER	to the power of
MOD	the remainder

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6.3 <u>Building Formulae</u>

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

The following example illustrates the procedure to create a formula.

Example

REQUIREMENT

You would like to pay interest on the monthly minimum credit balance for all current accounts.

You would like to apply different rates of interest for the following credit balances:

Credit balance	Rate
1 - 10,000	1.5%
10,001 - 15,000	1.75%
15,001 - 20,000	2%
above 20,000	3%

SOLUTION

Step 1

You define 'Monthly Minimum Credit Balance' (MMCB) as an SDE (in the SDE maintenance screen).

Step 2

You define a rule (let us say, Rule 1) and specify 'Monthly Minimum Credit Balance', Days, and Year as the SDEs. The following will be the UDEs for the Rule:

Amount 1, Amount 2, and Amount 3 (these will represent the three upper limits in the tier structure)

Rate 1, Rate 2, Rate 3 and Rate 4 (these will represent the four rates applicable for different amounts in the tier)

Step 3

When you build formulae to calculate credit interest for current accounts, you choose these SDEs and UDEs appropriately, along with the intermediate results, in the following manner:

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Slab Structure:

	Case	Result
1)	MMCB <= AMOUNT1	(MMCB * DAYS * RATE1) / YEAR
2)	MMCB <= AMOUNT2	(MMCB * DAYS * RATE2) / YEAR
3)	MMCB <= AMOUNT3	(MMCB * DAYS * RATE3) / YEAR
4)	MMCB > AMOUNT 3	(MMCB * DAYS * RATE4) / YEAR

Tier Structure:

Formula 1: **Non-booked**

Case	Result
MMCB <= AMOUNT1	(MMCB * DAYS * RATE1) / YEAR

Formula 2: **Non-booked**

MMCB > AMOUNT1	[LEAST (MMCB, AMOUNT2) - AMOUNT1] * DAYS * RATE2 / YEAR

Formula 3: **Non-booked**

MMCB > AMOUNT2	[LEAST (MMCB, AMOUNT3) - AMOUNT2] * DAYS * RATE3 / YEAR

Formula 4: **Non-booked**

MMCB > AMOUNT3	[LEAST (MMCB, AMOUNT4) - AMOUNT3] * DAYS * RATE4 / YEAR

Formula 5: **Booked**

Formula 1 + Formula 2 + Formula 3 + Formula 4

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7. Defining Attributes Specific

7.1 Introduction

In this chapter, we shall discuss the manner in which you can define attributes specific to an Interest or Charges product. You can create an interest or charges product in the 'Interest & Charges - Product Maintenance' screen. You can invoke the 'Interest & Charges Product Maintenance' screen by typing 'ICDPRMNT' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

For any product you create in Oracle FLEXCUBE, you can define generic attributes, such as branch, currency, and customer restrictions, accounting roles and heads, etc., by clicking on the appropriate icon in the horizontal array of icons in this screen. For an interest or charges product, in addition to these generic attributes, you can specifically define other attributes. These attributes are discussed in detail in this chapter.

You can define the attributes specific to an interest and charges product in the Interest and Charges Product maintenance Main screen and the 'Interest and Charges – Interest Product Preferences' screen. In these screens, you can specify the product type and set the product preferences respectively.

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For further information on the generic attributes that you can define for a product, please refer the following Oracle FLEXCUBE User Manuals:

- Products
- Settlements

Product Code

The code of the Charge product, for which you are defining preferences, is displayed in this field.

Description

Give an appropriate description for the Product Code defined.

Product Type

First of all, you should specify the type of product that you are creating. You can either create:

- Interest
- Charges/Allowances
- Consolidated Charges

Interest Products

If you are creating an interest product, you must link the product to an Interest Rule that you have already maintained (To recall, an Interest Rule identifies the method in which interest is calculated). When you apply this interest product on an account (or account class), interest will be calculated for the account according to the method specified for the Interest Rule.

When you link an Interest Rule to the product, the description of the rule will be displayed.

Additionally, you have the option to specify whether the interest product has to be considered for TDS (Tax Deducted at Source) calculation or not. To indicate that the product is to be used for computation of TDS, click 'Include for TDS Calc' in the Product Definition screen for the Interest product you are maintaining. In case you do not want to use a particular interest product to compute TDS, leave the box unchecked.

Charges/ Allowances Products

If you are creating a Charge product, you must specify the basis on which you want to apply the charge.

Refer the section 'Charge Basis in Oracle FLEXCUBE' in this manual for more details on various types of charge basis available in Oracle FLEXCUBE.

After you have specified the *basis* on which you would like to levy the charge, you have to specify the liquidation related details for the charge product, the account classes on which the product should be applied, the frequency of liquidation, the amount or rate of charge to be applied, amongst other details. You specify these details in the Product Preferences screen.

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🛑 The 'preferences' screen that will be displayed during product definition will be either interest preferences or charge preferences, based on the product type. All the other screens are the same for both Interest and Charge products.

Consolidated Charges Products

To set up a charge product that would be used for consolidating charges applicable for accounts under an account class, you can select Consolidated Charge as the Product Type, in the 'Interest and Charges Product maintenance' screen.

Slogan

Enter a slogan for the product that you are creating. In the Slogan field enter a slogan that suitably announces the product to your customers.

Product Start Date

When you create a product, you must also specify a date from which it can be used. This date is called the product 'Start Date'. The start and end dates of a product come in handy when you are defining a product for a scheme, which is open for a specific period.

Product End Date

Indicate an expiry date for a product that you create. The expiry date is referred to as the product end date. You cannot use a product beyond the specified expiry date.

🛑 If you do not specify an 'End Date', the product can be used until it is closed.

Include for TDS Calc

If you have enabled the check box 'Include for TDS Calc' for the IC product, you can maintain the IC product as a Tax or Non Tax product. Choose the 'Tax' option in the Product Type to define the IC product as a Tax product. This allows you to calculate, deduct and view the TDS for the accounts belonging to this product. No accounting entries are available for IACR (Interest accrual) since no accrual is done for the Tax products.

The rule for calculating the interest for TDS and booking is computed using the following two formulas:

Formula 1: Non-Booked No accruals required

TOT_INT_AMOUNT > TDS_LIMIT INTEREST_AMOUNT*TAX_RATE

Formula 2: Booked no accruals

GREATEST [(FORMULA1-TDS_AMOUNT) 0]

You have to maintain the TDS_LIMIT and TAX_RATE UDE's at the rule level for each product, account class, currency and effective date combination.

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In case you have defined the IC product as a Tax product, then the 'Deposit' check box will be disabled.

In case the Tax check box is left unchecked, the IC product for which you have enabled 'Include for TDS Calc' option will be treated as a non-tax product. The credit interest for the account will be calculated and booked using such non-tax products.

For details on setting SDE's for computing TDS, refer to the section 'Maintaining SDE for TDS' under the chapter Maintaining System Data Elements in this (Interest and Charges) user manual.

Charge Basis

If you are creating a Charge product, you must specify the basis on which you want to apply the charge. You can choose to apply charges on the basis of any of the following:

- NUM-ACCT-STMTS (Number of Account Statements): You can fix the number of free account statements for a liquidation cycle. For every extra account statement that you issue, you can levy a charge.

- NUM-CHQ-RET (Number of cheques returned): Every cheque that bounces is recorded in the Cheques Returned file. You can charge a penalty on every bounced cheque.

- NUM-CHQ-ISS (Number of cheques issued): For every extra cheque leaf issued, you can levy a charge.

- NUM-STOP-PAY (Number of Stop Payments): You can levy a charge for every stop payment instruction.

- TURNOVER (Total turnover): You can charge on the basis of the turnover in an account. You can opt to levy charges on turnovers exceeding a 'free amount' that you specify in the Charge Product Preferences screen.

- ITEM-COUNT   (Number of transactions): If the number of transactions during a liquidation cycle exceeds a certain number, you can levy a charge.

- ADHOC-STMT (Number of ad-hoc Account Statements): Account statements are normally generated at a specific frequency. If you generate an out of turn statement, you can levy a charge.

- NET-TURNOVER-DR (Dr Turnover): You can charge a customer on the basis of the debit turnover in an account. This will return a value if the account is in debit else zero will be returned.

- NET-TURNOVER-CR (Cr Turnover): You can also charge a customer based on the net credit turnover in the account. (Sum of all credits – the sum of all debits) = net credit turnover. This will return a value if the account is in debit else a value of zero will be returned. Turnovers will be applied on an account only if the transaction code associated with the credit entry is defined with 'IC Balance Inclusion' option.

- EXTCHG (External Charge): You can charge the customer on the basis of the turnover of external transactions with a charge rate as 1.The turnover is always in the account frequency.

- ACCOUNT-OPENING: You can charge the customer at the time of opening an account.

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Deposits

The interest that applies on time deposits may vary with every deposit product you offer. In Oracle FLEXCUBE, interest on a time deposit (and balance type accounts) is calculated on the basis of the Interest Rules and Interest Products that are associated with the deposit account.

To calculate and apply interest on a time deposit you have to set up an Interest product in the IC module. Interest products are set up in the IC Product Definition screen. Indicate that the IC product you are creating applies on deposit accounts by choosing the 'Deposit' option in the Product Type.

🛑 For a deposit type Interest product, you have to specify the Unclaimed Deposits GLs that should be used to move the principal and interest amounts of unclaimed deposits. The Accounting Roles for the GLs are 'PRN_UNCLAIMED' and 'INT_UNCLAIMED' respectively. In the Accounting Role Definition screen, you have to 'map' these roles to the appropriate Miscellaneous Credit GLs maintained. In addition, in the IC Product Events screen, you have to specify the accounting entries for the event 'MAT'. For this event, you have to specify all possible accounting entries that will be passed, including the movement of unclaimed deposits to the respective GLs.

Tax

Interest products can also be used for computing the TDS (Tax Deducted at Source) on the interest earned for a customer. In Oracle FLEXCUBE you can compute TDS only for savings, current and TD accounts. However this facility is not applicable for deposits booked under the Loans.

Booking Account Type

Identify the Booking Account Type depending on the IC product type you are creating.

If the Booking Account Type is 'Interest', the Interest and Charge will be liquidated into the Interest Booking Account maintained in the IC Special Conditions Maintenance screen. However, if the Booking Account Type is 'Charge', the Interest/Charge will be liquidated to the Charge Booking Account that you identify in the IC Special Conditions Maintenance screen.

Billing Liquidation

Charge products can also be used for billing liquidation on the charges levied for a customer. In Oracle FLEXCUBE, all the charge products specified for billing liquidation will not be liquidated during the IC EOD process but will be processed during the invoice generation maintained for the consolidated billing product. As a result, the system handles the EOD processing separately for billing products and non billing products.

An unchecked box will indicate that the product is a non billing product.

🛑 The Billing Liquidation check box is applicable only for charge products and consolidated charge products.

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Remarks

Enter information about the product intended for your bank's internal reference, in this screen. This information will not be printed on any correspondence with the customer.

The remarks are displayed when the details of the Interest or Charge product is displayed or printed.

IC products can be classified into tax and non-tax product. Non-tax products are used to compute interest for the account and tax products are used to calculate TDS amount and pass accounting entries for tax.

Non-tax product - 'Include for TDS calc' and 'Deposit' option should be checked for term deposit interest product. Tax will be computed for all the term deposit accounts whose account classes are linked to the product only if 'Include for TDS Calc' box is checked. ICEOD batch will process non tax product first and then tax product for each account.

Tax product - TAX product is set-up with liquidation frequency same as the interest product for which tax has to be deducted. The account class list linked to the interest product is also linked to tax product. This is operationally controlled. You can not link the account class linked to a tax product to another tax product. Only 'ILIQ' event can be maintained for tax product (operationally controlled).

7.2   <u>Defining Preferences for Interest Products</u>

While creating an interest product, you identify one rule or interest calculation method that you would like to use to calculate interest for the product. In linking a product to a rule, you identify how the principal, period and rate components are to be picked up from accounts on which the product should be applied. You are yet to identify the accounts, or account classes, on which you would apply the product.

In the Interest Product Preferences screen specify the interest accrual and liquidation details for the product. These specifications are referred to as 'Preferences'. In addition, you also make the product applicable on an account by linking an account class or an account itself, to the product.

For an interest product you can define the following preferences**:**

- The account class and currency combination on which you would like to apply the product

- **Accrual related details**

    - Whether accrual entries for all accounts linked to the product should be passed at the product level. If not, they will be passed for each account separately.

    - The frequency at which interest should be automatically accrued

    - Whether automatic accruals should always take place on a month-end

- **Liquidation related details**

    - The frequency of liquidation

    - Whether interest should be applied right from the day the account is opened.

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- The date on which the first liquidation should be done for accounts linked to the product.

- Whether automatic liquidation's should always take place on a month-end.

To invoke the 'Interest and Charges – Interest Product Preferences' screen click 'Preferences' button from the 'Interest and Charges Product Maintenance' screen.

You can apply a product to any number of accounts or account classes. When you apply a product to many account classes, interest for all the accounts will be calculated according to the rule (or the calculation method) to which the product is linked. That is, the principal, period and type of rate (not the numeric value) will be picked up from the accounts in the same manner. Also, the accrual and liquidation details for all the account classes will be the same for all the account classes. You can thus have all the attributes except those of User Data Elements (UDEs) like the rate, tier structure, etc. same for accounts belonging to different account classes.

Product Code

The product code, for which you are defining preferences, is displayed in this field.

7.2.1.1 Accrual

While building a formula (for the rule to which you have linked the product), if you indicated that the result of the formula is interest that should be accrued, the interest amount for all the accounts linked to the product will be accrued. When defining the preferences for this product, you can choose to pass the accrual entries in the following manner:

- Pass an accrual entry for each account

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- Consolidate the interest to be accrued (for individual accounts) and track it against the product.

If you choose the latter option, the cumulative value of all the accruals (for accounts linked to the product) will be passed as a single accounting entry.

Example

You have defined debit interest 'DRIN' as a product and linked it to the account class 'Current Money 01'. Accrual entries passed for accounts linked to DRIN will be as follows:

- Dr Interest receivable

- Cr Interest Earned

Since accrual accounts for a formula are defined for a product, to be applicable for all accounts linked to the product (either through an Account Class or as a special condition), the accrual accounts will be the same for all the accounts.

If you choose to accrue at the product level rather than at the account level, a consolidated entry will be passed for the formula for all the accounts linked to the product. Thus, there will be a single accrual entry instead of many.

Frequency

Let us recall the operations relating to accruals that you have performed so far. When you build an interest rule you define if the result of a formula is to be accrued.

When defining the product (to which you link the rule), you would:

- Identify the GL/SL to which you post the interest accrued (Product Accounting Role Definition screen), and

- Specify that when the event 'accrual' occurs you would post the entry to the GL/SL that you identified (Events Definition screen).

Now, the frequency with which you accrue interest for the account classes has to be defined. In the Product Preferences screen, select the accrual frequency from the adjoining drop-down list. This list displays the following values:

- daily

- monthly

- quarterly

- semi-annual

- annual

- on liquidation (accrues only when you liquidate interest)

Periodic accruals for all formulae for which interest has to be accrued will be done during the end-of-day processing, for each account linked to the product. Entries will be passed to the accrual accounts that you have specified while creating the product.

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If you have specified that accrual entries have to be passed for a product rather than for individual accounts, a consolidated entry will be passed for the formula, for all the accounts linked to the product. If not, an entry will be passed for each account individually.

Accruals will also be performed whenever there is interest liquidation. For an account on which a liquidation is done out of turn (an ad-hoc liquidation when a periodic liquidation is not due), accrual entries will be passed till the date of liquidation. The next accruals for the account will be done from the next day onwards.

Product Level

If you choose to accrue interest for each account linked to the product, an accrual entry will be posted for each account individually. The account for which the accrual entry is passed will be shown when you retrieve information about an entry. If you opt, however, to accrue interest at the 'Product Level', the accrued interest due to a formula for all the accounts linked to the product will be consolidated and a single entry posted for the product. The details of accruals for each account will be available in the Accrual Control Journal, a report generated whenever accruals are performed as part of end-of-cycle processing.

Cycle

If the frequency with which you choose to accrue interest is

- quarterly

- semi-annual

- annual

Specify the accrual cycle vis-à-vis the months. For example, a quarterly cycle may be March, June, September and December, indicating that the accrual should take place in these months. For a half-yearly cycle you would specify June and December.

Accrual Day

For a non-daily accrual frequency, the 'Accrual Day' indicates the day of the month on which the accruals have to be carried out. For example, an Accrual Day of 25 indicates an automatic accrual should be done on 25 of the month, as per the frequency.

Accruing only on month-ends

If you have specified that you would like to accrue interest for accounts linked to a product, in cycles of a month or more (that is, every month, quarter, six months or year), you can indicate if the interest is to be accrued on the last working day of the month. If you opt to accrue interest on a month-end, accruals will be carried out every month on the last working day of the month.

Normally, you would want to accrue interest on month ends. To accrue interest on month ends, enter '31' in the Accrual Day field. For months with 31 days, interest will be accrued on the 31st. For months with 30 days, interest will be accrued on the 30th, and for February interest will be accrued on the 28th, or the 29th, as the case may be.

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If you enter '30', in the Accrual Day field for example, interest will be accrued on the 30 of the month, till the 30. For February, it will be either 28 or 29, as the case may be. If a month has 31 days, the accruals for the extra day will be done during the next accrual cycle. That is, the 31st of the month will be taken into account when interest is accrued for the next month.

Note that accruals will always be done till the Next Working Day -1 (that is, upto but not including the next working day).

7.2.1.2 Payment Method

In case of Term deposits, you have to specify whether the payment method for the main interest is to be Bearing or Discounted. This cannot be changed at the time of processing a deposit.

Bearing

In case you choose bearing product as the payment method, the system books the TD without liquidating the interest for the account. The end of day process accrues the interest and at BOD, liquidation will occur based on the maturity date.

Discounted

For discounted products,

- the payment of interest is upfront

- rollover option is also disabled

- no interest liquidation on maturity date

In case of true discounted, the payment method is calculated based on the formula maintained in the IC rule definition and the interest is calculated based on the formula defined at the rule level.

The rule you define for true discounted products is applied exclusively for the discounted products.

The rule is maintained in the following two ways:

1. **Formula 1 Non-booked:**

DEPOSIT_AMOUNT * TENOR * RATE / 100 * YEAR

The first formula is used for calculating the interest.

2. **Formula 2 Booked:**

FORMULA1 / POWER ((1 + RATE/100), (TENOR/YEAR))

The second formula is used for discounting the result of formula 1.

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To define the formula for the rule and to calculate the TD interest, System Data Element (SDE) titled 'Deposit_Amount' is used.

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7.2.1 Liquidation Related Details

Just as you defined the accrual related details for account classes linked to a product, you should define liquidation related details as part of preferences for the product.

You can liquidate interest for an account:

- periodically
- on an ad hoc basis

Monthly liquidation of interest on an account is an example of periodic liquidation. When you *do not* liquidate interest on an account at fixed intervals, the liquidation is referred to as 'ad hoc liquidation'.

If you opt to liquidate interest periodically, you can automate the liquidation process. The automatic processes that are generated at the end of day will liquidate interest for those accounts that are marked for liquidation.

You can perform an ad hoc liquidation on accounts anytime - even if the accounts are marked for auto liquidation.

🛑 You should necessarily liquidate interest before you:

- close an account
- change its account class
- change the calculation account

7.2.1.1 Calculation and Liquidation

Frequency

The term 'liquidation frequency' refers to the interval between successive periodic liquidation's.

Specify the liquidation frequency for the Interest product that you are creating. You can specify the liquidation frequency in

- days
- months
- years

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Days	If you want to liquidate interest every 15 days, enter '15'. If you want to liquidate interest every 9 days enter '09'.
Months	If you want to liquidate interest every month enter '01'. If you want to liquidate interest every quarter enter '03'.
Years	If you want to liquidate interest every year enter '01'.

Example

Assume you would like to liquidate interest every quarter, that is, in the months of March, June, September and December. You would like to liquidate interest on the 5th day of the month, that is, on the 5th of March, the 5th of June, and so on. To achieve this result, enter '05' in the Days field, and '03' in the Months field.

Interest for the accounts linked to the product will be liquidated automatically according to your specifications, during the end-of-day processing on the day the liquidation becomes due.

To specify ad hoc liquidation for a product, enter a zero for day, month, and year in the liquidation frequency.

Ad-hoc liquidation can be carried out any time on an account, even if it has been defined for automatic liquidation. An ad-hoc liquidation of interest for an account (defined for auto liquidation) will liquidate interest till the date you specify when you carry out ad-hoc liquidation. The subsequent automatic liquidation will be for the remaining days in the liquidation period.

The following example illustrates this point:

Example

For a product, the liquidation periodicity has been defined as monthly, to be carried out on the last working day of the month.

On 15 April, you do ad-hoc liquidation of interest for a few accounts linked to the product. The interest for 14 days in April (assuming that you specify the date of liquidation as 14 April) will be liquidated during this ad-hoc liquidation.

The next automatic liquidation of interest for all accounts involving the product would be on 30 April. The number of interest days for accounts for which the ad-hoc liquidation was performed would be 16. The values for the SDEs applicable will also be picked up over this period. For the other accounts, the interest days would be 30 and the SDE values picked up would be for the entire 30 day period.

For a product, you specify whether the account closing month has to be included for interest application. Whether interest will be applied for the current month during ad hoc liquidation (on 15 April in our example) depends on this parameter for the product. Interest for the current month will be applied during ad hoc liquidation only if the definition is that account closing month should be included for interest application. If not, the next automatic liquidation will process interest for the entire month.

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Start Date

The system displays the Start Date based on the First Liquidation Date and the Liquidation Frequency that you specify. The Start Date that is displayed is the First Liquidation Date - the Liquidation Frequency.

For example, if you specified the First Liquidation Date as 31 January 2000, and the Liquidation Frequency as 1 Month, the system will display the Start Date as 1 January 2000.

