

Oracle Utilities Billing Component

User's Guide (C/S)

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Chapter 1

Introduction to Oracle Utilities Billing Component

This chapter provides an overview of Oracle Utilities Billing Component, including:

- **The Billing Process**
- **How Do You Work with Oracle Utilities Billing Component?**
- **International and Multiple Currency Support**
- **Oracle Utilities Billing Component Documentation Overview**

Important Note

Before you can use Oracle Utilities Billing Component or any of its functions, you must first make sure that appropriate data and records have been created in the Oracle Utilities Data Repository. The instructions in this manual assume that these records exist. For more information about creating, updating, or editing records in the Oracle Utilities Data Repository, see the *Data Manager User's Guide*.

The Billing Process

The primary function of Oracle Utilities Billing Component is to calculate customer charges, regardless of their complexity, and pass the results to either a CIS system that issues and records the actual bills, or to a stand-alone billing system.

While the specifics will vary at your facility, depending upon your goals, policies, and the types of hardware and software with which the system must interface, a typical billing process with Oracle Utilities Billing Component runs something like this.

Each business day, usage data is collected for a portion of your power billing customers. The customers are grouped according to billing cycles or specific bill dates. The bill date is noted in the Billing Cycles table in the Oracle Utilities Data Repository and used as a “trigger” for initiating the billing process.

There are two types of usage data that can be used to measure and bill a customer’s energy consumption:

- **Billing determinants:** A billing determinant is typically a scalar measure of a customer’s electricity or gas consumption that is represented by one value for a given bill period—for example, a customer might have used a total of 230 kWh of energy during a given month, and its highest demand during that month might have been 10 kW. Both 230 kWh and 10 kW are potentially scalar values for bill determinants that could be used to calculate the customer’s bill for April.
- **Interval data:** Interval data (also called “time-series data”) measures a quantity such as demand, energy, voltage, or temperature at regular intervals — such as every 5, 10, 15, or 60 minutes. So, rather than having just one value for a determinant for given period, there can be many values. For example, a 31-day month of 15-minute interval data consists of 2,976 values. Interval data is important because it can measure the demand that the customer places on the system at any given moment — and therefore provides a much more accurate picture of how much it actually costs to serve the customer.

Interval data is recorded at a customer’s location by a special interval data **recorder**, which has one or more data recording **channels**. The utility assigns each channel to measure a different end use or other quantity of interest. A record that contains the interval values for one recorder-channel for one recording period is called a **cut**. The end of a cut is its read date and time; its beginning is the end of the previous cut. The boundaries of a cut are also referred to as the cut’s **start-date** and **-time**, and **stop-date** and **-time**. Cuts for the same account but from different recorders may have different stop dates and times, and the periods covered by the cuts may or may not correspond to the dates of the bill period. However, once set up properly, Oracle Utilities Billing Component automatically determines the correct interval values and if they are available, synchronizes them to the bill period.

A customer may be billed using just interval data, or just billing determinants, or a combination of both, depending upon its rate code or contract with the utility.

Every time billing is triggered, Oracle Utilities Billing Component checks the Oracle Utilities Data Repository for accounts that are ready to be billed. The system uses the following criteria for “billable” accounts:

- First, Oracle Utilities Billing Component gathers a list of all accounts that are **eligible** for billing. An account is “eligible” if the scheduled read date falls within a user-defined window of time that extends some number of days before and after the account’s scheduled read date. An account’s scheduled meter read date is specified by the Billing Cycle date in its Account History record in the Oracle Utilities Data Repository. The default time window is defined using the “Prewindow” and “Postwindow” settings in Oracle Utilities Billing Component Default Billing Options. It is also possible to specify the size of the Prewindow and Postwindow for rate codes or even individual accounts or recorders in the Oracle Utilities Data Repository.

- If an account is deemed eligible, Oracle Utilities Billing Component then determines whether or not it is **available**. An account is “available” if all data required to compute its bill for the current bill period is ready. Oracle Utilities Billing Component checks for three types of data — bill determinant values, interval data, and special events values and dates.
- **Bill Determinants:** Oracle Utilities Billing Component checks the account’s Bill Determinant Use record(s) to find which, if any, bill determinants are required for computing the bill. For each bill determinant that is required, Oracle Utilities Billing Component looks in the account’s Bill History record for a value for the current scheduled read date.
- **Interval Data:** Oracle Utilities Billing Component also checks each account’s Channel History records to find whether any recorder-channels assigned to measure interval data for the account are to be used for billing. For each channel assigned to measure billable interval data, Oracle Utilities Billing Component looks for a cut with a stop-date and stop-time that falls within the corresponding recorder’s eligibility window around the scheduled read date.
- **Special Events:** An account may have agreed with the utility to pay a different rate for the energy that it consumes during a “special event” — for example, a standby period, maintenance period, system peak, and so on. For every eligible account, Oracle Utilities Billing Component checks its Account Override Use records in the Oracle Utilities Data Repository to determine whether the account might be subject to any special events pricing. If any special events are potentially applicable to the account and require validation, Oracle Utilities Billing Component checks the account’s Override Ready record to ensure that a Billing Analyst has input the actual dates and values for each event that did occur during the bill period, or (alternatively) specified that no events occurred.

If Oracle Utilities Billing Component finds that any required data is still missing for an eligible account on the day after the post-window, the system puts a “system rejected” note in the account’s Account Note record in the Oracle Utilities Data Repository. Nothing further happens until a billing analyst reviews and corrects the problems.

If all the data required to bill an account is ready, Oracle Utilities Billing Component calculates the bill. The system first finds the applicable rate schedule (associated with the account via the rate code stored in the Account Rate Code History record). The system then calculates the account’s charges for the bill period by applying the appropriate tariffs (encoded in rate forms using the Oracle Utilities Rules Language) and any special event overrides to the account’s usage data.

After Oracle Utilities Billing Component calculates the charges, it writes the results to a file that has a user-specified name and location. As Oracle Utilities Billing Component continues to process bills for customers, it appends each new “transaction record” to the end of the file. Periodically, this file can be processed by other applications. Typically when this happens, the file is renamed. When Oracle Utilities Billing Component finds that the file it had been using no longer exists, it creates a new one with the original name, and resumes writing transaction records to it.

If specified in the rate form, Oracle Utilities Billing Component also saves the data to the Oracle Utilities Data Repository.

How Do You Work with Oracle Utilities Billing Component?

Much of the billing process can occur automatically without user intervention. However, to ensure that bills are produced accurately and on time, and to accommodate the unique needs of special customers, Oracle Utilities Billing Component requires some manual data entry and monitoring, and allows for customer's whose bills require manual review.

The following describes the tasks that billing analysts would typically perform every day with Oracle Utilities Billing Component:

Review Billing Checklist

As described in the previous section, Oracle Utilities Billing Component requires three sets of values that change from month to month to determine a bill—interval data, bill determinant values, and special events times and values. Since accurate data does not always come from the field as expected, it is recommended that you make it a part of your daily routine to apply Oracle Utilities Billing Component's Review Billing Checklist module to one day's set of eligible accounts. This report pinpoints any problems with the required data, such as a missing or incomplete cut. To ensure that bills are produced on time, you should apply the checklists one or two days prior to the accounts' actual bill date. In that way, you have some time to correct any problems before the bills are due to be issued. See **Chapter 4: Review Billing Checklist** for more information.

Enter Special Events

Required. As described earlier, Oracle Utilities Billing Component computes billing charges by applying the tariffs encoded in rate forms (using the Oracle Utilities Rules Language) to the customer's usage data. There can be circumstances (e.g., "special events") when other billing rules and values should override the standard tariffs. Before Oracle Utilities Billing Component can calculate an account's charges for a bill period, a billing analyst **must** manually enter the dates and values for each special event that applied to the account during the bill period. Even if no special events took place, the billing analyst must still make a note to that effect in the account's Override Ready record. **Chapter 6: Setting Up and Applying Overrides and Special Events** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* explains how to define a special event in the Oracle Utilities Data Repository, and how to add the actual dates and values for each occurrence.

Process Customer/Account Bills

Oracle Utilities Billing Component offers several different ways of processing customer/account bills. Each is briefly described below.

Automatic Billing

Some accounts and customers can be billed in “automatic” mode, meaning that once Automatic Billing is activated, the program scans the database for these accounts and determines if they are “ready” to be billed (see **The Billing Process** on page 1-2). Accounts that are ready to be billed are processed automatically, and if billing is successful, their transaction records are automatically written to the CIS file. See **Chapter 5: Automatic Billing** for more information.

Note: In most cases, Automatic Billing is configured to run on a scheduled basis on either a dedicated machine or an application server.

Approval Required

In some cases (such as accounts that have especially complex tariffs or other special needs) it may be advisable for a Billing Analyst to review the results of the successful bill calculations before the transactions records are passed to the output file. These accounts are flagged “Approval Required” and are processed using Approval Required billing.

Approval Required billing applies the same concepts of “eligible” and “available” and performs the calculations according to the Billing Cycle schedule as described in **The Billing Process** on page 1-2. However, unlike Automatic Billing which runs continuously without user intervention, you must explicitly start Approval Required billing. Also, it does not automatically write the transaction records or update the Bill History records when the calculations are complete. Instead, Oracle Utilities Billing Component displays an on-screen bill report that enables you to review the calculations and accept or reject the results. When you’ve approved the bills they are passed to the output file and updated in the Bill History records. See **Chapter 6: Approval Required Billing** for more information.

Current/Final Bill

Current/Final Bill gives you greater flexibility in the billing process by allowing you to override some of the rules built into the automatic and approval required modes. Specifically, you can issue a bill:

- on-demand — that is, on a date other than its normal, automatic issue date (billing cycle date). This is particularly useful for creating preliminary bills for a customer’s approval prior to issuing the actual bill.
- despite missing data.
- for a user-specified period of time.

You can also specify that a bill is a final bill—in which case Oracle Utilities Billing Component automatically writes a stop date to the Account Table in the Oracle Utilities Data Repository when the bill is approved. This effectively closes the account as far as Oracle Utilities Billing Component is concerned. See **Chapter 7: Current/Final Bill** for more information.

Bill Correction

In case a billing analyst or customer finds a problem with a previously-issued bill, this feature enables you either to cancel the old bill and issue a new one in its place, or to address the problem by adjusting the current bill. See **Chapter 9: Bill Corrections** for more information.

Late Bills

This report tracks interest lost on bills that were issued late, or are pending and will be late. See **Chapter 10: Problem Bills and the Late Bill Report** for more information.

Mass Billing

This allows you to process bills for accounts that are eligible for mass billing. See **Mass Billing** on page 8-19 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.

Review Billing Exceptions

Each day, a billing analyst should run the “Review Billing Exceptions and Rejections” report to verify that all accounts (in particular “automatic” accounts) processed as expected. This report lists any accounts that were not billed, and why. See **Chapter 8: Review Billing Exceptions** for more information.

Trial Bill Calculation

The Trial Bill Calculation function calculates a bill for a selected account and rate schedule over a user-defined period of time, but it does not write transaction records to the output file. Trial Bill also will not save any data to any Oracle Utilities databases (unless otherwise specified in the **Advanced** options). This module is useful for testing the setup of a new customer, training new users, and testing a customer on a new rate. In addition, the module’s Single Step Analysis feature displays the results of a bill calculation for an account and bill month, line by line in the rate schedule. This feature is useful for explaining charges to a customer, for debugging a rate form, and for “what-if” analysis -- that is, to demonstrate the impact of a different bill determinant value on the customer’s bill. See **Chapter 12: Calculating Trial Bills** for more information.

Reports

In addition to the various billing modules, Oracle Utilities Billing Component features several reports that you can use to examine billing data in the Oracle Utilities Data Repository. They include the Special Events, Bill History, Late Billing, Top Accounts, and Rider Summary reports, as well as other reports customized for your utility. See **Chapter 11: Other Reports** for more information.

Running Billing in Batch Mode

You can also run billing in batch mode, using the Oracle Utilities Billing Component batch executable programs. See **Chapter 8: Setting Up Billing to run in Batch Mode** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.

International and Multiple Currency Support

This section outlines international and multiple currency support in the Oracle Utilities Energy Information Platform, including:

- **Locales and Languages**
- **Date and Numeric Presentation**
- **Currency Presentation**
- **Multiple Currency Support**
- **File Formats**
- **Database Support**

Locales and Languages

Two fundamental concepts underlying international support in Oracle Utilities applications are **languages and locales**. Languages determine the specific language in which text labels and controls of an application appear. Locales determine the specific region or country in which the user is working. Specifically, locales are used to specify display and input formatting for:

- Date/time and numeric presentation, and
- Currency presentation

How a user selects a language and/or locale is determined by the type of application being used.

Web-enabled Products

For web-enabled products, a user's locale and language are selected from the **Locales** tab of the **Set Preferences** screen. The selected locale and language are stored in the user's security properties. The available locales on this screen are specified in the LOCALES.CFG.XML configuration file (see **Chapter 2: Configuration Files** in the *Oracle Utilities Energy Information Platform Configuration Guide* for more information). Locales included in the LOCALES.CFG.XML file must also be installed on the web server and be accessible from the Regional Settings Control Panel. If a selected locale is not installed on the web server, currency formatting and presentation may be incorrect.

If a user does not select a locale (or selects a locale of "None"), the default locale is the Server System Locale (defined by the operating system installed on the web server). Oracle Utilities recommends that all users specify a locale before using internationalized applications.

Client/Server Products

For client/server products, the user's locale is determined by the Regional Settings of the client and/or application server machine.

Languages

The language for client/server products is specified using a command line switch and/or a parameter in the LODESTAR.CFG file. See **Oracle Utilities Application Command Line Parameters** on page 4-9 in the *Oracle Utilities Energy Information Platform Installation Guide* for more information about command line parameters. See **LODESTAR.CFG** on page 2-2 in the *Oracle Utilities Energy Information Platform Configuration Guide* for more information about the LODESTAR.CFG file. At this time, available languages include English, French, German, and Italian.

Reports

For client/server applications, the locale for reports is determined by the Regional Settings of the machine on which the report is run.

For web-enabled applications, the locale for reports is based on the Server System Locale (defined by the operating system installed on the web server)

Languages

For client/server applications, the language that appears on reports is determined by the language of the application that generated the report, specified either by a command line parameter or a configuration file parameter.

For web-enabled applications, the language is specified by the Regional Settings of the machine on which the report is run, unless overridden by the LANGUAGE parameter in the LODESTAR.CFG file.

Date and Numeric Presentation

The display and input of dates and numbers is based on the selected locale.

Web-enabled products

Display formatting of both numbers and date/times is based on the user's selected locale.

Copy, cut, and paste operations are supported for all input controls. Required fields are identified by asterisks. Null values are represented by blank (empty) controls. Moving the mouse pointer over an input area displays sample formatting for that field.

Number input controls only accept formatting based on the user's selected locale. The only allowable characters include digits, decimal separator, and minus sign. Any other characters are filtered from input.

Date input controls only accept formatting based on the user's selected locale. Dates can either be keyed in or selected from a pop-up calendar control. All times are keyed in and based on 24 hour format (no AM or PM indicator).

Input validation occurs upon data entry.

Client/Server Products

Formatting for numbers and date/times is based on the locale determined by the regional settings of the client and/or application server machine. Date/time formatting can be overridden from the General Options tab of the Default Options dialog.

Reports

Display formatting of both numbers and date/times for reports is based on the Server System Locale on the machine on which the reports are run.

Currency Presentation

Currency information is stored in the LSCurrency table in the Oracle Utilities Data Repository. This table contains one or more currencies, each defined by a currency code, currency symbol, and formatting rules (such as the number of decimal places). Currency codes in this table use ISO-4217 codes. The LSCurrency table also indicates the Default currency for the database. See **LSCurrency** on page 3-3 in the *Oracle Utilities Energy Information Platform Configuration Guide* for more information about setting up the LSCurrency table.

Note: Although records in the LSCurrency table are not required, Oracle Utilities strongly recommends that at least one record with all properties specified be created and set as "Default". This will ensure consistent display of currency information.

Currency Presentation in Oracle Utilities Receivables Component and Oracle Utilities Quotations Management

Currency input and display is identical to that for numbers with two exceptions:

- A currency indicator is also displayed next to currency input controls and currency displays. The specific currency symbol displayed and the manner in which currency is formatted are determined in the following order:
 - a. The currency associated with the account being viewed (from the LSCurrency field in the Account table).
 - b. The default currency in the LSCurrency table. If there is no default currency, the first record in the LSCurrency table (sorted alpha-numerically by Currency Code).
 - b. If the LSCurrency table is not present or does not contain any records, the currency and formatting of the Server System Locale (defined by the operating system installed on the web server), specified in the **HKEY_USERS\DEFAULT\Control Panel\International** key in the Windows Registry on the web server.
- Currency formatting rules for the user's selected locale are overridden if specific formatting rules for the currency are stored in the LSCurrency table. Typically, the only formatting rules that would be overridden at the currency level would be the ISO code, symbol, and number of decimal places. This applies to Oracle Utilities Receivables Component reports as well, except that the initial locale formatting rules come from the regional settings of the machine on which the report is run.

Currency Presentation in Other Web-enabled Products

Currently, other web-enabled products do not require input of currency values.

Display of currencies is based on the formatting of the selected locale and of the default currency in the database (currency specific formatting always overrides locale specific formatting).

Enabling Display of International Currency Symbols

Display of international currency symbols requires the appropriate Encoding option is selected on Internet Explorer.

How to select encoding options:

1. Select **View→Encoding** from the Internet Explorer menu bar.
2. Select the appropriate option from the list. For example, to enable displaying of the Euro symbol and other Western European currency symbols, select the **Western European (Windows)** option.

Currency Presentation in Client/Server Products

Client/server products do not require input of currency values.

Display of currencies is based on the formatting of the client machine's regional settings and of the default currency in the database. Currency specific formatting always overrides locale specific formatting. If the default currency in the database does not specify any formatting, the currency symbol is used for formatting. If the currency table does not exist or does not contain any records then the default currency is determined by the Regional Settings on the client/server machine. This applies to reports as well.

Multiple Currency Support

Multiple Currency Support allows for accounts with different associated currencies. This is accomplished through the presence of the Currency Code column on the Account, Journal Account, and Checking Account tables in the Oracle Utilities Data Repository. This column references records in the LSCurrency table

Multiple Currency and Oracle Utilities Receivables Component

All input screens which have amount fields on them indicate what currency type is expected as input.

All elements that represent a currency in Oracle Utilities Receivables Component XML structures have a CURRENCY attribute that indicates the corresponding currency type for the amount. The string values used for this attribute are the same as the Currency Code values in the LSCurrency table. On output, the CURRENCY attribute is set for the account as specified in the database. If the account's currency type is not specified in the database, the default currency is used.

A CURRENCY attribute (using the standard stem.tail notation) is supported for Oracle Utilities Receivables Component transaction identifiers to specify the currency type for the account.

On input, the CURRENCY attribute of all Oracle Utilities Receivables Component transactions is checked against the currency value of the account against which the transaction is being posted using the following rules:

1. If a currency type is specified for the account in the database, the transaction must indicate the same currency type or it is an error.
2. If a currency type is not specified for the account in the database, the transaction must indicate either no specific currency type or the default currency type for the database or it is an error.

All transactions that involve two or more accounts (such as Payment and Balance Transfers) validate that the currency types are the same for each account (no currency translation will occur). The credit/debit account pairs for each journal translation record are validated to ensure that they both have the same currency type. Only journal translation records that have credit/debit accounts with the same currency type as the account against which the transaction is being posted are used. Additional currency validations occur for payment files and refund checks.

Multiple Currency and Oracle Utilities Receivables Component Reports

Where applicable, Oracle Utilities Receivables Component reports are grouped by Currency Code.

Multiple Currency and Other Oracle Utilities Products

Oracle Utilities Billing Component, Oracle Utilities Rate Management and Data Manager reports display the Currency Code associated with each account where applicable. Reports that contain multiple currency types do not include the Summary Results page.

In Oracle Utilities Rate Management - Revenue Forecasting, the default currency type is used for all presentation of currency amounts, regardless of whether or not a specific currency has been indicated in the database for any accounts.

File Formats

Input/Output File Formats

Numbers and date/times in input and output files (such as files used with the PLIMPORT program) are independent from locale settings.

Non-English characters are supported in input/output files.

XML Formats

All dates, times, and numbers contained in XML files are represented using the standard formatting rules as defined by the W3C XML Schema Recommendation. For backward compatibility, previously accepted formats for dates and times will continue to be accepted on input, however, all output will use the XML Schema representation.

Note: XML files created by the SAVE TO XML Rules Language statement are an exception. The date, time, and number formats in Rules Language generated XML files are based on the Rules Language configuration used to create them.

