Oracle Utilities Billing Component

User's Guide (Web)

Release 1.6.1.22   for Windows

E18205-23

November 2017

ORACLE®

Oracle Utilities Billing Component/Billing Component User's Guide, Release 1.6.1.22 for Windows

E18205-23

Primary Author: Lou Prosperi

Contributor: Steve Pratt

NOTIFICATION OF THIRD-PARTY LICENSES

Oracle Utilities software contains third party, open source components as identified below. Third- party license terms and other third-party required notices are provided below.

License: Apache 1.1

Module: Crimson v1.1.1, Xalan J2

Copyright © 1999-2000 The Apache Software Foundation. All rights reserved.

Use of Crimson 1.1.1 and Xalan J2 within the product is governed by the following (Apache 1.1):

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution. (3) The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (http://www.apache.org/) ." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear. (4) Neither the component name nor Apache Software Foundation may be used to endorse or promote products derived from the software without specific prior written permission. (5) Products derived from the software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

License: CoolServlets.com

Module: CS CodeViewer v1.0 (Sun JRE Component)

Copyright © 1999 by CoolServlets.com

Use of this module within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution. (3) Neither the component name nor Coolservlets.com may be used to endorse or promote products derived from the software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY COOLSERVLETS.COM AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE."

License: Justin Frankel, justin@nullsoft.com

Module: NSIS 1.0j (Sun JRE Component)

Use of this module within the product is governed by the following:

(1) The origin of the module must not be misrepresented, and Oracle may not claim that it wrote the original software. If Oracle uses this module in a product, an acknowledgment in the product documentation is appreciated but not required. (2) Altered source versions of the module must be plainly marked as such, and

must not be misrepresented as being the original software. (3) The following notice may not be removed or altered from any source distribution: "Justin Frankel justin@nullsoft.com".

License: ICU4j License

Module: ICU4j

Copyright © 1995-2001 International Business Machines Corporation and others. All rights reserved.

Oracle may use the software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the software, and to permit persons to whom the software is furnished to do so, provided that the above copyright notice and the permission notice appear in all copies of the software and that both the above copyright notice and the permission notice appear in supporting documentation.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

License: Info-ZIP

Module: INFO-ZIP ZIP32.DLL (Binary Form)

Copyright (c) 1990-2005 Info-ZIP. All rights reserved

Use of this dll within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the definition and disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the definition and disclaimer below in the documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled. (3) Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, and dynamic, shared, or static library versions--must be plainly marked as such and must not be misrepresented as being the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or of the Info-ZIP URL(s). (4) Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

[Definition]: For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals:

Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White

[Disclaimer:] "This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software."

License: Paul Johnston

Modules: md5.js

Copyright (C) Paul Johnston 1999 - 2002

Use of these modules within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution. (3) Neither the component name nor the names of the copyright holders and contributors may be used to endorse or promote products derived from the software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

License: Jef Poskanzer

Modules: DES, 3xDES (Sun JRE Components)

Copyright © 2000 by Jef Poskanzer <jef@acme.com>. All rights reserved

Use of these modules within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution. (3) Neither the component name nor the name of Jef Poskanzer may be used to endorse or promote products derived from the software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

License: Sun Microsystems, Inc.

Modules: Sun Swing Tutorials

Copyright© 1995-2006 Sun Microsystems, Inc. All Rights Reserved.

Use of these modules within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution. (3) Neither the component name nor the name of Sun Microsystems, Inc. and contributors may be used to endorse or promote products derived from the software without specific prior written permission. (4) Oracle must acknowledge that the software is not designed, licensed or intended for use in the design, construction, operation or maintenance of any nuclear facility.

THIS SOFTWARE IS PROVIDED "AS IS," WITHOUT A WARRANTY OF ANY KIND. ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE HEREBY EXCLUDED. SUN MICROSYSTEMS, INC. ("SUN") AND ITS LICENSORS SHALL NOT BE LIABLE FOR ANY DAMAGES SUFFERED BY LICENSEE AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THIS SOFTWARE OR ITS DERIVATIVES. IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL OR

PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF THE USE OF OR INABILITY TO USE THIS SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

License: Tom Wu

Module: jsbn library

Copyright © 2003-2005 Tom Wu. All rights reserved

Use of this module within the product is governed by the following:

(1) Redistributions of source code must retain the above copyright notice, this list of conditions and the disclaimer below. (2) Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the disclaimer below in the documentation and/or other materials provided with the distribution.

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL TOM WU BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Contents

Part Two

Chapter 11

Chapter 12

Chapter 13

Part Three

Chapter 14

Chapter 15

Chapter 16

Chapter 17

Chapter 18

Chapter 19

Chapter 20

Part Four

Chapter 21

Chapter 22

Chapter 23

Chapter 24

Chapter 25

Chapter 26

Chapter 27

Index

Chapter 1

Overview

This chapter provides an overview of the web-enabled Oracle Utilities Billing Component application (Oracle Utilities Billing Component Web), including:

- **What is Oracle Utilities Billing Component?**
- **The Billing Process**
- **How Do You Work with Oracle Utilities Billing Component?**
- **What is this book?**
- **International and Multiple Currency Support**
- **Oracle Utilities Billing Component Components and Documentation**

What is Oracle Utilities Billing Component?

Oracle Utilities Billing Component provides access to Oracle Utilities Billing Component functionality via an Intranet/Internet using Microsoft Internet Explorer. Because all Oracle Utilities web applications share a common framework, users can switch between different Oracle Utilities web applications (such as the Oracle Utilities Quotations Management and Oracle Utilities Meter Data Management) without having to open multiple applications.

Oracle Utilities Billing Component provides functionality in four primary areas:

- **Billing**

- **Contract Management**

- **Receivables Management**

- **Workflow Management**

Billing

The billing functionality of Oracle Utilities Billing Component allows users to process billing calculations and run billing-related reports for customer and accounts. See**The Billing Process** on page 1-3 for more information about billing using Oracle Utilities Billing Component. The billing functionality of Oracle Utilities Billing Component is described in more detail in **Part One**: **Billing**.

Contract Management

The contract management functionality of Oracle Utilities Billing Component allows users to create and maintain contracts with accounts. These contracts can define the terms, prices, and other data used in billing calculations and other operations. The contract management functionality of Oracle Utilities Billing Component is described in **Part Two**: **Contract Management**.