First Liquidation On

Once the liquidation frequency has been defined, you should specify the First Liquidation Date. The frequency and the date will be used to arrive at the first and subsequent dates of liquidation for the accounts linked to the product.

For example, your quarterly liquidation cycle may be March, June, September and December, and the liquidation is as of the month-end. For such a cycle, you should indicate 31 March as the date of first liquidation during the year. The subsequent dates will be automatically fixed by the system based on the frequency and the first liquidation date.

Similarly,

If you want to liquidate on a half-yearly basis - that is, June and December (and on month-ends) - you should specify the date of first liquidation as 30 June 1999. If you want to liquidate interest every two months, that is February, April, June, August, October and December (at the end-of-month), you should specify the date of first liquidation as 29 February 1999. If you want to liquidate interest annually, that is every December (on 31 December), you should specify the first day of liquidation as 31 December, and so on.

The First Liquidation Date thus determines the date on which the first liquidation should be carried out for all accounts linked to a product. Subsequent liquidation dates will be fixed based on this date and the frequency of liquidation.

Start From Account Opening

We have seen how periodic liquidation's can be fixed to begin on a particular date (First Liquidation Date) and happen at a definite frequency. Instead of giving a First Liquidation Date and bringing all the accounts linked to the product to the same liquidation cycle, you could opt to liquidate interest for accounts, periodically, according to a frequency determined by the Account Opening Date.

For example, the liquidation frequency is defined as quarterly for a product, starting from the Account Opening Date. For each account, the periodic liquidation will fall due a quarter from its Account Opening Date. Thus, there will not be a fixed periodic liquidation date for all accounts linked to the product; it will depend on the Account Opening Date of each account.

Liquidation at month – ends and Days

For a liquidation frequency in months or multiples of a month (for example quarterly, half-yearly, every two months, etc.,) you can specify that liquidation has to be carried out as of the last working day of the month. In this case, you should specify the Liquidation Start Date as the last date of the month from which you would begin liquidation. For example, for a month-end quarterly liquidation beginning March '98, you should have the Liquidation Start Date as 31 March '98. You should also check the box against 'Liquidation at month-ends'.

Thus, all the accounts that are linked to a product will have the same liquidation date (fixed using the first liquidation date) and frequency, irrespective of their account opening date. The first ever interest liquidation would, therefore, be for a period that may not reflect the frequency of liquidation for the product.

The following example illustrates this point:

__Example__

The frequency of interest liquidation for a product is quarterly and the First Liquidation Date is 31 March '98. All accounts linked to this product will have an automatic interest liquidation on 31 March '98, irrespective of the date on which they were opened.

Interest for an account opened on or before 01 January '98 will be liquidated on 31 March '98, and so will an account opened, for example, on 30 March.

Thus, accounts that were opened anytime during this quarter will have varying number of interest days, depending on the date they were opened.

Also, the month in which the account was opened will be considered for interest application depending on your definition in the Rule Maintenance screen. During subsequent automatic liquidation's, interest will be applied for a quarter provided there are no ad hoc liquidation's on an account during the quarter.

🛑 If you have selected both 'Start from Account Opening' and 'Liquidation at Month End' days, then precedence is given to Start from Account opening i.e. Liquidation happens based on the account opening date and not on month ends.

Liquidation Before Month End

While specifying the IC product preferences if you have set the interest liquidation frequency to a monthly, yearly, quarterly cycle you can choose to liquidate interest a specified number of days before the month end for all accounts linked to the product.

You have to specify the number of days before which interest should be liquidated. The system arrives at the interest liquidation date based on the number of days that you specify.

Let us assume that you would like to liquidate interest one day before the month end. You have to capture the following values in the respective fields:

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Frequency Month	1
Liquidate before Month End	☑
Days	1

Consequently, interest liquidation for the account associated with the product will be done a day before the month end. Therefore, in March interest will be liquidated on the 30th, in April interest will be liquidated on the 29th. However the value-date of the interest will be the month end.

For instance, if the interest is liquidated on the 30th of March, the Value Date will be 31st of March. Similarly, if interest is liquidated on the 29th of April the value-date will be 30th of April.

Refund Tax on Preclosure

Oracle FLEXCUBE provides you the flexibility to refund tax whenever a preclosure of a term deposit takes place in the system. However, you have the option to charge a penalty on the amount being withdrawn from a term deposit or when a term deposit is closed before its maturity date.

To facilitate this feature, you have to select the 'Refund Tax On Preclosure' option. As a result, tax collected on the interest due to the customer will be refunded on preclosure of a deposit. Tax will be refunded for the interest that is calculated from the deposit value date till the preclosure date.

When you process a foreclosure for a term deposit, the system will first check whether the 'Refund Tax On Preclosure' option is selected for the interest product that is attached to the term deposit account. If selected, system will refund all the taxes that are levied till date for the deposit.

This option will be enabled only when you maintain deposit type of interest products.

Bkval Recalc Flag

Check this box to indicate that for all accounts associated with this product the recalculation of interest needs to be done and the difference in interest adjusted during the next liquidation as an interest adjustment entry when an accounting entry is passed into the previous liquidation period.

Defer Liquidation and Defer Liquidation By Days

You may wish to defer the calculation and liquidation of periodic interest on an account for a few days beyond the end date of each interest period. This deferment will allow the inclusion of interest adjustments due to back-valued entries posted into the account after the period end date.

In order to avail of this facility, you need to enable the Defer Liquidation option and also mention the number of calendar days by which you wish the interest liquidation for a period to be deferred.

The functionality is explained with the help of the following example.

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Example

You have enabled the Defer Liquidation option and opted to defer liquidation by 10 days.

For the period – 01-Mar-2003 to 31-Mar-2003 – the period code in M03. On 05-Apr-2003, an entry is posted (with period code M04) into the CASA for value date 15-Mar-2003. Since interest for M03 is not yet liquidated, interest calculation for M03 is adjusted for this entry. The same process is followed for all back-valued entries, with value dates lying in M03, posted into the account up to and including 10-Apr-2003. The final adjusted interest is liquidated as part of end-of-day batch process on 10-Apr-2003.

7.2.1.2 Maintaining ILM Parameters

Integrated LM

Choose this option if you want to use the product for Integrated Liquidity Management processing.

Integrated LM Type

Specify the type of System Account to which the product ought to be linked. It can be:

- Pool Leader: Indicates that the Rule will apply to Header accounts in a structure.

- Pool Reallocation: Indicates that the rule will apply to Parent and Child Accounts below the Header Account.

7.2.1.3 Debit Interest Notification

Receivable General Ledger

Before applying debit interest on personal current accounts you can choose to notify your customers through Debit Interest Notification messages. In the interim period interest is debited from a Receivable before actually debiting the customer account. While specifying preferences for Interest products you can identify the Receivable GL which is to be used for storing debit interests on a temporary basis..

You can specify the Receivable GL only for products linked to rules having debit formulae.

This feature is applicable only for the debit interest on the account calculated through the IC module. Refer the Daily Processing of Interest and Charges for information on End of Day processing for Debiting Receivable GL. Passing accounting entries for the refund amount

When a preclosure of a term deposit takes place, the original tax entries are not reversed. Instead, the system will pass a new set of entries for the refunded tax amount. The amount tag 'TAX_REFUND' will be used to pass the refund entry. This amount tag will give the total tax calculated on the interest.

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Accounting Role	Amount Tag	Dr/Cr Indicator
LIABGL (Liability GL for Deposits)	TAX_REFUND	Cr
FRTAXS_PAY (Tax Payable GL)	TAX_REFUND	Dr

🛑 Refer Annexure A of this User Manual for a list of accounting entries and amount tags that you can set up for an Interest product.

Example

The following example will illustrate the manner in which tax is calculated and refunded on preclosure of a term deposit.

Mr. Silas Manner, a customer of your bank, makes a deposit for a period of three months. The details of the deposit are as follows:

- Opening date - 10th October 2003
- Maturity Date - 10th January 2004
- Deposit amount - 10000000
- Interest rate - 13.5%
- Interest Basis - Actual/360
- Penalty Interest - 13%

The interest rate of 13.5% will be applicable from the opening date and will remain constant for the term of the deposit.

Now, we will calculate the interest and tax due on the deposit on a month end basis:

As on 31st October 2003

Number of days - 22 (from 10th Oct to 31st Oct)

Interest as on 31st Oct - 82500.00 (10000000 * 13.5 * 22 / 36000)

Tax at 1% - 825 (82500/100)

Interest earned - 81675 (82500 – 825)

As on 30th November 2003

Number of days - 30

Interest as on 30th Nov - 112500 (10000000 * 13.5 * 30/ 36000)

Tax at 1% - 1125 (112500/100)

Interest earned - 111375 (112500 – 1125)

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As on 31st December 2003

Number of days	-	31 (from 10th Oct to 31st Oct)

Number of days   -   31 (from 10th Oct to 31st Oct)

Interest as on 31st Oct   -   116250 (10000000 * 13.5 * 31 / 36000)

Tax at 1%   -   1163 (116250/100)

Interest earned   -   115087 (116250– 1163)

As on 10th January 2003

Number of days   -   9 (from 10th Oct to 31st Oct)

Interest on day of maturity -   33750 (10000000 * 13.5 * 9/ 36000)

Tax at 1%   -   338 (33750 /100)

Interest earned   -   33412 (33750 – 338)

Total interest booked   -   341549 (81675 + 111375 + 115087 + 33412)

Now, on 5th January, Mr. Silas Manner decides to close the deposit. He will be charged a penalty at 13%. The penalty is calculated as follows:

Penalty Interest = (Deposit Amount * Days * Penalty Rate) / (100 * Days in year)

= (10000000 * 87 * 13) / (100 * 365) = **309863.01**

Therefore, the customer will be charged a penalty interest of **309863.01** due to the preclosure.

The tax collected till date will be refunded. So an amount of **3113.00** (825 + 1125 + 1163) will be refunded to Mr. Silas Manner.

7.2.1.4 Generating Customer Notice for Debit Interest

Credit interest is liquidated and credited to the account by the System on the liquidation date, which may be the end date of the interest period or a deferred date, depending on your choice.

Debit interest is also calculated on the liquidation date. If you have specified for an Account Class that debit interest notices have to be generated, then the debit interest is not liquidated immediately, but tracked in a Receivable GL for manually debiting to the customer account at a future date. You need to specify the Receivable GL to be used for this purpose. If you do not, then interest for a particular period is liquidated with the value date as the first day of the next period, irrespective of your preference for deferring liquidation.

The functionality of tracking Debit interest in the Receivable GL is explained earlier in this chapter under the heading – Receivable General Ledger to store debit interest on Customer Accounts.

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7.2.2 Repopulating UDE Values at Rollover

For the account class and currency, you can specify whether you want to repopulate the rates during a rollover of the Term Deposits. If you opt for this option, the system will use the latest available rate maintained (UDE) for the account class and currency combination at the time of rollover. Conversely, the system will use the rates maintained initially for the deposit.

7.3 Specifying Preferences for Charges Product

The following types of charges can be processed on an account:

NUM-ACCT-STMTS	Number of Account Statements	You can fix the number of regular periodic (free) account statements for a liquidation cycle. For every extra account statement that you issue, you can levy a charge.
NUM-CHQ-RET	Number of cheques returned	Every cheque that bounces is recorded in the Cheques Returned file. You can charge a penalty on every bounced cheque.
NUM-CHQ-ISS	Number of cheques issued	You can fix the number of free cheques that can be issued for a liquidation cycle. For every extra cheque leaf issued, you can levy a charge.
NUM-STOP-PAY	Number of Stop Payments	You can levy a charge for every stop payment instruction.
TURNOVER	Turnover	You can charge on the basis of the turnover in an account. You can opt to levy charges on turnovers exceeding a certain amount. An SDE based on turnovers will be applied on an account only if the transaction code of the transaction is defined with 'Include for Account Turnover'.
ITEM-COUNT	Number of transactions	If the number of transactions during a liquidation cycle exceeds a certain number, you can levy a charge. An SDE based on turnovers will be applied on an account only if the transaction code of the transaction is defined with 'Include for Account Turnover.'
ADHOC-STMT	Number of ad hoc Account Statements	Account statements are normally generated at a specific frequency. If you generate a statement out of this frequency, you can levy a charge.
NET-TURNOVER-DR	Dr Turnover	You can charge a customer on the basis of the debit turnover in an account. This will return a value if the account is in debit else zero will be returned.

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NET-TURNOVER-CR	Cr Turnover	You can also charge a customer based on the net credit turnover in the account.
		(Sum of all credits – the sum of all debits) = net credit turnover
		This will return a value if the account is in debit else a value of zero will be returned.
		Turnovers will be applied on an account only if the transaction code associated with the credit entry is defined with 'IC Balance Inclusion' option.

To recall, when creating a product in the IC module, you must first specify whether it is an Interest or a Charge product. This is called the product type.

If the product type is Charges, you have to specify the *basis* on which you would like to levy the charge. In the 'Product Preferences' screen, you have to specify the liquidation related details for the charge product, the account classes on which the product should be applied, the frequency of liquidation, the amount or rate of charge to be applied, amongst other details.

For applying charges on an account, you can define a General Condition or a Special Condition. Charges thus applied will figure in the Account Statement for the account.

The 'preferences' screen, displayed during product definition, will be either interest preferences or charge preferences, based on the product type.

All the other screens are the same for both Interest and Charge products.

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While creating a Charge product, you will recall, you identify the *basis* on which you would levy the charge. You are yet to identify the account classes on which you would apply the product, and the following details:

- the currency in which you would like to levy the charge

- The periodicity with which you would levy the charge (and for a non-monthly cycle, the month from which you would like to begin liquidation).

- whether you would levy the charge on tier or slab structures

- the account class-currency combination on which you would apply the Charge product.

- the minimum and the maximum charge for the product

- the numeric values of the slab/tier, the charge amount, and the charge rate

- the number of free transactions

You can apply a product to any number of account classes. When you apply a product to many account classes, charges for all the accounts belonging to the classes will be calculated in a similar fashion. You can also apply several products on an account.

Product Code

The product code, for which you are defining preferences, is displayed in this field.

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Charge Currency

Normally, you would calculate charges in the local currency. However, when indicating your preferences for a Charge product, you can opt to levy a charge either in:

- the local currency

- the account currency

All charges due to a product will be applied in this currency. In addition, any amount involved in the application of charges, like the turnover amount, the slab and tier amounts, a flat charge, etc. will always be in the currency specified here.

![stop] If the charge currency is defined as the local currency, and the product is applied on an account class in a foreign currency, all the charge values (such as the slab/tier amounts, charge amounts, etc.) will be converted to the account currency, from the local currency, before the charge is applied. This currency conversion will be done at the mid rate for the two currencies.

Slab / Tier

When defining your preferences for a Charge product, you can opt to levy the charge on the basis of either

- Slabs

- Tiers

7.3.1 <u>Specifying Liquidation Related Details</u>

You should define liquidation related details as part of preferences for the Charge product that you are creating.

You can liquidate charges for an account:

- periodically

- on an ad hoc basis

7.3.2 <u>Liquidating Charges Periodically</u>

Monthly liquidation of charges levied on an account is an example of periodic liquidation.

If you opt to liquidate charges periodically, you will automate the liquidation process. The automatic processes that are generated at the end of day will liquidate charges for those accounts that are marked for liquidation.

Liquidation Periodicity

If you opt to liquidate charges periodically, you must specify the 'liquidation frequency'. The term 'liquidation frequency' refers to the standard interval between successive periodic liquidations.

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For the Charge product that you are creating, select the liquidation frequency (in other words, the cycle) from the adjoining drop-down list. This list displays the following values:

- Monthly

- Quarterly

- Half Yearly

- Yearly

Charges for all the accounts linked to the product will be liquidated, automatically, according to your specifications, during the end of day processing on the day the liquidation is due.

If you opt to liquidate charges on a quarterly, half-yearly, or yearly basis, you must also specify the first month on which you would like to liquidate charges (that is, the month from which the cycle would commence).

7.3.3 Liquidating Charges on Ad Hoc Basis

When you do not liquidate charges at fixed intervals, the liquidation is referred to as 'ad hoc liquidation'.

If you propose to liquidate charges on an ad hoc basis (for accounts on which you apply the product), choose the 'Ad Hoc' option when specifying the Liquidation Frequency.

An ad hoc liquidation can be carried out any time on an account, even if it has been defined for periodic liquidation. When you carry out an ad hoc liquidation for accounts (defined for periodic liquidation) charges will liquidated till the date you specify. The subsequent periodic liquidation will be for the remaining days in the liquidation period. The following example illustrates this point:

Example

For a product, CHG01, the liquidation periodicity has been defined as monthly, to be carried out on the last working day of the month. You apply this product on the account of Ms. Yvonne Cousteau.

On 15 April 1998, you liquidate the charges for the extra account statements that you have provided the account holder. The charges for the account statements generated for 14 days in April (assuming that you specify the date of liquidation as 14 April 1998) will be liquidated during this ad hoc liquidation.

The next periodic liquidation of charges for Ms. Yvonne Cousteau's account would be on 30 April 1998. The charges would be liquidated for the remaining days (16 days) in the liquidation period.

You should necessarily liquidate all charges before you close an account or change its account class. Typically, you would use the Ad Hoc liquidation function to do this.

7.3.3.1 Account Details

Account Class

Choose the account class on which you would like to apply the Charge product (for which you are defining preferences).

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Currency Code

Specify the currency of the Account Class on which you would like to apply the Charge product.

Spl. condn Only

Check this box to indicate that special conditions are applicable. You are not allowed to check this box for tax products.

Free Items

You can specify the number of items on which you would not like to levy charges, as 'Free Items'. If the items exceed the value that you specify here, a charge would apply.

You would specify an amount as a 'Free Item' in case you identified the 'Charge Basis' for the product, as 'Turnover'.

For example, if you do not want to levy a charge on debit turnovers that do not exceed USD 3000, enter '3000' in this field.

When charge is calculated on a charge basis other than 'TURNOVER', you would specify the number or items, in this field. For example, if you want to allow two free account statements for the account class on which you apply the charge product, enter '2' here.

Open

More than one product may be applicable on an account class at the same time. You can temporarily stop applying a product on an account class by 'closing' it.

You can achieve this by removing the tick for the field 'Open'. The product will cease to be applied on the account class. You can make the product applicable again by ticking the 'Open' box.

Minimum and Maximum

You must indicate the charge amount range, representing the maximum and minimum charge that can be applied for the account.

7.3.3.2 <u>Charge Notification</u>

Receivable General Ledger

Before applying charges on personal current accounts you can choose to notify your customers through Charge Notification messages. In the interim period charges are debited from a Receivable before actually debiting the customer account. While specifying preferences for Charge products you can identify the Receivable GL which is to be used for storing charges on a temporary basis.

You can specify the Receivable GL only for products linked to rules having debit formulae.

This feature is applicable only for the debit interest and charges on the account calculated through the IC module.

Refer the Daily Processing of Interest and Charges for information on End of Day processing for Debiting Receivable GL.

7.3.4 Charge Basis in Oracle FLEXCUBE

If the product type is Charges, you have to specify the *basis* on which you would like to levy the charge. The following charge basis is available in Oracle FLEXCUBE:

- Charge Basis for Oracle FLEXCUBE transactions
- Charge basis for maintenance types of charges
- Charge basis for external charges

All three charge basis are explained in detail below:

7.3.4.1 Charge Basis for Oracle FLEXCUBE Transactions

Non YTD Basis

For processing charges for all Oracle FLEXCUBE transactions, you can use one of the following non YTD based charge basis:

Charge Basis	Describes…
NUM-ACCT-STMTS	You can fix the number of regular periodic (free) account statements for a liquidation cycle. For every extra account statement that you issue, you can levy a charge.
NUM-CHQ-RET	Every cheque that bounces is recorded in the Cheques Returned file. You can charge a penalty on every bounced cheque.
NUM-CHQ-ISS	You can fix the number of free cheques that can be issued for a liquidation cycle. For every extra cheque leaf issued, you can levy a charge.
NUM-STOP-PAY	You can levy a charge for every stop payment instruction
TURNOVER	You can charge on the basis of the turnover in an account. You can opt to levy charges on turnovers exceeding a certain amount. An SDE based on turnovers will be applied on an account only if the transaction code of the transaction is defined with 'Include for Account Turnover.'
ITEM-COUNT	If the number of transactions during a liquidation cycle exceeds a certain number, you can levy a charge.

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Charge Basis	Describes…
	An SDE based on turnovers will be applied on an account only if the transaction code of the transaction is defined with 'Include for Account Turnover.'
ADHOC-STMT	Account statements are normally generated at a specific frequency. If you generate a statement out of this frequency, you can levy a charge.
NET-TURNOVER-DR	You can charge a customer on the basis of the debit turnover in an account. This will return a value if the account is in debit else zero will be returned.
NET-TURNOVER-CR	You can also charge a customer based on the net credit turnover in the account. (Sum of all credits – the sum of all debits) = net credit turnover

This will return a value if the account is in debit else a value of zero will be returned.

Turnovers will be applied on an account only if the transaction code associated with the credit entry is defined with 'IC Balance Inclusion' option. |

YTD Basis

For processing charges for all Oracle FLEXCUBE transactions, you can use one of the following YTD based charge basis:

Charge Basis	Describes…
YTD – ITEM – COUNT	Charges are calculated on YTD basis applying the item count of the transaction.
YTD-DR-TURNOVER	Charges are calculated on YTD basis depending on Debit turnover of the transaction.
YTD - CR-TURNOVER	Charges are calculated on YTD basis depending n the credit turnover of an account.
YTD - NET-TURNOVER	Charges are calculated on YTD basis depending on the net turnover of an account.

Slab/Tier

For YTD calculation, the system applies the slab basis to compute the current YTD volume and current cycle volume for every liquidation cycle.

The applicable rate is derived from the current YTD volume and the current cycle volume will be charged on the current rate. In case there is a change in the rate, the system will pass an adjustment entry.