Non-English characters are supported in XML files

Database Support

In addition to the LSCurrency table and related columns in the Account, Journal Account, and Checking Account tables, database support for internationalization includes the addition of the COUNTRY column in the Address table and the change from ZIP Code to Postal Code on user interfaces.

Oracle Utilities Billing Component Documentation Overview

In addition to the *Oracle Utilities Billing Component User's Guide* (this book), Oracle Utilities Billing Component comes with a number of other manuals and documents. These are described briefly below.

Oracle Utilities Billing Component Installation Guide

This manual describes how to install Oracle Utilities Billing Component, including software and database installation.

Oracle Utilities Billing Component Configuration Guide (Volume 1 & 2)

This manual describes how to configure Oracle Utilities Billing Component, including setting up database records, setting up billing to run in batch mode, configuring contract management, receivables management, and workflow management.

Oracle Utilities Energy Information Platform User's Guide

The Oracle Utilities Energy Information Platform is the name of the features and functions shared by Oracle Utilities applications including Oracle Utilities Billing Component, Oracle Utilities Meter Data Management, Oracle Utilities Quotations Management, and others. The *Oracle Utilities Energy Information Platform User's Guide* contains describes how you work with the Oracle Utilities Energy Information Platform web -user interface.

Data Manager User's Guide

Data Manager is the tool you use to view, edit, and update records in the Oracle Utilities Data Repository. The *Data Manager User's Guide* explains how to use Data Manager to view and maintain data in the Oracle Utilities Data Repository.

Oracle Utilities Rules Language User's Guide

The Oracle Utilities Rules Language is a powerful command language that defines business rules and specific items such as rate tariffs. The *Oracle Utilities Rules Language User's Guide* and *Oracle Utilities Rules Language Reference Guide* describe the Oracle Utilities Rules Language and how it is used with Oracle Utilities products.

Oracle Utilities Energy Information Platform Installation Guide

The *Oracle Utilities Energy Information Platform Installation Guide* contains installation information related to the Oracle Utilities Energy Information Platform.

Oracle Utilities Energy Information Platform Configuration Guide

The *Oracle Utilities Energy Information Platform Configuration Guide* contains configuration and system administration information related to the Oracle Utilities Energy Information Platform.

Chapter 2

Working with Oracle Utilities Billing Component

This chapter describes how you work with the Oracle Utilities Billing Component application, including:

- **Starting Oracle Utilities Billing Component**
- **Oracle Utilities Billing Component Menus**
- **Oracle Utilities Billing Component Toolbar**
- **Default Options**
- **Default Billing Options**
- **Browsing and Viewing Account Data**
- **Using Online Help**
- **Shortcut Tips**
- **Saving and Applying Settings for Dialog Boxes**

Starting Oracle Utilities Billing Component

This section describes how to start the Oracle Utilities Billing Component application.

From the Windows Desktop

Depending upon how your system is configured, you can start Data Oracle Utilities Billing Component using one of two methods:

- Double-click the Oracle Utilities Billing Component icon, or
- Click the **Start** button in the lower-left corner of the Windows desktop. Then, select **Programs->Oracle Utilities->Oracle Utilities Billing Component**.

Depending upon your system configuration (or if an error occurs during database initialization), the logon screen appears.

- User Name: the user ID for the database connection*
- Password: the password for the supplied user ID*
- Data Source Name: The data source name and provider for the database, in one of the following formats:

For Oracle databases:

```
"Data Source=<data_source>;LSProvider=ODP;"
```

For Microsoft SQL databases:

```
"Data Source=<address>;Initial  
Catalog=<SQL_database>;MultipleActiveResultSets=True;LSProvider=MS  
SQL;"
```

where:

- <data_source> is Oracle TNS Name from the TNS_NAMES.ora file (typically located in the \\<machine>\oracle\network\admin directory)
- <address> is the IP address or Hostname of the MS SQL Server database server
- <SQL_database> is the name of the MS SQL Server database

* User Name and Password are optional—if you do not supply them, the UserID defaults to your Windows logon ID.

When you complete the fields and click **OK**, the Oracle Utilities Billing Component desktop appears. You are now ready to begin.

From Another Oracle Utilities Application

You can also start Oracle Utilities Billing Component while working in another Oracle Utilities application program, such as Data Manager. From that program's desktop, select **Tools->Oracle Utilities Billing Component**. The Oracle Utilities Billing Component desktop appears.

Note: If Oracle Utilities Billing Component is not available on the Tools menu, contact your System Administrator. (Oracle Utilities Billing Component must be added to the *.tls files.)

Oracle Utilities Billing Component Menus

The Oracle Utilities Billing Component menus provide access to all Oracle Utilities Billing Component functions, as well as to all other Oracle Utilities products installed on your system. The following pages describe each option on each menu.

Note: Many of the options available via the menus are also available via the Toolbar. If the Toolbar does not appear on your screen, select **Tools->Display Toolbar**.

File Menu

Browse Customer/Account(s): This lets you view any information in the Oracle Utilities Data Repository for one or more selected accounts or customers; information is displayed via the browser. See **Chapter Six: Browsing Data**, in the *Data Manager User's Guide* for a complete description of that tool. Also see **Browsing and Viewing Account Data** on page 2-22.

View->Account: This lets you view, update, add, and delete information about a selected account using the Account-Centric View. See **Chapter Five: The Account-Centric View**, in the *Data Manager User's Guide* for a complete description of the Account-Centric View. Also see **Browsing and Viewing Account Data** on page 2-22.

Close: Close an open report window.

Save: Not applicable to Oracle Utilities Billing Component.

Save As...: Not applicable to Oracle Utilities Billing Component.

Export: Export contents of an open report window to a file.

Print: Print contents of an open report window. See **Changing the Appearance of Reports** on page 3-13 for more information.

Exit: Close the Oracle Utilities Billing Component application.

Edit Menu

Cut: Cuts selected text and saves temporarily to the Clipboard.

Copy: Copies selected text to the Clipboard.

Paste: Pastes text from the Clipboard.

Undo: Undoes last cut, copy, or paste.

Redo: Undoes the last Undo.

Add: Add a new record to the database.

Update: Update a record in the database.

Delete: Delete a record from the database.

Note: The Add, Update, and Delete options are operable only when the browser window is open.

Find: This option allows you to search for a word or words in an open report window. When you select this option (or press **F3**), the Find dialog opens. See **Changing the Appearance of Reports** on page 3-13 for more information.

Find Next (Shift-F3): This option finds the next instance of the word or words last entered in the Find dialog.

Find Previous (Ctrl-F3): This option find the previous instance of the word or words last entered in the Find Dialog.

Go To (Ctrl-G): This option opens the Go To tab on the Find dialog and allows you to go to a specific line in an open report window.

Browse Account: Examine information in the Oracle Utilities Data Repository for a selected account using the Browser.

Note: You must first highlight an Account ID in a report in order for this feature to be available.

View Account: Examine information in the Oracle Utilities Data Repository for a selected account using the Account-Centric View.

Note: You must first highlight an Account ID in a report in order for this feature to be available.

Refresh Cached Tables: Refreshes the contents of tables displayed in the browser.

Font: Allows you to change the font in an open report window. See **Changing the Appearance of Reports** on page 3-13 for more information.

CIS Billing Menu

Automatic Billing: *This option is available only on designated machines.* Start, stop, and set parameters for automatic billing based on billing cycle dates. See **Chapter 5: Automatic Billing** for more information.

Approval Required: This option lets you initiate bill calculations for eligible accounts designated as “Approval Required.” See **Chapter 6: Approval Required Billing** for more information.

Current/Final Bill: This option enables you to:

- manually create a “review” copy of a bill for the customer’s approval before issuing the actual bill.
- issue a final bill for a closing account.
- issue a bill for a user-specified stop
- issue a bill despite missing data.

See **Chapter 7: Current/Final Bill** for more information about the Current/Final Bill module.

Bill Correction: This option lets you correct bill calculations, by either cancelling and re-issuing an old bill, or applying an adjustment to a new one. Transactions written to the output file reflect the re-billing and/or the cancellation. See **Chapter 9: Bill Corrections** for more information about processing bill corrections.

Review Billing Checklist: This option lets you preview the billing needs of accounts or customers due to be billed. See **Chapter 4: Review Billing Checklist** for more information about the billing checklist report.

Review Billing Exceptions: This option lets you review billing errors. See **Chapter 8: Review Billing Exceptions** for more information about the billing exceptions report.

Billing Options: This lets you set default options for all Oracle Utilities Billing Component modules and all Oracle Utilities Billing Component users. See **Default Billing Options** on page 2-16 or more information about setting Billing Options.

Analysis Menu

Trial Bill Calculation: This option lets you calculate a bill for a selected account and rate schedule over a user-defined period of time, and examine the results of the calculations, line by line in the rate form. Trial Bill does **not** issue transaction records to CIS or save records to Oracle Utilities Database (unless specified in **Advanced** options). See **Chapter 12: Calculating Trial Bills** for more information.

Billing History: This option lets you generate a summary of bill determinants for one or more accounts over any desired time period for which data is available. See **Chapter 11: Other Reports** for more information about this report.

Special Event: This option lets you generate a summary of special event overrides that apply to one or more accounts over any desired time period for which data is available. See **Chapter 11: Other Reports** for more information about this report.

Late Billings: This option lets you report interest lost on late bills. See **Chapter 10: Problem Bills and the Late Bill Report** for more information about this report.

The Top Accounts: This option lets you report revenue and usage for largest customers, and compare to same period one year earlier. See **Chapter 11: Other Reports** for more information about this report.

Rider Summary: This option lets you list tariff riders applied to accounts over a user-specified date range. See **Chapter 11: Other Reports** for more information about this report.

Records Menu

The Records menu contains options for working with records in the Oracle Utilities Data Repository. Note that the Records menu is only available when the Browser is displayed.

Insert New: Inserts a new record in the selected table.

Filter: Opens the Set Filter dialog and allows you to filter records in the browser based on specified criteria. See the *Data Manager User's Guide* for more information.

Export: Exports all records from a selected table, as well as all associated parent, child, and lookup records, when specified. See the *Data Manager User's Guide* for more information.

Delete: Deletes all records from a selected table, as well as all associated child records. No Export file is created. See the *Data Manager User's Guide* for more information.

Export/Delete: Exports all records* in a selected table, as well as all associated child records, and deletes same records from the database. See the *Data Manager User's Guide* for more information.

Refresh: Refreshes the selected table.

Browse Interval Data: This option opens the Interval Data Browser. This option is only active if you've selected the Channels, Recorders, or Channel History table, or one of the records in one of those tables. If you select a table, the Interval Data Browser displays the entire Interval Database. If you select a single record, the Interval Data Browser displays only the selected record. See the *Data Manager User's Guide* for more information.

Refresh All: Refreshes all the tables in the Oracle Utilities Data Repository.

Single-Step Menu

The Single-Step menu contains options for working with the Trial Calculation window. Note that the Single-Step menu is only available when the Single-Step windows are displayed.

Step: Executes the selected line in the statements (upper left) window.

Jog: Executes the rate form slowly, line by line, allowing users to view the results.

Run: Runs the rate form.

Jog to Selection: Executes the rate form slowly, line by line, up to a selected line.

Run to Selection: Runs the rate form up to a selected line.

Break: Stops processing when “jogging” through a rate form.

ReStart: Reloads the rate form, allowing users to restart processing.

Graph Interval Data: If selected, displays interval data loaded in the rate form in the lower window. The default for this option is on.

Show Selected Identifiers: Shows the values of selected identifiers in the rate form. Identifiers are selected on the **Customer Bill Modification - Edit Id** dialog accessible when running a Single Step Analysis. See **How to run the Single Step Analysis** on page 12-4 for more information.

Show All Identifiers: Shows the values of all identifiers in the rate form.

View Open Interval Data Handles: Opens the Browse Open Interval Data Handles window, displaying interval data handles loaded in the rate form.

Display Report: Opens a report window for the trial calculation.

Display Profile: Opens a performance profile that lists the processing time for each line in the rate form.

Insert/Remove Breakpoint: Inserts or removes a breakpoint at the selected line in the top left window in the Single Step module. See **How to run the Single Step Analysis** on page 12-4 for more information.

Clear All Breakpoints: Clears all breakpoints in the rate form currently open in the Single Step module. See **How to run the Single Step Analysis** on page 12-4 for more information.

View Menu

The View menu contains options for altering the view of reports. Note that the View menu is only available when an open report window is displayed.

Note: The contents of the View menu change when viewing graphs. See **Creating Graphs** on page 3-14 for more information.

Graph: Opens the Create Graph dialog and allows you to create a graph based data in the report. This option is only available if the data in the report can be graphed. See **Creating Graphs** on page 3-14 for more information.

Auto Vertical Scroll: Selecting this option causes the last page of the report to be displayed as the report progresses; if it is not checked, no automatic scrolling occurs.

Display Only Pages With Errors: Creates a new report window based on an open report window that contains only pages that contain errors. This option is only available if an open report window contains pages with errors.

Display Only Pages Without Errors: Creates a new report window based on an open report window that contains only pages that contain no errors. This option is only available if an open report window contains pages with no errors.

Tools Menu

Options: This option provides you with options for tailoring Oracle Utilities Billing Component to your needs and environment. See **Default Options** on page 2-9 for more information.

Display ToolBar: This option lets you toggle display of Toolbar on and off. See **Oracle Utilities Billing Component Toolbar** on page 2-8 for more information.

Customize: *Available in future release.* This option lets you make other programs accessible from the Oracle Utilities Billing Component menu bar.

[application]: This option opens another Oracle Utilities or user-specified application program. If other Oracle Utilities applications are not listed on your Options menu, contact your System Administrator.

Windows Menu

Cascade: This option lets you overlap multiple open windows in Oracle Utilities Billing Component desktop, providing largest view of the active window.

Tile: This option lets you display multiple open windows side by side.

Arrange Icons: This option lets you organize icons on Oracle Utilities Billing Component desktop.

Close All: Closes all open windows.

Help Menu

Help: Displays the on-line help for currently-displayed window. See **Using Online Help** on page 2-23 for more information.

Help contents: Displays the table of contents for on-line help. See **Using Online Help** on page 2-23 for more information.

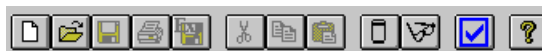
About: Displays the version number of the software. Also displayed are user name, computer (network) name, and database name.

Display Error Window: Displays the database version, configuration settings, and error log. This is useful when calling the Help Line.

Oracle Utilities Billing Component Toolbar

The Toolbar gives you quick access to the program's most frequently used tools and commands. If the toolbar is not visible, select

Tools->Display ToolBar.



The following describes the function of each Toolbar button. Additional details are provided in other parts of this guide.

Click	To
New	<i>Not Available in Oracle Utilities Billing Component.</i>
Open	<i>Not Available in Oracle Utilities Billing Component.</i>
Save	Save the currently displayed report.
Print	Print the currently displayed report.
Export	Export the currently displayed report.
Cut	Remove selected text from the currently displayed report.
Copy	Copy selected text and store it on the Clipboard.
Paste	Insert contents of the Clipboard at the insertion point or selection.
Browse	View information in the Data Repository about selected accounts or customers; information is displayed via the Browser.
View Account	View, update, add, and delete information about a selected account using the Account-Centric View.
Error Window	Display database version, configuration file settings, and error log. Useful when calling the Help Line.
Help	Display on-line help for currently displayed window.

Default Options

The Options feature allows you to set your own default values for several frequently used parameters. You can set your preferred defaults via Data Manager or another Oracle Utilities product (such as Oracle Utilities Billing Component) and store them in the Oracle Utilities Data Repository. In that way, whenever you open a Oracle Utilities program, these values are automatically supplied—saving you the time and effort of defining them each and every time.

When you are working in any of the Oracle Utilities application programs, you can also override your defaults for individual work sessions, or even specific dialog boxes throughout the programs. Whenever you see the **Options** button on a dialog box, you can click it to open the Options box to override the defaults.

Available options include:

- **General Options**
- **Rate Analysis Options**
- **Billing Options**
- **Interval Data Source**
- **Interval Data Options**
- **Interval Data Merge**
- **Error Handling**
- **User Files**

How to set default options:

1. At the Desktop, select **Tools→Options**. Or, Click the **Options** button on the current active dialog box.
2. Set your options on each tab as desired.
3. When you have completed the tabs as desired, click **OK** to save the new settings as your defaults, replacing the previous settings. Any Oracle Utilities program you run will automatically use these defaults. If you click **Apply**, the result depends on how you opened the **Default Options** dialog:
 - If you opened the **Default Options** dialog from the main menu, your new settings apply to all of your work for remainder of your current session. The settings will revert to the original defaults when you quit the Oracle Utilities programs.
 - If you opened the **Default Options** dialog by selecting the Options button in a dialog box, your new settings apply to just the current job.

The next several pages contain detailed information about the Default Option tabs.

General Options

The General tab specifies a number of default values and formatting preferences used by the system.

Default Operating Company: Choose the default operating company for bill calculations and rate analyses.

Default Jurisdiction: Choose the default jurisdiction for bill calculations and rate analyses.

Account ID: Choose the default ID for bill calculations and rate analyses.

Minimum printed line width: The type size in printed reports is partially determined by the number of characters that you specify here. The recommended setting is 110 characters, which yields approximately 10 to 12 point type (depending upon your printer). If you do not supply a value here the programs automatically sizes the type based on the longest line in the report. So for example, if the longest line were 40 characters, the program would size the type so that the 40 characters filled the entire width of the page, which most likely would yield uncomfortably large type. On the other hand, if the longest line in the report is longer than the value you specify here, the value has no effect.

Default to landscape printing after this # of characters: If a line single line in a report contains this many characters, the report will default to landscape printing. This allows the user to print reports in landscape mode without having to manually change the mode in the printer's properties dialog box.

Display calculation time with date on each report page: The date/time is displayed on every page of every report. If this option is checked, the time is also displayed with the date.

Date Format: Your selection here dictates the format used to enter dates via the graphical user interface, and how they are displayed in reports. (This setting is not dependant upon, nor does it affect, how dates are stored by your database software.)

Your three options are:

- **MM/dd/yyyy hh:mm:ss:** Month-day-year, hours-minutes-seconds.
- **yyyy-MM-dd hh:mm:ss:** Year-month-day, hours-minutes-seconds.
- **Windows Regional Settings:** Default Options will draw from the **Date** tab of the **Regional Settings** Windows Control Panel.

Using the Windows Regional Settings, you will have greater flexibility in the formats available to you. You can set a 2-digit year (although the 4-digit, Y2K-compliant date will still be used internally), a European format (day-month-year), and so on.

Note: If you change the Windows Regional Settings while an application (Data Manager, Oracle Utilities Billing Component, etc.) is running, you must restart the application in order for the new settings to take effect.

Rate Analysis Options

The Rate Analysis tab specifies default values for processing rate schedules and running reports.

Default Rate Schedule: Choose a default rate schedule for calculating charges. This is the default schedule selected when running trial calculations.

Test Period: Can be any period, one month or greater. This period is used as the default time range for the Billing History Report, Special Events Report, and Trial Calculations.

Default Season Schedule: Select a season schedule for the calculations.

Note: If when running an analysis or calculation, the input rate form includes a statement that assigns a value to the SEASON_SCHEDULE_NAME identifier, the value in the rate form takes precedence over the Options selection.

Display Line Numbers: If this checkbox is checked, the Rules Language Editor and Rules Language Text Editor display line numbers at the beginning of each statement/line. Line numbers also appear in the Trial Calculation window.

Maximum number of Undo's allowed: This field sets the maximum number of Undos allowed in the Rules Language Editor. The default is 1.

Display 'Saved by' comments at end: If selected, the 'Saved by' comments inserted in rate schedules are inserted at the bottom of rate schedules instead of at the top. This option unselected by default.

Billing Options

The Billing tab specifies how billing information is displayed by the system.

Round Revenue: Specifies the precision of revenue values in reports. *This setting affects only values that have been assigned to revenue identifiers via an Assignment, All, or Block statement in the applicable rate form.* A value of **0** (zero) means don't round, **-1** means round to dollars, **-2** means round to tens of dollars, **1** to tens of cents, **2** to cents, and so on.

Currency displayed to n decimal places: Specifies the number of decimal places shown in reports for dollar values. It is usually set to be consistent with your choice for Round Revenue. A value of **0** (zero) means use the default (display cents), **1** means display tens of cents, **2** means display cents, **3** means display tenths of cents, **4** means display hundredths of cents, and so on.

Note: This setting applies only to Oracle Utilities Billing Component reports; Oracle Utilities Rate Management reports always display dollars with two decimal places (cents).

Display midnight as 00:00:00 (not blank): Specifies whether or not a value (00:00:00) is displayed and printed when the time is midnight or unspecified.