Receivables Management

The receivables management functionality of Oracle Utilities Billing Component (also referred to as Oracle Utilities Receivables Component) extends the billing functionality to include tracking of financial transactions related to billing. Specific receivables management functionality includes tracking charges and maintaining accounts receivables for accounts, receiving and tracking payments against those charges, handling adjustments, rolling up financial transactions to corporate general ledger accounts, and collections processing. The receivables management functionality of Oracle Utilities Billing Component is described in **Part Three**: **Receivables Management - Oracle Utilities Receivables Component**.

Workflow Management

The workflow management functionality of Oracle Utilities Billing Component (also referred to as Workflow Management) provides the ability to create and run processes (defined as a series of activities performed in a predetermined sequence relating to a specific operation). Workflow Management is used specifically to process collections activities for customers that are overdue on their payments. The workflow management functionality of Oracle Utilities Billing Component is described in **Part Four**: **Workflow Management**.

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.

Important Note

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

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 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 **Billing Checklist** on page 10-2 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 1-3). 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 6**: **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 1-3. 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 5**: **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 9**: **Trial Calculation** 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 7**: **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 **Late Billing** on page 10-10 for more information.

Mass Billing

This allows you to process bills for accounts that are eligible for mass billing. See **Mass Billing** on page 8-18 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 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 **Billing Exceptions** on page 10-5 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 10**: **Billing Reports** for more information.

What is this book?

The *Oracle Utilities Billing Component Web User's Guide* describes the functionality of Oracle Utilities Billing Component, including the following:

- **Chapter 1**: **Overview** provides an overview of the Oracle Utilities Billing Component web application and the documentation provided with it.

- **Chapter 2**: **Working with the Oracle Utilities Energy Information Platform** describes how users work with the Energy Information Platform web interface, including information about general navigation, common controls, and running and viewing reports.

- **Chapter 3**: **Viewing Billing Data** describes how users view account-related billing data.

- **Chapter 4**: **General, Billing, and Report Options** describes how users view and set general, billing, and report options used with Oracle Utilities Billing Component.

- **Chapter 5**: **Approval Required Billing** describes how to process billing in approval required mode.

- **Chapter 6**: **Automatic Billing** describes how to process billing in automatic mode.

- **Chapter 7**: **Bill Corrections** describes how to process bill corrections.

- **Chapter 8**: **Current/Final Bill** describes how to process current and/or final bills.

- **Chapter 9**: **Trial Calculation** describes how to process trial bills.

- **Chapter 10**: **Billing Reports** describes how to run and view the results of a number of billing reports.

- **Chapter 11**: **Contract Management Overview** provides an overview of the contract management functionality of Oracle Utilities Billing Component.

- **Chapter 12**: **Setting Up Contract Terms, Contract Products, and Contract Types** describes how to set up contract type, contract products, and contract terms for use with the contract management functionality of Oracle Utilities Billing Component.

- **Chapter 13**: **Working with Contracts** describes how to create and maintain contracts for use with the contract management functionality of Oracle Utilities Billing Component.

- **Chapter 14**: **Oracle Utilities Receivables Component Overview** provides an overview of the receivables management functionality of Oracle Utilities Billing Component.

- **Chapter 15**: **Viewing Financial and Collections Data** describes how users view account-based financial and collections data related to the receivables management functionality of Oracle Utilities Billing Component.

- **Chapter 16**: **Managing Financial Transactions with Oracle Utilities Receivables Component** describes how to work with financial transactions using Oracle Utilities Receivables Component.

- **Chapter 17**: **Receivables Management Work Queues** describes how the work queues functionality of Oracle Utilities Receivables Component.

- **Chapter 18**: **Receivables Management Controls** describes how to view control data used by Oracle Utilities Receivables Component.

- **Chapter 19**: **Collections** describes how to work with the collections functionality of Oracle Utilities Receivables Component.

- **Chapter 20**: **Viewing Oracle Utilities Receivables Component Reports** describes how to run and view Oracle Utilities Receivables Component reports.

- **Chapter 21**: **Oracle Utilities Billing Component - Workflow Management Overview** provides an overview of the workflow management functionality of Oracle Utilities Billing Component.

- **Chapter 22**: **Working with Workflow Management** describes in general terms how users work with the workflow management functionality of Oracle Utilities Billing Component.

- **Chapter 23**: **Workflow Activity Implementations** describes how to create and maintain activity implementations used by the workflow management functionality of Oracle Utilities Billing Component.

- **Chapter 24**: **Workflow Processes and Process Versions** describes how to create and maintain processes and process versions used by the workflow management functionality of Oracle Utilities Billing Component.

- **Chapter 25**: **Workflow Process Activities** describes how to create and maintain process activities used by the workflow management functionality of Oracle Utilities Billing Component

- **Chapter 26**: **Workflow Management Work Queues** describes the work queue functionality of the Workflow Management.

- **Chapter 27**: **Workflow Management Process Controls** describes the process control functionality of the Workflow Management.

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 4-11 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 Components and Documentation

Oracle Utilities Billing Component Web comprises the following application components and documentation.

Oracle Utilities Billing Component Web

This is the web-enabled Oracle Utilities Billing Component application.

The *Oracle Utilities Billing Component Web User's Guide* (this book) describes how to use this application.

The *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 1* describes how to install and configure Oracle Utilities Billing Component, including database installation, setting up database records, setting up billing to run in batch mode, and configuration of contract management functionality.

The *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* describes how to configure Oracle Utilities Receivables Component and Workflow Management, including setting up database records, other configuration tasks.

Oracle Utilities Energy Information Platform

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

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

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 the Oracle Utilities Energy Information Platform

This chapter describes how you work with the Oracle Utilities Energy Information Platform applications. This includes:

- **Starting the Application and Logging In**

- **Navigating the Oracle Utilities Energy Information Platform**

- **Searching, Viewing, and Entering Data in the Oracle Utilities Energy Information Platform**

- **Run Reports**

- **View Reports**

Starting the Application and Logging In

You log on to Energy Information Platform using Microsoft Internet Explorer.

How to log in:

1. Start the application by double-clicking the shortcut icon, or entering the URL for the Oracle Utilities Energy Information Platform in the **Address** field on the Internet Explorer window.

   Note: Contact your system administrator for the URL for the Oracle Utilities Energy Information Platform.

2. The Login screen appears.

3. Enter your user ID in the **User ID** field, enter your password in the **Password** field, and click **Login**. The Energy Information Platform home dashboard screen appears in the browser.

Navigating the Oracle Utilities Energy Information Platform

This section describes the framework of the Oracle Utilities Energy Information Platform and how to use the menus and icons to navigate between functions including:

- **Framework**

- **Menus**

- **Navigation**

Framework

The Energy Information Platform is a web-based framework, consisting of the Top menu, the Left menu, and the Main Workspace.