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This is calculated as:

Current rate * (Current YTD value – Current cycle value) less actual amount passed YTD upto previous billing

Let us understand the above equation with the following example:

Example:

Let us assume the following slab structure is maintained:

Slab	Rate
0 to 10,000	3%
10,001 to 25,000	2%
25,001 onwards	1 %

The Turnover for Various Months and liquidation is monthly.

Month	Turnover	Current Cycle Charge	YTD	Adjustment
Jan	6,000	6,000*.03 =180	-	
Feb	4,000	4,000*.03=120	10,000	(10000-4000)*.03 – 180 =0
March	5,000	5,000*.02=100	15,000	(15,000-5,000)*.02-(180+120) = -100

The rate applied for Month of March is 2% which is determined on YTD amount (15,000) and adjustment is also calculated on the same rate.

The YTD volume is calculated from start of the financial year (maintained at bank level) till cycle Liquidation date (month end date).

Specifying the amount tags

For YTD type of products, you need to maintain the following amount tags for CLIQ event:

- CLIQ_ADJ: the adjustment entries are calculated applying the YTD volume. The amount tag will be the same for negative adjustment entries

- CLIQ_NADJ: the adjustment entries are passed only if the adjustment amount is negative and the absolute value is used

- CLIQ_PADJ: the adjustment entries are passed only if the adjustment amount is positive

🛑 Along with CHARGE tag entries, you can maintain entries for either for CLIQ_ADJ or for CLIQ_NADJ and CLIQ_PADJ for CLIQ event. You cannot maintain entries for both.

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For YTD calculation, the system applies only the current rate since there can be a change in the rate. All the parameters (free items, minimum balance etc) are applied to YTD volume.

7.3.4.2 Charge Basis for Maintenance Type of Charges

You can apply different charge basis for positive pay instructions using the following tags:

Charge Basis	Describes…
NUM-STALE-PPAY	This is the number of stale cheques for a given account
NUM-STOP-PPAY	This is the number of stop payment applied on the cheques (positive pay).
NUM-CANCL-PPAY	This is the number of cheques cancelled or closed. It includes the cancellations done for Refunded/Refused cheques also.
NUM-REPLACE-PPAY	This is the number of cheques which are in replaced status.
NUM-AUT-ISS-PPAY	This is the number of positive pay instructions which are issued automatically or through uploads. It can be used to collect/calculate using source code of the positive pay instruction. In case the source code is not 'FLXC' then it is considered as auto issued.
NUM-MAN-ISS-PPAY	This is the number of positive pay instruction issued manually. All positive pay instructions for which the source code is 'FLXC' are considered for this charge basis.
NUM-TOT-ISS-PPAY	This is the total issued positive pay instruction for a given account (sum of point 5 and point 6).

7.3.4.3 Charge Basis for External Charges

External charges are the charges levied for all NON Oracle FLEXCUBE transactions like faxes sent or concentrator charges etc. To maintain the charge product for the external charges, you can use the charge basis defined below:

Charge Basis	Describes…
EXT-BD-ITEM-CNT	Indicates the count of external transactions based on booking date. External transaction has the flexibility to be charged on booking date or on a value date basis. System stores the count at both level (booking date and value date).

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EXT-VD-ITEM-CNT	Indicates the transaction count of external transaction on Value date basis.
EXT-BD-ACY-TUR	Indicates the turnover of external transactions on basis of booking date. This turnover is always in the account currency.
EXT-VD-ACY-TUR	Indicates the turnover of external transactions on basis of value date. This turnover is always in the account currency.
EXT-BD-LCY-TUR	Indicates the turnover of external transactions on basis of booking date. This turnover is always in the local currency.
EXT-VD-LCY-TUR	Indicates the turnover of external transactions on basis of booking date. This turnover is always in the local currency.

While applying charge basis on Account currency (EXT-VD-ACY-TUR, EXT-BD-ACY-TUR), the system allows only those external transaction codes for which you have maintained the type as 'Account currency'.

Similarly, Charge basis on Local currency (EXT-VD-LCY-TUR, EXT-BD-LCY-TUR) is enabled only those external transaction codes for which the type is defined as 'Local currency'.

Also, the system allows External transaction codes on count basis only for those products for which the charge basis is either EXT-BD-ITEM-CNT or EXT-VD-ITEM-CNT.

Refer to 'Transaction codes for processing external transactions' and 'Booking of external charges' sections in this manual for more details on maintaining transaction codes for external transactions and capturing details for external charges.

7.4 <u>Preferences for Consolidated Charges Products</u>

When you create a consolidated charge product, you can define the properties for the product such as accounting roles and accounting heads, events, branch and customer restrictions in the same manner as you would do for a normal Interest and Charges product. For details, refer the Products user manual.

You can also set the following specific preferences for a consolidated charges product in the Interest and Charges Consolidated Charge Product Preferences screen. Click 'Preferences' button from the IC Product Definition screen to invoke the Preferences screen.

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Product

You must identify the individual charge products for which the applicable charges would be consolidated, using the consolidated charge product.

While linking charge products with a consolidated charge product, remember:

- Only charge products can be linked to consolidated charge products

- A charge product can be linked to just one consolidated charge product

- The charge liquidation periodicity defined for individual charge products linked to a consolidated charge product must be the same as the charge liquidation periodicity set for the consolidated product

Charge Currency

You can indicate the currency in which the charges would be consolidated - either account currency or local currency.

Periodicity and Liquidation Month

You must indicate the periodicity at which the consolidated charges would be liquidated, for the indicated account class, using the consolidated charge product. If the liquidation is to take place on a yearly basis, you can specify the month during which it would take place. As stated earlier, the charge liquidation periodicity defined for individual charge products linked to a consolidated charge product must be the same as the charge liquidation periodicity that is set for the consolidated product.

7.4.1.1 Account Details

Account Class and Currency Code

You must indicate the combination of account class and currency for which the consolidation of charges, using the consolidation product would be applicable. This indicates the application of the charge consolidation as a general condition. For an account class, you can maintain different consolidation products for each currency.

Maximum and Minimum

You must indicate the charge amount range, representing the maximum and minimum charge that can be applied for the product.

Discount Amount

In this field, you can indicate the flat discount amount, if any, which would be applicable for the consolidated charge calculated for the product. After the discounting has been applied, the Maximum and Minimum validations are performed.

Alternatively, the discount, if any, which is applicable, can be specified as a percentage of the calculated consolidated charge amount

Discount Percentage

You can indicate the discount percentage, if any, which would need to be applied to the calculated charge. After the discounting has been applied, the Maximum and Minimum validations are performed.

The discount, if any, which is applicable, can also be specified as a flat discount amount.

Open

By default, each charge consolidation charge setup that you set up is enabled and active. You can also disable the setup by checking the 'Open' box.

7.4.1.2 Charge Notification

Receivable General Ledger

You can also indicate the receivable GL onto which the customer account liquidates the charges on the liquidation.

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7.5 <u>Applying Charge Product on an Account</u>

You can apply a charge product on an account in two ways:

- By linking an account class to a charge product, thereby making the product applicable to all the accounts of the class. This method of linking accounts is called the definition of a General Condition; or

- By linking an account itself to the product. This method of linking accounts is called the definition of a Special Condition.

Often, you may calculate charges for several account classes using the same Charge Basis. In such a case, you can apply the same charge product on all the account classes. In the Charge Product Preferences screen you can link a product to an account class (es).

However, since the actual charge values that you wish to apply on each account class may be different, you can specify different values for each of the account class.

7.6 <u>Defining General Condition</u>

When you apply a product on an account class-currency combination (in the Charge Product Preferences screen), you define a General Condition. The attributes that you have defined for the product will apply on all accounts belonging to this account class-currency combination.

In the Charge Product Preferences screen, you can also specify different charge values for each account class and currency combination (on which you apply the product). Thus, though you apply the same product on several account classes, you can charge at different scales for different accounts.

The following example illustrates this:

Example

Requirement:

You have two classes of savings bank accounts: 'Save Money' and 'Smart Save Money'. You apply a Charge product 'CHG8' on both these account classes. This product calculates charges using 'NUM-ACCT-STMTS' (number of account statements) as the Charge Basis. You provide an account statement, every month, to both account holders. You would like to levy a charge for every additional account statement, on both classes.

However, you want to levy different charges, for the respective account classes, for the additional account statements that you provide, as follows:

- for Save Money accounts: USD 3

- for Smart Save Money accounts: USD 2

When defining the charge values for the product CHG8, you can enter different values for each account class, as follows:

- for Save Money accounts: USD 3

- for Smart Save Money accounts: USD 2

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7.6.1 Specifying Number of Free Items or Amount

You can specify the number of items on which you would not like to levy charges as 'Free Items'. If the items exceed the value that you specify here, a charge would apply.

You would specify an amount as a 'Free amount' if you identified the 'Charge Basis' for the product, as 'Turnover'.

Example

Case 1

You provide an account holder with one account statement every month. You would like to levy a charge on every extra account statement that you provide. In the 'Free Items' field you would, therefore, specify the value as '1'. Every extra account statement would attract a charge.

Case 2

You would like to charge a customer for debit turnovers that exceed USD 5000. You would specify this value as the 'Free Amount' that you would like to allow. Therefore, debit turnovers exceeding USD 5000 would attract a charge.

7.6.2 Specifying Charge Applicable

You should define the following details about the charges that will be applicable for an account class and currency combination:

- the amount or rate of charge free transactions

- The slab or tier structure, as the case may be, and the applicable amounts and rates.

- The minimum and maximum charge to be collected in the case of the charge being a rate.

7.6.3 Charging on Basis of Slab and Tier Structures

To recall, you can apply a charge based on the turnover in an account. You can apply this charge based on a tier or slab structure. The following example illustrates the concept of tiers and slabs.

Example

You have defined the charge basis for Charge product 'CHG1' as TURNOVER (that is, the total turnover). Let us study how the charges will be calculated, differently, for tier and slab amounts when this product is applied on the account of Cavillieri and Barrett Finance Corporation.

The debit turnover in the account of Cavillieri and Barrett Finance Corporation between 1 March 1998 and 31 March 1998 is USD 50,000.

If you choose to apply charges on the basis of the following slab structure:

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Slab 1:	0 – 10,000	5%
Slab 2:	10,000 – 25,000	7.5%
Slab 3:	>25,000	10%

RESULT:

The charge levied on Cavillieri and Barrett Finance Corporation would be 10%, since the debit turnover in the account falls in the third slab (that is, greater than 25,000).

If you choose to apply charges on the basis of the following tier structure:

Tier 1:	**0 – 10,000**	**5%**
Tier 2:	10,000 – 25,000	7.5%
Tier 3:	> 25,000	10%

RESULT:

The charge levied on Cavillieri and Barrett Finance Corporation would be as follows:

For the (turnover) amount between 0 and 10,000, the charge would be: 5% * 10,000 **+**

For the (turnover) amount between 10,000 and 25,000 that is 15,000, the charge would be: 7.5% * 15,000 **+**

For the (turnover) amount greater than 25,000, the charge would be: 10% * (xxx - 25,000).

7.6.4 **Defining Minimum and Maximum Charge**

If the charge is a percentage of the transaction amount (in the case of charge on turnovers, for example), you can indicate the minimum and the maximum charge that you would like to levy. When charges are calculated for an account on which you apply the product, the values that you enter here will determine the actual charge that is applied on the account. The following example illustrates this:

Example

You create a product 'CHG1'. The Charge Basis of this product is 'Turnover'. You would like to levy charges (in rates) according to the following slab structure:

Slab 1	0 - 10,000	2.5%
Slab 2	10,001 - 25,000	5%
Slab 3	> 25,000	7.5%

However, you specify the Maximum Charge Limit as USD 3500 for 'CHG1'.

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Assume you apply 'CHG1' on the account of Cavillieri and Barrett Finance Corporation. The debit turnover in this account is USD 50,000. When charges are calculated, only USD 3500 will be charged on the debit turnover of USD 50,000 even though the actual amount that should be levied on the debit turnover should be USD 3750 (USD 50,000 falls into the third slab, for which you have specified that charge should be calculated at 7.5%).

7.6.5 <u>Identifying Suspense GL to Store Charges on Customer Accounts</u>

Before applying charges on personal current accounts you can choose to notify your customers through Charge Notification messages. In the interim period charges are debited from a Receivable before actually debiting the customer account. While specifying preferences for Charge products you can identify the Receivable GL that is to be used for storing charges on a temporary basis

This feature is applicable only for the charges on the account calculated through the IC module.

Refer the Daily Processing of Interest and Charges for information on End of Day processing for Debiting Receivable GL.

7.6.6 <u>Specifying Charge Values</u>

Finally, you must specify the values of the charge that you want to apply on an account class.

If you have opted to levy charges on the basis of a tier or slab, you must first build the tier/slab structure. Corresponding to each slab/tier, enter the charge amount or rate.

Specifying an Amount

You would specify the value of a charge as an amount when you levy charges on the basis of:

NUM-ACCT-STMTS	Number of account statements
NUM-CHQ-RET	Number of cheques returned
NUM-CHQ-ISS	Number of cheques issued
NUM-STOP-PAY	Number of stop payments
ITEM-COUNT	Number of transactions
ADHOC-STMT	Number of ad-hoc Account Statements

In the charge amount field of the first row, enter the charge amount applicable for per item. For example, enter the charge applicable for each extra statement, for each extra cheque book, and so on. This amount will be applied on items beyond the number of free items.

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Specifying a Rate

You could specify the charge value as a rate when the *basis* is:

TURNOVER		Total turnover

Enter the rate (according to the tier or slab structure, if any is applicable). This rate will be applied, for an amount beyond the Free Amount, if you have specified one.

If there is no slab or tier structure, specify a big amount in the Slab/Tier field in the Amount window and specify the rate. For such a situation, it is immaterial whether you select slab or tier as the amount basis.

7.6.7 Closing Condition

More than one product may be applicable on an account class at the same time. You can temporarily stop applying a product on an account class by 'closing' it. You can achieve this by unchecking the field 'open'. The product will cease to be applied on the account class. You can make the product applicable again by checking the 'open' box.

7.6.8 Waiving General Condition for Specific Account

Many General Conditions can be defined for an account class. For example, you could define a condition by linking two different charge products (one for extra account statements generated, and another on the basis of turnovers) to an account class. Both products will be applied on all the accounts belonging to the account class.

You can, however, waive a product from being applied on an account. This would mean that of all the General Conditions defined for an account class, you do not want to apply one or more products to a specific account.

Continuing with the example, for a specific account, you could waive the application of charges on turnovers.

The Procedure

In the 'Customer Accounts' screen, you need to click on the 'Charges' button. You can view the Account Level Charges screen. You can choose the product that you do not want to apply on the account and choose the 'Waive Charges' option. The General Condition will cease to apply on the account.

7.6.9 Closing General Condition

More than one product may apply on an account class at the same time. You can temporarily stop applying a product on an account class by 'closing' it. You can achieve this by removing the tick for the field 'open'. The product that you have chosen will cease to be applied on the account class. You can make the product applicable again by ticking the 'open' box.

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This feature is useful when you have to temporarily (or permanently) stop the application of charges due to a condition.

7.7 Defining Special Condition

When you define charge attributes for an account itself, rather than for the account class to which it belongs, it is referred to as a Special Condition. Typically, you would want to maintain a special charge condition for a special customer.

Example

For 'Smart Current Money' accounts in your bank, you have specified that you would levy 3% of the turnover, as charge. Cavillieri and Barrett Finance Corporation, has three accounts under this class. Of these, you want to charge only 2.5% of the turnover as charge, for one account.

To achieve this, you would define a 'special condition' for the account on which you charge 2.5%, while the other two would continue to fall under the 'general condition' defined for Smart Current Money accounts.

An account can get linked only if its account class and currency has been linked earlier.

When creating an account in the 'Customer Account Maintenance' screen, you can click the 'Default' button to fetch all the products, along with their attributes, that are applicable for the account. You can then modify the values specific to the account.

However, the 'Default' button cannot be used once the account is authorized. You can select the product from the option list provided alongside.

When maintaining an account in the Customer Account Maintenance screen, you can opt to define 'special conditions' for it. If you opt to define special conditions for an account, the 'general conditions' defined for the Account Class, to which the account belongs, will NOT apply to this account.

To define special conditions invoke the IC Account Level Charges Conditions screen from the Customer Account Maintenance screen by clicking on the Charges icon.

In this screen, you can view the account number (and the branch to which the account belongs) for which you are defining special conditions.

7.7.1 Applying Product on Account

To calculate charges for an account, you must apply a charge product on the account. To recall, every charge product that you create is built on a 'Charge Basis'. When you apply a product on an account, charges for the account will be calculated according to the basis that you specify.

For the account for which you are defining special conditions choose the product(s) that you wish to apply.

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You may want to apply more than one charge product on an account. For example, you may want to levy a charge for additional account statements and for debit turnovers in the account. In order to achieve this, you would have to apply two products (one built on the basis of 'Number of Account Statements' and another built on the basis of 'Turnover'). In this screen, you can choose the products that you want to apply on the account.

🛑 The charge currency, defined for the product (in the Charge Product Preferences screen) that you apply on the account, is displayed. Note that the charge values that you specify for the account subsequently will be taken to be in this currency.

7.7.2 Defining Minimum and Maximum Charge

In this screen, you can indicate the minimum and the maximum charge that you would like to levy on the account. When charges are calculated for the account, the values that you enter here will determine the actual charge that is applied on the account.

The following example illustrates this:

Example

You create a product 'CHG1'. The Charge Basis of this product is 'Turnover'. You would like to levy charges according to the following *slab* structure:

Slab 1	0 - 10,000	2.5%
Slab 2	10,001 - 25,000	5%
Slab 3	> 25,000	7.5%

However, you specify the Maximum Charge Limit, for the account of Cavillieri and Barrett Finance Corporation, as USD 3500.

The debit turnover in Cavillieri and Barrett Finance Corporation's account is USD 50,000. When charges are calculated, only USD 3500 will be charged on the debit turnover of USD 50,000, *even though*, the actual amount that should be levied on the debit turnover should be USD 3750 (USD 50,000 falls into the third slab, for which you have specified that charge should be calculated at 7.5%).

7.7.3 Specifying Charge Value

Finally, in this screen, you must specify the values of the charge that you want to apply on the account for which you are defining 'special conditions'.

If you have opted to levy charges on the basis of a tier or slab, you must first build the tier/slab structure. Corresponding to each slab/tier, you must enter the charge amount or rate.

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Specifying an Amount

You would specify the value of a charge as an amount when you levy charges on the *basis* of:

NUM-ACCT-STMTS	Number of Account Statements
NUM-CHQ-RET	Number of cheques returned
NUM-CHQ-ISS	Number of cheques issued
NUM-STOP-PAY	Number of Stop Payments
ITEM-COUNT	Number of transactions
ADHOC-STMT	Number of adhoc Account Statements

Specifying a Rate

You could specify the charge value as a rate when the *basis* is:

TURNOVER	:	Total turnover

Enter the rate (according to the tier or slab structure, if any is applicable). This rate will be applied, for an amount beyond the Free Amount, if you have specified one.

If there is no slab or tier structure, specify a big amount in the Slab/Tier field in the Amount window and specify the rate. For such a situation, it is immaterial whether you select slab or tier as the amount basis.

7.7.4 Closing Special Condition

More than one product may be applicable on an account at the same time. You can temporarily stop applying a product on an account by 'closing' it. You can achieve this by removing the tick for the field 'open'. The product will cease to be applied on the account. You can make the product applicable again by ticking the 'open' box.

This feature is useful when you have to temporarily stop the application of a charge due to a condition.

7.7.5 Applying Consolidated Charges as Special Condition

You can apply consolidated charges for an account as a special condition. In the 'Customer Accounts Maintenance' screen, you need to click 'Consolidated Charge'. The Account Level Consolidated Charges Conditions screen is displayed.

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In this screen, you define the following consolidated charge options for an account:

7.7.5.1 Account Details

Branch

The Branch Code to which the account belongs (for which you are defining special conditions) is displayed in this field.

Account

The Account number of customer (for which you are defining special conditions) is displayed in this field.

7.7.5.2 Product Details

Product

You must identify the consolidated charge product using which the applicable charges would be consolidated.

Currency

The charges would be consolidated in the currency defined for the selected consolidated charge product, and this currency is displayed on the screen.

When you opt for a consolidated charge product, all the consolidated charge parameters defined for the selected product are defaulted to the account for which the product has been linked. You can change the default in respect of the following parameters:

- Minimum and maximum charge

- Discount percentage and discount amount

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Maximum and Minimum

You must indicate the charge amount range, representing the maximum and minimum charge that can be applied for the account.

Open

By default, each charge consolidation charge setup that you set up is enabled and active. You can also disable the setup by checking the 'Open' box.

Waive Charges

You can choose to waive consolidated charges for an account.

7.7.5.3 Discount

Discount Amount

In this field, you can indicate the flat discount amount, if any, which would be applicable for the consolidated charge calculated for the product. After the discounting has been applied, the Maximum and Minimum validations are performed.

Alternatively, the discount, if any, which is applicable, can be specified as a percentage of the calculated consolidated charge amount.

Discount Percentage

You can indicate the discount percentage, if any, which would need to be applied to the calculated charge. After the discounting has been applied, the Maximum and Minimum validations are performed.

The discount, if any, which is applicable, can also be specified as a flat discount amount.

7.7.6 Specifying Status Codes for Account

At the time of defining an Interest/Charge product, you can maintain different status codes and specify parameters based on which accrual and application of interest/charges will happen for the status of the account.