If you leave this option unchecked (the default), the programs print and display the date without a time when *either* the time has not been specified or the time is midnight. For example, if either 12/01/1998 or 12/01/1998 00:00:00 were specified, the program would display 12/01/1998.

If you check this option, the programs print and display 00:00:00 when the time is either unspecified or midnight. For example, if either 12/01/1998 or 12/01/1998 00:00:00 were specified, the program would display 12/01/1998 00:00:00.

Interval Data Source

The Interval Data Source tab specifies the source of interval data used by the system.

Interval Data Database: Select a Type from the three options:

- **File:** Specify a Pervasive.SQL (*.bte) file. The **File** option below becomes active when this button is selected, allowing you to specify a Btrieve file (and path) in the **File Name** field, or to **Browse** to a file.
- **Default:** Specifies that the default Interval Data Database identified in the LODESTAR.CFG File be used. See the *Oracle Utilities Energy Information Platform Installation and Configuration Guide* for more information about setting a default Interval Data Database.
- **Customer Database:** Specifies that interval data stored in the Oracle Utilities Data Repository be used. When this button is selected, a drop-down list appears listing all available interval data header tables. The default table is the Channel Cut Header (LSCHANNELCUTHEADER) table.

Export Records Overwritten by SAVE to File: This option saves interval data cuts from the Interval Database to an export file before they are overwritten by new cuts created by a Rules Language SAVE Statement. The full path and name of the file (including a valid extension) must be specified.

This option appends new cuts to the same file without overwriting previously exported cuts.

Interval Data Options

The Interval Data Options tab specifies how interval data is loaded and processed by the system.

Exclude intervals with quality less than: Specify a status code level that the interval data must meet or exceed in order to be included in the calculations. All interval values with a code less than your selection will be ignored by the programs.

The codes are listed in order of decreasing quality—alpha codes generally indicate that the data is acceptable; numeric codes indicate that the data is suspect and should be corrected..

Status Code	Classification of interval data
(blank)	Normal
A	Normal, alternate-recorded (e.g., hand-entered)
J	Data inserted by Oracle Utilities Load Analysis to correct outage
L	Default for data modified by Oracle Utilities Load Analysis Load Data Editor
M	Splice peak interval (estimated value)
N	Interruptible or curtailable load
P	Inserted outage
Q	Corrected outage
X	Cuts resulting from merging invalid data or from unrecognized status codes
Y	Reserved
1	Uncorrected outage
2	Non-normal (usually timing-pulse defects)

Status Code	Classification of interval data
5	Aggregated interval used in rolling format with partially missing or unavailable data
7	Marged, aggregated, or transformed interval with partially missing data
9	Missing

Day Start: Specify the time that your facility considers the beginning of the day—8:00 am or midnight. This setting pertains to the ROUNDATE Rules Language function.

Use in all day calculations: Check this box if you want the Day Start time to apply to all date calculations that round to a full day or higher.

Use interval end time when displaying time of the interval: Specifies whether the start- or end-times of intervals are displayed for the MAXDATE values in INTDVALUE and INTDTOUVALUE functions. If checked, the end-time is displayed. If unchecked, the start-time is displayed (the default).

Add Fall Daylight Savings Time value to Energy requests: Because previous versions of the Oracle Utilities Data Repository stored energy in a 24-hour format, the system had to compensate for the extra hour of interval data that is left over on the day when the clocks are turned back for Daylight Savings Time. To do this, the system automatically takes each account's interval data values for the two DST hours (2:00 AM in the US) and averages them together for a single hour. This option enables you to specify how Oracle Utilities Billing Component (or other Oracle Utilities products) handles the “leftover” hour when calculating energy from interval data. If this option is checked, the system doubles the averaged value. If the option is unchecked, it uses just the single, averaged value. This option should only be used if the DST Participant flag is set to “A” in your interval data.

Version 3.70 (and above) can store interval data in 25-hour format (for the day when DST ends). Oracle recommends this option remain **unchecked** when using version 3.70 or above. Enabling this option in version 3.70 or above can result in incorrect energy calculations.

Export Validation Flag: Controls the settings of the Validate_Record_Flag upon export. This can be set to one of the following:

- **Valid** (default): Sets all Validate_Record_Flags of each cut within the exported file to “N”, ignoring the Validation status of the requested cuts.
- **Invalid:** Sets all Validate_Record_Flags of each cut within the exported file to “Y”, effectively ignoring the Validation status of the requested cuts.
- **Use Cut's Status:** Sets the Validate_Record_Flag to either “Y” or “N” depending upon the combination of validation flags that are current in the cut when exporting takes place. If either the Merge flag or the Internal_Validation flag are “Y”, then the Validate_Record_Flag in the exported cut is set to “N”. If both are set to “N” then the Validate_Record_Flag is set to “Y”.

Interval Data Merge

The Interval Data Merge tab allows you to specify how interval data cuts are merged when using the INTDJOIN Rules Language function.

Note: The Interval Data Merge options tab only appears if you include the INTD_NEW_JOIN parameter in the configuration file. See the *Oracle Utilities Energy Information Platform Installation and Configuration Guide* for more information.

Check Interval Data Validation before Merge: Check this checkbox to cause the program to check cuts' merge validation flag before merging. The default is not to check.

Interval Data Merge Selection Criterion: Choose a criterion for merging overlapping interval cuts (i.e., a rule how to merge two cuts into one). There are four criteria for merge:

- **Most Recent Start:** Pick the interval from the cut that starts later.
- **Best Status:** Pick the interval from the cut with a better status code. If the intervals have the same status code, the values are averaged.
- **Average Value:** Pick the time-weighted average of the overlapping intervals. The status code of the averaged interval will be the worse of the overlapping intervals.
- **Maximum Value:** Pick the interval from the cut with a larger value.
- **Time Stamp:** Pick the interval from the cut with the later Timestamp.

The default criterion is Most Recent Start.

Error Handling

The Error Handling tab specifies how errors are handled by the system.

Display error messages: If checked, the program will display the number of errors (if any) it encountered during the job run.

Stop analysis after ## errors: The number of errors to allow when running an analysis or bill.

On Rules Language Interval Data Error: Use this option to specify how the programs handle interval data problems encountered while the rate schedule is running:

- **Stop with Error.** Stop processing in any mode.
- **Log Message.** Complete processing; include warning message in error log, but not in report.
- **Continue.** Complete processing; do not issue any messages.
- **Issue Warning Message.** In the Automatic Billing mode, stop processing the bill. In the Automatic or Approval Required modes, complete processing, but issue a warning message in the bill report.
- **Issue Information Message.** Complete processing; include informational message in report.

User Files

The User Files tab specifies where files created by the user are stored by the system.

Default User Directory: If there is a value in this field it will override the USERDIR setting in the configuration file (after the database is opened). Files put in the user directory before the database is opened - such as .log files - will still be placed in the USERDIR directory.

Use last save/open path as default for next save/open? - If this checkbox is checked, the path used in the last open or save operation will be the default path for the next open and save operation, for the duration of the application's run. Each time an application starts it will use the Default User Directory/USERDIR path in the first open or save.

Default Billing Options

The **Default Billing Options** dialog box lets you specify default global options that apply to all accounts in the system. These options apply to all billing modules and to all Oracle Utilities Billing Component users (unlike the user-specific **Tools->Options** preferences described in **Chapter Two** of the *Oracle Utilities Billing Component User's Guide*). However, you can override any of these settings for specific rate schedules, rate codes, or accounts in the Oracle Utilities Data Repository, or for individual jobs. Available Billing options include:

- **Billing Options**
- **Billing Rules**
- **Report Options**
- **Summary Options**
- **Multiple Bill History Records**
- **Check Options**

How to set a global billing mode:

1. Select **CIS Billing (or Analysis)->Billing Options**.

The **Default Billing Options** dialog box appears.

2. Set your options on each tab as desired.
3. When you have completed the tabs as desired, you have the following choices for applying the options:
 - **OK:** Saves the new settings as your defaults, replacing the previous settings.
 - **Apply:** The new settings apply to all of your work for remainder of your current session. The settings will revert to the original defaults when you exit the application.

Billing Options

The Billing Options tab specifies a number of default values and preferences used when performing billing calculations.

Default Billing Mode: Use this option to specify the mode that Oracle Utilities Billing Component applies to accounts that have not otherwise been assigned a billing mode. If you select **Automatic Billing**, Oracle Utilities Billing Component calculates the bills, updates the Oracle Utilities Data Repository, and issues transaction records—all without review and approval by a user. If you select **Approval Required**, Oracle Utilities Billing Component puts the results of its bill calculations in a bill report which you must approve before the software issues any transaction records or updates the bill history record in the Oracle Utilities Data Repository).

Note: Any billing mode flags set for individual rate schedules, rate codes, or accounts in the Oracle Utilities Data Repository records automatically override this setting.

Default Eligibility Pre- and Post-Windows: Specify the number of days before an account's scheduled read date (the Pre-Window) and the number of days after an account's scheduled read date (the Post-Window) that defines the "eligibility" window. You can supply any value from 0 to 28 for either. In the **Automatic Billing** and **Approval Required** modes, Oracle Utilities Billing Component uses this window to identify "eligible" accounts. That is, if today's date falls within this window, Oracle Utilities Billing Component begins scanning for the data required to bill the account and continues scanning until the data is available or the window for the account passes today.

Note: If you set the Post Window to 0, the data must be available by the end of the read date, or it is considered missing. You can override the eligibility window setting for individual accounts and recorder types.

Note: The Default Pre- and Post-Windows should be set the same or larger than the largest Pre- and Post-Window for any single account.

Special Event Pre Window: Specify the number of days prior to the billing date within which a Billing Analyst must approve an account's Special Events information in order for the account to be billed. You can enter any value from 0 to 28.

This feature is designed to ensure that all Special Events are included in a bill. For example, suppose that the Billing Analyst approved an account's Special Event information on schedule. However, for some reason the account's meter could not be read until seven days after the scheduled date. That would mean there would be seven days during which a Special Event could occur but not be included in the current bill. However, if you set the Special Event Pre Window to some number less than 7, Oracle Utilities Billing Component would flag the account as "ineligible" and the billing analyst would have to update the special events information.

Automatic Repeat Frequency: The default amount of time between a completed Automatic Billing cycle and the next. Set this number in minutes, from 0 (do not repeat) to 1440 (24 hours later).

Note: The setting here does not actually define the repeat frequency; it simply specifies the default. The repeat frequency is set on the Automatic Billing Parameters dialog box.

Billing Rules

The Billing Rules tab specifies a number of default rules and settings used when performing billing calculations.

Effective Date is: The date used to determine Rate Form versions, factor values and the default for determining the season. There are four options:

- **Bill Stop**
- **Bill Start**
- **1st of Bill Month**
- **Scheduled Read Date**

See **General Billing Rules** on page 4-4 of the *Oracle Utilities Billing Component Installation and Configuration Guide* for more information.

Allow Saves without SAVE TO CIS statement: Normally output records are created as part of a bill calculation. These records are used with non-Oracle Utilities Billing Component systems such as printing, accounts receivable, and so on. Oracle Utilities Billing Component verifies that at least one output record has been created before saving any data to the Oracle Utilities Data Repository. Check this box to turn this verification off, then you can save to the database without creating an output record.

You must Approve a bill to save it to the Oracle Utilities Data Repository. When you Approve the bill, data is saved and the Bill Time (BILLTIME) column in the Bill History is set.

Retrieve all Account Determinants: Normally, to improve performance, Oracle Utilities Billing Component loads only the determinants that are explicitly used in the Rate Schedule. However, if you are using indirection (the @ operator) to retrieve determinant values you need to turn this option on. Oracle Utilities Billing Component then loads all determinants in the account's Bill History records.

Use 2.10 and before Account Note generation in Automatic Billing and Approval

Required: Check this checkbox to generate Account Notes/Work Queue Items in Automatic and Approval Required billing as was in version 2.10 and earlier versions of Oracle Utilities Billing Component. The primary difference between pre-2.10 and post-2.10 is that for 2.10 and earlier, Account Notes/Work Queue Items are generated on the day after the scheduled read date, while for post-2.10 they are generated the day after the end of the postwindow from the scheduled read date. See **Billing Account Note/Work Queue Item Generation** on page 4-11 in the *Oracle Utilities Billing Component Installation and Configuration Guide* for more information.

Note: When using Work Queues, exceptions are written to the Work Queue Open Item table instead of the Account Notes table. To enable the Work Queues application, include the **USE_WORK_Q_FOR_ACCOUNT_NOTES = 1** parameter in the LODESTAR.CFG file.

Report Options

The Report Options tab specifies a number of default values used with printing reports.

Print Detail: This option determines the level of detail included in the bill reports, transaction records, and bill faxes or E-mail. Select one of the following:

- **None:** Effective revenue only.
- **Normal:** Effective revenue, plus any charges assigned to a revenue identifier and any values assigned to a Report Statement in the applicable rate form.
- **All:** Effective revenue, plus revenue identifiers, plus the values associated with the Rules Language Label and Report statements in the rate form.

Note: You can override this setting for selected accounts, rate codes, or rate schedules using the Billing Mode Flags in the corresponding records in the Oracle Utilities Data Repository.

Show Bill History Problems/Resolutions in Bill Reports: If checked, this option specifies that any problems or resolutions that a Billing Analyst has entered into the Bill History Problem record for the current bill period appear near the top of the bill report (in the header section, just after the customer and account information). This option applies to all bill reports produced by Oracle Utilities Billing Component.

Summary Options

The Summary Options tab specifies how summary customers and accounts are processed. See **Summary Bill Calculation** on page 4-20 in the *Oracle Utilities Billing Component Installation and Configuration Guide* for more information.

Compute Multiple Rates per Account: This option specifies whether all effective rates, or only the most recent rate is used for billing. The options available include:

- **No:** Oracle Utilities Billing Component calculates each account's bill using just the most recent rate specified in the Rate Code History Table for that account.
- **Throughout Bill Period:** Compute multiple rates using all rates in effect for that account throughout the Bill Period, as specified in the Account Rate Code History Table. When computing multiple rates, Oracle Utilities Billing Component executes the rates in reverse order starting with the record with the most recent Start Time.

Note: If you use either of the first two options, be sure that all inactive rate codes have a stop time in the Account Rate Code History Table; otherwise they will be included in the calculations.

- **On Effective Date:** Compute multiple rates using all rates in effect for that account on the Effective Date, as specified in the Account Rate Code History Table.

Enable Customer SUMMARY Rate Schedules: If this is checked, Oracle Utilities Billing Component can process Summary rate schedules.

Multiple Bill History Records

The Multiple Bill History Records tab specifies how customers/accounts with multiple Bill History records per bill period and/or read date are handled. See **Multiple Bill History Records per Bill Period** on page 4-29 in the *Oracle Utilities Billing Component Installation and Configuration Guide* for more information.

Allow Multiple Bill History Records per Bill Period/Read Date: Normally, Oracle Utilities Billing Component uses the billing cycle's scheduled meter read dates to match an account's Bill History records with the correct bill periods. However, this may not suffice in all cases, either because the metered data does not come in from the field on a reliable schedule, or because the metering and billing schedule at your company is more complex. This tab enables you to choose the action that Oracle Utilities Billing Component takes when it encounters two or more account Bill History records associated with the same read date. The option you choose depends upon the metering and billing policies of your company. (This setting applies to Automatic Billing, Approval Required, and Current/Final Bill.)

- **No:** Oracle Utilities Billing Component rejects all Bill History records for the specified account that have the same read date. It does not process the bills, and issues an error message instead.
- **Bill Individually - Allow Out of Order Bill Periods:** This option is designed primarily for situations in which metered data comes in from the field irregularly—for example, readings for bill periods arrive out of sequence, and/or scheduled read dates are missed altogether. If you select this option, Oracle Utilities Billing Component treats any account Bill History records that have the same read date as valid records, and processes them as separate and complete bills. It retrieves and bills the previously unbilled Bill History records for the account (Bill Time value equals NULL), in sequence, from oldest to most recent. To determine the bill period that the Bill History record actually belongs to, it looks at the Bill History record's Start Date/Time for the metered data and processes the bill accordingly. If the applicable rate form includes any SAVE statements, the computed values are saved to the Bill History record for the correct bill period.
- **Bill Individually - Monthly Merge Historical Values:** This option is designed primarily for companies whose bill calculations require determinant values for sub-periods within the current bill period (e.g., weekly kWh), as well as values for entire historical bill periods (e.g., maximum kW for the past 12 bill months). In this case, multiple sub-period records (e.g., records with different start- and stop-dates) may be associated with a single scheduled read date. If you select this option, Oracle Utilities Billing Component assumes that multiple bill history records with the same read date for one account are in fact sub-period records. To perform the calculations (depending upon the rate schedule), Oracle Utilities Billing Component first aggregates historical sub-period values and start- and stop-dates to find values for entire historical bill periods. It then bills each sub-period for the bill period (same scheduled read date), from oldest through most recent.
- **Aggregate to Read Date and Bill as One:** This option is designed primarily for companies that take multiple meter readings for an account within a single bill period (i.e., partial reads), but bills the account using values for the entire bill period. In this case, two or more Bill History records are allowed per read date. If you select this option, Oracle Utilities Billing Component aggregates all determinant values and dates to the read date (in other words, records with the same read date are combined into one). If the applicable rate form includes any SAVE statements for the sub-periods, it saves them to the latest record with the current read date.

- **Aggregate to Read Date and Bill as One (Oracle Utilities Rate Management Style):** This option is used only for testing, and should not be selected for billing in a production mode. It is similar to the option described above, except that the process is oriented to bill months. That is, two or more Bill History records with the same bill month are combined into one record for the entire bill month.

Check Options

The Check Options specifies how certain checks are performed before processing calculations. In some systems, some of these checks are unnecessary. Use these options to turn off the unneeded checks, to improve performance.

Do not use Interval Data: Turn off all support for Interval Data during calculations.

Do not use Interval Data to Compute Start/Stop: Don't use interval data cuts to compute the bill start and stop, and do not verify that all the account's interval data is ready. If neither Interval Data check is turned off and Multiple Bill History Records are allowed, only the verification is performed.

Do not check for Interval Data gaps: Turn off checking for gaps between cuts. The rate schedule should then check for missing data (status code '9') to validate the data. If this is not checked, a Warning will be reported if there are gaps between the interval data cuts.

Do not check Account Notes: Don't check for Account Notes that stop billing in Automatic Billing or Approval Required. Do not write Account Notes from Automatic Billing or Approval Required.

Do not check Override Ready: Don't check that Special Events or Overrides are Ready.

Do not check Account's Meter Values: Don't verify that account's scalar data is in the Meter Value Table.

Do not check Rate Code Flags: Do not use the BILLINGMODEFLAG, PRINTDETAIL or FULLDAYBILL values in the RATECODE Table. If this is checked, it also turns off the same flags in the Rate Forms (RATEFORM) Table.

Do not check Rate Schedule Flags: Do not use the BILLINGMODEFLAG, PRINTDETAIL or FULLDAYBILL values in the RATEFORM Table, independent of the RATECODE Table.

Do not display "Reason for Change" dialog when updating the Bill History [Value] records: Don't display the Reason for Change dialog after updating Bill History or Bill History Value records.

Do not check Bill Determinant Use: Don't check the Bill Determinants' Use table.

Use MDM schema: When this option is checked, Oracle Utilities Billing Component checks the Oracle Utilities Meter Data Management (MDM) tables, specifically the Meter Data Channel Cut table, for interval data when billing accounts.

Checking this option also automatically checks the following other options:

- Do not check for Interval Data Gaps
- Do not check Account's Meter Values

It also disables the following options:

- Do not use Interval Data
- Do not use Interval Data to compute Start/Stop

Use MDM check data: When this option is checked, usage in the Oracle Utilities Meter Data Management tables is validated when Oracle Utilities Billing Component checks for data.

Each of these checks requires at least one query to a database so turning one off eliminates its database query and saves time. The most time consuming check is using Interval Data to Compute Start/Stop, followed by checks for Account Notes, Account's Meter Values, Override Ready and Bill Determinant Use. To determine what you can turn off, look at the rate schedules. If no rate schedule, rider or contract uses Overrides, for example, turn off the Override Ready check. Likewise, if there your system doesn't use interval data, turn off the Interval Data checks.

Browsing and Viewing Account Data

From time to time, you might need to verify account data in the Oracle Utilities Data Repository. This can include checking Bill History records, or the specific rate forms associated with a given account. Oracle Utilities applications include methods for viewing data using Data Manager's Browser and Account Centric View. Each of these is described below.