Top Menu

The Top menu displays a number of menu items, including:

- **Home**: Returns the user to the home dashboard screen.

- **Help**: Expands to display the following:

  - **Content and Index**: Opens **Online Help** window for the current option or function (if applicable).

  - **Online Support**: Opens the Oracle Utilities website in the Main Workspace.

  - **About**: Opens the About dialog, which displays the user's current preferences and the software version installed.

- **Logout**: Logs the user out of the Energy Information Platform, ends the current session, and returns the user to the Login screen.

Left Menu

The Left menu displays menu options available to the user. This menu can be set to one of two modes: the Main menu or the Data menu. The bottom of the Left menu displays a number of icons. The meanings of these icons are as follows:

Icon	Description
	Default Menu: Changes the Left menu from the **Main Menu** to the **Data Menu**.
	Default Menu: Changes the Left menu from the **Data Menu** to the **Main Menu**.
	Current Data Base: Opens the **Set Preferences** screen. When you hover the mouse over this icon, a tool tip opens, displaying currently selected data source.
	Security Administration: Opens the **Security Administration** screen.
	Home: Returns the user to the home dashboard screen.
	Change Theme: Opens the Change Theme dialog.

Main Menu

The Main menu opens by default, and lists the functions available from the Energy Information Platform. Clicking on a menu item displays the corresponding screen in the Main Workspace on the right. A down-pointing arrow at the left of a menu choice indicates that the choice has associated submenu items below it. To open the submenu list, click on the arrow. The arrow becomes a right-pointing arrow, and the submenu options are displayed below the menu item.

> **Note**: The options that appear on the Main menu are dependent on the specific set of products licensed and installed.

Data Menu

The Data menu lists database tables accessible via the Data Navigator, which allows users to search, add, view, and edit database records and tables in the Oracle Utilities Data Repository. See **Chapter 8**: **Searching and Viewing Data in the Oracle Utilities Data Repository** in the *Oracle Utilities Energy Information Platform User's Guide* for more information about Data Navigator.

Main Workspace

The center of the window is occupied by the Main Workspace, which holds the screen corresponding to the selected function.

Menus

As noted above, the Main menu includes a number of submenus, each relating to a specific activity or product.Oracle Utilities Billing Component uses the following menus:

Billing Menu

The Billing menu includes the following options:

- **Calculations**: Expands to display the Calculations menu, which includes the following reports:

  - **Approval Required**: Opens the **Approval Required Billing** screen.

  - **Automatic Billing**: Opens the **Automatic Billing** screen.

  - **Bill Correction**: Opens the **Bill Corrections** screen.

  - **Current/Final Bill**: Opens the **Current/Final Bill** screen.

  - **Trial Calculation**: Opens the **Trial Calculation** screen.

- **Reports**: Expands to display the **Billing Reports** menu, which includes the following reports:

  - **Billing Checklist**: Opens the **Billing Checklist** screen.

  - **Billing Exceptions**: Opens the **Billing Exceptions** screen.

  - **Billing History**: Opens the **Billing History** screen.

  - **Late Billing**: Opens the **Late Billing** screen.

  - **Rider Summary**: Opens the **Rider Summary** screen.

  - **Special Events**: Opens the **Special Events** screen.

  - **Top Accounts**: Opens the **Top Accounts** screen.

- **WQ Items**: Opens the **Work Queue Item Search Result** screen displaying open work queue items with a Product code of "BE" (Billing).

- **My WQ Items**: Opens the **My Work Queue** screen (Groups tab).

- **Run Reports**: Opens the **Run Reports** screen, displaying reports associated with Billing (Product code "BE").

- **View Reports**: Opens the **View Reports** screen, listing previously run reports associated with Billing (Product code "BE").

Contracts Menu

The Contracts menu includes the following options:

- **Contracts**: Opens **Contracts** screen, from which users can search and add contracts.

- **Contract Setup**: expands to display the following options.

  - **Contract Types**: Opens the **Contract Type** screen.

  - **Contract Products**: Opens the **Contract Product** screen.

  - **Terms**: Opens the **Term** screen.

  - **Term Categories**: Opens the **Term Category** screen.

  - **Templates**: Opens the **Template** screen.

  - **Term Templates**: Opens the **Term GUI XSD** screen.

- **Run Reports**: Opens the **Run Reports** screen, displaying reports associated with Contract Management (Product code "CM").

- **View Reports**: Opens the **View Reports** screen, listing previously run reports associated with Contract Management (Product code "CM").

Financials Menu

The Financials menu includes the following options:

- **Collections**: Expands to display the Collections menu, which includes the following:

  - **Collection Arrangements**: Opens the **Collection Arrangements** screen.

  - **Exemptions**: Opens the **Collections Exemptions** screen.

  - **Collection Work Queue**: Opens the Collections **Work Queue** screen.

  - **Manual Submission**: Opens the **Manual Submission** screen.

- **Transactions**: Expands to display the Transactions menu, which includes the following:[

  - **Installment Plans**: Opens the **Installment Plans** screen.

  - **Deposits**: Opens the **Deposits** screen.

  - **Payments**: Opens the **Payments** screen.

  - **Adjustments**: Opens the **Adjustments** screen.

  - **Refunds**: Opens the **Refunds** screen.

  - **Writeoffs**: Opens the **Write Offs** screen.

  - **Balance Transfers**: Opens the **Balance Transfers** screen.

- **Work Queue**: Opens the **Receivables Management Work Queues** screen.

- **Controls**: Opens the **Receivables Management Controls** screen.

- **Work Flow**: Expands to display the Work Flow menu, which includes the following:

  - **Activity Types**: Opens the **Activity Implementations** screen.

  - **Process Versions**: Opens the **Processes and Process Versions** screens.

  - **Work Queue**: Opens the **Work Queues** screen.

  - **Process Controls**: Opens the **Process Controls** screen.

  - **Manual Submission**: Opens the **Manual Submission** screen.

- **Run Reports**: Opens the **Run Reports** screen, displaying reports associated with Financials (Product code "FME").

- **View Reports**: Opens the **View Reports** screen, listing previously run reports associated with Financials (Product code "FME").

Navigation

Oracle Utilities recommends using links and menu options when moving between screens in the Energy Information Platform. Use of the Internet Explorer **Forward** and **Back** buttons can produce unexpected results.