Status codes are maintained through the 'Status Control' screen. Click the 'Status Maintenance' button in the 'Interest and Charges – Product maintenance' screen to invoke it.
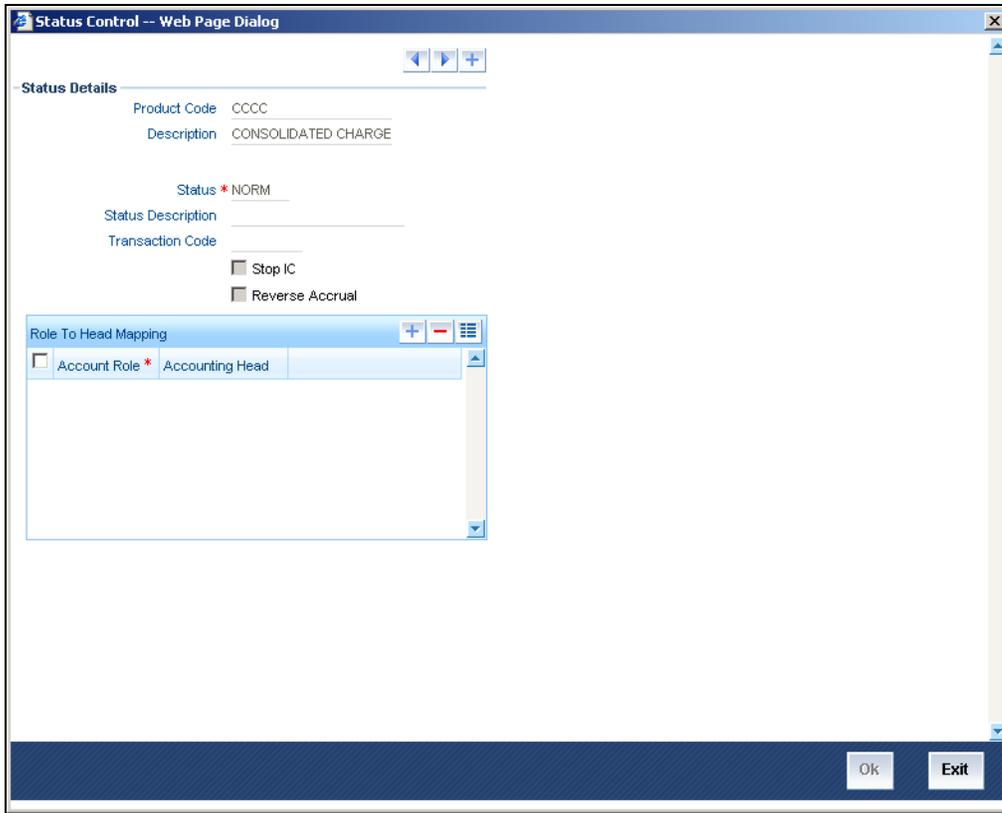
The following parameters may be maintained in this screen:

7.7.6.1 Status Details

Product Code

The code of the Charge product, for which you are defining preferences, is displayed in this field.

Status

Select the different status codes applicable to the product, in this field. Use the add button to define each status and the attributes for the same. You can use the navigation buttons to move from one status to the other. The status codes with status type 'Account' only will be available in the option list provided.

On selection of the status, the associated description will be displayed alongside.

Transaction Code

A Transaction Code is used to identify the nature of the accounting entries posted. The code selected here will be used to track the accounting entries resulting from the movement of the account to the status being maintained.

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Stop IC

Select this option if you want the system to stop processing Interest and Charges when the account moves to the status that is being defined. If not checked, interest and charges will continue to be applicable on the account.

Reverse Accrual

If you select this option, all the accruals that have happened till date will be reversed when the account moves into this status.

Accounting Role to Account Head mapping

Accounting Roles are tags that identify the *type* of accounting entry that is posted to an accounting head which in turn refer to the different GLs and SLs maintained in your Chart of Accounts. You can select the different heads and roles to which the accruals till date would be posted when the account moves to this status. Further accruals will be posted to the account heads specified here if the account heads maintained for the next status is not different from the ones specified for the current status.

7.7.7 Maintaining of Roles for Account

To invoke 'Accounting Roles' screen click 'Accounting Roles' button from the 'Interest and Charges – Product maintenance' screen

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Product Code

The code of the Charge product, for which you are defining preferences, is displayed in this field.

Description

The description of the product, for which you are defining the Accounting Roles and Heads, will be displayed in this field.

7.7.7.1 Class Details

Class Code

In this field, you can view the code of the product for which you are defining the Branch and Currency restrictions.

7.7.8 Maintenance of Event Accounting Entries for Products

To invoke 'Product Event Accounting Entries' screen, click 'Events' button from the 'Interest and Charges – Product maintenance' screen

Product Code

The code of the Charge product, for which you are defining preferences, is displayed in this field.

Description

The description of the product, for which you are defining the Accounting Roles and Heads, will be displayed in this field.

7.7.8.1 Class Details

Class Code

The code of the product, for which you are defining the Accounting Roles and Heads, will be displayed in this field.

Event

In this field, you can select the event for which you are specifying the accounting role and account head (in other words, the GLs to which the accounting entries would be passed). When you liquidate or accrue interest or charge, the accounting entries will be posted to the specified GL/SLs for the event.

The following are the events available for an interest product:

- ILIQ   Interest liquidation
- IACR   Interest accruals
- UDCH   Change of UDE values

For a charge product, the following are the events available:

- CLIQ   Interest liquidation
- UDCH   Change of UDE values

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7.7.9 Maintenance of Branch and Currency Restrictions

To invoke 'Branch and Currency Restrictions' screen, click 'Branch & Currency' button from the 'Interest and Charges – Product maintenance' screen.

Product Code

The code of the Charge product, for which you are defining preferences is displayed in this field.

Description

Enter a brief description of the product. This description will be associated with the product for information retrieval purposes.

7.7.9.1 Class Details

Class Code

In this field, you can view the code of the product for which you are defining the Branch and Currency restrictions.

7.7.9.2 Currency Restrictions

First of all, you must specify the list type that you want to maintain. Under Currency Restriction you will see two buttons. If you want to maintain an allowed list of currencies for the product that you are creating, click on the button adjacent to 'Allowed'.

Likewise, if you want to maintain a list 'Disallowed' currencies, click on the button against Disallowed.

7.7.9.3 Branch Restrictions

You may want to create a product specifically for certain branches of your bank. In such a case, you can either maintain a list of

- 'Allowed' branches for a product
- A list of 'disallowed' branches

Click on the button adjacent to Allowed or Disallowed to indicate the list type that you are maintaining.

7.7.10 Maintenance of Customer and Category Restrictions

To invoke 'Customer and Category Restrictions' screen, click 'Customer' button from the 'Interest and Charges – Product maintenance' screen

Product Code

The code of the Charge product, for which you are defining preferences, is displayed in this field.

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Description

Enter a brief description of the product. This description will be associated with the product for information retrieval purposes.

7.7.10.1 Class Details

Class Code

In this field, you can view the code of the product for which you are defining customer restrictions.

7.7.11 SSIA – Special Type of Savings Account

SSIA refers to a special type of savings account used for promoting savings by customers. This scheme was introduced between May 1st 2001 and April 30th 2002 and will last for 5 yrs. Though there is no provision to open a new SSIA after April 30th 2002, you may transfer an SSIA from one institution to another.

Depending on the policies of your government, you can maintain a minimum and a maximum deposit amount for an SSIA. Further, you can also assign a fixed allowance rate on the deposited amount if the deposit is within the specified limits. The deposit may be made by means of a cash deposit, a journal entry or a teller transaction.

On maturity (after 5 yrs), you can collect an exit tax on the interest component alone. A customer can make a partial or total withdrawal from his SSIA before the 5-year term in which case tax will be applicable on the full amount (including the principal). When a customer requests for withdrawal of a certain amount from the SSIA, the account is debited for an amount that is inclusive of the tax component as well, so as to ensure that the customer receives the amount requested for, at any point of time before maturity. This is illustrated in the following example.

Example

Assume that your customer requests for 7700.00 Euro from his SSIA. Further, your bank decides to apply an exit tax of 23% on this amount.

The following formula is used to arrive at the amount to be debited from the SSIA:

$$x - (23x /100) = 7700$$

Here, 'x' is the amount to be debited from the SSIA.

$$100x - 23x = 770,000 => 77x = 770,000$$

$$x = 10,000 \text{ Euro}$$

Therefore, a total of 10,000 Euro will be debited from the customer's SSIA. The tax amount of 2300 (10,000 – 7700) will be posted to a payable account and the customer receives the amount requested for i.e. 7700.

A customer can make more than one lodgment (deposit) in a month into an SSIA. You can generate a report at the end of a month to ascertain the number of lodgments made during the month. If the deposit exceeds the maximum permissible limit, you can refund the excess to the customer. On maturity, you can send the details of the SSIA to the Revenue department to claim the allowance made to the customer.

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7.7.11.1 Setting Up Charge Product for SSIA Processing

Specifying the account class

All SSIA accounts will be made to report to an account class defined for the purpose. You can select the account class in the 'IC - Charge Product Preferences' screen.

Identifying the charge basis

When setting up a charge product for SSIA, you have to identify the basis on which you want to calculate the allowance on the deposit made into an SSIA.

To recall, for SSIA processing, you may use one of the following charge bases:

- NET-TURNOVER-DR – will return a value if the account is in debit else the value will be zero.

- NET-TURNOVER-CR – will return a value if the account is in debit else the value will be zero.

Since the allowance is made for the net credit turnover (Sum of all credits – the sum of all debits) in the account, the charge basis would typically be 'NET-TURNOVER-CR'.

Specifying the transaction code

A Transaction Code is associated with every accounting entry in Oracle FLEXCUBE. To track the credit entries posted to an SSIA account, you have to associate the transaction codes for which the 'IC Balance Inclusion' option is checked. This is a mandatory requirement for processing SSIA. The transaction code is selected at the time of defining accounting entries in the 'Product Event Accounting Entries Maintenance' screen. Thus, all accounting entries that are generated as a result of lodgments into an SSIA account will be tracked under the transaction code for which 'IC Balance Inclusion' option is enabled.

Specifying the accounting roles

The customer is always debited for the charge amount, for an SSIA however, the customer will be credited with the charge amount, which is referred to as an allowance on the deposit.

The following accounting roles will be maintained for SSIA:

Accounting Role	Description	Dr/Cr Indicator
CR_ALLOWANCE (SSIA Receivable A/C)	Allowance made on the SSIA deposit	Dr
CHG_BOOK (Customer A/C)	Allowance received by the customer.	Cr

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Defining a slab/tier structure

To recall, you can calculate allowance on an SSIA based on the net credit turnover in the account. The amount limits (minimum and maximum) that will be eligible for an allowance (a fixed rate decided by your bank) can be maintained as a tier or slab structure.

__Example__

Assume that your bank wants to contribute 1 Euro for every 4 Euros deposited into an SSIA i.e. 25% on the amount deposited. Further, the minimum lodgment amount is 12.50 Euro and the maximum is 12.50. Therefore, the customer is eligible for a 25% allowance if the deposit amount is between 12.50 and 254 Euros.

The following slab structure can be maintained:

Slab 1	0 – 12.50	0
Slab 2	12.50 – 254	25%

You can define the slab structure in the 'IC - Charge Product Preferences' screen.

7.7.11.2   Processing Allowance on SSIA

At the end of the month, the following processing will be done on the account:

All lodgments to the SSIA will be totaled at the end of the month. The allowance amount will be calculated on the deposited amount. The following entries are passed:

Dr	SSIA Receivable A/C
Cr	Customer A/C

The allowance will be recovered from the revenue department by means of a direct debit. The following entries will be passed for this:

Cr	SSIA Receivable A/C
Dr	Nostro

The SSIA will be set up in the Customer Accounts Maintenance screen. Refer to the 'Core Entities' User Manual for more details.

🛑 You can define custom fields (UDFs – User Defined Fields) to maintain SSIA related information. This information will be used for storing information and will not involve any processing. The UDFs will be used to communicate the SSIA related information to the revenue department, based on which your bank is reimbursed for the allowance made to the customers.

Refer to the 'User Defined Fields' User Manual for more details on defining a custom field.

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8. Floating Rate Codes for IC Module

8.1 Introduction

A floating rate code for Interest and Charges rates is created at the head office branch, as follows:

- The rate code is created at the head office branch, by giving it a unique identification and description, in the IC Rate Code Branch Availability screen. In this screen, the rate code is made available for use in the required branches by maintaining an allowed / disallowed list of branches.

- At the required branch, in the Interest and Charges Rate Maintenance screen, the rate associated with the rate code is specified, along with an effective date. Maintaining the rate in this screen is subject to whether maintenance of IC rates is allowed for the branch, and also whether the rate code for which the IC rates are being defined, is allowed for the branch.

To recall, at the head office of your branch, you can create appropriate floating rate codes for the IC rates and make the codes available to the required branches.

In the 'Interest and Charges Branch Availability Maintenance' screen, you can maintain floating rate codes for IC rates, which you can make available to desired branches. You can do this by maintaining a list of branches for which the use of the rate code is allowed, or disallowed.

You can invoke the 'Interest & Charges Branch Availability Maintenance' screen by typing 'ICDRESTR' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.
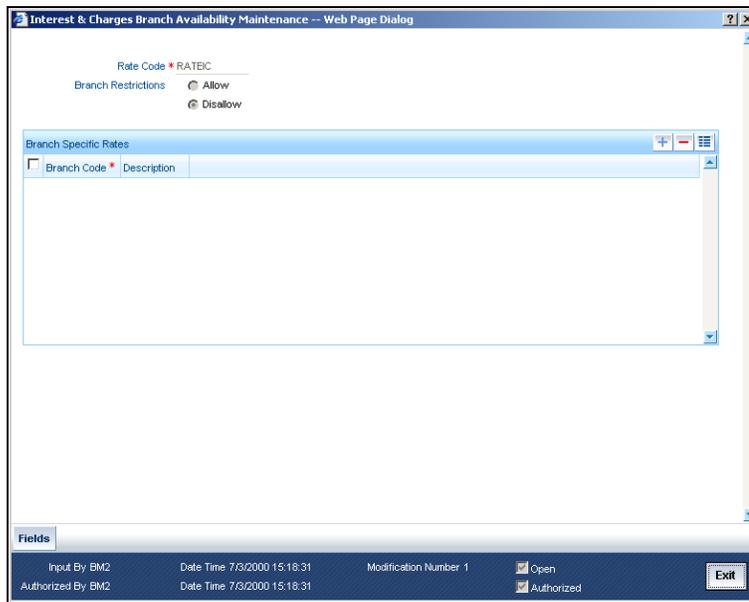
In this screen, you must specify the following information:

Rate Code

You must specify a unique identification for the floating rate code you are creating. This is the identification that will be used as to identify for the rate code, in all subsequent references to it. You must also specify a unique description for the code.

(STOP) After the rate code has been created in the 'Interest and Charges Branch Availability Maintenance' screen, the effective rates for the code must be defined in the 'Interest and Charges Rates Maintenance' screen.

8.1.1.1 <u>Branch Restrictions</u>

You can maintain a list of allowed branches (that is, the rate code will be available for use in the allowed list of branches) or disallowed branches (the rate code will not be available for use in the branches in the disallowed list).

To recall, the IC rates for the code are maintained, in the 'Interest and Charges Rates Maintenance' screen, for a rate code, branch and currency combination. Maintaining IC rates in this screen, for a branch, is subject to whether maintenance of IC Rates is allowed for the branch, and also whether the rate code for which attributes are being defined, is allowed for the branch.

For details about the Common Branch Restrictions, refer the Security Management System user manual.

Example

You have created the following Common Branch Restrictions:

Home Branch	Restriction Type	Allowed Branches
000	ICRATES	000, 001, 002, 005
001	ICRATES	001, 006

The administrator of branch 000 can create, modify and delete IC rate codes in the branches 000, 001, 002 and 005, but not for 006.

8.2 <u>Maintaining Floating Rates for IC Rate Codes</u>

To recall, after an IC Rate Code has been created, the rates for the rate codes must be defined for different branches and currencies, in the 'Interest and Charges Rate Input' screen. This maintenance of rates is done at the different branches.

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You can invoke the 'Interest and Charges Rate Input' screen by typing 'ICDRATES' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

Branch Code

If you are maintaining the IC rates for the rate code from the head office branch, you can select the branch for which the attributes are being defined. If you wish to maintain the rates for all branches, you can select the ALL option in the Branch Code field to indicate this.

If you try to maintain a rate code for a specific branch, the System verifies whether the Rate Code has been first maintained with Branch Code 'ALL'. If not maintained, an error message is displayed forcing you to first maintain the Rate Code for the Branch Code 'ALL'.

If you are maintaining the rates for the selected IC rate code from a branch other than the head office, you can only select those branches that are found in the allowed list of branches for:

- The IC Rates Restriction Type (ICRATES), in the Common Branch Restrictions maintenance for the current branch

- The selected rate code for which rates are being maintained, according to the IC Rate Code Availability maintenance.

In other words, the option list in the Branch Code field would display only those branches that are allowed both for the rate code and the current branch.

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The following example illustrates how the option lists in the Rate Code and Branch Code fields are populated:

__Example__

You have created the following Common Branch Restrictions for the restriction type ICRATES:

Home Branch	Allowed Branches
000	000, 001, 002, 005
001	001, 006
002	002, 005, 006
005	002, 005, 006

You have maintained the following rules in the IC Rate Code Branch Availability Maintenance:

Rate Code	Allowed Branches
LIBOR1	000, 001, 002, 005, 006
LIBOR2	001, 005, 006
LIBOR3	002, 005,006

In the Interest and Charges Rates Maintenance screen, the following options would result if the maintenance were as mentioned above:

Branch	Rate Code field option list	Branch Code option list
000	LIBOR1	000, 001, 002, 005
001	LIBOR1, LIBOR2	001, 006
002	LIBOR1, LIBOR3	002, 005, 006
005	LIBOR1, LIBOR2, LIBOR3	002, 005, 006 (for LIBOR1), 005, 006 (for LIBOR2) or 002, 005, 006 (for LIBOR3)

If no Common Branch Restrictions were maintained, and the restriction type ICRATES were not maintained in the SMS Branch Restriction Type maintenance, the options in the Interest and Charges Rates Maintenance screen would be as follows:

Branch	Rule ID field option list	Branch Code option list
000	LIBOR1	000, 001, 002, 005, 006
001	LIBOR1, LIBOR2	000, 001, 002, 005, 006 (for LIBOR1) or 001, 005, 006 (for LIBOR2)

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Branch	Rule ID field option list	Branch Code option list
002	LIBOR1, LIBOR3	000, 001, 002, 005, 006 (for LIBOR1) or 002, 005, 006 (for LIBOR3)
005	LIBOR1, LIBOR2, LIBOR3	000, 001, 002, 005, 006 (for LIBOR1), 001, 005, 006 (for LIBOR2) or 002, 005, 006 (for LIBOR3)

If the Branch Code chosen is 'ALL' which can happen only if your home branch is the Head Office branch, then the Rate Code option list will display all the rate codes maintained in the IC Rate Code Branch Availability screen. If the Branch Code chosen is any other branch other than 'ALL,' then the Rate Codes allowed for the branch in IC Rate Code Branch Availability screen will be displayed.

Example:

IC Rate Code Branch Availability maintenance

Rate Code	Allowed branches
RTCD1	000, 001, 003
RTCD2	002

Common Branch Restrictions maintenance

Home branch	Allowed branches
000	000, 001, 002
001	001
002	002
003	003

🛑 000 is the HO Branch

User 1 with Home branch as 000

The Branch Code option list will display 000, 001, 002, 003, ALL. If the 'ALL', option is chosen, the Rate Code option list will display RTCD1 and RTCD2. If he chooses 000, 001 or 003 the Rate Code option list will display RTCD1. If 002 is chosen, the Rate Code option list will display RTCD2.

User 2 with Home Branch as 001

The Branch Code option list will display 001. If 001 is chosen, the Rate Code option list will display RTCD1

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Rate Code

Each IC Rate Code is defined by an alphanumeric code. Effective rates are maintained for the rate code, which is then linked to a product. When a contract is processed, the rates maintained for the rate code (with the effective date) linked to the product will be applied on the contract, some of which can be changed.

To recall, the IC Rate Codes are maintained in the IC Rate Code Branch Availability maintenance. Accordingly, in the Rate Code field in this screen, you must select the IC Rate Code for which you are maintaining effective rates.

The option list in the Rate Code field is populated based on the following conditions:

- Only those rate codes that are available for users at the current branch according to the IC Rate Code Branch Availability maintenance are displayed.

- The maintenance of IC rates must be allowed for users at the current branch, according to the restrictions maintained in the Common Branch Restrictions maintenance for the restriction type ICRATES.

If no Common Branch Restrictions have been maintained, and the restriction type ICRATES has not been maintained in the SMS Branch Restriction Type maintenance, the option list in the Rate Code field only displays those rules that are available for users in the current branch, according to the 'IC Rate Code Branch Availability Maintenance'.

Currency Code

In the 'Interest and Charges - Rates Maintenance' screen, you define the rates for each rate code, branch and currency combination. You can select the currency for which the rates are being maintained, in the Currency field.

Effective Date for a Rate Code

Each rate that you maintain for a Rate Code, Branch and Currency combination should have an 'Effective Date' associated with it. The 'Effective Date' of a record is the date on which a record takes effect.

The Effective Date that you specify for a rate is the date on which the rate comes into effect. Once a rate comes into effect, it will be applicable till a rate with another Effective Date is given for the same Rate Code, Branch and Currency combination. The Effective Date for a particular rate should be later than the Effective Date of the first rate that you have maintained for the Rate Code.

- The dates from which the debit and credit rates are effective can be different.

- There can be only one rate for an Effective Date

- The same rate cannot be entered for two consecutive dates for a Rate Code

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8.2.1 Closing Rate for Date

An entry passed into an account for with a value date prior to the booking date is called a 'back-dated' entry. For such a transaction, you can specify whether you want to use the rate as of the period of the back dated entry or the rate of the current period. This can be achieved by closing a rate for an effective date. The following example illustrates this concept:

You are on 31 March and your rate table has got rates for the following dates: 01 March and 15 March. You pass an entry back-dated to 03 March. For this transaction, the rate applicable will be picked up in the following manner:

- If the record for 01 March is open, the rates applicable as of 01 March will be picked up.

- If the record for 01 March is closed, the rate applicable as of 15 March will be picked up.