How to Browse Account Data:

1. Select **File->Browse Customer/Account(s)...**
The **View Customer/Account(s) Inputs** dialog box appears.
2. Complete the dialog as follows:
Select By: Choose either **Account** or **Customer**.
Select: Select the accounts or customers of interest using one of the following options:
 - **ID** - Type the ID of the customer or account of interest.
 - **List** - Select the list of interest. (See Chapter Eleven in the *Data Manager User's Guide* for information about creating lists.)
 - **All** - View all customers or accounts in the database.
 - **File** - Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
3. Click **OK**. The **Browse Customer/Account(s)** window opens, with just the selected customer or account records displayed.

Additional information about using the Browser can be found in **Chapter Six: Browsing Data** in the *Data Manager User's Guide*.

Viewing Account Data:

1. Select **File->View->Account**.
The **Enter Account ID** window appears.
2. Enter the ID for the account you wish to view, and click **OK**.
The **View Account** window appears, with information about the selected account displayed. The View has two sections. The top section displays the "header" or "indicative" data. This data remains on the screen for easy reference while you work with the account information displayed in the various tabs below. For instance, if you're on the phone with a customer researching his or her bills, the customer's name is always visible at the top of the screen.

Each tab in the lower portion of the screen is devoted to a particular category of information. To view the contents of a tab page, simply click on its tab.

The tabs are organized in four columns. The fields displayed on each tab page are detailed in the last section of this chapter.




Note: The specific tabs and fields in your company's version of the Account-Centric View may differ from those shown in the illustration below.

Additional information about using the Account Centric View can be found in **Chapter Five: The Account-Centric View** in the *Data Manager User's Guide*.

Using Online Help








Oracle Utilities applications provide browser-based online help.

How to open online help:

1. Select **Help Contents** from the Help menu. The online help opens in a browser window.
2. Locate the topic you need help about via the Contents tab, Index tab, or Search tab.
 - The **Contents** tab allows users to expand/collapse sections of the table of contents as needed to find a particular topic. Click on the book icons ( and ) to open/close headings. Click on the topic icon () to open it.
 - The **Index** tab allows the user to browse an index for the online help. Click on the index entry for the topic to open it.
 - The **Search** tab allows the user to search the online help for specific words. Enter the word(s) for the search in the text box and click **Go!** The search results appear beneath the text box. Click on the topic to open it.
3. The selected topic will appear in the right pane of the online help window.

Help Icons

A number of icons appear along the top of the online help window. These icons are used for navigating the online help and other functions. These icons perform the following functions:

Icon	Description
	Show Navigation: Open the navigation frame. Used after opening a single help topic.
	Previous: Display the previous help topic.
	Next: Display the next help topic.
	Show in Contents: Expand the Contents tab to display the current topic.
	E-mail: Send email to Customer Support.
	Print: Print the current topic.
	Bookmark: Save the current topic as an Internet Explorer Favorite..

Context-Sensitive Help

Users can also get online help based on a specific function or screen. This is referred to as context-sensitive help.

How to open context-sensitive help:

1. Open the function or screen you wish to find help about.
2. Click the Help button in the Toolbar or press F1.
3. An online help window opens displaying the corresponding topic.

Shortcut Tips

Account ID Hyperlinks

Oracle Utilities Billing Component and Oracle Utilities Rate Management includes a convenient and time-saving shortcut for “jumping” from an open report to another module, while zeroing in on information about an account of interest.

How to use the account shortcut:

1. Highlight the ID of an account of interest in an open report window. If the report was generated based on a customer/account list, you can also select the list name.
2. *Right-click* in the report window, and select the desired option from the menu that appears.

When the next dialog opens, the ID is already supplied.

Copying Text Between Windows

This is another timesaving tip that enables you to copy information from one text entry field and paste it into another, saving you the effort of retyping the data and ensuring that it is the same. It is especially useful for Account IDs. The fields can be in the same or different windows.

How to copy text from one data entry field and paste it into another:

1. Highlight the desired text, and *with the I-beam cursor still positioned in the text field*, click the *right* mouse button.

A menu appears.

2. Select **Copy**.

The text is now saved to the Clipboard.

3. Go to the window containing the field in which you wish to paste the text.
4. Click the cursor in the desired field. Without moving the cursor out of the field, click the *right* mouse button. When the menu appears, click **Paste**. The text appears in the field.

Alternate approach:

Here is another method that does the same thing, but with the keyboard instead of the mouse.

1. Highlight the desired text in a text entry field. Do not move the cursor out of the text field.
2. Press **CTRL+INSERT** (or **CTRL+C**) on your keyboard.
3. Go to the window containing the field in which you wish to paste the text.
4. Click the cursor in the desired field. Without moving the cursor out of the field, press **SHIFT+INSERT** (or **CTRL+V**) on your keyboard.

Saving and Applying Settings for Dialog Boxes

This section describes a very convenient and time-saving feature that enables you to save input parameters for tasks you perform frequently. Specifically, you can save your selections for account/customer and date(s). To use this feature, complete an input dialog box as you would normally before running a billing, analysis, or reporting module, save the settings with a name of your choosing, and recall them the next time you want to perform the same or a similar task.

How to save settings:

1. With the desired setting specified in an input dialog box, *right*-click in any blank area of the dialog. The **Save/Restore** dialog box appears.
2. Enter a name and optional descriptive note for your settings, and click **Save**.

The settings are now saved to the database.

How to import/export settings:

To export:

1. Select the report settings and click **Export**. The Select File for Dialog Settings Report dialog opens.
2. Navigate to the desired directory and click **Save**. The report settings are exported in XML format, and can now be imported for use with other dialogs.

To Import:

1. Click **Import**. The Select File for Dialog Settings Report dialog opens.
2. Select the desired file and click **Open**. The report settings are now available for use with the current dialog.

How to apply the settings:

1. Open the dialog box for which you've saved settings. *Right*-click in any blank area of the dialog. The **Save/Restore** dialog appears.
2. Select the desired settings and click **Restore**.

The dialog is updated with the settings. You can use them as is, or modify them before running the job.

How to delete the settings from the database:

The following instructions explain how to delete unwanted settings, so that they no longer appear in the pop-up menu. You can delete reports by highlighting the report settings you wish to delete and clicking **Delete** or by deleting the settings from the Data Repository using the Browser. To delete report settings using the Browser, using the following procedure.

1. Select **File->Browse->Customer Database**. The **Browser** opens.
2. Click on the plus sign that appears to the left of the **Report Settings** table icon (you may have to scroll down the tree to bring that table icon into view).

A list of the Report Setting records that are currently stored in the database appears under the table icon. Each report setting record is identified by a combination of three IDs: the logon ID of the user that saved the setting, the internal ID that identifies the dialog box to the system, and the name that the user assigned to the settings when he/she saved them.

3. Highlight the icon for the record you wish to delete.
4. Select **Edit->Delete** from the menu bar.

A message box appears, asking you to confirm that you wish to delete the record. Click **OK** to delete the record. Click **Cancel** to keep it.

Chapter 3

Working with Reports

One of the primary functions of Oracle Utilities Billing Component, beyond calculating bills, is to generate reports. Each of the various billing modules available through Oracle Utilities Billing Component (Automatic Billing, Approval Required, Current/Final) generate bill reports, and the program also generates a number of other useful reports, such as a Late Bill Report and a Bill History Report.

You have a number of options when generating Oracle Utilities Billing Component reports that can affect the format and content of each report. These options include customizing the contents of a report, such as adding titles to your reports and setting the level of print detail for each report, as well as writing a report directly to a file or exporting data from a report for use with other applications (such as spreadsheets or text editors).

You can also set up bills to be e-mailed or faxed to your customers.

This chapter explains how to set report options for individual reports and how to apply several tools that Oracle Utilities Billing Component provides for reports, such as printing and text search. This includes:

- **Report Options**
- **Writing a Report Directly to a File**
- **Exporting Data from a Report**
- **Setting Up Bills to be Faxed or E-mailed**
- **Viewing and Printing Reports**

Report Options

Report options allow users to customize the contents of a report, including the report presentation and output, the print detail level, problem determination options, and the appearance of the Bill Calculation Results section of reports.

Note: Changes to report options as described in this section apply only to the report currently being run.

Users access the Report Options via tabs at the top of the Report Options dialog. Clicking on these tabs allows users to navigate between types of report options, including:

- **General Options**
- **Print Detail Options**
- **Problem Determination Options**
- **Bill Calculation Results Columns Options**

How to set and save report options:

1. Click the **Report Options** button in the input dialog box for the report you're creating. The **Report Options** dialog appears.
2. Make any appropriate changes on the **General**, **Print Detail**, **Problem Determination**, and **Bill Calculation Results Columns** tabs.

Note: Not all report options are available for all reports. If an option is not available, it is greyed out.

3. Click **OK** to save the changes. To close the Report Options dialog without saving changes, click **Cancel**.

General Options

The General tab allows users to set presentation and output options for a report.

Report Titles

To add optional titles to a report, enter the title in one of the three optional title fields.

Saving Reports to Files

To write the report to a file, check the "Write report directly to File" check box and specify the path and filename for the file. Use the "Browse" button to locate an existing file. To display the report also, check the "Also Display Report" checkbox.

Other Options

- To disable graphing for the report, check the "Disable graphing of data" checkbox.
- To display only summaries for the report, check the "Display summaries only" checkbox.
- To keep the report data for CSV/XML exporting, check the "Keep data" checkbox.

Print Detail Options

The Print Detail tab allow users to specify the level of detail included in both a bill report and transaction record. The information computed and available for reporting is determined by the statements used in the applicable rate form. The **Print Detail** tab enables you to specify how much of that available data is included in the reports and transaction records.

Print Detail Options

Default: This option means the program will use the **Print Detail** setting normally applied to the account (via the Account, Rate Code, Rate Schedule, or Global options specified). Alternately, you can override the usual setting for just this job by selecting one of the following:

None: This option displays effective revenue only.

Normal Detail: This option displays effective revenue, plus any charges assigned to a revenue identifier and any values assigned to a Report Statement in the applicable rate form.

All Detail: This option displays effective revenue, plus revenue identifiers, plus the values associated with the Rules Language Label and Report statements in the rate form.

The table below details how these options apply to specific components of a report and transaction record.

Report Component	None	Normal	All
Customer/Account Detail	X	X	X
Input Values		X	X
LABELed Identifier Values			X
Simple Report Values		X	X
Compound Report Values		X	X

Print Detail Items

To override the **Print Detail Options** setting for specific components of a bill report and transaction record, select the specific options for each component in the **Print Detail Items** section of the dialog. For each report component type, select one of the following:

- **On** - Include the component in the report and transaction record.
- **Off** - Exclude the component from the report and transaction record.
- **Print Detail Option** - Apply the setting specified under **Print Detail Options**. The specific manner in which these settings affect individual report components is detailed in the table above. For example, if you had selected “None” under **Print Detail Options**, and selected **Print Detail Option** here for **Input Values**, the input values would not appear in the report.

Following is a brief description of each of the report components.

Customer/Account Detail. Date activated, billing mode, number of days specified for the eligibility pre- and post-windows.

Input values. This option reports the parameters specified for the bill calculations: bill start and end date; date that the account's meter was scheduled to be read; rate code applied to the account; number of days in bill period, and the bill month.

LABELed Identifier Values. This option reports the any identifier values and text strings specified using a LABEL Statement in the rate form. LABEL statements are typically used to substitute meaningful labels for bill determinant names or other brief and sometimes-cryptic identifiers (e.g., LABEL LF “LOAD FACTOR” displays LOAD FACTOR and its value in the report). They are often used for column headings or report subtitles.

Note: If a report component type is designated to appear in a report, and it is assigned a name using a LABEL Statement, its values will automatically appear in the report, with the new label. In other words, it is not necessary in that case to apply the **LABELED identifier values** option to get the label and value to appear. For example, the applicable rate form might have the statement LABEL \$EFFECTIVE_REVENUE “Total Charges”. Because Effective Revenue is automatically included in all report types, “Total Charges” will appear, no matter what print details options you choose.

Simple report values. This option reports any values that were assigned to an identifier using a REPORT Statement in the rate form. REPORT statements are typically used to report values of interest that are calculated and/or drawn from the database, such as peak times.

Compound report values. This option reports any values associated with a stem identifier using a REPORT Statement in the rate form.

Problem Determination Options

The Problem Determination tab allows users to specify the level of problem determination detail included in both a bill report and a transaction record.

When problems occur during the processing of a bill, error messages and other information useful in determining the cause of the problem are created. The **Problem Determination tab** option enables you to specify how much of that data is included in the reports and transaction records.

Problem Determination Options

Show All Error Messages: This option reports all error messages that occur while processing the bill.

Show All Input Options: This option reports all input options used in processing the bill.

Show Bill records to Save (BillHistory, CSS, etc). This option includes the Bill History records in the Bill Report. *It is typically only used for testing.* If you turn this option off, the records are still output when you approve a bill, but they are not displayed or printed in the bill report.

Show Rate Schedule Used in Bill Calculation: This option includes the rate schedule used in processing the bill on the bill report.

Bill Calculation Results Columns Options

The Bill Calculation Results Columns tab allows users to specify the labels of the Bill Calculation Results section of a bill report.

The Bill Calculation Results section displays the number of billing units, the distribution of those billing units, the charge rate, and revenue for each revenue identifier used in a rate schedule.

Bill Calculation Results Columns Options

- To change one or more of the Bill Calculation labels, check the **Change Bill Calculation Labels** checkbox and edit the labels as appropriate.
- To omit one or more of the columns from the bill report (except the Revenue column), check the **Change Bill Calculation Labels** checkbox and delete the appropriate label.

Billing Units Label: The label for the Billing Units column. If blank, the column is omitted.

Distribution Label: The label for the Distribution column. If blank, the column is omitted.

Charge Rate Label: The label for the Charge Rate column. If blank, the column is omitted.

Revenue Label: The label for the Revenue column. This column cannot be omitted. If blank, the column label is Revenue.

Writing a Report Directly to a File

In some cases, you may find it useful to write a report directly to a text file, without displaying it on screen—for example, if the report is very long and you don't want to wait the extra time for the report to display. The text file created can be opened using a text editor or word processor.

How to write a report directly to a file:

1. Click the **Report Options** button in the input dialog box for the report you're creating.

The **Report Options** dialog box appears.

2. In the Write to file section, check the **Write Directly to File** box.
3. Click the **Save As...** button.

The **Save Report As** dialog appears.

4. Assign a name and destination directory for the output file. Click **Save** to close the dialog.
5. Click **OK** to close the **Report Options** dialog.
6. In the input dialog for the report, click **OK** to run the report.

The report is not displayed on screen, but a confirmation message appears to let you know that the report has been saved. You can now open the text file using a text editor or word processor.

Note: This option is not available for all types of reports. If the “Write Directly to file” option is grayed out, this option is not available for the type of report you are currently creating.

Exporting Data from a Report

You can export data from a report in a number of formats:

- **CSV (Comma-Separated Value)** - compatible with most spreadsheet programs
- **HTML (Hyper-Text Markup Language)** - compatible with web browsers
- **XML (Extensible Markup Language)** - used to export data for use with external systems
- **Text** - compatible with text editors and word processing programs.

How to export data for use in other programs:

1. Click **Report Options** in the input dialog box for the report you're creating.
The **Report Options** dialog box appears.
2. Check **Keep Data (for CSV/HTML/XML export, line selection, Approval, etc.)**.
Note: For many types of files this option is permanently selected and cannot be unchecked.
3. Click **OK** to close the dialog.
4. In the input dialog box for the report, click **OK** to create it.
5. With the report displayed in the window, select **File->Export**.
6. In the dialog box that appears, specify a name and destination directory for the file, select the appropriate file type **Text (*.txt)**, **Comma Separated Files (*.csv)**, **HTML (*.htm)**, or **XML (*.xml)** in the **Save as type** box.
7. Click **Save**.

The file is saved to the designated directory. You can open it in an appropriate program for further analysis.

Setting Up Bills to be Faxed or E-mailed

Oracle Utilities Billing Component includes a convenient feature that automatically or upon demand outputs bills in an E-mail- or fax-ready format. After Oracle Utilities Billing Component produces the fax page or writes the E-mail file, you must manually transmit it to the addressees via your fax machine or E-mail software.

You can set up faxes or E-mail at the customer- or account-level. In addition, you can address the faxes or E-mail to a customer, account manager, utility contact, and/or any other individual of your choosing. The E-mail or fax contains the same level of billing information that is sent to the output file, formatted appropriately.

This feature is both a useful customer service tool and a management tool. For example, you can use it to quickly and easily give customers a preview of their bills (in case they want to waive a peak, for example). This can also help account managers keep track of their accounts' activity and bills.

Before you can create a fax or E-mail, you must set up a number of records of information in the Oracle Utilities Data Repository. Instructions for setting up that information appear later in this chapter.

How and When are the Faxes and/or E-mail Created?

If you specify E-mail, Oracle Utilities Billing Component creates a file in the LODESTAR\USER directory and assigns it a name of your choosing (or the default name EMAIL.TXT). If you specify a fax, Oracle Utilities Billing Component prints the fax to your default printer.

How and when the actual fax page or E-mail letter is generated depends partly on the billing mode for the customer or account:

- **Automatic Billing:** Oracle Utilities Billing Component automatically prints the fax or outputs the E-mail file when it issues the transaction records to the output file.
- **Approval Required:** When you approve the bill, Oracle Utilities Billing Component automatically prints the fax or outputs the E-mail file.
- **Manual Billing — Bill Correction or Current/Final:** You can also generate a fax or E-mail from any of the manual billing modules (Bill Correction and Current/Final Bill). To do so, select **Review->Fax/Email** when viewing the bill in the bill report window after the bill has been calculated. See **How to issue a fax or E-mail for an account or customer:** on page 7-4 for more information.

For both Approval Required and Manual accounts, there is an option on the input parameters dialog box for the billing module that turns off the approve or reject step. Turning this feature off enables you to calculate the bill and generate the fax or E-mail from the Bill Reports window as described above, without the possibility of accidentally sending records to the output file. The **Enable Approve and Reject** option is described in each of the chapters covering the various billing modules.

Note: *All* of the approaches described here—whether on demand or automatic—require you to set up the information described on the following pages. If some of the information is missing, the fax page or E-mail will be produced, but with blanks where the missing information should be.

A sample of the fax/E-mail output format is shown on the previous page. The sources of the information are noted in the left column. The following pages provide detailed instructions concerning how to set up the database records necessary to create fax/E-mail bills.

Setting Up the Directory and Service Center Lookup Codes

The Oracle Utilities Data Repository uses lookup codes as a convenient way of encapsulating frequently-used information. Before you can set up bills to be faxed/emailed, you must set up the Directory and Service Center lookup codes for the faxes/e-mails, as described below.

Note: You must use the Browser when setting up Directory and Service Center records in the database. The Account-Centric View does not apply to lookup codes.

How to set up an entry in the Directory Lookup Table:

Think of the Directory Table as a Rolodex that contains the names and addresses of potential recipients of the faxes or E-mail. Each recipient is assigned a code. When you address the fax or E-mail, you simply refer to the code rather than that actual address.

This Directory does double duty by storing the names and numbers of the individuals that the fax/E-mail recipients should contact with any questions, such as the account manager or other utility contact. Again, you'll tell Oracle Utilities Billing Component to include this information in the fax or E-mail by simply referring to the appropriate code.

1. In Data Manager, select **File->Browse->Customer Database**.

The Browser appears.

2. Click on the **Directory** table icon.

A list of all currently defined directory codes appears in the right pane.

3. Select **Records->Insert New**.

A blank data entry form appears.

4. Complete the form:

Directory Code: Enter a unique code (up to 64 characters) to identify this record.

Name: The name of the account manager, utility contact, or other recipient.

Phone #1: Phone number of the account manager, utility contact, or other recipient.

Phone #2: Alternate phone number for the account manager, utility contact, or other recipient.

Fax: Fax number for the account manager, utility contact, or other recipient.

Pager: The pager number of the account manager, utility contact, or other recipient.

Email: E-mail address of the account manager, utility contact, or other recipient.

Title: Title of the account manager, utility contact, or other recipient.

Name of File: The name of the E-mail file. *Do not include the extension.* Oracle Utilities Billing Component automatically writes the file to the LODESTAR\USER directory, and adds the .txt extension. If you do not supply a name, Oracle Utilities Billing Component uses the default (EMAIL.TXT).

Note about faxes: You should associate a unique filename with each Directory record. If you use the same file name for multiple records, Oracle Utilities Billing Component will append all new E-mail to the end of that file.

After a fax or E-mail file is issued, delete or move the file. Otherwise, the next time Oracle Utilities Billing Component creates the fax or E-mail, it will append the new information to the old file. You will have to manually delete the old information from the file before sending it.