Searching, Viewing, and Entering Data in the Oracle Utilities Energy Information Platform

This section describes how users search, view, and enter data in the Energy Information Platform, and includes:

• **Searching and Viewing Data**

• **Entering Data**

Searching and Viewing Data

This section provides specific information about searching and viewing data in the Energy Information Platform, including:

Searching

When searching records, users enter data in each of the fields they wish to use in their search. See **Entering Data** below for more information about how to enter specific types of data. If a search returns only one record, the record itself is displayed instead of the list screen.

Specifying How Results are Sorted

To specify how search results are sorted, click the **Sort by** plus ("+") sign. This opens a pop-up window that lists the fields that can be used to sort the search results.

To sort by a specific field(s), check the corresponding checkbox(es). By default, records are sorted in ascending order (denoted by the ▲ arrow). To sort records in descending order, click the arrow. The ▲ arrow will be replaced by the ▼ arrow.

To change the order by which the search results are sorted, click on the ⠿ area and move the field to the appropriate position in the list.

After specifying how the results are to be sorted, click the **Sort by** minus ("-") sign to close the list.

For example, if a user were searching accounts and wanted to sort the results first by Customer ID in ascending order, and then by Start Time in descending order, the user would first check the Customer ID checkbox, then check the Start Time checkbox and click the ▲ arrow.

Note that sorting settings are reset each time you perform a search.

Viewing Search Results

Search results appear on a list screen that displays the records that match the search criteria. Each item on the list contains the entire record. Use the horizontal scroll bar to view columns that appear to the right of the list screen.

Sorting Search Results

Search results are sorted as specified by the user (see **Specifying How Results are Sorted** above). The direction (ascending or descending) in which each column is sorted is displayed at the top of each column.

Columns sorted in ascending order display a blue arrow pointing up.

Columns sorted in descending order display a red arrow pointing down.

To change the direction in which the results are sorted, click the up (ascending) or down (descending) arrow at the top of the appropriate column on the list screen.

To continue the above example, if a user had searched accounts and sorted the results first by Customer ID in ascending order, and then by Start Time in descending order, the Customer ID column would display a blue arrow pointing up (▲) and the Start Time column would display a red arrow pointing down (▼).

Locking Columns

Some columns on search results list screens can be locked, or "pinned" in place, keeping the identity of the search results visible at all times. As the user scrolls to the right using the horizontal scroll bar, locked columns remain in place, while non locked columns scroll "beneath" the locked column(s).

Columns that can be locked have a pin button (⊞) on them.

To lock a column, click the pin button (⊞). This rotates the pin button, indicating that the column is locked.

To unlock a column, click the pin button (⊞) again.

Entering Data

This section provides specific information about entering data in the Energy Information Platform screens, including:

- **Entering Date and Date/Time Values**

- **Entering Lookup Values**

- **Selecting Values from Drop-Down Lists**

- **Specific Data Formats**

Entering Date and Date/Time Values

Date and Date/Time fields store dates and/or datetimes, such as Start Date, Start Time, and Bill Month values. To enter date/time values, either type the date and time manually, or click the arrow button (▼) to the right of the field and select the date using the calendar control.

The calendar control displays the current month when opened. Click the appropriate day to select it. To change the month, click the arrows on either side of the month displayed. To change the year, click the arrows on either side of the year displayed. To select the current date, click **Today**. To clear the date value, click **Clear**.

> **Note**: When entering dates manually, use the four digit format (i.e. "2004").

> **Note**: When you select a date using the calendar control, the time defaults to 00:00:00.

Entering Lookup Values

Lookup values are references to records in other tables in the Oracle Utilities Data Repository, including both lookup records such as Operating Company and Jurisdiction records, and parent records such as Customer or Account records. When populated, lookup fields display the identity of the referenced record. To select a lookup, click the **Browse** button (...). This opens a dialog window that lists all the records in the corresponding table in the Oracle Utilities Data Repository.

If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last

page. To change the number of results that appears on each page, enter the number in the **Rows** field and press the **Enter** key.

To search for a specific record, click **Search**. The dialog displays a search screen.

Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of records that match the search criteria.

Click the **[...]** link to select the appropriate record. The lookup field is automatically populated.

Selecting Values from Drop-Down Lists

Drop-down lists allow users to select a value from a pre-populated list, and can contain either pre-set values or values from tables in the Oracle Utilities Data Repository.

To select a value from a drop-down list, click the arrow next to the field. This opens a lists that includes all the values available.
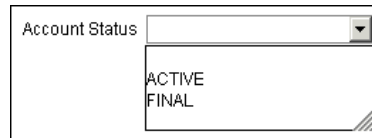
If one or more of the values is longer than the default size of the list, click the lower right corner of the list and resize the list as necessary.

Specific Data Formats

Some fields on some screens of the Energy Information Platform require that data be entered in a specific format. This most often applies to currency and date fields, but can also apply to other number fields and other types of data. Moving the mouse pointer over the icon displays a tooltip that contains the correct format for the field.
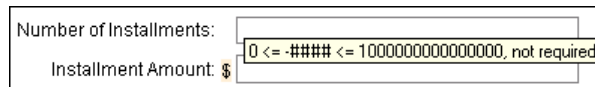
If data is entered in an incorrect format, the border of the field turns red indicating that there is an error in the data in the field. Moving the mouse pointer over the field displays a tooltip that describes the correct format for the field.
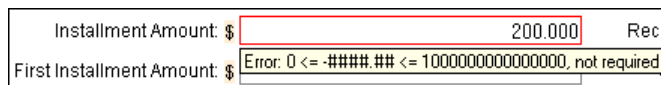
Required Fields

Fields that are required are indicated by an asterisk (*).

Currency Fields

Currency fields are indicated by a currency symbol to the left of the field.

Run Reports

The **Run Reports** option displays reports available through the Energy Information Platform Reporting Framework. From this screen, users can select and run reports. Each product has its own **Run Reports** option that displays reports associated with that product. For example, the Oracle Utilities Billing Component list displays billing reports, while the Oracle Utilities Receivables Component reports list displays it's reports.

How to run reports:

1. Select the **Run Reports** option from the appropriate menu (Tools and Utilities, Work Queues, Billing, Financials, etc.). The Run Reports screen opens.

    The Run Reports screen displays the following information for each report:

    *   **Report Name**: The name of the report.

    *   **Description**: A description of the report.

    *   **Priority**: The priority of the report (High, Medium, or Low).

    *   **Type**: The type of report (PLBX, LSRate (Oracle Utilities Rules Language), Active, or BIPublisher).