8.2.2 Uploading IC Rates

Oracle FLEXCUBE allows uploading of IC rates. During the upload, Oracle FLEXCUBE expects the following information to be present in the upload message:

- Branch Code

- Rate Code

- Currency

If any of these values are missing for any record, then the system will raise an error.

Validations

All the validations are performed for the received fields.

Based on the data, it identifies whether the request is creation or amendment. For new records, new maintenance is created else, the details of the existing record are updated. During the upload, even if one record fails to process, entire upload will get rejected.

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9. Applying Interest Product on Account

9.1 Introduction

You can apply an interest product on an account in two ways:

- By linking an account class to a product, thereby making the product applicable to all the accounts of the class. This method of linking accounts is called the definition of a General Condition;

- By linking an account itself to the product. This method of linking accounts is called the definition of a Special Condition.

In the Interest Product Preferences screen you can link a product to an account class. Often, you may calculate interest for several account classes using the same interest calculation method. In such a case, you can apply the same product to all the account classes. However, since the interest rate or tier structure (the values) that you wish to apply on each account class may be different, you can specify different values for each of the account classes in the UDE Maintenance screen. To recall, a tier structure or interest rate is defined as User Data Element (UDE) while building an interest rule.

9.2 Defining General Condition

When you apply a product on an account class-currency combination (in the Interest Product Preferences screen), you are defining a General Condition. The attributes that you have defined for the product will apply to all accounts belonging to this account class-currency combination.

For this combination of account class and currency, you should define the UDE values in the UDE Values Maintenance screen. The attributes of a product can be applied on several account classes, even though the UDE values differ for each account class-currency combination.

The following example illustrates this:

Example

REQUIREMENT:

You have two classes of savings bank accounts: 'Save Money' and 'Smart Save Money'. On both these classes of accounts you want to pay interest on the monthly minimum credit balance. You specify that the minimum credit balance in the Save Money accounts should be USD 2000, while that in the Smart Save Money accounts should be USD 5000.

Due to the difference in the balance to be maintained in the respective account classes, you want to pay different rates of interest, as follows:

Save Money	5%
Smart Save Money	10%

THE SET-UP:

You maintain 'Monthly Minimum Credit Balance' as an SDE.

You create a rule called 'Rule01' and identify 'Monthly Minimum Credit Balance' and 'Credit Interest' as the SDE and UDE respectively.

Note the following:

To calculate interest for Save Money and Smart Save Money accounts you require the same SDE and UDE as that specified for Rule01 (you can therefore apply the product to which you link Rule01 to both the account classes).

You do not specify the UDE values when you build the rule.

You create a product called 'SBUS01' and link it to Rule01.

In the Interest Product Preferences screen, you apply this product to both the account classes (Smart Save Money and Save Money).

Finally, in the UDE Values Maintenance screen you specify the value of the Credit Rate for each account class linked to the product SBUS01, individually. For Save Money you enter the rate as 5% and, for Smart Save Money you enter the rate as 10%.

Interest for Save Money accounts would be calculated based on the minimum balance in the account, for the month, at the rate of 5%.

Interest for Smart Save Money accounts would be calculated based on the minimum balance in the account, for the month, at the rate of 10%.

9.2.1 <u>Waiving General Condition for Specific Account</u>

Many General Conditions can be defined for an account class. For example, you could define a condition by linking a credit interest product, a debit interest product, and an interest for non-utilization of credit limit product. All the products will be applied on all the accounts belonging to the account class.

You can, however, waive a product from being applied on an account. This would mean that of all the General Conditions defined for an account class; you do not want to apply one or more products to a specific account. Continuing with the example, for a specific account, you could waive the application of debit interest.

The procedure

From the Customer Accounts table, you can invoke the Special Conditions screen. In the Product Details window, select the product that you want to waive for the account and click the 'waive interest' field to waive the General Condition applicable to the account.

9.2.2 <u>Repopulate at Liquidation</u>

If you have created 'Special Conditions' for an account, but would like the general conditions (defined for the account class to which it belongs) to apply at the end of the current liquidation cycle, you must indicate it in this screen. If you specify so, the UDE values defined for the General Condition will be picked up for the account at the end of the current liquidation cycle.

The following example illustrates this concept.

Example

REQUIREMENT:

Assume you offer a short term fixed deposit (of 45 days) scheme called 'Shortfix'. Each deposit that is made would, in effect, be an account belonging to the 'Shortfix' class of accounts. You offer Shortfix as a product, Prod01, to your customers for a period of three months beginning 01 January 1998. The following are the implications:

- The rates for this fixed deposit varies according to market conditions

- The liquidation period for each account would vary depending on the day the deposit is made (the account opened) that is, between 01 January 1998 and 31 March 1998.

- The interest period for all the accounts would be the same, that is, 45 days

SETUP:

When defining the preferences

You have to define special conditions for each account and link it to the fixed deposit rate code. The interest rate prevalent on the day an account is opened would be its UDE value.

You would indicate that interest has to applied from the 'Account Opening' date.

Next, you would also define a General Condition for the 'Shortfix' class of accounts because you would like the current rates to apply on a deposit that is rolled over. You would therefore indicate the UDE value for the general conditions as the value of the fixed deposit rate code.

IMPLICATIONS:

On 01 January 1998, the value of the fixed deposit rate code is 10%. This would be the UDE value for both the general conditions and the special conditions that you have defined. Accounts opened on this day would have an interest rate of 10% for the entire 45 day period. Interest for accounts opened on this day would be liquidated on 14 February 1998.

On 05 January 1998, the rate changes to 9.5%. Interest for all accounts opened on this date would be processed at 9.5% for the entire period of 45 days. Interest would be liquidated on 19 February 1998.

Note that interest for accounts opened up to 04 January 1998 would be calculated at the rate of 10%.

Now, if the deposit opened on 01 January 1998 is rolled over on 15 February 1998, interest would be calculated for it at the rate of 9.5%, for the next liquidation cycle (of 45 days) if:

- the interest rates do not change after 05 January 1998

- you have indicated that the interest rate should be 'Repopulated at Liquidation' for this account.

Similarly, if you specified - while defining the special conditions for each account - that interest rates should be 'Repopulated at Liquidation' for accounts rolled over

- every account will pick up the prevailing rates defined for the account class

- the prevailing rate (on the day of liquidation) would be used to calculate interest for the next liquidation period of 45 days.

In case of current and savings accounts, if you have selected this option, it ensures that interest is applied based on special condition tariff during the first liquidation period and subsequently the latest effective general condition tariff will be applied. Post first liquidation period, when the general condition tariff is subject to change the revision of general tariff is not applied on the accounts.

Example

Special season savings accounts is generally associated with the interest rate of 3.5% with the privilege that all accounts opened under this product suite will have additional interest rate of 0.5 for the first interest period, say monthly.

Thus accounts opened on 01-Jan-2009 will have special interest tariff of 4% (3.5 being general and 0.5 additional) until January end. Effective from 01-Feb-2009, interest applied on the account will be at 3.5% irrespective of any revision in the general tariff until account status is active. i.e when the general tariff is changed from 3.5% to 3% or 3.6% revision impact would not be there on accounts opened on 01-Jan-2009

9.2.3 Closing General Condition

More than one product may be applicable on an account class at the same time. You can temporarily stop applying a product on an account class by 'closing' it. You can achieve this by removing the tick for the field 'open'. The product will cease to be applied on the account class. You can make the product applicable again by ticking the 'open' box. This feature is useful when you have to temporarily stop the application of interest due to a condition.

When you stop the application of an interest product on an account class, it will affect the entire current liquidation period. If any accrual entries have been passed for the accounts due to the product that is closed, they will be reversed by the IC Daily function at the end of the day. All pending accruals will be reversed. As a corollary, when an interest product on an account class is applied again, it will affect the entire current liquidation period. The necessary accrual entries will be passed for the accounts by the IC Daily function at the end of the day.

On the other hand, you can close the product itself if you want to close all the conditions applied for the product. This should be done when you will no longer use the product. All pending accruals will be reversed.

9.2.4 Maintaining Rate Codes

An Interest Rule is made up of SDEs, UDEs and formulae (refer the chapter 'Maintaining Rules' for details). While creating a rule you only identify the UDEs that you would be using to calculate interest. UDEs can be of the following types:

- Amount

- Number

- Debit Rate

- Credit Rate

You enter the values of UDEs such as Amount and Number in the UDE Maintenance screen. The Debit or Credit rate is the rate at which interest has to be calculated for the accounts linked to the Interest Rule. These rates can be either:

- Fixed

- Floating

If the rates are fixed, you can specify their values in the UDE Maintenance screen. If you want to apply floating rates, you should link the interest rule to a Rate Code. You can do this by specifying the Rate Code instead of entering the actual value in the UDE Maintenance screen.

For each currency you can maintain different interest rates. The following example illustrates this.

Example

You have the following types of accounts in your bank:

- Savings Bank accounts and

- Current accounts.

The accounts are in the following currencies:

- USD (the local currency)

- GBP

- JPY

Now, the rate of interest that you pay on savings accounts in USD would be different from that which you pay on current accounts in USD.

In the Rates Maintenance screen you can maintain different rates of interest for the same currency.

You must assign the different rates that you maintain for a currency unique Rate Codes. For example, for savings accounts in USD you can define a Rate Code such as 'SBUSD'. When you calculate interest for USD savings accounts linked to the rate code 'SBUSD', the rate that you maintain here will be picked up.

9.2.5 Defining Effective Date for Rate Code

Each rate that you maintain for a Rate Code and Currency combination should have an Effective Date associated with it. The 'Effective Date' of a record is the date on which a record takes effect.

The Effective Date that you specify for a rate is the date on which the rate comes into effect. Once a rate comes into effect, it will be applicable till a rate with another Effective Date is given for the same Rate Code and Currency combination. The following example illustrates this.

Example

Rate Code   SBUSD

Currency   USD

Effective Date	Interest Rate
01 Jan '98	-12.5%
14 Jan '98	-12.0%

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Effective Date	Interest Rate
31 Jan '98	13.0%

These rates will be applicable for the following periods:

Period	Interest Rate
01 Jan to 13 Jan '98	12.5%
14 Jan to 30 Jan '98	12.0%
31 Jan to one day before the rate is changed	13.0%

Note the following:

- The Effective Date for a particular rate should be later than the Effective Date of the first rate that you have maintained for the Rate Code.

- The dates from which the debit and credit rates are effective can be different

- There can be only one rate for an Effective Date

- The same rate cannot be entered for two consecutive dates for a Rate Code

Note that only if you defined the application periodicity for the rule (to which you link a product) as daily will the changes in rate apply for accounts linked to the product. If the application periodicity is periodic, the rate as of the liquidation date will be applied.

9.2.6 Closing Rate for Date

An entry passed into an account for with a value date prior to the booking date is called a 'back-dated' entry. For such a transaction, you can specify whether you want to use the rate as of the period of the back dated entry or the rate of the current period. This can be achieved by closing a rate for an effective date. The following example illustrates this concept:

You are on 31 March and your rate table has got rates for the following dates: 01 March and 15 March. You pass an entry back-dated to 03 March. For this transaction, the rate applicable will be picked up in the following manner:

- If the record for 01 March is open, the rates applicable as of 01 March will be picked up.

- If the record for 01 March is closed, the rate applicable as of 15 March will be picked up.

9.2.7 Giving UDE Values for General Condition

You will recall that when you create a product you link it to a rule. A rule consists of System Data Elements and the User Data Elements .A rule identifies the method in which interest or charge is to be calculated. When building a rule you do not identify the values of UDEs.

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When you apply a product on an account class (in the Product Preferences screen), interest for *all* the accounts will be calculated according to the interest rule that you have linked to the product. That is, the principal, period and type of rate (*not the numeric value*) will be picked up from the accounts in the same manner. However, the *numeric value* for the rate can be different for each account class.

You can enter the actual values of the UDEs, for each account class to which you link the product, in the UDE Values Maintenance screen. When interest is calculated for the account classes, the principal, period and the rate will be picked up in the same manner. However, the value of the rate that is to be applied on each account class will be different.

Example

You have defined a product 'SAUSD1'. While creating the product, you linked it to the rule 'CRIN'. For CRIN, you specified the SDE as 'Monthly Minimum Credit Balance' and the UDE as 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4.

You have two classes of savings accounts: 'Smart Save Money' and Save Money'. You calculate interest for savings bank accounts based on the monthly minimum credit balance. In the Product Preferences screen you can, therefore, apply 'SAUSD1' to both these account classes (since the interest calculation method is the same).

However, the interest rates that you want to apply on each account class is different.

On Smart Save Money accounts you want to pay the following rates of credit interest:

Amount 1	> 5000 >= 10000	15% (Rate 1)
Amount 2	> 10000 >= 12500	15.5% (Rate 2)
Amount 3	> 12500 >= 15000	16% (Rate 3)
Amount 4	> 15000	16.5 % (Rate 4)

On Save Money accounts you want to apply the following rates of credit interest:

Amount 1	> 1000 >= 2000	9% (Rate 1)
Amount 2	> 2000 >= 2500	11% (Rate 2)
Amount 3	> 2500 >= 3000	12% (Rate 3)
Amount 4	> 3000	14% (Rate 4)

Now, in the UDE Maintenance screen, you can maintain separate records for each of these account classes. The record that you maintain would contain the actual values of the UDEs for each account class.

When interest is calculated for Smart Save Money accounts, the actual values for 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4 will be picked up from (the record that you have maintained for Smart Save Money) the UDE Maintenance Screen.

Similarly, when interest is calculated for Save Money accounts, the actual values for 'Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3, and Rate 4 will be picked up from (the record that you have maintained for Save Money) the UDE Maintenance screen.

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For each condition defined for a product, you should maintain the UDE values. If not, the system will report an inconsistency in data maintenance.

Product Code

Every product that you create is linked to a rule. When you build a rule, you identify the UDEs that would be required to calculate interest or charges. You do not give the UDE a value. This is because you can link a rule to many products and apply a product to many account classes (for which interest or charge is calculated using the same method but which have different UDE values).

For *each* condition you have defined for a product, you should specify the values of the UDEs (which you identified for the rule that is linked to the product) in the 'User Data Elements' screen.

The UDE values that you maintain here for a condition will be picked up when interest or charge is calculated for the account class.

Example

When you create CRIN, an interest rule, you identify the SDE as 'Monthly Minimum Credit Balance' and the UDE as Rate 1. *At this stage, you do not define the value of Rate 1*.

You link CRIN to PROD1, an interest product. You apply PROD1 to two savings account classes: SMTMN 1 (Smart Money local currency) and SMTMN 2 (Smart Money USD).

Interest for these account classes will be calculated using the monthly minimum credit balance in the accounts.

Now, you want to apply different rates of interest on each of these account classes: 10% on the monthly minimum credit balance in Smart Money 1 accounts; and 10.5% on the monthly minimum credit balance in the Smart Money 2 accounts.

In the UDE maintenance screen, you have to maintain the value of Rate 1 for SMTMN 1 (as 10%) and the value of Rate 1 for SMTMN 2 (as 10.5%), *individually*.

Branch Code

Specify the code of the branch for which the UDE Values being maintained are applicable as a general condition.

The branch code is displayed based on the Common Branch Restrictions for ICRATES for your branch. The branches that are allowed for your home branch are displayed in the option list for Branch Code. This occurs only if 'ICRATES' has been maintained as a Restriction Type in the Common Branch Restrictions screen. If not, all Branch Codes are displayed including the 'ALL' option.

If your home branch is HO, then the Branch Code option list displays 'ALL' in addition to the list of branches allowed for your Home Branch.

If you try to maintain a UDE value for a specific branch, the system will check if the UDE value has been first maintained with Branch Code 'ALL'. If it has not been maintained, an error message will be displayed forcing you to first maintain the UDE value for the Branch Code 'ALL'.

The Rate Code option list will show all the rate codes maintained in the IC Rate Code Branch Availability screen. During UDE maintenance for a specific branch, if the Rate Code chosen is not available for the specific Branch, then a configurable override will be displayed.

Example:

IC Rate Code Branch Availability screen

Rate Code	Allowed branches
RTCD1	000, 001
RTCD2	002

Common Branch Restrictions screen

Home branch	Allowed branches
000	000, 001, 002
001	001
002	002

🛑 000 is the HO Branch.

User 1 with Home branch as 000

The Branch Code option list will display 000, 001, 002 and ALL. If he chooses 'ALL,' the Rate Code option list will display RTCD1 and RTCD2. However, if he is doing a specific maintenance for Branch 001 and he chooses RTCD2, then a configurable override will be displayed.

User 2 with Home Branch as 001

The Branch Code option list will display 001. If he chooses 001, the Rate Code option list will display RTCD1. If he chooses RTCD2, then a configurable override will be displayed.

Effective Date

The 'Effective Date' of a record is the date from which a record takes effect. You can maintain different values for a UDE, for different effective dates for a condition. When interest is calculated on a particular day for the account class, the value of the UDE corresponding to the date will be picked up.

The UDE *values* of a condition can be different for different dates. Typically, you would want to open records with different Effective Dates if the values of UDEs vary within the same liquidation period.

Example

REQUIREMENT 1

In your bank, you have maintained 'Save Money LCY' as an account class. On this class of accounts, you want to pay credit interest based on the monthly minimum credit balance. You have defined the credit balance in terms of a slab structure and wish to pay a different rate of interest for each slab, as follows:

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Amount 1	> 1000 >= 2000	6%	(Rate 1)
Amount 2	> 2000 >= 3000	7%	(Rate 2)
Amount 3	> 3000 >= 5000	7.5%	(Rate 3)
Amount 4	> 5000	10%	(Rate 4)

You would like to liquidate interest for this account class every six months. The current liquidation cycle begins on 1-1-98.

SETUP PROCEDURE

Step 1

You define 'Monthly Minimum Credit Balance' as an SDE (in the SDE Maintenance screen). You define a rule, 'CRIN', to calculate interest based on the monthly minimum credit balance (in the Rule Maintenance screen). While creating the rule you identified the SDE as Monthly Minimum Credit Balance and the UDEs as Amount 1, Amount 2, Amount 3, Amount 4, Rate 1, Rate 2, Rate 3 and Rate 4.

Step 2

You link this rule to a credit interest product that you have defined (in the Product Definition screen). You apply this product to the 'Save Money LCY' class of accounts (in the Product Preferences screen). You define the liquidation cycle as half yearly.

The first liquidation will be in June and the next will be in December (since the current liquidation cycle begins on 1-1-98).

Step 3

In the UDE maintenance screen you must specify the UDE values as follows:

Product Code   CRIN

Account Class   Save Money

Currency   LCY

Effective Date   01/01/98

Amount 1	> 1000 >= 2000	=	Rate 1	6%
Amount 2	> 2000 >= 3000	=	Rate 2	7%
Amount 3	> 3000 >= 5000	=	Rate 3	7.5%
Amount 4	> 5000	=	Rate 4	10%

RESULT

Unless you change the UDE values, the values that you have specified in this record will be picked up when you calculate interest for 'Save Money LCY'. That is, for balances between 1000 and 2000 in accounts linked to 'Save Money LCY', interest will be calculated at the rate of 6%, and so on.

REQUIREMENT 2

Now in April, you change the interest rate for the first tier, that is, Amount 1. You change the rate from 6% to 6.5%. The other tier limits and rates remain the same. In order that the new rates apply to accounts from 1-4-98, you must maintain a new record (for the 'Save Money LCY').

SETUP PROCEDURE

You must open a record in the UDE maintenance screen with the following details:

Product Code   CRIN

Account Class   Save Money

Currency   LCY

Effective Date   01/04/98

Amount 1	> 1000 >= 2000	=	Rate 1	6.5%
Amount 2	> 2000 >= 3000	=	Rate 2	7%
Amount 3	> 3000 >= 5000	=	Rate 3	7.5%
Amount 4	> 5000	=	Rate 4	10%

GRAND RESULT

For the same account class - currency and rule combination, the tier limit has been changed. This is effective from 1st April.

Now, the first half-yearly liquidation is in June. For the first three months (January - March), the values specified in the record dated 01-1-98 will be applicable. For the period from April to June, the values specified in the record dated 01-04-98 will be applicable.

🛑 Only if the periodicity (specified while creating a rule) is '*Daily*' will the UDE values that you define for different effective dates be picked up. If you specified the rule application periodicity as *'Periodic'* the UDE value *as of* the liquidation date will be picked up.

The following example illustrates this.

Example

You maintain a rule: RULE 01 and specify the periodicity of application as 'Monthly'. This means that the rule will be applied on an account class or account every month. You identify the UDE for this rule as RATE 1.

You link this rule to a product 'CRIN'. You specify the liquidation periodicity of the product as 'Quarterly'. Next, you apply CRIN to the 'Smart Money' class of accounts. This means that the interest that is calculated for Smart Money accounts will be liquidated every three months.

You define the value of the UDE (Rate 1) as 6% in the UDE Maintenance screen and specify the Effective Date as 01 January 1998. On 15 March 1998, you want to apply a different rate (6.5%) of interest. When interest is liquidated on 31 March 1998 for Smart Money accounts, interest will be calculated for the period between 01 January 1998 and 30 March 1988 the rate of interest will be 6.5% for the whole period.

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Please note that interest will not be calculated for the period between 01 January 1998 and 14 March 1998 at the rate of 6% and for the period between 15 April 1998 and 30 March 1998 at 6.5%.

However, if you defined the periodicity for the rule as 'Daily', the rule will be applied daily on the accounts and the UDE value that is applicable for the period (for which you are calculating interest) will be picked up. In this case, interest for the period between 01 January 1998 and 14 March 1998 will be calculated at 6% and for the period between 15 March 1998 and 30 March 1998 at 6.5%.

9.2.8 Identifying and Specifying Values for UDEs

For each account class, you must specify the values of all the UDEs that you identified while building the rule. The UDE value that you specify here will be picked up while calculating interest for the account class.