How to set up an entry in the Service Center Lookup Table:

The **Service Center Table** assigns an identifying code to each service center that you might want to reference in an account's fax or E-mail. Later, when you set up the fax or E-mail, you simply refer to the code and the system automatically supplies the full name of the service center in the fax or E-mail.

1. In Data Manager, select **File->Browse->Customer Database**.

The Browser appears.

2. Click on the **Service Center** table icon.

A list of all currently defined Service Center codes appears in the right pane.

3. Select **Records->Insert New**.

A blank data entry form appears.

4. Add the following information to the form:

Code: Enter a unique code (up to 64 characters) to identify this service center.

Name: Enter the name of the service center, as you wish it to appear in the fax or E-mail.

Unit of Measure: *Optional.* Uncheck the 'NULL' checkbox and click on the words 'Unit of Measure.' Select the appropriate Unit of Measure code from the list that appears.

End Use: *Optional.* Uncheck the 'NULL' checkbox and click on the words 'End Use.' Select the appropriate End Use code from the list that appears.

5. Select **Edit->Add** to save the information to the database.
6. Select **Records->Refresh** or **Records->Refresh All** to update the displays with the new information.

Specifying an Operating Company Address

The standard fax or E-mail format displays the name, address, and number of the operating company issuing the bill. You may have to add this information to the Operating Company Table.

How to supply an operating company address for the top of the fax or E-mail:

1. In Data Manager, select **File->Browse->Customer Database**.
The Browser appears.
2. Expand the list of Operating Companies by clicking on the plus sign to the left of the Operating Company table icon.
3. Highlight the record icon for the operating company of interest.
A data entry form for the operating company appears.
4. Supply the street address, city, state (2-character postal code), ZIP, and telephone number as you wish it to appear on the fax or E-mail.
5. Select **Edit->Update** to save the information to the database.
6. Select **Records->Refresh** or **Records->Refresh All** to update the displays with the new information.

Setting Up Faxes or E-mail for Customer-Level Billing Information

When you have defined the required supporting information, you are ready to modify the appropriate customer records. The following instructions assume that you are using the Browser to modify the records. You could also modify records using the Account-Centric View or the Import utility.

How to specify the name of the Customer's Account Manager and/or Utility Contact and whether he/she receives a fax or E-mail:

In this step, you'll specify the name of the customer's account manager and whether or not the customer receives fax or E-mail copies of the customer's account bills; and the name of the utility contact (the person the customer calls with questions) and whether or not the contact receives fax or E-mail copies of the customer's account bills.

1. In Data Manager, select **File→Browse→Customer/Account(s)**.
2. Select **Customer** and enter the customer's ID.

A data entry form for the Customer record appears in the right pane.

You can also create faxes or E-mail of billing information at the account level. To do so, you must turn on the fax flag for the account in the Account Directory Table. You can direct the fax or E-mail to any individual inside or outside of the utility, as long as they are registered in the Directory Lookup Table.

3. Add the following information to the form:

Directory - Account Manager: Use this field to specify the name of customer's account manager. First, clear the Null checkbox. Then, click the cursor in the field and select the directory lookup code that identifies the account manager. You can either double-click on the code, or highlight it and press ENTER or click **OK**.

Directory - Contact: Use this field to specify the name of the customer's contact at the utility. Click the cursor in the field and select the directory code that identifies the contact.

Note: If you don't supply a name, Oracle Utilities Billing Component will use the name specified in the Directory - Account Manager field as the name of the contact when printing the fax or E-mail.

Account Manager Fax Flag: Specify whether you want Oracle Utilities Billing Component to produce a copy of the E-mail or a fax for the individual identified in the Directory - Account Manager field. If you do not want the account manager to receive a copy of the fax or E-mail, leave the Null box checked.

Contact Fax Flag: Specify whether you want Oracle Utilities Billing Component to produce an E-mail or a fax for the individual identified in the Directory - Contact field. Pick one of the following options: Null (nothing produced); E-mail; or Fax. If you do not want the person specified in the Contact field to receive a fax or E-mail, leave the Null box checked.

Note: If you set the fax/Email flag for either or both the account manager or contact, but do not provide a code in either the Account Manager or Contact fields, Oracle Utilities Billing Component will put an error message on the fax or E-mail.

4. Select **Edit→Update** to save the information to the database.
5. Select **Records→Refresh** or **Records→Refresh All** to update the displays with the new information.

Specifying Fax or E-Mail Output

The following instructions assume that you are using the Browser. You could also specify fax or E-mail output using the Account-Centric View or the Import utility.

How to specify that an account's billing information be output as a fax or E-mail:

1. In Data Manager, select **File->Browse->Customer Database**.
The Browser appears.
2. Click on the **Account Directory** table icon in the left pane.
You see a list of all accounts that have been set up to receive faxes or E-mail, along with the associated directory code.
3. Select **Records->Insert New**.
A blank data entry form appears.
4. Complete the form:
Account ID. Click the cursor in the field and select the desired account from the list that appears. You can double-click on it, or highlight it and press ENTER or click **OK**.
Directory. Select the directory code that identifies the individual you wish to receive the fax or E-mail, using the same procedure.
Fax Flag. Specify whether you want Oracle Utilities Billing Component to produce an E-mail or a fax. You must clear the Null checkbox before you can make a selection.
5. Select **Edit->Add** to save the information to the database.
6. Select **Records->Refresh** or **Records->Refresh All** to update the displays with the new information.

How to include the Service Center in the fax or E-mail:

You may want to identify the Service Center responsible for the account in its fax or E-mail. If so, you'll need to supply that information in the account's record in the Account Table.

1. Select **File->Browse Customer/Account(s)**.
The **View Customer/Accounts Input** dialog box appears.
2. Specify the ID of the desired account.
A data entry form for the account appears.
3. Scroll down to the Service Center Code field. Click the Null checkbox to remove the checkmark. Then, click the words 'Service Center Code' and select the lookup code that identifies the desired service center. You can double-click on the code, or highlight it and press ENTER or click **OK**.
4. Select **Edit->Add** to save the information to the database.
5. Select **Records->Refresh** or **Records->Refresh All** to update the displays with the new information.

Viewing and Printing Reports

One of the primary functions of Oracle Utilities applications is to generate reports. Each of the various analysis modules generate reports, and the programs also generate a number of other useful reports as well.

Once a report has been generated, it appears in an open report window on the application desktop. Once in an open report window, you can view and/or print the report. This section describes how to view and print reports generated using Oracle Utilities applications.

Viewing and Searching Reports

You can search for a specific word or words (or numbers) in an open report window using the **Find** option. The Find option (selected from the Edit Menu) allows you to search for a word or words in an open report window. When you select this option (or press **F3**), the Find dialog opens.

Enter the word or words you wish to find and click **OK**. To find the next instance of the word or words with the Find dialog still open, click **Find Next**. To find the previous instance of the word or words with the Find dialog still open, click **Find Previous**.

Once you've entered a word or words in the Find dialog, you can search by using the Find Next or Find Previous options from the Edit menu.

- To search for the next instance of the word or words last entered in the Find dialog, select the **Find Next** (or press **Shift-F3**) option.
- To find the previous instance of the word or words last entered in the Find dialog, select the **Find Previous** (or press **Ctrl-F3**) option.

Moving to a Specific Line in a Report

You can also jump to a specified line number within an open report window by using the Go to option. The Go to option (selected from the Edit Menu) allows you to move to a specific line in an open report window. When you select this option (or press **Ctrl-G**), the Go To tab on the Find dialog opens.

Enter the line number in the report that you wish to move to and click **OK**.

Changing the Appearance of Reports

You can also change the appearance of the text in an open report window using the Font option (from the Edit menu). When you select the Font option, the Font dialog opens.

To change the font in the report window, select a new Font, Style, and Size and click **OK**. The text in the report window will display and print the font/style/size selected.

Printing Reports

You can also print reports using the Print option (from the File menu). When you select the Print option, the Print dialog opens.

To print the report, complete the Print dialog as appropriate:

- **Ignore page breaks:** Check this to ignore the page breaks in the report.
- **Page width in characters:** Enter the desired width of the report.
- **Display line numbers:** Check this to include line numbers on the report.

Once you've completed the dialog, click **OK**. A standard Windows Print dialog will open, allowing to set any desired print options.

Creating Graphs

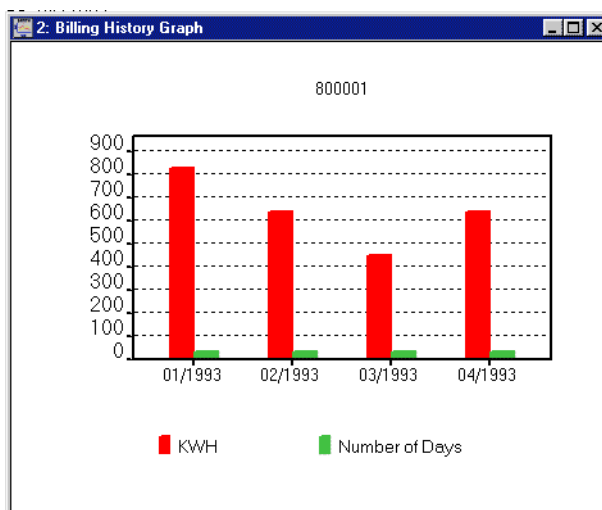
You can also create graphs from data in open report windows.

How to Create a Graph:

1. Select the Graph option from the View Menu (available only when an open report window is displayed), the Create Graph dialog opens.
2. Select an Account ID you wish to graph from the Select Account ID to Graph box. A list of available rows to graph will appear in the Select Rows to Graph box.
3. Select a row to include on the graph and click Add. The selected row will appear in the Pairs to Graph box. Repeat this step for each Account ID/row pair you wish to include in the graph.

To remove a pair, select it and click **Remove**.

4. Enter an optional title for the graph in the Title box and click OK. The graph will appear in a window.



5. To change the view of the graph, select from the options in the View menu.
 - The Style option allows you to select from bar graph style (as above) or line graph style.
 - The Background Color option allows you select the background color for the graph (White, Gray, Dark Gray, or Black).

Chapter 4

Review Billing Checklist

To help ensure that bills are issued on time, Oracle Utilities Billing Component provides a convenient report that checks the availability of data required for billing selected accounts or customers. The Review Billing Checklist function creates a report that lists any missing data for each customer and/or account you specify over a given data range. Missing data can include special events, interval data, and bill determinants. You can then use this report to track down the required data you need in order to process bills on time.

This chapter explains how to run the Review Billing Checklist function to preview the availability of required billing data for selected accounts and customers, including:

- **Running the Review Billing Checklist**
- **Tips for Tracking Down Missing Data**

Running the Review Billing Checklist

It's recommended that you run the Review Billing Checklist function one or two days before the bills are scheduled to be computed, to provide ample time for resolving any problems.

How to run the "Review Billing Checklist":

1. Select **CIS Billing->Review Billing Checklist**.
The **Review Billing Checklist** dialog appears.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **All:** Oracle Utilities Billing Component automatically applies the checklist to all accounts or customers whose scheduled meter read date falls within the date range specified in the "Read Dates From" fields lower in the dialog box.
 - **ID:** Type the ID of the account or customer for this report.
 - **List:** Select the list for this report. For example, you might have a list of all accounts that use a particular special event code. If you believe that the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old version. See the *Data Manager User's Guide* for information about creating Customer and Account lists.
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Enter the **Read Dates** for the report. This is the date range within which an account's scheduled meter read date must fall in order for its data to be evaluated. The date range initially displayed is automatically calculated using the Eligibility Pre and Post Window settings in the **Default Billing Options** dialog. See **Chapter 7: Setting Global Defaults and Applying Settings to Accounts, Rate Codes, and Rate Schedules** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
5. Select the accounts to **Display** in the report. Select one of the following:
 - **All accounts:** Report all accounts that match the above specified criteria, regardless of the status of their data.
 - **Only Those With Missing Data:** Report all accounts that match the above specified criteria, and have problems with their data that need to be addressed.
 - **Ignore bill accounts:** Ignore accounts that have been previously billed (those that have a non-NULL Bill Time in the Bill History record for the specified bill period).
 - **Check Merge and Validation Flags:** Check the Merge and Internal Validation flags on interval data cuts applicable for the specified bill period. A cut is considered valid when one of the following conditions is true:
 - The Merge Flag is set to 'Y', or
 - The Merge flag is set to 'N' but the Internal Validation flag is set to 'Y'.
6. Select the types of missing data to check for. This option is available only when the display **Only Those With Missing Data** radio button is selected under **Display**. Check every data type that you wish to include in the report:
 - **Special events:** Report displays every applicable special event that's missing a valid ready flag (see **Approving Overrides Prior to Billing (Override Ready Table)** on page 6-7 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1*).
 - **Interval data:** Report identifies missing or invalid cuts.

- **Bill determinants:** Report identifies missing or invalid bill determinant values.
7. *Optional.* If you want to override your default report options for this report, output the bill report to a file, or add titles to the report, click the **Report Options** button. See **Chapter 3: Working with Reports** for more information.
 8. Click **OK** to run the report.
The report alerts you to missing data that requires attention.
 9. To close the report, select **File→Close**.

Tips for Tracking Down Missing Data

The Review Billing Checklist report lists any missing data based on the specified accounts/customers and date range. Here are a few tips that can help you track down missing data.

Missing Special Events

Problem: Oracle Utilities Billing Component was unable to locate a Special Event Ready Flag required for the account. Or, a billing analyst set the Ready flag, but too many days elapsed between the time he/she set the flag and the time that all of the account's other billing data was available. The requirement for a Special Event Ready Flag is specified in the Override Use Table. The number of days in the Special Events Pre Window is defined in the **Default Billing Options** dialog box.

Solution: Verify that all required special event overrides have been entered for the account for the bill period in the Override History and/or Name Override History tables. When you have verified this information, set the Override Ready flag. See **Approving Overrides Prior to Billing (Override Ready Table)** on page 6-7 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.

Reminder: If a special event is recorded in the Override Use Table for an account, you **must** set the Ready flag in the Override Ready Table in order for the account's bill to be issued, even if the special event did not occur that month.

Missing Interval Data (Channels)

Problem: Oracle Utilities Billing Component was unable to locate a required interval data cut for a specific recorder-channel. Either the cut was never entered into the Interval Database; or, if it was, its stop-time was outside the eligibility window.

Solution: Look for the cut in the Interval Database using the Interval Data Browser (see the *Data Manager User's Guide*). If the cut is not listed, contact your meter shop to determine if there was a problem reading the meter.

If the cut is available in the Interval Database, check its stop-date to make sure that it falls within the eligibility window that applies to this cut. If the stop-date and time is outside the window, there are two possible solutions that will enable you to bill the account:

- You can bill the account with Current/Final Bill using the cut's recorded stop-date. In the **Current/Final Bill Input** dialog box, select the **User Specified** option for "Bill to Date and Time" and enter the cut's actual stop-date and -time.
- If this problem is a frequent occurrence for this account, you might consider increasing the size of the eligibility pre- or post-window for the account or its recorder (see **Chapter 7: Setting Global Defaults and Applying Settings to Accounts, Rate Codes, and Rate Schedules** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1*).

Missing Bill Determinants

Problem: Oracle Utilities Billing Component was unable to locate a required bill determinant value in the account's Bill History record.

Solution: Look at the Bill History tab for the account using Data Manager's Account-Centric View (see the *Data Manager User's Guide*) to determine the specific data that is missing.

Chapter 5

Automatic Billing

In the Automatic Billing mode, the software automatically identifies “eligible” and “available” accounts, calculates their bills, updates the Bill History records, and puts the results in transaction records that can be processed—all without user intervention. This chapter describes how you set up and run automatic billing, including:

- **Purpose of Automatic Billing**
- **Defining Automatic Billing Parameters and Starting the Automatic Billing Process**

This chapter assumes that you are familiar with the way in which bills are processed by Automatic Billing. If not, read **The Billing Process** in **Chapter 1: Introduction to Oracle Utilities Billing Component** before continuing.

Purpose of Automatic Billing

Automatic Billing calculates bills automatically without requiring a billing analyst to visually inspect and approve the results before the transaction records can be issued and bill history record updated. The user sets the parameters the module uses to process the bills, including the Bill Date, the Repeat Frequency (the amount of time between jobs) and other settings.

Automatic Billing selects “eligible” accounts based on scheduled meter read dates and “available” accounts based on the presence of required billing data (special event overrides, bill determinants, and interval data).

Note: In most cases, Automatic Billing is configured to run on a scheduled basis on either a dedicated machine or an application server.

Defining Automatic Billing Parameters and Starting the Automatic Billing Process

You start and stop Automatic Billing using the **Automatic Billing Parameters** dialog box. In addition, you can override some of the global billing parameters for Automatic Billing based on the parameters you assign.

Note: Access to the Automatic Billing Parameters dialog box is limited to authorized workstations.

How to set up and start Automatic Billing:

1. Select **CIS Billing->Automatic Billing**. (If the option is grayed out, you may not have access to it.)

The **Automatic Billing Parameters** dialog box appears.

2. Select the **Bill Date**. This is the date that Oracle Utilities Billing Component compares against the eligibility windows. It should usually be set to the current date (except during software testing), but can be set to any date.

Note: Each 24 hours after Automatic Billing is started, the bill date set is incremented by one day.

3. Set the **Repeat Frequency** for the run. This is the number of minutes between automatic billing job runs—that is, after completing the billing of one set of accounts, Oracle Utilities Billing Component waits the specified number of minutes before scanning for data for the remaining eligible accounts. When all information is available for the eligible accounts, Oracle Utilities Billing Component automatically calculates their bills.

Note: Due to memory limitations in the GUI version of Automatic Billing, only 10,000 accounts are billed per try. If more accounts can be billed, they will be billed when Automatic Billing tries again. The batch executable autobill.exe does not have this limitation.

Specify any value from 0 to 1440. If you specify 0, Oracle Utilities Billing Component runs one job and stops. If you specify 1, the jobs run continuously. If you specify 60, the system runs one job each hour. If you specify 1440, Oracle Utilities Billing Component runs one job per day.

4. Select the appropriate **Save/Approve Options**. This option allows you to specify if and how results are saved to the database. The available options are:

- **Do not enable saves of any kind:** With this option selected, Rules Language SAVes do not save and no CIS transaction record are written to the CIS file. This is the option you'll choose most often when testing rate forms.
- **Automatically save/approve each group of related pages if all OK:** If you select this option and there are no errors while billing an account (or related accounts, for a summary customer), it is automatically approved and its database and CIS records written. If one account of a summary group of accounts has an error, all other related accounts are not approved.

Note: If a Warning occurs during Automatic Billing processing for an account, the bill is **not** approved.

5. Select the appropriate **Summary Options**. This option allows you to specify how to handle summary billing. The available options are:

- **Include Related Summary Accounts:** Select this option to bill all accounts that belong to a customer with the Summary Bill flag set to 'Y' at the same time.
- **Bill All Accounts Individually:** Select this option to bill only the accounts with read date near today, ignoring the Summary Bill flag.

- **Bill Only non-Summary Accounts:** Select this option to bill only non-summary accounts.
 - **Bill Only Summary Accounts:** Select this option to bill only summary accounts. See **Setting Up Summary Bills for Customers** on page 7-15, and **Summary Bill Calculation** on page 4-20 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information about processing summary bills.
6. Select the data to display in the report. You can select the following options:
 - **Display only Accounts with Billing Errors/Warnings:** This option is checked by default, because most accounts should automatically bill successfully. If this option is unchecked, all accounts will be displayed.
 - **Display Accounts not billed:** If this box is checked, Oracle Utilities Billing Component displays why eligible accounts were not billed. If this box is unchecked, Oracle Utilities Billing Component displays only successful bills.
 - **Do not delete report display when done:** This option leaves the display window visible after a run completes. If this is not checked, the report display window will be deleted when the run completes (after it is written to a file). The report should be deleted if Automatic Billing is run repeatedly, as the displayed reports use memory.
 7. Specify the **Output File Name:** Name of the file to which Oracle Utilities Billing Component writes the results of the bill calculations (e.g., the “transaction records”) at the conclusion of the job. The default is LODESTAR.CIS. See **Appendix A: Creating a CIS Transaction Record Output File** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
 8. Select a **Message** from the drop-down list. This field displays error messages based on the parameters set. These alert you to any problems that have occurred while attempting to process the bills.
 9. *Optional.* If you wish to override any of default report options, click **Report Options**, and complete the dialog box that appears. See **Chapter 3: Working with Reports** for more information.
 10. To start the Automatic Billing process, click **OK**.

While Automatic Billing is running, a Progress Indicator is displayed. It shows the current status of a job in process, or the time until the next job begins.

How to Stop Automatic Billing:

1. To stop Automatic Billing, click the **Abort** button in the Progress Indicator window.

The software finishes processing the current account, then stops.