    *   **Output Format**: The output format for the report (applies to reports of type "BIPublisher" only).

    *   **Creation Date**: The date the report template was created.

    *   **User**: The User ID who created the report template.

    *   **Generate ASP**: A flag that indicates if the report framework generates an ASP parameters page for the report.

2. Select the report you wish to run by clicking the **Report Name** link from the list.

    The **Enter Report Parameters** screen opens displaying the report parameters for the selected report.

3. Enter the parameters for the report as appropriate.

    The **Report Title** field is the title that appears on the **View Reports** screen when the report is run.

4. Select the **Priority** for the report. This determines the priority (High, Medium, or Low) in which the report will be generated.

5. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

6. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** below, for more information). When the report is complete, the report opens in the appropriate viewer (Active, etc.). In addition, the report is also listed on the **View Reports** screen.

How to search reports:

1. Click **New Search** on the Run Reports screen. The Run Reports search screen appears.

    You can search based on the Report Name, Report Type, User ID (who created the report or who last updated the report), Output Format, Creation Date, Priority, Report Category, Product, or the report Description.

    You can search for reports whose creation dates are Less Than (<), Greater Than (>), Less Than or Equal To (<=), or Greater Than or Equal To (>=) the supplied date by selecting the appropriate operand from the drop-down list.

You can use the percent sign ("%") as a wildcard character when entering values in any of the text fields. For instance, if you want to search for all reports whose name begins with the letter G, you could enter "G%" in the Name field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all reports whose names end with the letter t, etc.).

Note that account Report Names, User IDs, and Descriptions are **case-insensitive**. For example, there is no difference between the "WQAging" and "wqaging" report names.

2. Specify how the search results are displayed.

   • Select the manner in which the results are sorted from the **Sort By:** drop-down list. You can sort the results by Creation Date, Description, Report Name, Report Type, or User ID.

   • Specify how many results should appear on each page in the **Page Length** field.

3. Click **Search** to perform the search. To clear all the search fields, click **Reset**.

4. The search results appear on the Run Reports screen.

Scheduling Reports

The Schedule Process screen allows users to define a schedule for running processes unattended.

How to schedule a process:

1. Click **Schedule** (or **Schedule Report**). The Schedule Process screen opens.

2. Enter the **Start Time** for the scheduled process by entering the date and time manually or clicking the arrow and select the date using the calendar control and typing the time manually. See **Entering Date and Date/Time Values** on page 2-8 for more information about using the calendar control.

   Note: The **Server Time** displayed above the Start Time field is the current time of the web server running the scheduler, including both the location and Time Zone where the server is located. Scheduled processes run based on the server time, not the time on the client machine.

3. Select a **Recurrence Pattern** for the scheduled process. You can select one of the following:

   None: The scheduled process runs only once at the specified start time. **Note**: Scheduled processes with a recurrence pattern of None ignore Business Calendars and will run on non-business days.

   Intra Daily: The scheduled process runs multiple times, from as frequent as once every 15 minutes to once every several hours. To base the recurrence on a number of minutes, select the **Every x minutes** radio button and select the number from the **Minutes** drop-down list. To base the recurrence on a number of hours, select the **Every x hours** radio button and enter the number of hours in the text box. Intra Daily processes may run throughout a single day or may span multiple days.

   Daily: The scheduled process runs once per day or once per number of days. To base the recurrence on a number of days, select the **Every x days** radio button and enter the number of days in the text box. To set the scheduled process to run every weekday, check the **Every weekday** radio button.

   Weekly: The scheduled process runs once or more per week (or number of weeks) on specified days. Enter the number of weeks in the **Recur every x week(s) on** text box, and check the specific days of the week on which the process should run. For example, to schedule a process to run on Monday and Wednesday every two weeks, you would enter 2 in the **Recur every x week(s) on** text box and check the Monday and Wednesday checkboxes.

   Monthly: The scheduled process runs once per month or once per number of months. A monthly recurrence can be based on either a specific day of the month (such as the the 10th

day of the month), or a specific type of day (such as the 2nd Friday of the month). To base the recurrence on a specific day, select the **Day x of every x month(s)** radio button and enter the specific day and number of months in the text boxes. To base the recurrence on a specific type of day, select the **The x x of every x month(s)** radio button and select the appropriate number (First, Second, Third, Fourth, or Last) and day (Sunday through Saturday) from the drop-down lists and enter the number of months in the text box.

Important Note: Each execution of a recurring scheduled process uses the original parameters entered for the process.

4. Set the **Range of Recurrence** for the scheduled process. This specifies how many times the scheduled process will run (based on the specified recurrence pattern). There are three options:

   • **No end date**: To specify no ending date for the recurrence, select the **No end date** radio button.

   • **End after occurence**: To specify that the recurrence ends after a predetermined number, select the **End after occurrence** radio button and enter the number of recurrences in the text box.

   • **End by**: To specify a date on which to end the recurrences, select the **End by** radio button and enter the date and time by which the recurrence should end. Enter the date and time manually or click the arrow and select the date using the calendar control and type the time manually. See **Entering Date and Date/Time Values** on page 2-8 for more information about using the calendar control.

5. Set any applicable **Recurrence Exceptions** for the scheduled process. Recurrence exceptions define which business calendar, if any, is used in scheduling and how to handle processes scheduled to run on non-business days. There are two options:

   • **Business Calendar**: To schedule the process using a business calendar, click the Browse button (...). This opens a dialog window that lists all the available Business Calendars. Click the **[...]** link to select the appropriate calendar. The field is automatically populated.

   • **Roll to next business day**: Check this checkbox to specify that a process scheduled to run on a non-business day is rolled forward to the next business day. If the process is already scheduled to run on the next business day, a new process is NOT scheduled.

Note: When using a Business Calendar, if the Start Time entered for a process is later than the last date in the Business Calendar, an error will be returned. Also, for scheduled processes with the No End Date option selected, occurrences that would have occurred on dates later than the last date in the Business Calendar will not occur, and do not appear on the View Reports screen.

View Reports

The **View Reports** option displays previously run reports available through the Energy Information Platform Reporting Framework, including other processes such as uploading data via the Upload Usage option. From this screen, users can view and delete reports. Each product has its own **View Reports** option that displays reports associated with that product. For example, the Oracle Utilities Billing Component View Reports screen displays billing reports, while the Oracle Utilities Receivables Component View Reports screen displays it's reports.

How to view reports:

1. Select the **View Reports** option from the appropriate product menu (Tools and Utilities, Work Queues, Billing, Financials, etc.) The View Reports screen opens.