All the UDEs that you have identified for the rule (to which the product is linked) will be displayed here. The UDEs that are displayed here can be of four types. They are:

- Credit Rate

- Debit Rate

- Amount

- Number

The interest that you charge on a debit balance is an example of a debit rate. The interest that you charge on a credit balance is an example of a credit rate.

A User Data Element will be an amount under the following circumstances:

- in the case of a tier structure, the upper and lower limit of a tier or a tier amount;

- in the case of a charge, when it is indicated as a flat amount

- any amount that can be used in the definition of formula (e)

When you build a rule you will indicate the UDE to be a number if the interest or charge is defined based on the number of transactions or the number of account statements. A UDE under this category can also be used to store a numerical value that may be used in a formula.

Now, for each of the UDEs that are displayed, you must specify the values. If the type of UDE that you have identified for the rule is a 'Rate' element, you can either specify a Rate Code or enter a 'value' for the Rate element.

If you specify a Rate Code for the UDE, the value that you have maintained for the rate code will be picked up while calculating interest. However, if you choose to enter a 'spread' for the Rate Code, the appropriate value will be computed. (A 'Spread' is a positive or negative value that you add or deduct to the value specified for the Rate Code). If you do not specify a spread, the rate maintained for the Rate Code will be picked up.

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If the type of UDE is an amount, the value that you enter will be in the currency that you specified in the UDE amounts currency field (in the Interest Preferences screen). If you specified the UDE amounts currency as the local currency and the account class is in a foreign currency, all UDE values will be converted to the local currency. Currency conversions will be on the basis of the exchange rates maintained for the day.

9.3 <u>Defining Special Condition</u>

When you define interest attributes for an account itself, rather than for the account class to which it belongs, it is referred to as a Special Condition. Typically, you would want to maintain a special interest condition for a special customer.

Example

For 'Smart Current Money' accounts in your bank you have specified that you would charge 3% debit interest. Cavillieri and Barrett Finance Corporation, has three accounts under this class. Of these, you want to charge a debit interest of only 2.5% for one account.

To achieve this, you would define a 'Special Condition' for one account on which you charge 2.5% while the other two fall under the General Condition defined for Smart Current Money accounts.

The product has first to be linked to the account class to which the account belongs.

When maintaining an account in the Customer Account Maintenance screen, you can opt to define 'special conditions' for it. If you opt to define special conditions for an account the 'general conditions' defined for the Account Class, to which the account belongs, will NOT apply to this account.

To define special conditions invoke the 'IC Special Conditions Maintenance' screen from the 'Customer Accounts Maintenance' screen. You can invoke the 'Customer Accounts Maintenance' screen by typing 'STDCUSAC' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

Then click 'Interest' button to view the following screen.

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9.3.1.1 Account Details

Account

In this screen, you can view the account number (and the branch to which the account belongs) for which you are defining special conditions.

Calculation Account

Select the Header account to which the 'Child' accounts will be linked. By default, it will be same as the customer account.

If you attempt to link a child account to another child account, the system will display an error message to report the same. The same validation will be performed when you change the structure type to 'Child with Reallocation'.

On selection of the header /calculation account, the account currency will be displayed in the adjacent field. The currency of the header account can be different only if the customer account currency is a 'EURO IN' currency and when the header account currency is a 'EURO'. In this case, the option-list for the calculation account will consist of accounts in 'EURO' and 'EURO IN' currencies. This filter will be done internally by the system.

Interest Booking Account

At the time of creating an IC product, you would have already identified the Booking Account Type depending on the IC product type maintained (in the Interest and Charges Product Definition screen). If you have maintained the booking account type as Interest, the Interest and Charge will be liquidated into the Interest Booking account.

By default, the customer's account in the current branch will be displayed here. However, you can select a different interest account belonging to another branch also. All the accounts maintained for the selected 'Interest Booking Branch' will be displayed in the option-list provided. Select the appropriate interest account from this list.

Charge Booking Account

At the time of creating an IC product, you would have already identified the Booking Account Type depending on the IC product type maintained (in the Interest and Charges Product Definition screen). If you have maintained the booking account type as Charge, the Interest and Charge will be liquidated into the Charge Booking account.

By default, the customer's account in the current branch will be displayed here. However, if required, you can select a different charge account that belongs to another branch as well. All the accounts maintained for the selected 'Charge Booking Branch' will be displayed in the option-list provided for this field. Select the appropriate charge account from this list.

Interest Start Date

For the account for which you are defining special conditions, you must specify the date from which you would like to apply interest. Interest for this account will be calculated according to the special conditions that you define subsequently.

Charge Start Date

For the account for which you are defining special conditions, you must specify the date from which you would like to apply charges. Charges for this account will be calculated according to the special conditions that you define subsequently.

By default, charges on an account would be applied when the free banking period (if any) elapses. This means that the Charge Start Date is arrived at by the System by adding the Free Banking Period days (if any, specified for the account class used by the account) to the Account Opening Date. If no Free Period has been indicated for the account class used by the account, the Charge Start Date is defaulted to the Account Opening Date (that is, charges on the account would be applied right from the account opening date) and displayed in the 'Special Conditions Maintenance' screen. You can override the default Charge Start Date and specify the desired start date for charge application.

Interest Booking Branch

By default the current branch will be displayed in this field. You have the option to select a different branch also.

Select the appropriate branch from the option-list provided. All the accounts maintained for the selected branch will be available in the option-list provided for the 'Interest Booking Account' field. Interest will be booked into the account that you select in this field.

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Charge Booking Branch

By default the current branch will be displayed in this field. If required, you can choose a different branch also. Select the appropriate branch from the option-list provided. All the accounts maintained for the selected branch will be available in the option-list provided for the 'Charge Booking Account' field. Charge will be booked into the account that you select in this field.

9.3.1.2 <u>Identifying Accounts for booking Interest and charges</u>

You can select the accounts for booking charges and interests on transactions processed at your bank.

To recall, at the time of creating an IC product, you have to identify the Booking Account Type depending on the IC product type you are creating. If you have maintained the booking account type as Interest (in the Interest and Charges – Product Definition screen), the Interest and Charge is liquidated into the Interest Booking account. Similarly, if the booking account type is Charge, the Interest/Charge will be liquidated to the Charge Booking Account.

By default, the customer's account in the current branch will be displayed in this screen (in the Interest/Charge Booking Account and Interest/Charge Booking Branch fields). However, you have the option of booking interest/charge to a different account belonging to another branch also. You can select the Interest/Charge Booking Branch from the option-list available. The accounts maintained in the selected Booking Branch will be available in the option-list provided for Interest/Charge Booking Account. You can select the account from this list. Interest/Charge will be liquidated into the selected account.

Interest Statement

Indicate if you would like to generate an interest statement for the account. The Interest Statement will furnish the values of the SDEs and UDEs and the interest rule that applies on the account.

Dr Cr Advices

Indicate whether you want to generate an interest liquidation advice for a customer account. Check the 'Debit/Credit Advices' box to indicate that the system must generate payment advices when interest liquidation happens on an account. The advices are generated in the existing SWIFT or/and MAIL format. No advices will be generated if you leave this box unchecked.

The preference you have made in the Customer Account Class screen will be defaulted here. However you can choose to change your preference to generate or suppress these Advices.

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9.3.1.3 Product Details

Product

To calculate interest for an account, you must apply an interest product on the account. To recall, every interest product that you create is linked to an interest rule. The logic to calculate interest is built into an interest rule. When you apply an interest product on the account, interest for the account will be calculated according to the interest rule definition.

For the account for which you are defining special conditions choose the product(s) that you wish to apply. To recall, you can define a Special Condition for an account only if the account class of the account has a General Condition defined for the product. Thus, the picklist from where you select the product for which you want to define a Special Condition will contain products that satisfy the following conditions:

- a General Condition has been defined for the product and account class combination

- the product has been defined as a special conditions only product

The interest rule that is linked to the product(s) will determine the interest that is applied on the account.

You may want to apply more than one interest product on an account. For example, you may want to pay credit interest on the credit balance maintained in a current account and levy a debit interest if the account lapses into a debit balance. In order to achieve this, you would have to apply two products (one defined for credit interest and another defined for debit interest). In this screen, you can choose the interest products that you want to apply on an account.

🛑 The UDE currency, defined for the product (in the Interest Product Preferences screen) that you apply on the account, is displayed. Note that the UDE values that you specify for the account subsequently will be taken to be in this currency.

You can opt to generate an advice, for the benefit of the customer, when the values of the UDEs defined for the interest rule change.

Generate UDE Change Advice

You can opt to generate an advice, for the benefit of the customer, when the values of the UDEs defined for the interest rule change. If you want to generate an UDE change advice tick the box in this field.

UDE Currency

The UDE currency defined for the product (in the Interest Product Preferences screen) which you apply on the account is displayed in this field. Note that the UDE values that you specify for the account in the subsequent fields will be taken to be in this currency.

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Waive Interest

More than one interest product may be applicable on an account at the same time. You can temporarily stop applying an interest product on an account by 'waiving' it. You can achieve this by removing the tick from the box adjacent to 'Waive Interest'. The interest product that you have chosen in the Product field will cease to be applied on the account.

If you want to apply the product again on the account, tick the box adjacent to 'Waive Interest'.

Open

More than one product may be applicable on an account at the same time. You can temporarily stop applying a product on an account by 'closing' it. You can achieve this by removing the tick for the field 'open'. The product will cease to be applied on the account. You can make the product applicable again by ticking the 'open' box.

This feature is useful when you have to temporarily stop the application of interest due to a condition.

🛑 When you stop the application of an interest product on an account, it will affect the entire current liquidation period. If any accrual entries have been passed for the account due to the product that is closed, they will be reversed by the IC Daily function at the end of the day.

As a corollary, when an interest product on an account is applied again, it will affect the entire current liquidation period. The necessary accrual entries will be passed for the account by the IC Daily function at the end of the day.

On the other hand, you can close the product itself if you want to close all the conditions applied for the product. This should be done when you will no longer use the product.

9.3.2 Defining UDE Values for the Account

A rule identifies the method in which interest or charge is to be calculated. An interest rule consists of System Data Elements and User Data Elements.

When you apply a product on an account (while defining special conditions for it), interest for the account will be calculated according to the interest rule that you have linked to the product.

That is, you merely define the following:

- how the principal should be picked up from the account

- the period for which you want to apply interest

- the type of rate (*not the numeric value*) that should apply

You now have to specify the *numeric values* of all the UDEs that you identified for the interest rule. The value that you specify here will be used to calculate interest for the account.

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All the UDEs that you have identified for the rule (to which the product is linked) will be displayed here. The UDEs that are displayed here can be of four types. They are:

- Credit Rate

- Debit Rate

- Amount

- Number

The interest that you charge on a debit balance is an example of a debit rate. The interest that you charge on a credit balance is an example of a credit rate.

A User Data Element will be an amount under the following circumstances:

- in the case of a tier structure, the upper and lower limit of a tier or a tier amount

- in the case of a charge, when it is indicated as a flat amount

- any amount that can be used in the definition of formula(e)

When building an interest rule you may have indicated the UDE to be a number if the interest or charge is based on the number of transactions or the number of account statements. A UDE under this category can also be used to store a numerical value that may be used in a formula.

Now, for each of the UDEs that are displayed, you must specify the values individually. If the type of UDE that you have identified for the rule is a 'Rate' element, you can either specify a Rate Code or enter a 'value' for the Rate element.

If you specify a Rate Code for the UDE, the value that you have maintained for the rate code will be picked up while calculating interest. However, if you choose to enter a 'spread' for the Rate Code, the appropriate value will be computed. (A 'Spread'is a positive or negative value that you add or deduct to the value specified for the Rate Code). If you do not specify a spread, the rate maintained for the Rate Code will be picked up.

If the type of UDE is an amount, the value that you enter will be in the currency that you specified in the UDE Amounts Currency field (in the Interest Product Preferences screen). If you specified the UDE amounts currency as the local currency and the account is in a foreign currency, the currency conversions will be on the basis of the mid rate for the day.

🛑 The UDE values that you specify here will only be applied to this account.

9.3.3 Specifying Effective Date for UDE Value Pickup

The 'Effective Date' of a record is the date from which a record takes effect. You can maintain different values for a UDE, for different effective dates, for an account. When interest is calculated on a particular day for an account with special conditions applicable, the value of the UDE corresponding to the date will be picked up. Typically, you would want to open records with different Effective Dates if the values of UDEs vary within the same liquidation period.

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9.3.4 Closing Values Applicable for Effective Date

An entry passed into an account for with a value date prior to the booking date is called a 'back-dated' entry. For such a transaction, you can specify whether you want to use the UDE values as of the period of the back dated entry or that of the current period. This can be achieved by closing a UDE value for an effective date. The following example illustrates this concept:

You are on 31 March and you have two UDE values, for the following dates: 01 March and 15 March. You pass an entry back-dated to 03 March. For this transaction, the UDE values applicable will be picked up in the following manner:

If the record for 01 March and 15 March is open, the UDE values applicable for those periods will be picked up.

If the records for 01 March are closed, the UDE values applicable as of 15 March will be picked up.

9.3.5 Recalculation of Interest for Back-valued UDE Value Changes

Oracle FLEXCUBE automatically triggers the re-calculation and adjustment of the Interest Amounts due to or from the customer account for all back-valued UDE value changes made to the customer account. This re-calculation and adjustment is done for the available account history. Moreover, the accruals for back valued interest entries are based on the product's accrual frequency.

The recomputed interest for the previous liquidation periods will be posted separately as a consolidated amount into the customer account. However, the value date of these entries will be the same as that of the normal interest liquidation date.

Example

You have maintained an IC product with the product code UBST with 'Monthly' as the interest liquidation frequency preference. You have also indicated that the liquidation date should be a day before the month-end and the current tax rate should be made applicable for tax deductions. You have associated the account class titled ACLASS5 with this product. Let us assume that you open a customer account SB07776 on the 1st of January 2001.

The interest rate applicable up to the month of August is 5%. In the month of September you reset the interest rate to 6% with effect from 15 July 2001. While liquidating interest on the 29th of September, the system recomputes interest for the period between 15th July up to 30th August, with 6% as the interest rate, and credits the customer account with the differential amount. However, the 30th of September will be considered as the value date for the interest credit. The tax on the interest credited will be applied at the prevailing rate since the tax component (UDE) is defined as current in this case.

In addition, the system posts a separate liquidation entry for the current liquidation cycle of 31st August to 29th September.

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9.4 <u>Associating Customer Account with another Account</u>

You can choose to de-link a customer account from the class to which it is linked and associate the account with another account class. This re-association will have an obvious effect on interest calculation since the IC product associated with the former account class can differ from the one associated with the latter.

The system computes interest for the current liquidation cycle irrespective of the re-association. If back-valued entries are posted into a period earlier than the current account class change, an exception report will be generated to enable manual calculation of such entries.

<u>Example</u>

You have maintained an IC product with the product code UBST with 'Monthly' as the interest liquidation frequency preference. Another preference you have set is that the liquidation date should be a day before the month-end. You have also associated the account class titled ACLASS1 with this product.

Another account class ACLASS2 is linked to the IC product titled UBSW. The UDE values maintained for the ACLASS1 + UBST combination are different compared to the values maintained for the ACLASS2 + UBSW combination.

Case I

Let us assume that you open a customer account SB9008 on the 1st of September 2001 and link it to the account class ACLASS1.

On the 15th of September 2001, you decide to de-link the account SB9008 from account class ACLASS1 (linked to product UBST) and re-associate it with the ACLASS2 (linked to the product called UBSW). This re-association will have an obvious effect in interest amount, since the interest rates associated with ACLASS2 + UBSW are different from the ones associated with ACLASS1 + UBST.

The system automatically computes interest for the entire liquidation cycle of 1st Sept to 29th Sept using the interest rates maintained for ACLASS2 + UBSW combination. If the interest has already been accrued, the relevant entries will be reversed.

Case II

Let us assume that on the 1st of January 2001 you have opened the account SMSB008. This account has been linked to the account class ACLASS1.

On the 15th of August 2001, you decide to de-link the account SMSB008from account class ACLASS1 (linked to product UBST) and re-associate it with the ACLASS2 (linked to the product called UBSW). The system auto-calculates the interest for the respective liquidation cycle i.e., from the 1st to the 30th of August with the interest value date of 31st August.

On the 16th of August 2001, you post back-valued entries for the month of June. In this case, you will have to perform a manual liquidation for the back-valued entries that have been posted.

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9.4.1 Application of Interest and Charges – A note

IC Special Condition

The Rate Code option list in the IC Special Condition screen, would display the Rate Codes maintained in the 'Interest and Charges Rates Maintenance' screen.

MIS Refinance Rate Pickup

In case the MIS Refinancing is based on an IC Rate Code, the rate maintained for the specific branch would be picked up. If the rate maintained for the specific branch were not available, the rate maintained for the 'ALL' record would be picked up. IC Processing would search for the UDE maintained for a specific Branch. If this were not available, then the UDE maintained for the 'ALL' record would be used for applying General Conditions during IC calculations.

IC Rate pickup would search for the IC Rate maintained for a specific branch. If this were not available, it would search for the 'ALL' record. Rate Change Advice would search for the UDE Maintenance for a specific Branch. If this were not available, it would search for the 'ALL' record.

9.4.2 Details for Deposit types of Account

Click 'Deposit' button in the 'IC Special Conditions Maintenance' screen to invoke 'Details for Deposit types of Account' screen.

Principal Liquidation Branch

Select the branch code of the account into which the principal should get liquidated.

Principal Liquidation Account

Select the account into which the principal should get liquidated.

Interest Start Date

You can specify the date from which you would like to apply interest for the account for which you are defining special conditions. Interest for this account will be calculated according to the special conditions that you define subsequently.

Maturity Date

Indicate the Maturity Date of the recurring deposit.

Next Maturity Date

Specify the maturity date of the new RD if the liquidation of the RD is to create a fresh recurring deposit.

Auto Rollover

Indicate whether Auto Rollover is permissible for the recurring deposit.

Close on Maturity

Indicate whether the deposit should terminate at the end of the tenor.

Move Interest to Unclaimed

Indicate whether the maturity proceeds should move to an Unclaimed account if it remains unclaimed at the end of the tenor.

Move Principal to Unclaimed

Check this option to indicate whether the maturity proceeds should move to an unclaimed account if it remains unclaimed at the end of the tenor.

9.4.2.1 Rollover Details

If you indicate that Auto Rollover is required for the RD you have to specify:

- Whether the deposit has to be rolled over with Principal and accumulated interest
- Whether the amount involved is a special amount
- Whether only the principal is to be rolled over

Rollover Amount

Here you can specify the rollover amount for the deposit.

Offset Branch

Choose the branch ID for the offset account.

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The offset account and branch detail fields are enabled only if you choose the pay in option as 'Pay in by Savings'.

Offset Account

Specify the customer account from which the money is to be debited for booking the TD.

The option list displays all valid account numbers that is maintained in the branch (specified in the previous field). Double click on the account that you want to specify as the offset account.

The offset account and branch detail fields are enabled only if the option to pay in is selected as the savings account.

9.4.2.2 Recurring Deposit

Recurring Deposit Account

If you are maintaining an account class for a recurring deposit product here, you need to check this option.

Move Maturities to Unclaimed

Check this option to indicate whether the maturity proceeds should move to an unclaimed account if it remains unclaimed at the end of the tenor.

9.4.2.3 Installment Frequency

Specify the frequency of payment of installments. Frequency can be specified in days, months and years.

Move funds on Overdraft

Check this option to indicate whether the Recurring Deposit account funds should move to an unclaimed account if it is overdue.

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10. Checking for Consistency in Data

10.1 Introduction

The information required to calculate interest and charges is maintained using different maintenance functions. The information that you maintain should be authorized and complete in all respects. For example, you cannot calculate interest or charges for an account, or an account class, that is yet authorized. You would be using incomplete information to calculate interest for an account if you have built a formula into an interest rule after you have linked the rule to a product.

Before you liquidate interest for an account or account class, you must ensure that inconsistencies in data do not exist. The 'IC Consistency Check' function checks and reports inconsistencies in the data that you have maintained.

10.2 Running Maintenance Consistency Check

The IC Maintenance Consistency Check is run automatically when the end of transaction input is marked. When you liquidate interest on an ad-hoc basis, the IC Consistency Check function automatically checks for inconsistent data. You can also generate the maintenance consistency check report, anytime.

The IC Maintenance Consistency Check reports the following inconsistencies in data:

- Unauthorized accounts

- Unauthorized account classes

- Unauthorized currencies

- Unauthorized products

- Unauthorized rules

- Invalid account entry setup

- Unauthorized General Conditions

Before you liquidate interest for an account *manually*, you must generate the Maintenance Consistency Check Report from the Application Browser.

10.2.1 Unauthorized Accounts

You cannot liquidate interest for an account that is unauthorized. When you run the auto liquidation process at the end of day, the IC Consistency Check reports all *unauthorized* accounts, which fall due for interest liquidation for the day. Before you can go ahead with the automatic liquidation process, you must authorize all accounts that were reported by the consistency check.

You cannot liquidate interest for an account class if an account belonging to the account class is unauthorized.

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Ms. Elizabeth Bennett opens a Savings Bank account on 31 March 1998. You assign the code BNKCUF-AU1003-011 to this account. On this account you apply a product, 'SAUS' that is linked to an Interest Rule 'CRIN01'.

While defining the 'preferences' for SAUS, you specify that interest should be liquidated on month-ends for accounts linked to it.

The account is not authorized when the auto liquidation process is executed on 31 March 1998. On 31 March 1998, when mark the end of transaction input, the IC Consistency Check will report that the account of Ms. Elizabeth Bennett, BNKCUF-AU1003-011, has not been authorized.

You can liquidate interest for the day only after you authorize the account of Ms. Elizabeth Bennett.

10.2.2 Unauthorized Account Classes

You cannot liquidate interest (using the auto liquidation function) when a class of accounts is unauthorized. When you run the auto liquidation process for the day, the IC Maintenance Consistency Check reports all *unauthorized* account classes, which fall due for interest liquidation. Before you run the auto liquidation function, you must authorize all unauthorized account classes.