Chapter 6

Approval Required Billing

This chapter explains how to process billing calculations using Approval Required billing, including:

- **Calculating Approval Required Bills**
- **Approving/Exporting/Rejecting Bills**

Approval Required billing calculates bills that a billing analyst must visually inspect and approve before the transaction records can be issued and the bill history record updated. This module differs from Automatic Billing in two ways:

- You must manually initiate the calculations. Approval required billing still selects “eligible” accounts based on scheduled meter read dates, and “available” accounts based on the presence of required billing data (special event overrides, bill determinants, and interval data).
- You must view and approve the results in order for Oracle Utilities Billing Component to issue the transaction records and update the Oracle Utilities Data Repository.

When viewing the results, you have the option to either reject or skip bills that appear unsatisfactory. If you reject a bill, Oracle Utilities Billing Component attaches a “USER REJECTED” note to it, and from that point the account’s bill for that period can only be issued manually via the Current/Final Bill module (see **Chapter 7: Current/Final Bill**). If you skip a bill (that is, neither approve or reject it), the “Approval Required” module will retry the calculations the next time it is run. In general, it is recommended that you skip the bill and let Oracle Utilities Billing Component rerun it. However, if you want to ensure that it is not approved (by another user, for example), then rejecting the bill is the best course.

Calculating Approval Required Bills

How to set up and start the calculations:

1. Select **CIS Billing**→**Approval Required**.
The **Approval Required Billing Parameters** dialog box appears.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers to be billed using one of the following options:
 - **ID:** Type the ID of the account or customer to be billed.
 - **List:** Select the list of accounts or customers to be billed. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old version.
 - **All:** Oracle Utilities Billing Component looks for all accounts or customers whose scheduled meter read date falls some number of days before and after the Bill Date specified below. The number of days is indicated in the **Default Eligibility Pre Window** and **Default Eligibility Post Window** fields in the **Default Billing Options** dialog box. See **Chapter 7: Setting Global Defaults and Applying Settings to Accounts, Rate Codes, and Rate Schedules** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
 - **File** - Select a file containing a list of customer/account IDs (*.ids), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Select the **Bill Date** for the bill. This date is compared against the eligibility window. Typically, this should be today (the current date), but you can use other dates for testing purposes.
5. Select the **Billing Mode** for the bill. As described in **Chapter 7: Setting Global Defaults and Applying Settings to Accounts, Rate Codes, and Rate Schedules** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1*, there are many methods of setting the billing mode for an account. Use this feature to select accounts for billing based on how the **Approval Required** flags were set in the Oracle Utilities Data Repository. You can select any one or a combination of the three options:
 - **Account Level:** Only bill accounts that have their billing mode flag set to “Approval Required” in the Account Table.
 - **Rate Schedule/Rate Code Level:** Only bill accounts that are on a rate schedule whose billing mode flag is set to “Approval Required” in the Rate Form Table.
 - **Default Level:** Bill accounts that default to approval required. This option is only enabled if Approval Required is the default billing mode set on the Billing Options tab of the Default Billing Options dialog. See **Default Billing Options** on page 2-16 for more information.

To bill all accounts that require approval, leave all boxes checked.
6. **Also show accounts not billed:** Check this box to display why an eligible account was not billed. This option is particularly useful for testing. If the box is unchecked, Oracle Utilities Billing Component displays only bills that calculated successfully.
7. Select the appropriate **Save/Approve Options**. This option allows you to specify if and how results are saved to the database. The available options are:
 - **Do not enable saves of any kind:** With this option selected, Rules Language SAVES do not save and no CIS transactions record are written to the CIS file. This is the option you'll choose most often when testing rate forms.

- **Enable user approve/reject of saves:** When this option is selected, you can either **Approve** or **Reject** each set of results. If you approve an account (or an account and all its related accounts), the bill will be rerun with Automatic Approval. This second run will generate the same results, and will create database and CIS records.
 - **Automatically save/approve each group of related pages if all OK:** If you select this option, then if there are no errors while billing an account (or related accounts for a summary customer) it is automatically approved and its database and CIS records written.
 - **Automatically save/approve each page if it is OK:** If you select this option, then data from each non-error page of an account is automatically written, regardless of the errors in other pages of the account or other related accounts.
8. Select the appropriate **Summary Options**. This option allows you to specify how to handle summary billing. The available options are:
 - **Include Related Summary Accounts:** This option enables you to bill only the account(s) with read date near today, ignoring the Summary Bill flag. Usually all accounts that belong to a customer with the Summary Bill flag set to 'Y' are billed at the same time.
 - **Bill All Accounts Individually:** Select this option to bill all accounts individually.
 - **Bill Only non-Summary Accounts:** Select this option to bill only non-summary accounts.
 - **Bill Only Summary Accounts:** Select this option to bill only summary accounts. See **Setting Up Summary Bills for Customers** on page 7-15, and **Summary Bill Calculation** on page 4-20 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information about processing summary bills.
 9. Specify the **Output File Name** for the bill. Name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS. See **Appendix A: Creating a CIS Transaction Record Output File** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
 10. If desired, click **Report Options** to modify settings. See **Chapter 3: Working with Reports** for more information.
 11. Click **OK** to run the report.

Approving/Exporting/Rejecting Bills

As Oracle Utilities Billing Component runs the job, it displays the results of the bill calculations in a report window. You can begin to review and approve/reject the bills even before the job has completed. You can approve, export, reject, or skip each bill.

Each page in the report contains the results for one bill. Before approving or rejecting a bill, you must scroll the report so that the desired bill is the “current” page. The current page is the one with the highlighted line in it. The line automatically moves down the window as you scroll the display. If desired, you can simply click in a page to make it the current one.

How to approve a bill:

1. With the report properly positioned in the window, select **Review→Approve Account**, or click the *right* mouse button and select “Approve” from the pop-up menu. Approving a bill creates the transaction record and updates the bill history record.

How to Export the bill to a CIS File:

1. With the report properly positioned in the window, select **Review→Export to CIS**, or click the *right* mouse button and select “Export to CIS” from the pop-up menu. Exporting a bill does **not** create the transaction record, and does **not** update the bill history record.

After exporting the report, you can still either Approve or Reject the bill.

How to reject a bill:

1. With the report properly positioned in the window, select **Review→Reject Account**, or click the *right* mouse button and select “Reject” from the pop-up menu. Enter your reasons for rejecting the account in the window that appears. When you or another user runs the **Billing Exceptions** report, your entry here will appear in the report next to the USER REJECTED code for the account. See **Chapter 8: Review Billing Exceptions** for more information.

How to skip a bill:

1. Simply scroll past the page. Oracle Utilities Billing Component will retry the bill in the next run of the Approval Required module.

How to issue a fax or E-mail for an account or customer:

- **For Approval Required accounts:** If an “approval required” account or customer is set up to receive a bill fax or E-mail, it is automatically created when you approve the account. The E-mail is saved to a file in the USER directory, or in the case of a fax, the fax is printed.
- **To create a fax/E-mail “on demand”:** You can issue the fax or E-mail “on demand” without approving the bill by selecting **Review→Fax/Email** after the report is properly positioned in the window.

Note: The account or customer must have already been set up to receive a fax or E-mail in order for this feature to work. See **Chapter 3: Working with Reports** for more information.

Important notes about Approving/Rejecting Bills

Here are some important points to keep in mind when approving or rejecting a bill:

- Approval/rejection on one page of a bill approves or rejects all calculations in the bill.
- Approval/rejection for one month of a period rebill or cancel/rebill approves/rejects all months.
- Approval/rejection on one account of a summary bill approves/rejects the summary bill and all accounts.

After it is approved or rejected, a bill for an account will not be rerun in Approval Required mode for this bill period. Rejected bills must be corrected and issued manually using the Current/Final Bill module. See **Chapter 7: Current/Final Bill**, for more information.

Chapter 7

Current/Final Bill

This chapter explains how to process billing calculations using Current/Final Bill, including:

- **Calculating a Current/Final Bill**
- **Approving/Exporting/Rejecting Bills**

Current/Final Bill enables you to manually initiate bill calculations for a single account for a user-specified period. There are four primary applications for this feature:

- **Issue an “approval” copy for the customer’s examination** - In some cases, the customer may wish to preview a bill before it’s actually issued. You can use Current/Final Bill to create a preliminary report for the customer. When the customer has OK’d the bill, you can approve the calculations, which in turn creates the transaction records and updates the Bill History record.
- **Issue a bill that had been Rejected in the Approval Required or Automatic mode** - If a bill was stopped or rejected in the Approval Required or Automatic mode, you must correct it and rerun it using “Current/Final Bill.” When a bill has been stopped or rejected, it cannot be rerun in Approval Required or Automatic mode.
- **Issue the current bill for an account, despite missing data** - There may be special instances when you need to issue a bill for an account, despite the lack of normally-required data. For example, an interval data cut for a required recorder may be missing. Current/Final Bill enables you to overrule any requirements and calculate the bill using the data that is available.
- **Issue the final bill for an account** - In this mode, Oracle Utilities Billing Component not only issues the transaction record with the correct code for a final bill, but also automatically closes the account in the Oracle Utilities Data Repository by adding a stop-date and -time to the Account Table. Oracle Utilities Billing Component will not bill an account after its stop date.

Note: If you want verification of final bills, include the CHECK_FINAL_BILL configuration parameter in the LODESTAR.CFG file. This causes a confirmation dialog to open when approving the bill that asks if you’re sure you want to create a Final Bill. This option only functions when you select the “Enable User Approve/Reject or Saves” option on the Current/Final Bill Input dialog.

Calculating a Current/Final Bill

How to process a Current/Final Bill:

1. Select **CIS Billing**→**Current/Final Bill**.
The **Current/Final Bill Input** dialog box appears.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers to be billed using one of the following options:
 - **ID:** Type the ID of the account or customer to be billed.
 - **List:** Select the list of accounts or customers to be billed. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old version.
 - **All:** Oracle Utilities Billing Component looks for all accounts or customers whose scheduled meter read date falls some number of days before and after the Bill Date specified below. The number of days is indicated in the **Default Eligibility Pre Window** and **Default Eligibility Post Window** fields in the **Default Billing Options** dialog box. See **Chapter 7: Setting Global Defaults and Applying Settings to Accounts, Rate Codes, and Rate Schedules** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Select the **Bill Type**. Specify the type of bill to issue:
 - **Current Bill:** Issues a “regular” transaction record.
 - **Final Bill:** Issues a “final bill” transaction record, and puts a stop date and time in the Account Table in the Oracle Utilities Data Repository, closing the account.
5. Select the **Bill To Date and Time**: The start date of the bill period is automatically the end of the previous bill period (unless the account is new, in which case it is the account’s start date). You have two options:
 - **Compute:** The program determines the end of the current bill period, using the following rules:
 - If the account is billed using one channel of interval data, Oracle Utilities Billing Component uses the stop date and time of the last cut recorded by the channel.
 - If the account is billed using multiple channels of interval data, it uses the earliest stop date and time among the multiple cuts.
 - If the account is billed using billing determinants only (no interval data), it uses the actual read date and time recorded with the billing determinant data in the account’s most recent Bill History record. **Note:** The cut’s stop time must be within the pre- and post-window of the account’s scheduled read date, or else the cut is considered “missing” and Oracle Utilities Billing Component will not issue the bill.
 - **User specified:** You supply the desired stop date and time. Your input here overrides any stop dates specified elsewhere, such as the account’s actual read date in its Bill History record.

Use the MM/DD/YYYY and HH:MM:SS formats for start-date and -time, respectively. The beginning of the day is 00:00:00, the end is 23:59:59.

Click **Today** to apply today’s date and the current time (you can type a new time, if desired).

6. Select the appropriate **Save/Approve Options**. This option allows you to specify if and how results are saved to the database. The available options are:
 - **Do not enable saves of any kind:** With this option selected, Rules Language SAVES do not save and no CIS transactions record are written to the CIS file. This is the option you'll choose most often when testing rate forms.
 - **Enable user approve/reject of saves:** When this option is selected, you can either **Approve** or **Reject** each set of results. If you approve an account (or an account and all its related accounts), the bill will be rerun with Automatic Approval. This second run will generate the same results, and will create database and CIS records.
 - **Automatically save/approve each group of related pages if all OK:** If you select this option, then if there are no errors while billing an account (or related accounts for a summary customer) it is automatically approved and its database and CIS records written.
 - **Automatically save/approve each page if it is OK:** If you select this option, then data from each non-error page of an account is automatically written, regardless of the errors in other pages of the account or other related accounts.
7. Select whether or not to **Include Related Summary Accounts**: To bill only the account(s) you select, ignoring the Summary Bill flag, uncheck this option. Usually all accounts that belong to a customer with the Summary Bill flag set to 'Y' are billed at the same time.
8. Specify an **Output File Name**. Name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS. See **Appendix A: Creating a CIS Transaction Record Output File** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
9. If desired, click **Report Options** to modify settings. See **Chapter 3: Working with Reports** for more information.
10. Click **OK** to run the report.

Approving/Exporting/Rejecting Bills

As Oracle Utilities Billing Component runs the job, it displays the results of the bill calculations in a report window. You can begin to review and approve/export/reject the bills even before the job has completed. You can approve, export, reject, or skip each bill.

Each page in the report contains the results for one bill. Before approving or rejecting a bill, you must scroll the report so that the desired bill is the “current” page. The current page is the one with the highlighted line in it. The line automatically moves down the window as you scroll the display. If desired, you can simply click in a page to make it the current one.

How to approve a bill:

1. With the report properly positioned in the window, select **Review->Approve Account**, or click the *right* mouse button and select “Approve” from the pop-up menu. Approving a bill creates the transaction record and updates the bill history record.

Note: If you have the CHECK_FINAL_BILL configuration parameter in the LODESTAR.CFG file, when approving a Final Bill, a confirmation dialog opens asking you if you’re sure you want to create a Final Bill. This option only functions when you select the “Enable User Approve/Reject of Saves” option on the Current/Final Bill Input dialog.

How to Export the bill to a CIS File:

1. With the report properly positioned in the window, select **Review->Export to CIS**, or click the *right* mouse button and select “Export to CIS” from the pop-up menu. Exporting a bill does **not** create the transaction record, and does **not** update the bill history record.

After exporting the report, you can still either Approve or Reject the bill.

How to reject a bill:

1. With the report properly positioned in the window, select **Review->Reject Account**, or click the *right* mouse button and select “Reject” from the pop-up menu. Enter your reasons for rejecting the account in the window that appears. When you or another user runs the **Billing Exceptions** report, your entry here will appear in the report next to the USER REJECTED code for the account. See **Chapter 8: Review Billing Exceptions** for more information.

How to skip a bill:

1. Simply scroll past the page. Oracle Utilities Billing Component will retry the bill in the next run of the Current/Final module.

issued manually using the Current/Final Bill module.

How to issue a fax or E-mail for an account or customer:

- **For Current/Final Bills:** If an account or customer is set up to receive a bill fax or E-mail, it is automatically created when you approve the account. The E-mail is saved to a file in the USER directory; the fax is printed.
- **To create a fax/E-mail “on demand”:** You can issue the fax or E-mail “on demand” without approving the bill by selecting **Review->Fax/Email** after the report is properly positioned in the window.

Note: The account or customer must have already been set up to receive a fax or E-mail in order for this feature to work. See **Chapter 3: Working with Reports** for more information.

Important notes about Approving/Rejecting Bills

Here are some important points to keep in mind when approving or rejecting a bill:

- Approval/rejection on one page of a bill approves or rejects all calculations in the bill.
- Approval/rejection for one month of a period rebill or cancel/rebill approves/rejects all months.
- Approval/rejection on one account of a summary bill approves/rejects the summary bill and all accounts.

When it is approved or rejected, a bill for an account will not be rerun in Approval Required mode for this bill period. Rejected bills must be corrected and issued manually using the Current/Final Bill module.

Chapter 8

Review Billing Exceptions

The Review Billing Exceptions report gives you a “snapshot” of the status of bills in the system based on “account notes” or work queue items. These are records that alert billing analysts to actual or potential problems that occurred during the billing process, such as missing data or charges that appear to be “too high”. Account Notes/Work Queue Items can be entered either by Oracle Utilities Billing Component or by a user. For example, the report shows accounts that should have been billed but were not (eligible but not available), or that were rejected by a user upon inspecting the results of the calculations. With the report displayed, you can immediately jump to the appropriate Oracle Utilities Billing Component module to further examine and correct the problem.

This chapter explains how to review the status of bills using the Review Billing Exceptions report, including:

- **Running the “Review Billing Exceptions” Report**
- **Description of Account Notes/Work Queue Items**

Running the “Review Billing Exceptions” Report

You should run the Billing Exceptions Report each day, to check for any errors or problems that may have occurred during the billing process.

How to run the “Review Billing Exceptions” report:

1. Select **CIS Billing→Review Billing Exceptions**.
The **Review Billing Exceptions and Rejections** dialog appears.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component applies the report to all accounts
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Select the **Account Note Period** for the period. Specify the date range covered by the report. The date that an account note was entered must fall within this range in order for the note to be included in the report.
5. Select the **Account Note Codes** to include in the report. Select one of the following:
 - **All Codes:** Include all Account Notes/Work Queue Items that were entered for the specified accounts during the reporting period.
 - **Codes List:** Include just selected codes. When you select this button, you can then highlight any and all desired codes in the list box to the right. To select more than one code, hold down the CTRL key and select each code to be included.
6. Select whether or not to **Ignore billed accounts**. Check this box to exclude notes for any bills that had errors but have since been corrected and billed.
7. If desired, click **Report Options** to modify settings. See **Chapter 3: Working with Reports** for more information.
8. Click **OK** to run the report.
The report alerts you to any problems that require attention. The dialog box below is an example.
9. To close the report, select **File→Close**.

Important: If an account has an EXCEPTION or other note that indicates the bill will be issued late, be sure to attach a PROBLEM description to it, so that it can be tracked using the Late Billing report. See **Chapter 10: Problem Bills and the Late Bill Report** for more information.

Description of Account Notes/Work Queue Items

Account Notes and/or Work Queue Items can stop an account from being billed in the **Automatic** or **Approval Required** modes, or they can be informational only. When a bill is stopped because of an Account Note/Work Queue Item, it can still be issued automatically if corrected before the eligibility window expires. If the eligibility window passes, the bill can only be issued manually via the Current/Final Bill module. See **Chapter 7: Current/Final Bill** for more information.

Note: When using Work Queues, exceptions are written to the Work Queue Open Item table instead of the Account Notes table. To enable the Work Queues application, include the **USE_WORK_Q_FOR_ACCOUNT_NOTES = 1** parameter in the LODESTAR.CFG file.

Below is a list of the standard Account Note/Work Queue Item types, their meaning, and impact on the billing process. Your facility may have more note types (the types in use at your facility are stored in the Account Note Type Table or the Work Queue Type table in the Oracle Utilities Data Repository).

Note: Changing the **Stop Billing** flag on these Account Notes/Work Queue Item types has no effect on the billing process.

Prevents billing for an account?

Code	Automatic	Appr Req	Meaning
ABORT	✓	✓	An ABORT statement in the rate form executed during bill calculation.
EXCEPTION	✓		Data missing on day after post-window.
HOLD	✓		User requested hold via Browser or Account-Centric View.
INFO			Informative note supplied by user via Browser or Account-Centric View.
SYSTEM REJECTED	✓		Invalid data or failure during bill calculation.
USER REJECTED	✓		User rejected after review of calculations.
WARNING	✓		A WARN statement in the rate form executed during bill calculation.

Chapter 9

Bill Corrections

This chapter explains how to correct and re-issue old bills, or add an adjustment to a current bill using Bill Corrections, including:

- **Correcting a Bill**
- **Approving/Exporting/Rejecting Bills**

Bill Corrections enable you to cancel previously issued bills and issue either an adjustment or new bills. Adjustments can be made to any bill. New bills (rebills) can be issued for the current bill period, as well as for any previous bill period. This module is useful for fixing problems found by a billing analyst or customer, and for responding to customer requests for a change in the application of an override (to waive a peak, for example).