   The View Reports screen displays the following information for each report:

   • **Status Icon**: An icon that displays the status of the report. If an output format was specified for the report, the icon indicates the output format. See **Report Icons** for more information.

   • **Run/Schedule Time**: The time the report was run or is scheduled to run.

   • **Report Title**: The title of the report, specified when the report was run. For LSRate (Oracle Utilities Rules Language) reports, this column will display the name of the Report Template used to generate the report, unless specified using the SETREPORTTITLE Rules Language function.

   • **Priority**: The priority of the report (High, Medium, or Low).

   • **Type**: The type of report (PLBX (Oracle Utilities Billing Component), LSRate (Oracle Utilities Rules Language), Active, or BIPublisher).

   • **User**: The user ID of the user who ran the report.

   • **Progress**: The current percentage of the report instance that has been generated, from 0 to 100 percent.

   • **Shared**: A flag that indicates if the report is shared by all users or is accessible only by the user who ran the report.

   • **Base**: A flag that indicates if the report is provided by Oracle Utilities or is a custom report.

   • **Process**: The (machine) name of the server on which the report was executed.

   • **Account Name**: The name of the account associated with the report, if applicable.

   • **Account ID**: The ID of the account associated with the report, if applicable.

2. To view a specific report, click the **Report Title** link for the report. The selected report opens in the appropriate viewer.

3. To refresh the contents of the screen, click **Refresh Periodically**. To have the screen continually refresh its contents, check the **Refresh Periodically** checkbox.

   Note: The current state of the Refresh Periodically checkbox (selected or not) is stored in the user's settings, and is used as the default setting when subsequently opening this screen.

How to delete reports:

1. Check the checkbox next to the reports(s) to delete. To select all reports, check the top check box.

2. Click **Delete**.

How to search reports:

1. Click **New Search** on the View Reports screen. The View Reports search screen appears.

View Reports

You can search based on the Report Title, Report Type, User ID (who created the report), Output Format, Creation Date, Report Category, or Product.

You can search for reports whose creation dates are Less Than (<), Greater Than (>), Less Than or Equal To (<=), or Greater Than or Equal To (>=) the supplied date by selecting the appropriate operand from the drop-down list.

You can use the percent sign ("%") as a wildcard character when entering values in any of the text fields. For instance, if you want to search for all reports whose name begins with the letter G, you could enter "G%" in the Name field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all reports whose names end with the letter t, etc.).

Note that account Report Titles, User IDs, and Descriptions are **case-insensitive**.

2. Specify how the search results are displayed.

    • Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 for more information.

    • Specify how many results should appear on each page in the **Page Length** field.

3. Click **Search** to perform the search. To clear all the search fields, click **Reset**.

4. The search results appear on the View Reports screen.

Report Icons

The icon listed next to each report indicates the status of the report. The meanings of these icons are as follows:

Icon	Description
▶	**Report Starting**: Report processing is starting.
	Report in Process: Report processing
	Report Complete: Report processing is complete.
P	**Report Complete** (Adobe Acrobat format): Report processing is complete.
X	**Report Complete** (Microsoft Excel format): Report processing is complete.
W	**Report Complete** (Microsoft Word format): Report processing is complete.
	Report Complete (Rich Text format): Report processing is complete.
	Report Complete (Comma Separated Values format): Report processing is complete.
	Report Scheduled: Report is scheduled to run at a future time. To view scheduling details, click the ▶ arrow in the far right column. To edit the schedule, click **Edit**.
	Report Reminder: Indicates that a scheduled report is due to run in 15 minutes or less.

Icon	Description
⚠	**Report Error**: One or more errors or warnings associated with the report. To view the error, click the Error icon.

Viewing Oracle BI Publisher Reports

When you select an Oracle BI Publisher Report, the report opens in a viewer based on the output format defined for the report. For the default output formats, this includes:

• Adobe Acrobat

• Microsoft Excel

• Microsoft Word (for MS Word and Rich Text Format reports. If Microsoft Word is not installed, Rich Text Format reports open in the installed application (if any) associated with the *.rtf file extension).

Viewing Oracle Utilities Rules Language Reports

When you select a Oracle Utilities Rules Language Report (one with a Type of LSRate), the report opens in the Report view screen.

The **State** section above the top left corner of the report displays the state of the report, including the number of Errors, the number of Pages expected and ready, and the elapsed time (in seconds) it took for the report to run.

State: Errors: 0   Pages: 32 expected, 32 ready, 15 elapsed

The **From:** and **To:** fields above the top right corner of the report show the current pages displayed. The **From:** field displays the current page. The ◄ and ► buttons and the field between them are used to navigate the report. The field between the buttons defines how many pages display in the report window at a time. The default is 1. To display more than one page at a time, enter the number of pages you wish to view in the field.

Emailing Reports

You can also email reports from the View Reports screen. This allows users to distribute reports to other parties via email.

Note: The Send Email function requires the presence of the LSRELAY.CFG.XML file in the C:\LODESTAR\CFG directory on the web server computer. Contact your system administrator for more information about this file.

How to email a report:

1. Select the report (or reports) you wish to send via email and click **Send Email** on the View Reports screen.

   The Send Email screen opens.

2. Select a **From** address from the drop-down list. This list is based on available records in the From Addresses table. If there are no available records in the From Addresses table, the current user's email address is populated (if provided on the User Overview screen on the Security Adminstration user interface).

3. Enter an email address in the **To** field, or click Address Book (or the "+" sign) to add a contact or group name. See **Using the Address Book** on page 2-16 for more information about using the Address Book.

4. *Optional.* Enter an email address in the **CC** field, or click Address Book (or the "+" sign) to add a contact or group name. See **Using the Address Book** on page 2-16 for more information about using the Address Book.

   To remove the CC field, click **Remove CC**.

5. *Optional.* To add the BCC field, click **Add BCC**, and enter an email address in the **BCC** field, or click Address Book (or the "+" sign). See **Using the Address Book** on page 2-16 for more information about using the Address Book.

6. Enter a subject for the email in the **Subject** field.

7. Enter the email message in the **Message** field.

8. To send the email, click **Send**. To clear all the fields, click **Reset**.

   A message will appear at the top of the View Reports screen after your email has been sent.
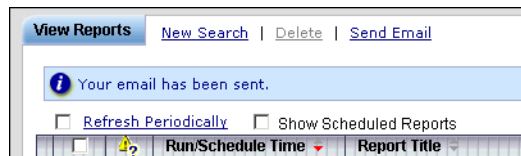
Using the Address Book

In addition to entering email addresses manually, you can use the Address Book feature to select email recipients from those defined in the Oracle Utilities Data Repository. The Address Book contains listings of:

- **Contacts**
- **Groups**

Contacts

Contacts are specific individuals related to parties (such as Service Points or Market Participants) defined in the Oracle Utilities Data Repository.