Similarly, you cannot liquidate interest for an unauthorized account class using the ad hoc liquidation function.

10.2.3 Unauthorized Currency Details

You cannot liquidate interest, using the auto liquidation function, if a currency that you have maintained is *unauthorized*. Typically, such a situation would arise when you modify the financial details relating to a currency, in the Currency Maintenance table, and do not authorize it before you run the automatic interest liquidation function.

Authorize the reported currency before you run the automatic liquidation function again.

Example

You have applied an interest product, 'SUS1', to USD accounts in the Smart Save Money class of accounts. On 31 March 1998 you modify certain details relating to USD in the currency table. You do not authorize the modifications to USD in the currency table.

You *cannot* liquidate interest for 31 March 1998, until the changes in the currency table are authorized. The IC Maintenance Consistency Check will report USD as an unauthorized currency.

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10.2.4 <u>Details of Invalid Products or Rules</u>

You cannot liquidate interest for accounts that are linked to unauthorized products or interest rules. Inconsistencies in data, maintained for all product - rule combinations, will be reported by the IC Consistency Check function. Inconsistent data for each combination will be reported under three heads:

- Unauthorized product

- Unauthorized rule

- Invalid Accounting Entry setup

Unauthorized product

The IC Maintenance Consistency Check function reports all products that you have linked to an unauthorized interest or charge product.

You have to authorize any modification of a rule before you attempt to liquidate interest for the accounts on which you have applied the rule.

Unauthorized rule

The IC Maintenance Consistency Check will report an unauthorized interest or charge rule.

Invalid accounting entry setup

If you have defined a product with an imperfect account entry setup, the IC Maintenance Consistency Check will report it. Typically, the IC Maintenance Consistency Check reports an *invalid* accounting entry setup when you modify an interest rule and do not make the required changes to the products (on which you have applied the rule).

It is vital that when you create or make changes to an interest rule you change the corresponding details, for products linked to the rule.

If you have allowed accruals for an Interest rule, but have not maintained the Accounting Roles and Heads for the accrual entries (while defining the product on which you apply the rule), the Maintenance Consistency check will report this as an inconsistency. Similarly if you have disallowed accruals for an Interest Rule but have specified accounting roles and heads for the product the maintenance consistency will report this as an inconsistency.

For example, if you modify or create a new formula for a rule, the accounting entries setup for the products to which you have linked the rule would change. If you do not make the required changes for the product, the maintenance check will report the inconsistency as an 'invalid account entry setup'.

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The other inconsistencies reported as 'invalid account entry setup' could be caused when

Original Formula Type	Changed Formula Type	Product setup to be changed
Non Booking	Booking	Accounting Role and Head, and the accounting entries to be posted for the event not defined.
Non Booking	Tax	Accounting Role and Head, and the accounting entries to be posted for the event not defined.
Booking	Tax	Accounting Role and Head, and the accounting entries to be posted for the event not defined.

When an invalid accounting entry setup is reported for a product - rule combination, rectify it in the product screens.

Example

You define an interest rule 'CRIN' and link it to a product 'PR01'. You apply this product on an account class, 'Save Money US'.

On 31 March 1998 you learn that a previously non-existent tax has been levied on USD accounts. You, therefore, build a tax formula for the rule CRIN. Now, you do not authorize this modification *yet* when you initiate the processing of interest liquidation for 31 March 1998. Also, you do not specify the Accounting Role and Account Head to which the result of the formula should be posted (for the product).

The IC Maintenance Consistency Check will report that the following are unauthorized:

- PR01
- CRIN

The accounting entry setup for PR01 and CRIN will also be reported as invalid because you have not specified the accounting role and head for the tax entry that would now be generated.

Solution:

Authorize the changes to the interest rule: CRIN

In the Product Accounting Role Definition screen, add the following accounting role: Tax (depends on the name you give your tax scheme).

Identify the accounting heads as:

- the customer account (since he would bear the tax)
- the tax payable GL

In the 'Product Events Definition' screen, indicate that for the event interest 'liquidation' you would debit the tax amount from the customer's account and credit the tax payable GL of the bank.

Importantly, authorize the product (PR01) after you modify the product details.

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10.2.5 <u>Unauthorized General Conditions</u>

All unauthorized changes to any General Condition, that you have defined, will be reported by the IC Consistency Check. (You will recall that when you define preferences for a product, you can indicate if you wish to apply the product to a specific account or to an account class or classes. When a product is applied on an account class rather than a specific account, it is referred to as a 'General Condition').

The account class, the currency of the account class, the product to which the account class is linked and the unauthorized UDE values will be reported.

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11. Daily Processing of Interest and Charges

11.1 Introduction

The interest and charges batch function processes liquidation's and accruals for the day. This process should be executed after the end of transaction input has been marked for the day, for your branch.

For those accounts marked for auto liquidation and accrual, the End of Day process

- Passes liquidation entries

- Passes accrual entries

- Reverses accrual entries (if there have been changes to the data relating to interest or charges)

11.2 Maintenance Consistency Checks

When you mark the end of transaction input for the day, the IC Maintenance Consistency Check reports any inconsistencies in the data that you have maintained. The IC Maintenance Consistency Check reports the following inconsistencies in data:

- unauthorized accounts

- unauthorized account classes

- unauthorized currencies

- unauthorized products

- unauthorized rules

- invalid account entry setup

- unauthorized General Conditions

11.3 Liquidating Interest Automatically

You will recall that you can liquidate interest for accounts either

- automatically

- on an ad hoc basis

If you opt to liquidate interest *automatically*, you must specify the liquidation date and frequency for the product (in the Product Preferences screen) which you apply on the account(s). On the scheduled liquidation date, interest will automatically be liquidated by the IC End of Day process for the accounts.

If the interest liquidation day falls on a holiday, interest for those accounts that are to be liquidated on the holiday will be liquidated by the End of Day process that is run on the last working day before the holiday. However, processing for a holiday will be done on the next working day will be done on the subsequent working day if the holiday falls in the next financial cycle.

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An ad-hoc liquidation can be carried out any time on an account, even if it has been defined for automatic liquidation. An ad-hoc liquidation of interest on an account (defined for auto liquidation) will liquidate interest till the date that you have specified. The subsequent automatic liquidation of the account will be for the remaining days in the liquidation period.

11.3.1 Generating Interest Statement

Interest Statements will be generated for applicable accounts. That an interest statement should be generated is specified for the interest liquidation event (ILIQ).

11.3.2 Generating Rate Change Advice

The Rate Change Advice will be generated when you mark the end of financial input for the day. This advice will be generated for all those accounts that had a UDE change event in any of the UDE rate values in the products linked to them.

11.4 Automatic Accruals

While building a formula for the rule to which you have linked the product, if you indicated that the result of the formula is interest that should be accrued, the interest amount for all the accounts linked to the product will be accrued.

When defining the preferences for the product, if you specified the accrual frequency, interest will be accrued, by the End of Day process, according to the frequency you have specified.

Accruals will also be performed whenever there is interest liquidation. For an account on which a liquidation is done out of turn (an ad-hoc liquidation when a periodic liquidation is not due), accrual entries will be passed till the date of liquidation.

Entries will be passed to the accrual accounts that you specified while creating the product (that you have applied on the account). If you specified that accrual entries have to be passed for a product rather than for individual accounts, a consolidated entry will be passed for the product. If not, an entry will be passed for each account on which you have applied the product.

An ad-hoc liquidation of interest on an account (defined for auto liquidation) will liquidate interest till the date that you have specified. The subsequent accrual of interest will be from the date of the ad hoc liquidation.

The details of accruals for each account will be available in the Accrual Control Journal, a report generated whenever accruals are performed as part of end of day processing.

End of Day processing for Tax/Non tax IC products

In case of IC product maintained as a Tax product or non-tax product, the EOD processing occurs in the following manner:

The system applies the existing formula for calculation the credit interest for all accounts of the Non –Tax products. The processing of all Non Tax products is done first. The system calculates, accrues and liquidates these accounts and then subsequently processes the Tax products.

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You need to maintain the formula for Tax products in the given format:

- TOT_INTEREST_AMOUNT > TDS_LIMIT

- INTEREST_AMOUNT * TAX_RATE

The TDS amount is deducted from the customer account and the relevant accounting entries will be posted for all Tax products. However, no accounting entries are posted for Non Tax products.

For the Event IACR (Interest Accrual), no accounting entries are posted for Tax products. The following accounting entries for the TDS amount will be passed when the ILIQ event (Interest Liquidation event) is triggered:

- Dr Customer

- Cr Tax payable

11.5 Reversing Accrual Entries

Some changes in IC maintenance may necessitate the reversal of accrual entries already passed. These reversal entries are passed by the IC Daily functions. Some of the situations that require a reversal of accruals are:

- Closure of a product to which an account is linked

- Delinking of an account from a product

11.6 Charges Applicable for Creditor or Debtor Agreements

Charges applied for maintenance and amendment of Creditor Direct Debit (DD) or Debtor DD agreements in the Payments and Collections module are tracked and computed by the IC End of Day process, and applied to the relevant accounts. The following charge bases are used to compute such charges:

- **DD-NUM-INIT** – This charge basis is used to tracking the number of new Direct Debit Agreements maintained for an account. It is tracked on authorization for 'New' operations for a Direct Debit Agreement that has been maintained.

- **DD-NUM-AMND** – This charge basis is used to track subsequent amendments made in respect of a Direct Debit Agreement. It is tracked on authorization for 'Modify' operations for a Direct Debit Agreement that has been maintained.

- **DD-NUM-CLOSE** – This charge basis is used to track 'Closure' of a DD Agreement on authorization.

- **DD-NUM-REOPEN** – This charge basis is used to track 'Re-open' of a DD Agreement on authorization.

All of these charge bases are only tracked if the 'Charge Applicable' option has been enabled in the respective DD Agreement maintenances.

For details regarding the maintenance and servicing of DD agreements, refer the Payments and Collections module user manual.

11.7 Processing of Consolidated Charges

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When the liquidation event (LIQD) is triggered for charge products linked to consolidated charge products, charges are computed depending upon the rule associated, but the corresponding entries are not posted. Similarly, for account classes linked to consolidated charge products, charges are computed during liquidation (LIQD) but are not posted.

A consolidated entry (comprising the charge entries for all linked charge products, for all account classes using the consolidated charge product) is posted when the liquidation is executed in respect of the consolidated charge product, after applying the applicable discounting and the range (minimum / maximum) validations.

11.8 End of Day processing for Debiting Receivable GLs

You have also identified the Receivable GL in the preferences section of the 'IC Products' screen.

As a result, during the end of day processes the receivable GL is debited instead of the customer account for debit interest and charges. The Debit Interest Notification message (in the case of charges, the Charge Notification message) containing the due date and the amount due is generated and sent to the customer only if you have specified this as a preference for the account class.

The interest receivable is stored at the following level:

1. Branch + Account

2. Product

3. Formula Number

4. Book Date

Details of the Related Account, Receivable GL, Actual Liquidation date (which is computed on the basis of your specification in the Account Class screen), Interest Amount Due and Charges Due are also stored.

11.8.1 Liquidating Debit Interest and Charges

Debit interest (and charges) can be liquidated either manually or automatically. This specification is defaulted from the Account Class linked to the account. During liquidation (ILIQ), the Customer Account is debited and the Receivable GL is credited. The Liquidation Reference Number is a combination of:

BRN_ + Prod_ + Currency + 'L' + Formula number

11.8.1.1 Auto Liquidation

Auto liquidation is performed as part of the IC BOD operations. All accounts that have debit interest and / or charges due on the application date are processed. All pending liquidations are processed. All account with interest amount due and / or charges due where the Due Date is less than or equal to the Application Date are processed.

If the verify funds option is enabled for the account class of the account, a check to verify the availability of funds is also performed. In case there are funds to process the amount partially, partial liquidation is also performed.

Remember to set up the IC BOD processing as a mandatory process. It should be executed during the BOD processes for Interest Liquidation as well as Charge Liquidation.

12. Liquidating Interest Online

12.1 <u>Introduction</u>

You can liquidate interest for an account

- periodically
- on an ad hoc basis

Monthly, quarterly, semi annual and annual liquidation of interest are examples of periodic liquidation.

You can liquidate interest for an account according to the frequency or the 'liquidation cycle' defined for the Product-Rule combination (to which the account is linked). For example, if you specified a quarterly liquidation cycle, interest would be liquidated once in three months; if you specified a monthly cycle, interest would be liquidated every month, and so on.

If you opt to liquidate interest periodically, you can automate the liquidation process. The IC Batch function will liquidate interest automatically on the day it falls due for such accounts.

For certain accounts, however, you may want to liquidate the interest and charges as and when the need arises. When you do not liquidate interest at fixed intervals, the liquidation is referred to as 'ad hoc liquidation'. You can liquidate interest on an ad-hoc basis by invoking the 'IC On-line Liquidation' function.

🛑 The On-line Liquidation function can be invoked anytime to liquidate interest on accounts − even if the accounts are marked for auto liquidation.

Example

You apply PR01 on Ms. Elizabeth Bennet's account. When you defined the preferences for PROD01 you specified the frequency of liquidation for Ms. Bennet's account as 'Monthly' (on month-ends.) Interest for Ms. Bennet's account will, therefore, be liquidated automatically every month (on month-ends).

On 15 April 1998, Ms. Bennet closes her account in your bank. You have to liquidate interest for her account for 14 days (between 31 March 1998 and 15 April 1998) before you can close the account. This is an example of ad-hoc liquidation. When you liquidate interest for an account on a day other than that marked for liquidation, it is referred to a 'Ad hoc' liquidation.

🛑 You should necessarily liquidate interest before you close an account.

12.2 <u>Processing Online Liquidation</u>

You can invoke the Online liquidation function, anytime during the day, to liquidate interest according to the following selection criteria:

- all accounts
- selected accounts

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- selected account classes

- all products

- selected products

These options allow you to liquidate interest for:

- all accounts linked to all products (that is, for the branch)

- all accounts linked to selected products

- selected accounts linked to all products

- selected accounts linked to selected products

- selected account classes linked to all or specific products

🛑 You can only liquidate interest for those products and accounts that are *authorized*. You cannot liquidate interest for account classes and accounts with inconsistent data.

You can liquidate interest for the specified accounts for a date

- not earlier than the last liquidation date

- Not later than a day before the next working day (in case of a holiday between today's date and the next working day).

In other words, the 'Date of Liquidation' for an account can be between:

- the last liquidation date +1

- today's date

- the day before the next working day

Interest for the accounts will be liquidated for the period between the last liquidation date and the date that you specify as the liquidation date.

🛑 The system defaults to yesterday's date.

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12.3 <u>Processing Online Liquidation for Multiple Accounts</u>

Online Liquidation for multiple accounts can be done via the 'Interest & Charges Multiple Account Online Liquidation' screen. You can invoke the 'Fund Product Preferences Class Summary' screen by typing 'ICDOLIQ' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

Date Of Liquidation

Enter the date for which you want to liquidate interest. Interest for the accounts that you specify, will be liquidated from the last liquidation date up to the date that you enter here.

The system defaults to yesterday's date.

Refresh Rated from H.O.

Indicate that you would like to apply the latest interest rates (maintained in the Head Office) on an account that you are liquidating by checking this box. If you do not check this box, the system will use the interest rates that were last propagated by the head office (to calculate interest for the account being liquidated).

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12.3.1.1   <u>Select Product Code</u>

You can choose to liquidate interest for

- All products

- Selected products

Click on the buttons adjacent to each option to indicate that you would like to liquidate interest using the option.

Using these options in conjunction with the options in the 'Accounts To Liquidate' field, you can liquidate interest for

- All accounts linked to all products (that is, for the branch)

- All accounts linked to selected products

- Selected accounts linked to all products

- Selected accounts linked to selected products

- Selected account classes linked to all or specific products

Depending on your selection criteria (in conjunction with the 'Accounts To Liquidate' field), a list of products will be displayed.

For example, if you choose to liquidate interest for 'selected accounts' and 'all products', a list of all authorized products will be displayed. When you choose a product, all the authorized accounts linked to the product will be displayed. Interest for the accounts that you choose will be liquidated.

Click 'Account Number**'** tab in the **'**Interest and Charges Multiple Account Online Liquidation**'** screen to get below given screen:

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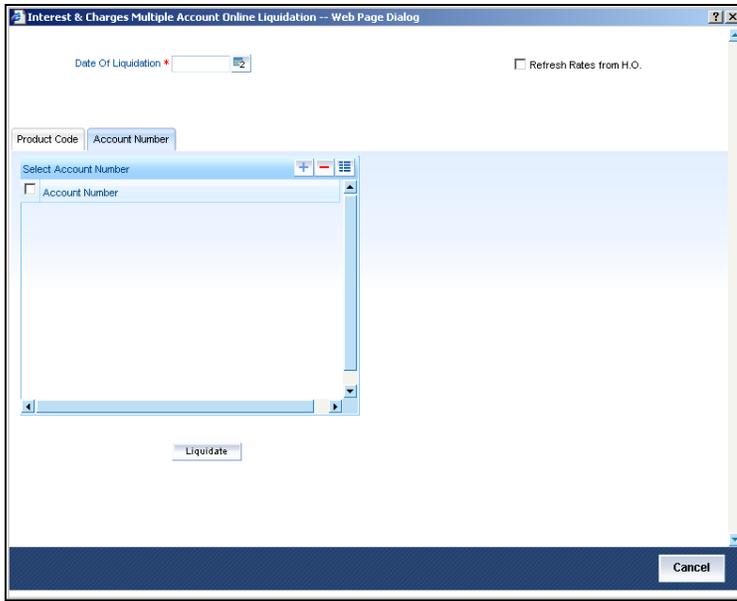
12.3.1.2   Account Number

You can choose to liquidate interest for

- All accounts that are part of the interest system

- Selected accounts

- Selected account classes

Click on the buttons adjacent to each option to indicate that you would like to liquidate interest using the option.

Using these options in conjunction with the options in the 'Products To Liquidate' field, you can liquidate interest for

- All accounts linked to all products in your branch

- All accounts linked to selected products

- Selected accounts linked to any product

- Selected accounts linked to selected products

- Selected account classes linked to any or specific products

Depending on your selection criteria (in conjunction with the 'Products to Liquidate' field), a list of accounts will be displayed.

For example, if you choose to liquidate interest for 'selected accounts' and 'selected products', a list of all authorized products will be displayed. When you choose a product, a list of all the authorized accounts on which the product is applied will be displayed. Choose the accounts for which you want to liquidate interest.

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STOP If you choose to liquidate interest for 'All Accounts' linked to 'All Products' the list of accounts for which interest is liquidated will not be displayed. Interest will be liquidated for accounts linked to any product in your branch.

12.4 <u>Processing Online Liquidation for Single Account</u>

You can process online liquidation for a single account using the 'Interest & Charges Single Account Online Liquidation' screen. You can invoke the 'Interest & Charges Single Account Online Liquidation' screen by typing 'ICDLIQAC' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

Customer Account Number

If you have chosen to liquidate interest for specific accounts or products, choose the account or product from the list of values available.

Date of Liquidation

Enter the date for which you want to liquidate interest. Interest for the accounts that you specify, will be liquidated from the last liquidation date up to the date that you enter here.

The system defaults to yesterday's date.

Refresh Rates from H.O.

You can indicate that you would like to apply the latest interest rates (maintained in the Head Office) on an account that you are liquidating by checking this box. If you do not check this box, the system will use the interest rates that were last propagated by the head office (to calculate interest for the account being liquidated).

<u>Example</u>

You have maintained the following account classes in your bank:

- Save Money USD

- Save Money INR

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- Save Money GBP

- Save Money AUD

- Smart Save Money USD

- Smart Save Money INR

You have maintained the following products:

- PR01

- PR02

You apply PR01 to the Save Money accounts in all the currencies. You apply PR02 to the Smart Save Money accounts.

When defining the Product Preferences, you specified the liquidation periodicity as semi annual. The current liquidation cycle began on 01 January 1998. The last interest liquidation date, for all the accounts, is 31 December 1997.

Requirement:

On 01 April 1998, the current system date, you want to liquidate interest for all the accounts in your bank, even though the interest liquidation cycle falls due on 30 June 1998.

Solution:

In the On-line Liquidation screen, choose 'All Accounts'. Interest for all the accounts in your bank would be liquidated for the period between 01 January 1998 and 31 April 1998.

Similarly, if you want to liquidate interest for accounts linked to PR01, choose 'Selected Products'. Interest for all the Save Money accounts will be liquidated for the period between 01 January 1998 and 01 April 1998.

If you want to liquidate interest for *specific* Save Money accounts, linked to PR01, choose 'Selected Accounts' and 'Selected Products'. Choose the Save Money accounts for which you want to liquidate interest.

Interest will not be applied for the current month when you run the ad hoc liquidation function if you specified that interest should *not* be applied for the 'Account Closure Month', when defining the rule. If you have specified that interest should be applied on 'Account Opening Month', interest will be computed for the first day of the month on which the account was opened.

Remember that when you run the ad hoc liquidation function, inconsistencies in maintenance data, if there are any, will be reported by the IC Consistency Check. Rectify the inconsistencies before you run the ad hoc liquidation function.

12.5 <u>Calculating Interest Applicable for Account</u>

At any time during the day, you can calculate the interest for an account or accounts. That is, you can *calculate* the interest or charges for accounts, for a specific period, without actually liquidating them. You can calculate interest for an account or accounts using the 'IC On line Calculation' screen.

Using the Interest Calculation function, you can calculate interest for any one of the following:

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- a specific account

- selected accounts

- selected account classes

- accounts linked to selected products

- accounts linked to all products (that is, all accounts)

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13. Maintaining Interest Statement Details

13.1 Introduction

When defining interest rules in the Rule Maintenance screen, you identify the components that should be used in the calculation of interest -- that is, the principal, the number of interest days, the tier structure, the rate, etc. Interest for an account will be calculated according to the formulae defined for the rule that you have applied on the account. The result of a formula is the interest for the account.