Correcting a Bill

How to process a Bill Correction:

1. Select **CIS Billing→Bill Correction**.
The **Bill Correction** dialog box appears.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component applies the report to all accounts
 - **File:** Select a file containing a list of customer/account IDs (*.ids), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Select the **Bill Type**. Select one of the following:
 - **Cancel/Rebill:** Cancels the previous bill(s) and issues new one(s) in their place. Issues Cancel transactions to the output file for the current bill month through the oldest month, and Issues Rebill transactions from the oldest month through the current month.
 - **Adjustment:** Leaves the old bills in place and adds an adjustment to the new one.
 - **Cancel Only:** Sends transactions to the output file to cancel bill(s). If there are multiple bills, the order of the Cancel transaction records is current bill month through the oldest month. **WARNING:** The system does not ask for a confirmation before issuing the cancellations. **Note:** If you cancel a bill, you must rebill it. The separate Cancel Only and Rebill Only options enable you to perform the operation in two steps—if you need some time to investigate the rebill, for example.
 - **Rebill Only:** Issues a new bill or bills to replace the canceled bill(s). If there are multiple bills, the order of the Rebill transaction records is oldest bill month through the current.
5. Select the Billing Dates for the bill. Enter the billing dates for the bill correction. The available options are:
 - **Bill Period(s) to correct:** Enter the number of previous bill periods to correct—0 for the current bill period, 1 for the current and next most recent bill period, 2 for the current and two previous bill periods, and so on. For the current period, Oracle Utilities Billing Component uses the account's most recent Bill History record that does not have a null value for Bill Date. The next bill period (in the case of multiple period corrections) is the next most recent bill history record, regardless of the value for Bill Date. **Note:** When you enter 0, Oracle Utilities Billing Component actually sends the number 01 to the output file; 1 is sent as 02, and so on.
 - **From bill history:** This option allows you to select a specific bill period for the bill correction. Click **Select** to select a Bill History record. The Bill Month, Read Date, Bill From, and Bill To values are automatically populated. **Note:** This option calculates adjustments for the selected bill period **only**, and does not affect any subsequent billing periods. When you select this option, the following dialog opens, warning the user of this limitation.
6. Select the appropriate **Save/Approve Options**. This option allows you to specify if and how results are saved to the database. The available options are:

- **Do not enable saves of any kind:** With this option selected, Rules Language SAVES do not save, and no CIS transactions record are written to the CIS file. This is the option you'll choose most often when testing rate forms.
 - **Enable user approve/reject of saves:** When this option is selected, you can either **Approve** or **Reject** each set of results. If you approve an account (or an account and all its related accounts), the bill will be rerun with Automatic Approval. This second run will generate the same results, and will create database and CIS records.
 - **Automatically save/approve each group of related pages if all OK:** If you select this option, if there are no errors while billing an account (or related accounts for a summary customer), it is automatically approved and its database and CIS records written.
 - **Automatically save/approve each page if it is OK:** If you select this option, data from each non-error page of an account is automatically written, regardless of the errors in other pages of the account or other related accounts.
7. Select whether or not to **Include Related Summary Accounts**. To bill only the account(s) you select, ignoring the Summary Bill flag, uncheck this option. Usually, all accounts that belong to a customer with the Summary Bill flag set to 'Y' are billed at the same time.
 8. Select whether or not to **Use Bill History Dates and Times**. In the other billing modes there may not be a Bill History record for the bill period, and these modes may compute the bill start and stop dates. There is always a Bill History record to correct when issuing a Bill Correction. Checking this option tells Bill Correction to use the Bill History dates instead of computing them. It should almost always be left on. You can uncheck this option if you wish to view computed dates.
 9. Select the **Do not use current Bill History determinant values** option if the account uses interval data, has already been billed, and you want to run the bill correction without using the saved bill determinants. Otherwise the current Bill History values will be used.
 10. Select the **Rebill Reason**. This option is only available if the Rebill Reason (REBILLREASON) Table is present in the Oracle Utilities Data Repository. When available, this option allows you to select from a list of Rebill Reason codes when selecting one of the Rebill options (Cancel/Rebill or Rebill Only).
 11. Specify the **Output File Name**: Name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS. See **Appendix A: Creating a CIS Transaction Record Output File** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
 12. If desired, click **Report Options** to modify settings. See **Chapter 3: Working with Reports** for more information.
 13. Click **OK** to run the report.

Approving/Exporting/Rejecting Bills

As Oracle Utilities Billing Component runs the job, it displays the results of the bill calculations in a report window. You can begin to review and approve/export/reject the bills even before the job has completed. You can approve, export, reject, or skip each bill.

Each page in the report contains the results for one bill. Before approving or rejecting a bill, you must scroll the report so that the desired bill is the “current” page. The current page is the one with the highlighted line in it. The line automatically moves down the window as you scroll the display. If desired, you can simply click in a page to make it the current one.

How to approve a bill:

1. With the report properly positioned in the window, select **Review→Approve Account**, or click the *right* mouse button and select “Approve” from the pop-up menu. Approving a bill creates the transaction record and updates the bill history record.

Important: If you approve one of the rebilled months, any and all others are approved as well.

How to Export the bill to a CIS File:

1. With the report properly positioned in the window, select **Review→Export to CIS**, or click the *right* mouse button and select “Export to CIS” from the pop-up menu. Exporting a bill does **not** create the transaction record, and does **not** update the bill history record.

After exporting the report, you can still either Approve or Reject the bill.

How to reject a bill:

1. With the report properly positioned in the window, select **Review→Reject Account**, or click the *right* mouse button and select “Reject” from the pop-up menu. Enter your reasons for rejecting the account in the window that appears. When you or another user runs the **Billing Exceptions** report, your entry here will appear in the report next to the USER REJECTED code for the account. See **Chapter 8: Review Billing Exceptions** for more information.

How to skip a bill:

1. Simply scroll past the page. Oracle Utilities Billing Component will retry the bill in the next run of the Approval Required module.

How to issue a fax or e-mail for an account or customer:

- **For Bill Corrections:** If an account or customer is set up to receive a bill fax or e-mail, it is automatically created when you approve the account. The e-mail is saved to a file in the USER directory; the fax is printed.
- **To create a fax/E-mail “on demand”:** You can issue the fax or E-mail “on demand” without approving the bill by selecting **Review→Fax/Email** after the report is properly positioned in the window.

Note: The account or customer must have already been set up to receive a fax or E-mail in order for this feature to work. See **Chapter 3: Working with Reports** for more information.

Important notes about Approving/Rejecting Bills:

Here are some important points to keep in mind when approving or rejecting a bill:

- Approval/rejection on one page of a bill approves or rejects all calculations in the bill.
- Approval/rejection for one month of a period rebill or cancel/rebill approves/rejects all months.
- Approval/rejection on one account of a summary bill approves/rejects the summary bill and all accounts.

When it is approved or rejected, a bill for an account will not be rerun in Approval Required mode for this bill period. Rejected bills must be corrected and issued manually using the Current/Final Bill module.

Chapter 10

Problem Bills and the Late Bill Report

This chapter explains how to flag bills for inclusion in the Late Bill report, and how to produce the report itself, including:

- **Flagging “Problem” Bills**
- **Creating a Late Bill Report**

The Late Bill report makes it possible to monitor the progress of individual bills, track the interest lost due to the billing delays, and summarize all late bills so that you can identify and resolve any recurring problems.

There are two situations in which a bill is considered “late” and therefore included in the **Late Bill** report:

- **Bills that were issued after their scheduled meter read date** – A bill is considered on time if it is calculated and sent to the output file on or before the date that its meter was scheduled to be read. If Oracle Utilities Billing Component sends the transaction record to the output file on any day after the scheduled read date, the bill is considered late. Oracle Utilities Billing Component automatically finds late bills by comparing the date that the bill was issued to the output file with the account’s scheduled read date. Specifically, the program compares the account’s value for **Bill Time** with its value for **Read Date** in the Bill History Table. If the bill date was any time after the read date, the software automatically includes the account in the Late Bill report, even if the bill date was within the account’s post-window for eligibility.
- **Unbilled accounts that are both past their read date, and have a manually assigned “Problem” description** – Oracle Utilities Billing Component automatically attaches an EXCEPTION to any account whose billing data was unavailable by the scheduled read date and therefore could not be billed on time. In addition, Oracle Utilities Billing Component or a billing analyst can attach other kinds of Account Notes/Work Queue Items to an account to indicate a problem. These notes can actually halt the billing process for the account’s bill. It is the billing analyst’s responsibility to examine the **Billing Exceptions and Rejections** report for Account Notes/Work Queue Items such as an EXCEPTION, and to resolve any problems. If you want to use the Late Bill report to track bills that are being delayed in this manner, you **must** manually attach a “PROBLEM” description to the account. If you do not attach a “PROBLEM” description to the account, the account only appears in the report after the bill has been issued.

Flagging “Problem” Bills

The following instructions explain how to flag an unissued bill as having a “problem.” You can also enter a brief description of the problem and its resolution.

As explained in the overview to this chapter, the “problem” flag causes an unbilled bill to be included in the Late Bill report. In addition, any problems and resolutions you enter into the Bill History Problem Table appear in the account’s bill report, as long as the **Show Bill History Problems/Resolutions in Bill Reports** option is checked on the **Report Options** tab under **CIS Billing→Billing Options**. See **Default Billing Options** on page 2-16 for more information. This feature applies to Approval Required, Current/Final Bill, and Bill Correction reports, but not Automatic Billing.

When you have identified the “problem” account via the **Billing Exceptions and Rejection** report, use the following procedure to attach a Problem flag to the account.

How to attach a Problem Flag to an account using the Browser:

1. With the Billing Exceptions and Rejections report displayed, highlight a line containing the desired account ID.
2. Click the *right* mouse button, and select **Browse Account** from the pop-up menu that appears.

The Browser appears with tables for the selected account displayed.

3. Click the plus sign next to the Bill History table icon in the left pane. Verify that a Bill History record exists for the bill period in question. If Oracle Utilities Billing Component receives bill determinant data for the account, a record for the current month will exist. If the account is not billed using determinants from an external source, there won’t be a Bill History record for the current month. If that’s the month you want to attach a problem description to, you must create a bill history record for it.
4. *If the bill history record exists, skip this step.* With the Bill History Table still highlighted in the left pane, select **Records→Insert New** or click the *right* mouse button. Enter the appropriate **Start Time** and **Stop Time** for the bill period using the MM/DD/YYYY HH:MM:SS format. Oracle Utilities Billing Component updates the other fields in the record with the proper information when it actually creates the bill. Enter the actual Bill Month using the MM/YYYY format. Then select **Edit→Add** to save the record to the database.
5. In the left pane, click the plus sign next to the desired Bill History record. When the record tree expands, position the mouse pointer on the **Bill History Problem** icon and select **Records→Insert New**, or click the *right* mouse button.

A data entry form for the **Bill History Problem** Table appears.

6. Remove the checkmark from the Null box above the **Problem** window, and enter a brief description of the problem (up to 254 characters) to appear in the **Late Bill** report.
7. If the problem has been resolved, remove the checkmark from the Null box above the **Resolution** window and enter a brief description (up to 254 characters) to appear in the **Late Bill** report. If the problem has not yet been resolved, leave the Null checkmark in place.

To calculate interest lost, you must have a YEARLY_INTEREST_RATE factor with the interest rate in the Factor Value Table, or the interest will be zero. See the *Data Manager User’s Guide* for more information about Factors and the Factor Value Table.

Creating a Late Bill Report

The **Late Bill Report** summarizes bills that were either issued late (that is, on any day after their scheduled read date), or are as yet unissued and have been assigned a “PROBLEM” description by a billing analyst.

You can apply the report to all accounts or customers in the database, to a user-defined subset (list) of accounts or customers, or to even a single account or customer. The report includes the following information: the account’s name, number, account manager, and read dates (both scheduled and actual); the number of days late; dollar amount of the bill based on a user-selected bill determinant; and the interest lost. It also includes any problems entered by the Billing Analyst to explain why the bill was not issued on time (the “problem”) and its resolution.

How to run a Late Bill Report:

1. Select **Analysis→Late Billings**.

The **Late Billing Explanation Report Input** dialog box appears.

2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers you wish to process using one of the following options:
 - **ID:** Type the ID of the account or customer you wish to process.
 - **List:** Select an appropriate list to process. For example, you might have a list of the accounts or customers you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component automatically applies the report to all accounts or customers in the Data Repository.
 - **File:** Select a file containing a list of customer/account IDs (*.ids), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Select the date range for the report in the **Select Period By** area. Specify the date range covered by the report, using *either* bill month or read dates:
 - **Bill Month:** Enter the month(s) for the report using the mm/yyyy format—for example, 10/1997. If you want just one month, enter the same date in both fields.
 - **Read Date:** Enter the beginning and end of the period of interest, using the mm/dd/yyyy format. Any account with a late bill associated with a read date between those dates is included in the report.

Note: Whether you specify Bill Month or Read Date, the information is reported for bill months.
5. Enter the **Number of Days Late** for the report. Enter the number of days late. For example, if you want to see a list of bills that are least 5 days late but no more than 30, enter 5 and 30. If you want to see all late bills, enter a 1 in just the From field. Valid values for both the From and To fields are 1 - 999.
6. **Select Determinant to be used for Bill Amt.** Choose one determinant from the drop-down list. For each late bill, Oracle Utilities Billing Component will calculate the report using that determinant.
7. Select whether or not to **Sort by Jurisdiction:** Check this option to sort the report by Jurisdiction.
8. Select how to **Sort** the report. Specify the value that Oracle Utilities Billing Component uses to organize the information in the report. The bills are always sorted first by bill month, then by the value you specify here:

- Account Number (ascending order)
 - Days Late (descending order)
 - Bill Amount (descending order).
9. If you want to change the report settings for this report, click **Report Options**. See **Chapter 3: Working with Reports** for more information.
 10. Click **OK** to run the report.

A progress indicator is shown until the calculations are complete. After a few moments, the report appears in a window.

The following information is displayed in a **Late Bill** report:

- **Read Date:** Day that the account was scheduled to be read (as defined in the Read Date field in the Bill History Table).
- **Late:** The number of days late. If the bill has been issued, this number is the difference between the scheduled read date and the date that the bill was issued. If the bill is pending, this number is the difference between the scheduled read date and today.
- **Bill Amount:** The value for the determinant selected in the **Late Billing Explanation Report Input** dialog box.
- **Interest Lost:** This is the interest lost due to the bill being issued late. This option uses the YEARLY_INTEREST_RATE factor. Oracle Utilities Billing Component calculates this value using the following formula:

$$\text{Int. Lost} = \text{Days Late} \times \text{Daily Interest Rate} \times \text{Bill Amount}$$

The daily interest rate is the simple interest calculated from the yearly interest rate; that is, the yearly interest rate divided by 365. The yearly interest rate should be stored in the Factor Table as YEARLY_INTEREST_RATE. See the *Data Manager User's Guide* for more information about Factors and the Factor and Factor Value tables.

- **Problem:** This is a brief explanation of why the bill was not issued on time, as entered by a Billing Analyst. See **Flagging "Problem" Bills** on page 10-2 for more information. If the report reads **Not Available**, no one recorded a problem.
- **Resolution:** This is a brief explanation of how the problem was resolved, as entered by a Billing Analyst. See **Flagging "Problem" Bills** on page 10-2 for more information. If the report reads **Not Available**, no one recorded a resolution.

Chapter 11

Other Reports

This chapter explains how to create a variety of useful reports, including:

- **The Billing History Report:** This report displays billing information for one account or a list of accounts over a user-specified number of bill periods. You can specify that the report include one page for each account as well as a summary report showing totals for all accounts. The individual account information includes: bill start date, bill end date, rate code, number of days in the period, and bill determinant values. The information is presented in a tabular format, with each column representing a bill period.
- **The Special Events Report:** This report lists the overrides that were applied to one or a list of accounts over a user-specified time period.
- **The Top Accounts Report:** This report identifies your largest customers by revenue, energy, or demand, and compares their monthly billing information with the same periods one year earlier.
- **The Rider Summary Report:** This report lists the accounts or customers that were subject to all or a selected group of tariff riders during a user-specified period.

Note: If Oracle has developed custom reports for your company, they will be described in an appendix.

The Billing History Report

The Billing History Report is useful for examining and comparing bill determinant values and other billing information for one or more accounts over a user-specified number of bill periods. This report also allows you to produce a summary report which totals the data for all accounts.

How to create a Billing History Report:

1. Select **Analysis->Billing History**.
The **Billing History Report Input** dialog box opens.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Enter the beginning and end of the period for the report in the **Test Period From/To** box using the date format specified via **Tools->Options**.
5. *Optional.* Enter a name for the analysis in the **Analysis Name** field, to appear in the title bar of the report window and on the printed report.
6. Enter the level of detail to be included in the report. You can check one or both of the following options, but you must check at least one:
 - **Individual Account Report:** The report displays a page of information for each account in the list.
 - **Grand Total Summary:** The report displays the total data for all accounts in the list. This option is **always** checked.
7. *Optional.* **Add Override Codes:** If this checkbox is checked, the report includes the override codes in effect for each account and bill period in the report. This option requires the **Individual Account Report** option be selected.
8. Select the number of decimal places to display from the **Bill Determinants Displayed to n Decimal Places** drop-down list. If the number in the database has more decimal places than the number selected, the number displayed on the report is rounded off the number of decimals selected. If the number in the database has less decimal places than the number selected, the number displayed on the report will have zeros appended to the end to display the number of decimals selected. The default setting is 1.
9. If you want to change the report options, click **Report Options**. See **Report Options** for more information.
10. Click **OK** to run the report.
A progress indicator is shown until the calculations are complete. The requested information then appears in the report window.
11. To close the report, select **File->Close**.

The Special Events Report

The Special Events Report summarizes all of the overrides that have been applied to an account over a user-specified date range.

How to create a Special Events Report:

1. Select **Analysis->Special Events**.
The **Special Events Report Input** dialog box opens.
2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component applies the report to all accounts
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Type the start date and end date for the period you wish to report in the **Special Events Period From/To** box. Use the MM/DD/YYYY date format.
5. Select one of the following **Event Codes**:
 - **All Codes:** Include all overrides that were applied to the specified accounts or customers during the reporting period.
 - **Codes List:** Include just selected overrides. When you select this button, you can then highlight any and all desired codes in the list box to the right. To select more than one code, hold down the CTRL key and select each code to be included. You can select up to 64 specific event codes. This box displays all of the Account Override codes that are currently stored in the Override Table in the Oracle Utilities Database.
6. If you want to change your report options, click **Report Options**. See **Report Options** for more information.
7. Click **OK** to run the report.
A progress indicator is shown until the calculations are complete. The requested information appears in the report window.
8. To close the report, select **File->Close**.

The Top Accounts Report

The Top Accounts Report lists your largest customers by revenue, energy, or demand, and lets you see how their bills have changed from the previous year. You can apply the report to the entire database, to just selected rate codes, or to a user-defined subset (list) of accounts or customers.

The report includes the following information:

- the top *n* customers by revenue, energy, or demand for each bill month in the analysis period (where *n* is a value you specify),
- each customer's monthly value for revenue, energy, and demand, along with its value for the same period one year earlier (if available),
- the percentage change.

The report also totals the values for all of the customers in the system for the selected revenue classes in each bill month.

When setting up the report, you can specify which determinants from the Bill History Table are used as the measure for Revenue, Energy, and Demand.

How to create The Top Accounts Report:

1. Select **Analysis->The Top Accounts**.

The **Top Accounts Report Input** dialog box opens.

2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component applies the report to all accounts
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Enter the **Comparison Period from/To**. Specify the range of bill months you wish to report using the MM/YYYY format. Oracle Utilities Billing Component will find the biggest customers for each bill month in the date range and will automatically compare their revenue and usage for those months with the same months in the previous year. For example, if you specified from 09/1997 to 10/1997, Oracle Utilities Billing Component would compare values for September 1997 with September 1996 and October 1997 with October 1996. If you want just one month, enter the same date in both the From and To fields. (For example, if you entered 10/1997 and 10/1997, the report would compare October 1997 with October 1996.)
5. Select the **Revenue Codes** for the report. Highlight each revenue code you wish to include in the report. You can highlight as many codes as desired. To select more than one code, hold down the CTRL key and select each code to be included. Highlight [NULL] to include any accounts or customers that have not been assigned a revenue code. Any codes that you do not highlight will be excluded from the report.
6. Specify the number of **Top Customer(s)** to report (you can specify any number but zero). Then, specify how you want Oracle Utilities Billing Component to select the top customers: by highest **revenue**, by most **energy** used, or by highest **demand**. The **Advanced** option described later lets you specify the billing determinant that represents these quantities.
7. Select the **Type of Report**: Specify whether the report treats each revenue code separately or combines them all into one group:
 - **By Revenue Code:** Reports the top *n* customers in each revenue code.
 - **As One Large Group:** Reports the top *n* customers in the combined group.

Select how to **Sort** the Report. Specify the value that Oracle Utilities Billing Component uses to organize the information in the report. The information is always sorted first by bill month, then by the value you specify here:

- Revenue (descending order)
 - Energy (descending order)
 - Demand (descending order)
 - Customer Name (alphabetically, ascending order).
8. *Optional.* To view or change which determinants Oracle Utilities Billing Component uses as the measure for Revenue, Energy, and Demand, click the **Advanced** button at the bottom of the screen.
The **Top Accounts Advanced Options** dialog box opens.
 9. Select the determinants as desired, then click **OK** to close the dialog and return to the **Top Accounts Report Input** dialog.