How to select an existing contact from the Address Book:

1. Click **Address Book** (or the "+" sign) on the Send Email screen.

   The Address Book dialog opens on the Contacts tab.

2. Enter the search criteria for the contacts you wish to send email to. You can search by Last Name, First Name, Middle Name, or Company.

3. Specify how the search criteria are to be combined by selecting the appropriate **Combine with** option (**AND** or **OR**), located in the upper right corner of the search screen. The default combine option is **AND**.

4. Specify whether or not the search is Case-sensitive by checking or unchecking the **Case-sensitive** checkbox, located in the upper right corner of the search screen. The default setting is case-sensitive.

5. Specify how the search results are displayed.

   - Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 for more information.

   - Specify how many results should appear on each page in the **Page Length** field.

6. Click **Search** to perform the search. To reset the search fields to their previous values, click **Reset**. To clear all the search fields, click **Clear**. To add a new contact to the Address Book, click **Add**.

7. The search results appear on the Address Book dialog.

8. Select the contact(s) you wish to send the email to and click **To**. The selected contact(s) will appear in the To field on the Send Email screen.

   To remove a contact from the To, CC, or BCC field, select the contact and click the Delete Key, or click the right mouse, and select **Remove**.

9. *Optional.* To add a contact to the CC (or BCC) field, select the contact(s) you wish to send the email to and click **CC** (or **BCC** as appropriate). The selected contact(s) will appear in the CC (or BCC) field on the Send Email screen.

How to add a contact using the Address Book:

1. Click **Add** on the Contacts tab of the Address Book dialog.

   The Edit Contact screen opens.

2. Enter personal information for the contact (First, Middle, and Last Names, Title, etc.) in the **Personal Information** pane.

3. Enter contact methods (phone numbers, email addresses, etc.) for the contact in the **Contact Method** pane.

4. Enter optional address(es) for the contact in the **Address Information** pane.

5. Click **Save** to save the contact.

6. Click **Return to Email** to return to the Send Email screen and Address Book dialog.

7. Select the new contact and click **To**, **CC**, or **BCC** to add the contact to the appropriate field.

See **Contacts** on page 7-2 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about creating contacts.

Groups

Groups are groupings of contacts in the Oracle Utilities Data Repository.

How to select an existing group from the Address Book:

1. Click **Address Book** (or the "+" sign) on the Send Email screen.

   The Address Book dialog opens on the Contacts tab. Click the **Groups** tab.

2. Enter the search criteria for the contacts you wish to send email to. You can search by Group Name or Desciption.

3. Specify how the search criteria are to be combined by selecting the appropriate **Combine with** option (**AND** or **OR**), located in the upper right corner of the search screen. The default combine option is **AND**.

4. Specify whether or not the search is Case-sensitive by checking or unchecking the **Case-sensitive** checkbox, located in the upper right corner of the search screen. The default setting is case-sensitive.

5. Specify how the search results are displayed.

   • Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 for more information.

   • Specify how many results should appear on each page in the **Page Length** field.

6. Click **Search** to perform the search. To reset the search fields to their previous values, click **Reset**. To clear all the search fields, click **Clear**. To add a new group to the Address Book, click **Add**.

7. The search results appear on the Address Book dialog.

8. Select the group(s) you wish to send the email to and click **To**. The selected group(s) will appear in the To field on the Send Email screen.

To remove a group name from the To, CC, or BCC field, select the group name and press the Delete key, or click the right mouse, and select **Remove**.

9. *Optional.* To add a group to the CC (or BCC) field, select the group(s) you wish to send the email to and click **CC** (or **BCC** as appropriate). The selected group(s) will appear in the CC (or BCC) field on the Send Email screen.

How to add a group using the Address Book:

1. Click **Add** on the Groups tab of the Address Book dialog.

    The Edit Group screen opens.

2. Enter a name for the group in the **Group Name** field.

3. Enter a description of the group in the **Description** field.

4. *Optional.* Check the **Is Private** checkbox to indicate that the group is private. Private groups can be only be viewed by the user who created the group. Public groups (Is Private unchecked) can be viewed by all users.

5. To add a contact to the group, click **Add** on the Membership title bar, and select the contact from the **Contact ID** drop-down list. Repeat this step for each contact you wish to add to the group.

6. Click **Save** to save the group.

7. Click **Return to Email** to return to the Send Email screen and Address Book dialog.

8. Select the new group and click **To**, **CC**, or **BCC** to add the group to the appropriate field.

See **Groups** on page 7-5 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about creating contact groups.

Part One

Billing

Part One describes the billing functions of Oracle Utilities Billing Component, and contains the following chapters:

- **Chapter 3**: **Viewing Billing Data**

- **Chapter 4**: **General, Billing, and Report Options**

- **Chapter 5**: **Approval Required Billing**

- **Chapter 6**: **Automatic Billing**

- **Chapter 7**: **Bill Corrections**

- **Chapter 8**: **Current/Final Bill**

- **Chapter 9**: **Trial Calculation**

- **Chapter 10**: **Billing Reports**

Chapter 3

Viewing Billing Data

The Oracle Utilities Energy Information Platform allows users to search for and view information about selected customers and accounts. When Oracle Utilities Billing Component is installed, this information includes account-specific billing data. This chapter describes how to view billing data from the Account Summary screen, and includes the following:

• **Viewing Billing Data**

Viewing Billing Data

The Account Billing clip on the Account dashboard displays the Bill Month, Start time, and Stop Time for the five earliest bill periods associated with the account. If there are more than five billing periods for the account, the number of pages (each comprising five records) appears at the bottom of the clip. To view the 2nd (or other page), click the page number.

To view more detailed billing data, click the number in parentheses. The Billing screen opens, displaying billing data for the most recent bill period. To view a specific billing period, click the Bill Month link for billing period you wish to view. The Billing screen opens for the selected billing period.

The Billing screen allows users to view Bill History, Bill History Value, Override History records, and financial transactions for the account. The Billing screen displays the following information for each bill period:

- **Bill Period**: A drop-down list containing all bill periods for the account. To change the record being displayed, select the bill period from the drop-down list.

- **Start Time**: Start time for the bill period.

- **Stop Time**: Stop time for the bill period.