When you liquidate interest for an account, you can generate an 'interest statement' for the benefit of the account holder. An Interest Statement would, typically, provide the account holder information about the interest that was applied on the account.

In Oracle FLEXCUBE, you can build interest statements to suit the requirements of your bank. You can define the details that you would like to include in interest statements in the 'Interest Statement Maintenance' screen.

🛑 An interest statement will be printed for an account only if the statement details are maintained for it.

13.2 Maintaining Interest Statements

You can maintain Interest statements via the 'Interest Statement Maintenance' screen. You can invoke the 'Interest Statement Maintenance' screen by typing 'ICDISFM' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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Rule

Interest is calculated for an account using the formulae that you have defined for the interest rule (applied on the account). To recapitulate, depending on your definition, the result of formulae may be an amount that is to be:

- booked
- not booked
- a tax amount

A tax amount or an amount that is to be 'booked' would, usually, be posted to the customer account. The result of formulae that are posted to customer accounts will be reflected in the interest statement you provide your customer.

The codes that you have used while defining interest and charge rules, SDEs, and UDEs, will be printed *per se* in an interest statement, if you choose not to maintain the details for an interest statement. For example, when you defined a rule to calculate debit interest you may have assigned the code 'DRIN'. This rule code will be printed on the interest statement if you do not maintain a specific description for it while maintaining the interest statement.

The purpose of maintaining an interest statement is to explain to an account holder each accounting entry with reference to the interest rule that was applied.

Example

Interest Rule	DRIN
Description:	Debit Interest on the monthly maximum balance in your account
SDE:	Max_Dr_Bal
UDE:	Rate 1

When an Interest Statement is generated for an account that is linked to DRIN:

- the Maximum Debit Balance on which the interest was applied and
- the rate of interest that you defined in the UDE Maintenance screen for the rule will be picked up during liquidation.

If you specified, while defining the interest statement, that the SDE and the UDE of the interest rule DRIN should be printed in the interest statement, they will be printed along with their values.

Adjustment Transaction Code

When maintaining interest statements, you can identify the transaction code against which manual interest adjustment entries are posted. All entries tracked against the particular transaction code will be reflected in the interest statement that is generated.

A list of transaction codes maintained in the 'Transaction Codes Maintenance' screen is displayed in the option list positioned next to this field. You can select the appropriate transaction code.

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13.3 <u>Identifying Values to be printed</u>

An interest rule consists of SDEs and UDEs. Using the SDEs and UDEs that you identified for a rule, you can build formulae. The result of a formula is an amount that is posted, as interest or charge, to an account.

When interest is liquidated for an account, the SDE is picked up from the account and the UDE value is picked up from the 'UDE Maintenance' screen. You can choose to print the details of the UDE and the SDE that was used to compute interest or charge for an account in the interest statement.

Example

Rule ID: CRIN

SDE: Monthly Minimum Credit Balance

UDE: Rate

Now, assume that the value of the monthly minimum balance in an account is 10,000 and the value of 'Rate' is 5%.

If you specified that the SDE and the UDE of the interest rule CRIN should be reported in the interest statement, they will be printed along with their values.

You can choose to print the details of the:

- rule
- the SDEs
- the UDEs

that were used to calculate interest or charge for an account (in the interest statement) in a language of your choice.

In the Elements field, you can invoke a list of the SDEs that you identified for the rule (specified in the Rule field). Choose an SDE by double clicking on it. Now, for the SDE that you have chosen, you can enter a description in the Header field. You can describe the SDE in a language of your choice.

Similarly, enter a description for each of the UDEs that you have specified for the rule.

13.4 <u>Generating Interest Statement</u>

The interest statement will be generated whenever interest is liquidated for an account. This liquidation could either be the periodic automatic liquidation, or an ad hoc one.

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14. Annexure A - Accounting Entries and Advices

14.1 Accounting Entries for Interest and Charges

This section contains details of the suggested accounting entries that can be set up, for the Interest and Charges module of Oracle FLEXCUBE. The details of the suggested accounting entries are listed event-wise.

14.1.1 IC Events

The following is an exhaustive list of events that can take place during Interest or Charge calculation. In the subsequent paragraphs we shall examine the accounting entries and advices for each of the events listed below.

Event Code	Event Description
CLIQ	Charges Liquidation
IACR	Interest Accrual
ILIQ	Interest Liquidation
UDCH	UDE Values Change

14.1.2 Amount Tags

The amount tags listed below are hard-coded in Oracle FLEXCUBE.

Amount Tag	Description
CHARGE	Charges
IACQUIRED	Acquired Interest Amount
IACR	Interest Accrual
IACR_ADJ	Interest Accrual Adjustments
ILIQ	Interest Liquidation
TAX	Tax
TAX_ADJ	Tax Adjustments
INT_PADJ	Back valued interest adding to the normal interest
INT_NADJ	Back valued interest reducing the normal interest
TAX_PADJ	Back valued tax adding to the normal tax
TAX_NADJ	Back valued tax reducing the normal tax

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In addition to these you can define amount tags as per your requirements.

14.1.3 Accounting Roles

The following list contains the accounting roles that are applicable to IC.

Accounting Role
CHG_INCOME
CHG_BOOK
DIV_TAX_EXP
CUST_DVTAX_COD
INT_IC_AJE
DIV_TAX_PAD

14.2 Event-wise Accounting Entries and Advices

In this section we will discuss the suggested accounting entries and advices that should be generated for each event in process of Interest or Charge calculation.

Also note that some of the Amount Tags linked to the Accounting Roles are user defined.

14.2.1 Charge Basis: ADHOC-STMT

14.2.1.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.1.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	Advice Type

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14.2.2 Charge Basis: NUM-CHQ-ISS

14.2.2.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.2.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

14.2.3 Charge Basis: NUM-CHQ-RET

14.2.3.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.3.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

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14.2.4 Charge Basis: NUM-STOP-PAY

14.2.4.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.4.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

14.2.5 Charge Basis: NUM-ACCT-STMTS

14.2.5.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.5.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

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14.2.6 Charge Basis: ITEM-COUNT

14.2.6.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.6.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

14.2.7 Charge Basis: TURNOVER

14.2.7.1 CLIQ: Charges Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
CHG_BOOK	CHARGE	DEBIT
CHG_INCOME	CHARGE	CREDIT

Advices

No advices allowed for this event.

14.2.7.2 UDCH: UDE Values Change

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

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14.2.8 Accounting Entries and Advices for Interest

14.2.8.1   IACR: Interest Accrual

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
ICDT-ACCR-1	IACR	DEBIT
ICDT-PNL-1	IACR	CREDIT
ICDX-ACCR-1	IACR	DEBIT
ICDX-PNL-1	IACR	CREDIT
ICMI-ACCR-1	IACR	CREDIT
ICMI-PNL-1	IACR	DEBIT
ICOD-ACCR-5	IACR	DEBIT
ICOD-PNL-4	IACR	CREDIT
ICOD-ACCR-4	IACR	DEBIT
ICOD-PNL-5	IACR	CREDIT
ICQC-ACCR-1	IACR	DEBIT
ICQC-PNL-1	IACR	CREDIT
ICQC-ACCR-3	IACR	CREDIT
ICQC-PNL-3	IACR	DEBIT
ICQC-ACCR-4	IACR	DEBIT
ICQC-PNL-4	IACR	CREDIT
MNS1-PNL-1	IACR	CREDIT
MNS1-ACCR-1	IACR	DEBIT
MNS2-ACCR-1	IACR	DEBIT
MNS2-PNL-1	IACR	CREDIT

Advices

No advices allowed for this event.

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14.2.8.2 ILIQ: Interest Liquidation

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
ICDB-BOOK-2	ILIQ	DEBIT
ICDB-PNL-2	ILIQ	CREDIT
ICDB-PNL-1	ILIQ	DEBIT
ICDB-BOOK-1	ILIQ	CREDIT
ICDB-ACQUIRED-1	IACQUIRED	DEBIT
ICDB-BOOK-1	IACQUIRED	CREDIT
ICDB-BOOK-2	IACQUIRED	DEBIT
ICDB-ACQUIRED-2	IACQUIRED	CREDIT
ICDT-ACR_ADJ-1	IACR_ADJ	DEBIT
ICDT-PNL_ADJ-1	IACR_ADJ	CREDIT
ICDT-ACCR-1	ILIQ	CREDIT
ICDT-PNL-2	ILIQ	CREDIT
ICDT-BOOK-1	ILIQ	DEBIT
ICDT-BOOK-1	IACQUIRED	DEBIT
ICDT-BOOK-2	IACQUIRED	DEBIT
ICDT-ACQUIRED-2	IACQUIRED	CREDIT
ICDT-ACQUIRED-1	IACQUIRED	CREDIT
ICDT-BOOK-2	ILIQ	DEBIT
ICDT-TPBL-3	TAX	CREDIT
ICDT-BOOK-3	TAX	DEBIT
ICDX-ACR_ADJ-1	IACR_ADJ	DEBIT
ICDX-PNL_ADJ-1	IACR_ADJ	CREDIT
ICDX-ACCR-1	ILIQ	CREDIT
ICDX-BOOK-1	ILIQ	DEBIT

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Accounting Role	Amount Tag	Dr./Cr. Indicator
ICDX-BOOK-1	IACQUIRED	DEBIT
ICDX-ACQUIRED-1	IACQUIRED	CREDIT
ICMA-PNL-1	ILIQ	DEBIT
ICMA-PNL-2	ILIQ	DEBIT
ICMA-BOOK-2	ILIQ	CREDIT
ICMA-BOOK-1	ILIQ	CREDIT
ICMA-BOOK-2	IACQUIRED	CREDIT
ICMA-ACQUIRED-2	IACQUIRED	DEBIT
ICMA-BOOK-1	IACQUIRED	CREDIT
ICMA-ACQUIRED-1	IACQUIRED	DEBIT
ICMI-PNL-2	ILIQ	CREDIT
ICMI-BOOK-2	ILIQ	DEBIT
ICMI-ACCR-1	ILIQ	DEBIT
ICMI-BOOK-1	ILIQ	CREDIT
ICMI-BOOK-2	IACQUIRED	DEBIT
ICMI-ACQUIRED-2	IACQUIRED	CREDIT
ICMI-PNL_ADJ-1	IACR_ADJ	DEBIT
ICMI-BOOK-1	IACQUIRED	CREDIT
ICMI-ACQUIRED-1	ICMI-ACQUIRED-1	DEBIT
ICMI-ACR_ADJ-1	IACR_ADJ	CREDIT
ICOD-ACR_ADJ-4	IACR_ADJ	DEBIT
ICOD-PNL_ADJ-4	IACR_ADJ	CREDIT
ICOD-ACR_ADJ-5	IACR_ADJ	DEBIT
ICOD-PNL_ADJ-5	IACR_ADJ	CREDIT
ICOD-ACCR-5	ILIQ	CREDIT

Accounting Role	Amount Tag	Dr./Cr. Indicator
ICOD-BOOK-4	ILIQ	DEBIT
ICOD-ACCR-4	ILIQ	CREDIT
ICOD-BOOK-5	ILIQ	DEBIT
ICOD-BOOK-4	IACQUIRED	DEBIT
ICOD-ACQUIRED-4	IACQUIRED	CREDIT
ICOD-BOOK-5	IACQUIRED	DEBIT
ICOD-ACQUIRED-5	IACQUIRED	CREDIT
ICQC-ACR_ADJ-1	IACR_ADJ	DEBIT
ICQC-PNL_ADJ-1	IACR_ADJ	CREDIT
ICQC-ACR_ADJ-3	IACR_ADJ	CREDIT
ICQC-PNL_ADJ-3	IACR_ADJ	DEBIT
ICQC-PNL_ADJ-4	IACR_ADJ	CREDIT
ICQC-ACR_ADJ-4	IACR_ADJ	DEBIT
ICQC-ACCR-1	ILIQ	CEBIT
ICQC-BOOK-1	ILIQ	DEBIT
ICQC-PNL-2	ILIQ	CREDIT
ICQC-BOOK-2	ILIQ	DEBIT
ICQC-ACCR-3	ILIQ	DEBIT
ICQC-BOOK-3	ILIQ	CREDIT
ICQC-ACCR-4	ILIQ	CREDIT
ICQC-BOOK-4	ILIQ	DEBIT
ICQC-BOOK-1	IACQUIRED	DEBIT
ICQC-ACQUIRED-1	IACQUIRED	CREDIT
ICQC-BOOK-2	IACQUIRED	DEBIT
ICQC-ACQUIRED-2	IACQUIRED	CREDIT

Accounting Role	Amount Tag	Dr./Cr. Indicator
ICQC-BOOK-3	IACQUIRED	CREDIT
ICQC-ACQUIRED-3	IACQUIRED	DEBIT
ICQC-BOOK-4	IACQUIRED	DEBIT
ICQC-ACQUIRED-4	IACQUIRED	CREDIT
MNS1-BOOK-1	ILIQ	DEBIT
MNS1-BOOK-1	IACQUIRED	DEBIT
MNS1-ACQUIRED-1	IACQUIRED	CREDIT
MNS1-ACCR-1	ILIQ	CREDIT
MNS2-ACCR-1	ILIQ	CREDIT
MNS2-BOOK-1	ILIQ	DEBIT
MNS2-BOOK-1	IACQUIRED	DEBIT
MNS2-ACQUIRED-1	IACQUIRED	CREDIT

Advices

No advices allowed for this event.

14.2.8.3   UDCH: UDE Values Change

Accounting Entries

No accounting entries allowed for this event.

Advices

Advice type	Description
UDECA	

14.2.8.4   DEBK: Booking Term Deposits for discounted or true discounted deposit

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
TD-PRINC-BOOK	TDACCOUNT	Cr
TD-PRINC-BOOK	TDOFFSET	Dr
TD-INT-LIQD	TDOFFSET	Cr

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Accounting Role	Amount Tag	Dr./Cr. Indicator
TD-INT-LIQD	TDINTPIA	Dr

14.2.8.5 DEBK: Booking Term Deposits for Bearing Type of Deposit

Accounting Entries

Accounting Role	Amount Tag	Dr./Cr. Indicator
TD-PRINC-BOOK	TDACCOUNT	Cr
TD-PRINC-BOOK	TDOFFSET	Dr

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15. Queries and Reports

15.1 Introduction

Information about the application of interest or charges on accounts can be retrieved in many ways. You can retrieve data in two ways:

- As an online query, or
- As a report.

When you seek information in the form of a display, on the basis of certain parameters, you perform a *'query'*. Typically, you would 'query' (the system) to provide your customer with immediate information, such as the interest accrued on an account, the interest rates applicable, etc.

15.2 Online Queries

You can access the following information in the form of on line queries:

- The interest applicable on an account, for a specific period; and
- The interest rates and other UDE values applicable on an account.

15.2.1 The Interest Applicable on an Account

The IC on line calculation function gives you the *amount of interest* applicable on an account, for the current liquidation period. You can get the interest applicable based on the following criteria, for accounts in your branch:

- all accounts linked to all products; or
- all accounts linked to selected products; or
- selected accounts linked to all products; or
- selected accounts linked to selected products; or
- selected account classes linked to all products; or
- selected account classes linked to selected products.

Single account
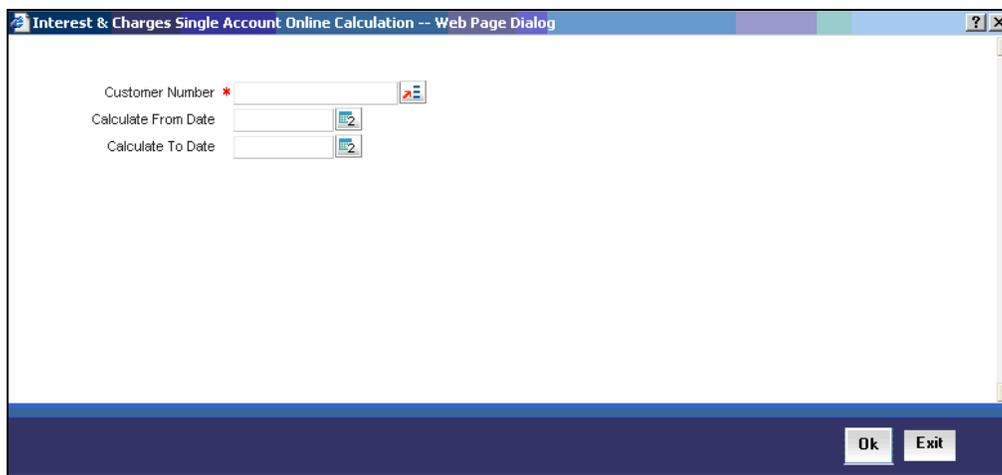
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Multiple Accounts

Choosing specific accounts to calculate interest

If you have chosen to calculate interest for specific accounts or products, choose the account or product from the option list.

Choosing specific account classes to calculate interest

If you have chosen to calculate interest for specific account classes, choose the account class or product from the option list.

Choosing a combination of products and accounts, or account classes

To calculate interest for selected accounts or account classes, and selected products, select the product list first. You can then select the accounts or account classes.

Specifying the destination

You can direct the information to one of the following destinations:

- the printer,
- the screen (as a display), or
- a spool file (which can be printed later on).

Select the required destination.

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Contents of the report

The report provides the following information:

The Header:

Bank and branch	This is the name of your bank and the branch through which you are logged in
User id	The user id of the person who is generating the report is printed
Account Number	This is the account number for which you are generating the report
Branch Date	The current system date
Date and Time	The date for which you are generating the report
Currency	The currency of the account is included in the report

The Body:

The report also includes the following information

- every rule id (applied on the account)
- description of the formula(e) built into each rule applied
- description and values of the SDEs and the UDEs used in calculation
- the values of the SDEs and the UDEs
- the total value of the interest calculated (formula wise)

15.3 Interest Calculation - Projected

The IC Interest Calculation (projected) function gives you the *projected* interest applicable on an account, for the current liquidation period. You can get the interest applicable based on the following criteria, for accounts in your branch:

- all accounts, or
- selected accounts.

Specifying the destination

You can direct the information to one of the following destinations:

- the printer,
- the screen (as a display), or
- a spool file (which can be printed later on).

Select the required destination.

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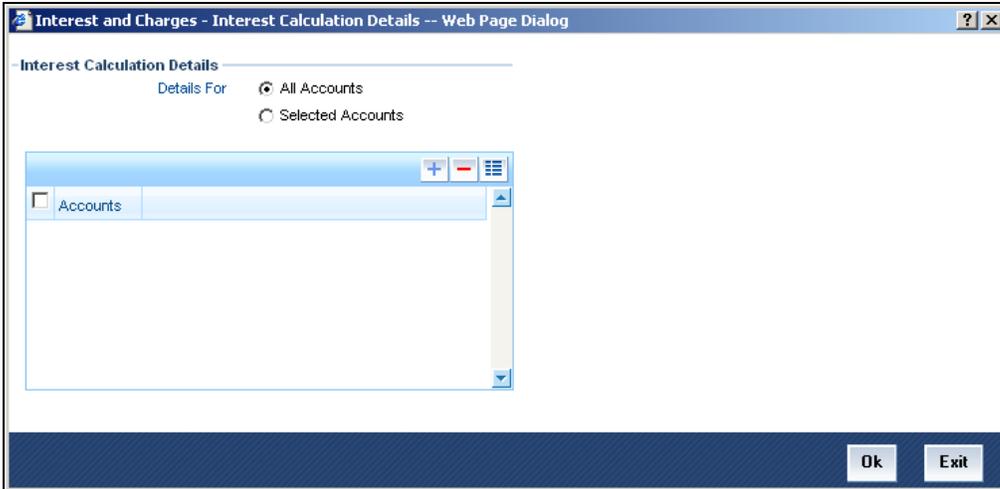
15.3.1 <u>Contents of the Report</u>

The report provides the following information:

The Header:

Bank and branch	This is the name of your bank and the branch through which you are logged in
User id	the user id of the person who is generating the report is printed
Account Number	this is the account number for which you are generating the report
Branch Date	this is today's date current
Date and Time	this is the date as of which you are generating the report
Currency	the currency of the account is included in the report

The Body:

The report also includes the following information

- every rule id (applied on the account)
- description of the formula(e) built into each rule applied
- the total value of the interest calculated (formula-wise)

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15.4 The SDE Details Report

You can print the detail of the SDEs that you have maintained in your bank.

For generating a report on selected SDEs, you should specify the From and To SDE IDs; the details of SDEs falling in this range, alphabetically, will be generated. To retrieve details of a single SDE, enter it in both the From and To fields.

The Header

Bank and branch	This is the name of your bank and the branch through which you are logged in.
User id	the user id of the person who is generating the report is printed
Branch Date	the current system date
Date and Time	the date for which you are generating the report

The Body

The report also provides the following information:

- the SDE id
- a description of the SDE
- the nature (whether the SDE is to pick up the debit, credit or the net balance/turnover)
- the basis(whether balance or turnover)
- the periodicity (whether daily, monthly, quarterly, semi annual, or annual)
- the operation (whether the minimum, maximum, average, or no operation)
- the name and user id of the person who created the SDE and the authorizer
- the start and end dates

15.5 The Product Details Report

You can print, in the form of a report, the details of products you have maintained in your bank. In the 'Select Records to Print' option you can specify the products that you would like to include in the report.

For generating a report on selected products, you should specify the From and To Product IDs; the details of products falling in this range, alphabetically, will be generated. To retrieve details of a single product, enter it in both the From and To fields.

The Header

- name of the bank and branch
- the current system date
- user id
- date for which you are generating the report

The Body

The report includes the following details:

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- product code
- product description
- product start date
- product end date
- product group
- product slogan
- product remarks
- the interest rule associated with the product
- liquidation days
- liquidation month
- liquidation start date
- liquidation end date
- accrual frequency
- if accrual at product level or contract level
- accrual month
- accrual day
- if accrual at end of month
- if interest is to be applied from account opening date
- according class (and currency) on which the product is applied
- accounting roles and heads to which accounting entries would be posted
- whether entries generated should be netted
- the advices to be generated

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