10. If you want to change your report options, click **Report Options**. See **Chapter 3: Working with Reports** for more information.
11. Click **OK** to run the report.

A progress indicator appears. After a few moments, the requested information appears in the report window.
12. To close the report, select **File→Close**.

Reporting Top Account based on Database Relationships

It is also possible to create a Top Accounts report based on database relationships with the Account Table. Specifically, you can either 1) list the top accounts for one specific value in the relationship, or 2) list the Top Accounts for each value in the relationship. For example, list the top accounts with Revenue Code ABC, or list the top accounts for each revenue code.

The way to establish a relationship between some database value and the Account table is through the List functionality. If a List targeting the Accounts is used in the Customer/Account selection in the Top Accounts dialog, then the Top Accounts will be selected only from accounts in the list.

The List functionality includes an option that supports determining Top Accounts for all values in a relationship. If a question mark (?) is used as the Equals value of a column in a List query clause, the List will be repeated for each value of the column in the database. That is, all values for the column will be retrieved (with a reasonable ordering), and then the List query will be rerun once with each value substituted for the question mark. The Top Accounts for a value will be displayed (if there are one or more accounts related to the value). There may be only one question mark in the List.

Example: Top Accounts by Supplier

Below is an example of generating a Top Accounts list by supplier.

First, the Name Override History Table is used to link accounts to their suppliers. The Override Code is SUPPLIER, and there are two suppliers - GECO and LITTLE_SUPPLIER.

The next step is to create a list that relates the Account Table to the Name Override History Table, using the override code for Supplier. If the List also includes the name of a specific supplier then the Top Accounts for that supplier will be determined. If the List uses a question mark then there will be one Top Account page per supplier.

The following list can be used to determine the Top Accounts with supplier GECO:

List:	Account List (from Customer/Accounts List).
Query:	Name Override History.Override Code = SUPPLIER And Name Override History.Name = GECO

The following list can be used to get the Top Accounts for each supplier:

List:	Account List (from Customer/Accounts List).
Query:	Name Override History.Override Code = SUPPLIER And Name Override History.Name = ?

The Rider Summary Report

The Rider Summary report lists the tariff riders that were applied to selected customers or accounts over a user-specified date range. The results can be organized in either of two ways: you can generate a list of riders that were applied to each account, or a list of accounts that were subject to each rider.

For purposes of Oracle Utilities Billing Component and the Oracle Utilities Energy Information Platform, the term “rider” refers to both:

- **A tariff rider** that has been explicitly attached to an account by a billing or rate analyst in the Rider History Table. See **Applying Tariff Riders to Accounts** on page 7-18 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* for more information.
- **A generic rider** that is included as part of another rate form. This type of rider is simply a set of language statements that perform a common function used in several rate schedules, such as calculating a determinant value. These riders are created and stored separately like a library of “standard text,” so that the rate analyst can quickly incorporate them into another rate form without having to re-write them from scratch every time.

The Rider Summary reports only tariff riders.

How to create a Rider Summary:

1. Select **Analysis->Rider Summary**.

The **Rider Summary Report Input** dialog box opens.

2. Select either **Account** or **Customer** in the **Select By** box.
3. **Select** the accounts or customers of interest using one of the following options:
 - **ID:** Type the ID of the account or customer for the report.
 - **List:** Select a list for the report. For example, you might have a list of the accounts that you are responsible for. If the contents of the list may have changed since the last time that the query associated with it was run, check the box for **Refresh list before using**. This option updates the list for this job and saves the new version of the list to the database, replacing the old one.
 - **All:** Oracle Utilities Billing Component applies the report to all accounts
 - **File:** Select a file containing a list of customer/account IDs (*.IDS), a list file (*.lst), an account query file (*.qra), or a customer query file (*.qrc).
4. Enter the **Rider Summary Period:** Type the start date and end date for the period you wish to report. Use the MM/DD/YYYY format. It reports riders in effect during the summary period.
5. **Select Rider Options** for the report. Highlight each rider you wish to include in the report. You can highlight as many as desired.
6. Select how to **Sort** the report. Specify the value that Oracle Utilities Billing Component uses to organize the information in the report. The information is always sorted first by jurisdiction, then by the value you specify here:
 - **Rider:** The report displays a list of accounts subject to each rider.
 - **Account Number:** The report displays a list of riders applied to each account.
7. If desired, click **Report Options** to modify settings. See **Chapter Seven: Setting Report Options** for more information.
8. Click **OK** to run the report.

A progress indicator appears. The requested information appears in the report.

9. To close the report, select **File→Close**.

Chapter 12

Calculating Trial Bills

The Trial Bill module enables you to create “trial bills” by applying any rate form to any account’s historical data over a user-specified date range. You can view and modify any of the billing determinants or rate form statements used in the calculations, and quickly recalculate the bill to see the impact of your changes. Because it is intended for testing and analysis, this module does not send transaction records to the CIS. Unless otherwise specified in **Advanced** options, this module does not permit data to be saved to the Data Repository.

This module has several important applications:

- “debugging” new rate forms before they are used in a production mode.
- demonstrating to a customer the potential impact of switching to an alternative rate, or of modifying their usage patterns on the same rate.
- training new users.

This chapter explains how to calculate a “trial bill” by applying a user-selected rate form to historical data for an account, including:

- **Running a Trial Bill Calculation**

Running a Trial Bill Calculation

How to Run a Trial Calculation:

1. Select **Analysis->Trial [Bill] Calculation**.
The **Trial Calculation** dialog box opens.
2. Select the customer or account for the calculation:
Select By: Select Account or Customer. Account must be selected to run Single Step. Customer can only be used with the Report option.
Select: Enter the ID of the account/customer you wish to use in your trial bill.
3. Enter the **Billing Dates** for the calculation by selecting one of the following options:
 - **From bill history:** Click **Select** to use a specific Bill History record.
 - **Compute:** Calculates the bill exactly as the billing engine calculates. This option supports recalculating existing bills.
 - **User specified:** This option only applies to accounts whose bills are based on interval data. Specify the following for any period for which interval data is available for the account. Note that Bill History values will not be prorated to user-specified dates.
Bill Month: Enter the desired bill month.
Read Date: Enter the desired read date.
Bill From: Enter the start date of the trial bill.
Bill To: Enter the stop date of the trial bill.
4. Select the **Billing Rate Schedule** for the calculation using one of the following options:
 - **Select Rate Schedule:** Click this radio button, then the **Select Rate Schedule** button if you want to select a rate form from the database. The **Select Rate Schedule and Optional Rate Code** dialog box appears. This box gives you access to all current, historical, and trial rate schedules stored in the Oracle Utilities Data Repository. If you select this option, skip to step 5.
 - **Use Applicable Rate Schedules:** Click this radio button if you want to use the rate form that was in effect for the account during the bill month you specified above. If you select this option, skip to step 6.
5. *Optional.* Select the rate schedule to use for the calculation on the **Select Rate Schedule and Optional Rate Code** dialog box.
 - Select an operating company, jurisdiction, and rate schedule.
 - Check the desired rate schedule **Type (Current/Historical and/or Trial)**. A list of all of the versions of the rate schedule that meet your criteria appears in the **Rate Form Version** selection box.
 - Highlight one rate form version in the **Rate Form Version** selection box. The language script for that rate form appears in the box below, so that you can determine whether or not it's the desired version.
 - **Select Rate Code:** The program requires a rate code to determine how to price out the billing determinants.

You can select a rate code from the **From Rate Schedule Rate Code** list. If you do not select a rate code, the program will use the customer's current rate code to determine the correct pricing.
 - Click **OK**. You are back at the **Trial Bill Calculation** dialog box. Notice that the selected rate schedule version appears under **Billing Rate Schedule**.

6. *Optional.* Click **Options**.

The **Default Options** dialog box opens. See **Default Options** in **Chapter Two** for more information about setting Default Options.

Set the options as appropriate, and click **OK**.

7. *Optional.* Click **Advanced**.

The **Advanced Trial Bill Calculation Options** dialog box opens.

Set the options as desired then click **OK** to close this dialog.

- **INTDLOAD...ENERGY loads all energy used:** This options loads energy from cuts that extend past the bill stop date and time. The default is to only load energy used within the bill period.
 - **Save Options:** This option allows you to specify if and how results are saved to the database. There are four options available:
 - **Do not enable saves of any kind:** With this option selected, Rules Language SAVES do not save and no CIS transactions record are written to the CIS file. This is the option you'll choose most often when testing rate forms and when using Trial Bill.
 - **Enable user approve/reject of saves:** When this option is selected, you can either **Approve** or **Reject** each set of results. If you approve an account (or an account and all its related accounts), the bill will be rerun with Automatic Approval. This second run will generate the same results, and will create database and CIS records.
 - **Automatically save/approve each page if it is OK:** If you select this option, then data from each non-error page of an account is automatically written, regardless of the errors in other pages of the account or other related accounts.
 - **Use cut dates nearest the supplied dates:** If the account uses interval data and you want to use the best cut dates, check this option. Otherwise, to subset the interval data based on the supplied dates, uncheck this option.
 - **Do not Display Graph for Interval Data:** If this checkbox is checked, the lower graph window does not open. The default for this option is unchecked.
 - **Do not use current Bill History determinant values:** If the account uses interval data, has already been billed, and you want to check the computation without using the saved bill determinants, check this option. Otherwise the current Bill History values will be used, and the NOVALUE statements may not execute.
 - **Do not use Account/Customer selection:** This option runs the calculation in the same manner as the RUNRS.EXE program (see the *Oracle Utilities Energy Information Platform Installation and Configuration Guide*). When **Report** or **Single Step** is pressed (see below) the Account/Customer selection will be ignored and the rate schedule will be run just as if it was run from RUNRS.
8. Choose one of the following options to view the calculations:
- **Report:** Displays the results of the calculations in a report window. Go to the section **How to View the Bill Calculation Report** on the next page.
 - **Single Step:** Lets you execute one rate form statement at a time. See **How to run the Single Step Analysis**, later in this chapter.

How to View the Bill Calculation Report

1. On the **Trial Calculation** dialog, click the **Report** button.

A progress indicator displays until the calculations are complete. Then, the Bill Calculation Report appears in a window.

2. Review the report to make sure that the data processed as expected.

If you want to override your default report options for this report, output the bill report to a file, or add titles to the report, click **Report Options**. The **Report Options** dialog opens.

3. To close the report, select **File→Close**.

How to run the Single Step Analysis

The Single Step Analysis feature lets you execute one rate form statement at a time so that you can see the changes to identifier values.

1. On the **Trial Calculation** dialog, click the **Single Step** button.

The windows for the **Single Step** module appear.

The module consists of two (or three) windows. The top left window displays the statements that make up the rate form. The next statement to be executed is highlighted (comments are skipped). The top right window displays the identifiers in the rate form and their values. The lower window is a graphical display of the interval data. This window appears only when an interval data identifier is highlighted in the top right window.

You can use the **Find**, **Find Next**, **Find Previous**, and **Go to** options from the Edit menu to search in either the top left or top right windows. To do so, select the starting point for the search in the appropriate window, and select the desired options from the **Edit** menu.

2. When the rate form is first displayed, the first executable statement is highlighted. To execute the statement, select **Single-Step→Step**, or press **F8**. You can execute each statement this way.
3. If you want to execute a portion of the rate form up to a particular statement, highlight the target statement and select **Single-Step→Run to Selection**, or press **F4**. This allows you to avoid having to single-step through every statement prior to the one of interest.
4. To run all statements to completion, select **Single-Step→Run** or press **F5**. Note that when running a rate form, processing stops at each breakpoint encountered. To stop executing the rate form, select **Single-Step→Stop** or press **F12**.
5. To restart executing the rate form, select **Single-Step→Restart** or press **F10**. Note that all warning and informational messages set before restarting will be cleared. Also, any values for identifiers calculated before restarting will be cleared.
6. After you have run the statements, you can view the resulting bill report by selecting **Single-Step→Display Report**, or pressing **F6**.

The bill report appears (it has the same format as other bill reports in the system). You can export or print the report using options from the File menu. You can also search for selected text or copy all or a selected portion to the clipboard using options from the Edit menu.

7. To close the report, select **File→Close**.

Single Step Module Advanced Options

The Single Step module also provides advanced options when executing rate forms. These include **Changing Identifier Values**, **Setting Breakpoints**, and **Selecting Identifiers to Display**.

Changing Identifier Values: To change the value of an identifier before you generate the bill report, double-click on the identifier in the right window. The **Customer Bill Modification - Edit Id** dialog box opens with the current value in an edit box. Change the value as appropriate, and click **OK** to save the value in the executing rate schedule.

Note: You must enter the same value type - Integer, Float, etc. - as the current value. If the identifier is an interval data handle, the value displayed contains its total, maximum, pulse multiplier, and pulse offset. This value is not modifiable.

Setting Breakpoints: You can specify points within the rate form at which you want execution of the rate to stop or break. These are called breakpoints. To set breakpoints within the rate form, select the line at which you wish the execution to break and select **Single-Step->Insert/Remove Breakpoint** or press **F9**. This inserts a breakpoint (“=>”) at the selected line. When the rate form is executed, processing stops at each breakpoint. To remove a breakpoint, select a line that contains a breakpoint and select **Single-Step->Insert/Remove Breakpoint** or press **F9**. Breakpoints inserted into a rate form are stored in the Oracle Utilities Data Repository until specifically cleared.

You can also create “conditional” breakpoints. These are breakpoints related to a specific identifier in the rate form which can be set to stop processing when the value of a specified identifier changes or when the value equals a user-specified value. To set a conditional breakpoint for an identifier, double-click the identifier and click **Breakpoint** on the **Customer Bill Modification - Edit Id** dialog. The **Customer Bill Modification - Breakpoint** dialog opens.

This dialog allows you to set the conditions for the breakpoint in one of two ways:

- To specify that rate form execution breaks when the value of the identifier changes, select “**Break when value changes**” in the Breakpoint box on the dialog and click **OK**.
- To specify that rate form execution breaks when the identifier reaches a specified value, select “**Break when value equals**” in the Breakpoint box on the dialog, select the type of the identifier from the **Type** drop-down list, enter the specified value in the **Value** field, and click **OK**.

Selecting Identifiers to Display: Normally the top right window displays all identifiers used in the rate form, but in some cases it may be preferable to view only selected identifiers, as this can help users more easily track the values of specific identifiers while the rate form executes. To select an identifier for display in the top right window, double-click the identifier, check the **Add identifier to Selected list** checkbox on the **Customer Bill Modification - Edit Id** dialog, and click **OK**. The identifier will appear in the top right window when the user selects the **Show Selected Identifiers** option from the Single-Step menu.

Graphing Options

The Trial Calculation Single Step Analysis graphing tool provides the following features:

Zoom View: The Zoom View allows users to zoom in on the graph by dragging the mouse over a portion of the graph. To return it to its original size, select the Undo Zoom option on the Graphing Options menu (see below).

Graphing Options: The Graphing Options menu provides access to several other graphing options.

To open the Graphing Options menu, right-click on the graph. This menu provides the following options:

- **Viewing Style** opens a menu of options that change the appearance of the graph. Using these options you can make the graph color or monochrome. You can also select **Bitmap/Gradient** to add a predefined style to the graph. A variety of predefined styles are listed under the Bitmap/Gradient item on the menu.
- **Border Style** opens a menu of options that change the borders of the graph. Using these options you can add or remove a border, line, shadow, or inset.
- **Font Style** opens a menu of options for the size of the graph's font.
- **Show Legend** allows you to turn off and on the graph's legend.
- **Numeric Precision** opens a menu of options that allow you to change the number of decimal points displayed in the graph's data. Using these options you can display the data with 0 to 3 decimal places.
- **Plotting Method** opens a menu of options that allow you to change the appearance of the graph's data. Using these options you can display the data as points, a line, bars, sticks, or spline. You can also display the data as points combined with other options, for example, a line with points.
- **Data Shadows** opens a menu of options that affect the shadow of the data. You can add or remove a shadow or 3D effect.
- **Grid Options** opens a menu of options that alter the display of the X axis and Y axis. Using these options you can place the grid in front of the graph, extend the Y axis tick marks, display or hide grid lines, and change the style of the lines.
- **Include Data Labels** hides or displays the data labels.
- **Mark Data Points** hides or displays the data points.
- **Undo Zoom** returns the graph to its original size after you have zoomed in by dragging the mouse over a portion of the graph.
- **Maximize** displays the graph at full screen size. To return it to its original size, either press the Esc key, or click in the blue bar at the top of the graph.
- **Customization Dialog** opens the Customization dialog box.
- **Export Dialog** opens the Export Dialog box.

Customization Dialog: To open the Customization Dialog box, right-click on the graph and select **Customization Dialog**. The Customization Dialog box can be used to change the settings of the graph and to export or maximize the graph. Many of the options in this box are also available in the menu that appears when you right-click on the graph. The dialog box contains the following tabs:

General Tab: On the General tab you can change the following settings for the graph:

- **Main Title** is a text box in which you can add or edit the graph's title.
- **Sub Title** is a text box in which you can add or edit the graph's subtitle.

- **Border Style** allows you to change the border style of the graph.
- **Viewing Style** allows you to change the viewing style for the graph.
- **Font Size** allows you to change the size of the graph's fonts.
- **Numeric Precision** allows you to choose from 0 to 3 decimal places for the graph's data.
- **Grid Lines** allows you to change the display settings of the graph's grid lines.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Plot Tab: On the Plot tab you can change the following settings for the graph:

- **Axes**
- **Plot Style** allows you to choose the style of plot points for the graph.
- **Comparison Plot Style** allows you to choose the style of plot points for the comparison graph.
- **3D** allows you to choose the 3D effects for the plot style
- **Mark Data Points** allows you to mark or unmark the data points.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Subsets Tab: On the Subsets tab you can change the following settings for the graph:

- **Subsets to Graph** allows you to scroll through subsets of the graph.

If more than one interval data cut is graphed, you can select the cuts individually and make different changes to each. The data cuts are listed in the text field on the tab.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Axis Tab: On the Axis tab you can change the following settings for the X Axis and Y Axis:

- **Linear** or **Log** allows you to set the graph's tick marks in either linear or log values.
- **Maximum** and **Minimum** allows you to change the minimum and/or maximum values for the axes.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Font Tab: On the Font tab you can change the following settings for the graph's fonts:

- **Main Title** allows you to choose the font for the graph's main title. You can also choose to make the title bold, italic, and/or underlined.
- **Sub-Title** allows you to choose the font for the graph's main sub-title. You can also choose to make the subtitle bold, italic, and/or underlined.
- **Subset / Point / Axis Labels** allows you to choose the font for the graph's subsets, points and axis labels. You can also choose to make those items bold, italic, and/or underlined.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Color Tab: On the Color tab you can change the colors of the following parts of the graph:

- **Desk Foreground**
- **Desk Background**
- **Shadow Color**
- **Graph Foreground**
- **Graph Background**
- **Table Foreground**
- **Table Background**

You can also add a bitmap image or a gradient to the graph by selecting **Bitmap/Gradient Styles** in the QuickStyles area of the tab. This area also lists an assortment of predefined bitmap and gradient styles that can be applied to the graph.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Style Tab: On the Style tab you can change the following settings for the graph's lines:

- **Color** allows you to select a color for the graph's lines.
- **Point Type** allows you to select a style for the graphs points.
- **Line Type** allows you to choose the type of line for the graph.

If more than one interval data cut is graphed, you can select the cuts individually and make different changes to each. The data cuts are listed in the text field on the Style tab.

To apply your changes select **Apply**. To close the dialog box without applying your change select **Cancel**. To apply your changes and close the dialog box select **OK**. You can also select **Maximize** to make the graph full screen size. (To return the graph to its original size press the Esc key, or click in the top bar). Selecting Export will open the **Export Dialog Box**.

Export Dialog: To open the Export Dialog box, right-click on the graph and select **Export Dialog**.

To Export a graph, use the following procedure:

1. In the Export area of the box, choose the type of file you would like to export. You can choose from EMF, WMF, BMP, JPG, PNG or Text/Data.
2. In the Export Destination area of the box, select the destination of the exported file. You can choose from Clipboard, File or Printer.
3. In the Export Size area of the box, choose the unit of measurement of the file, and then set the size. You can choose from Millimeters, Inches, or Points. BMP, JPG and PNG files will default to Pixels. You can set the width and length of the file. You can also set the DPI for the file. Select Large Font if you want the file to have a larger font.
4. Select **Export** to export the file, or **Cancel** to close the dialog box.

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