- **Bill Month**: The bill month for the bill period.

- **Bill Time**: The time at which the account was billed for this bill period.

- **Read Date**: The date of the meter read for the bill period.

- **User Specified Stop**: A flag that indicates if the stop time for the bill period is user-specified or calculated.

- **Billing Code**: Billing code associated with this account for this bill period.

- **KWH**: The energy usage, in kilowatt hours, for the bill period.

- **Bill Determinants**: A list of Bill Determinants (Bill History Value records) for the selected bill period. You can choose to display either Bill Determinants (Bill History Value records) or Special Events (Account Override History records). When the Bill View tab opens, it initially displays Bill Determinants.

- **Special Events**: A list of Special Events (Override History records) for the selected bill period. To view all Override History records for the account, check the **Show All Records** checkbox.

- **Transactions**: A list of financial transactions (Transaction records) for the selected bill period.

How to edit a bill period:

1. Select the bill period to edit from the Bill Period drop-down list. The selected bill period (and related Bill Determinants and Special Events) will display on the Billing screen.

2. Click the **Edit** link. The edit screen opens displaying the selected bill period.

3. Update the **Start Time**, **Stop Time**, **Bill Month**, **Bill Time**, and **Read Date** either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the appropriate date. Update the time for the Start Time, Stop Time, and Bill Time by typing the time manually.

4. Select the **User Specified Stop** flag from the drop-down list.

5. Update the **KWH** value as appropriate.

6. Update the (optional) **Bill Code** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Bill Codes available. Click the **[...]** link for the appropriate Bill Code. The field is automatically populated.

7. Select the **Profile Status** flag from the drop-down list.

8. Click **Save** to save your changes. To delete the record, click **Delete**. To close the window without making any changes, click **Cancel**.

How to add a bill period:

1. Click the **Add** link. A blank screen opens.

2. Enter the **Start Time**, **Stop Time**, **Bill Month**, **Bill Time**, and **Read Date** either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the appropriate date. Update the time for the Start Time, Stop Time, and Bill Time by typing the time manually.

3. Select the **User Specified Stop** flag from the drop-down list.

4. Enter the **KWH** value as appropriate.

5. Enter the (optional) **Bill Code** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Bill Codes available. Click the **[...]** link for the appropriate Bill Code. The field is automatically populated.

6. Select the **Profile Status** flag from the drop-down list.

7. Click **Save** to save your changes. To close the window without making any changes, click **Cancel**.

How to edit Bill Determinants (Bill History Value records):

1. Click the **[...]** link for the record you wish to edit in the Bill Determinants section. The edit screen opens displaying the selected record.

2. Select the **Bill Determinant** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Bill Determinants available. Click the **[...]** link for the appropriate Bill Determinant. The field is automatically populated.

3. Update the **Value** field for the record as appropriate.

4. Click **Save** to save your changes. To delete the record, click **Delete**. To close the window without making any changes, click **Cancel**.

How to add Bill Determinants (Bill History Value records):

1. Click the **Add** link. A blank record opens.

2. Select the **Bill Determinant** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Bill Determinants available. Click the **[...]** link for the appropriate Bill Determinant. The field is automatically populated.

3. Enter the **Value** in the Value field.

4. Click **Save** to save your changes. To close the window without making any changes, click **Cancel**.

How to edit Special Events (Account Override History records):

1. Click the **[...]** link for the record you wish to edit in the Special Events section. The Edit screen opens displaying the selected record.

2. Select the **Override Code** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Override codes available. Click the **[...]** link for the appropriate Override. The field is automatically populated.

3. Update the **Start Time** and **Stop Time** either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the appropriate date. Update the time for the Start Time and Stop Time by typing the time manually.

4. Update the **Value** and **String Value** as appropriate.

5. Click **Save** to save your changes. To delete the record, click **Delete**. To close the window without making any changes, click **Cancel**.

How to add Special Events (Account Override History records):

1. Click the **Add** link. A blank record opens.

2. Enter the information for the record as appropriate. Be sure to fill the two required fields (**Override Code** and **Start Time**).

3. Select the **Override Code** by clicking the **Browse** button (...). This button opens a dialog window that lists all the Override codes available. Click the **[...]** link for the appropriate Override. The field is automatically populated.

4. Enter the **Start Time** and **Stop Time** either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the appropriate date. Update the time for the Start Time and Stop Time by typing the time manually.

5. Enter the **Value** in the Value field.

6. Enter the **String Value** in the String Value field.

7. Click **Save** to save your changes. To close the window without making any changes, click **Cancel**.

Chapter 4

General, Billing, and Report Options

This chapter describes how to set different types of options for use with Oracle Utilities Billing Component, including:

- **General Options**
- **Billing Options**
- **Report Options**

General Options

The General Options feature allows you to set your own default values for several frequently used parameters. These defaults are stored in the Oracle Utilities Data Repository. Whenever you start a Oracle Utilities application, these values are automatically supplied—saving you the time and effort of defining them each and every time.

Available General Options include:

• **Scope Options**

• **Report Formatting Options**

• **Interval Data Options**

• **Error Handling Options**

• **User Files Options**

• **Rate Analysis Options**

How to set general options:

1. Click the **Options: General** button on one of the Billing screens (Approval Required, Automatic Billing, etc.) or Report screens (Billing Checklist, Billing Exceptions, etc.).

   General options can be viewed and saved at three different levels:

   • **Job**: Settings used for the billing calculation or report to be run.

   • **Session**: Settings used for the current user session.

   • **Default**: Settings used as defaults unless specifically overridden for a Session or Job.

2. Select the level you wish to view and/or edit from the **View** drop-down list.
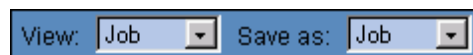
3. Set your options on each tab as desired.

4. When you have completed the tabs as desired, select the level at which you wish to save your settings from the **Save as** drop-down list and click **Save**. To reset the values to the previously saved settings, click **Reset**.

   The next several pages contain detailed information about the General Options tabs.

Scope Options

The Scope tab specifies a number of default values used by the system.

   Operating Company: The default operating company used when searching accounts.

   Jurisdiction: The default jurisdiction used when searching accounts.

   Account ID: The default account ID for bill calculations and rate analyses.

Report Formatting Options

The Report Formatting tab specifies formatting preferences used by the system.

Printer:

Default to landscape printing after this many characters: If a single line in a report contains this many characters, the report will default to landscape printing. The default setting is 133 characters.

Minimum printed line width: The minimum number of characters to be presented on a single line. The default setting is 80 characters.

Decimal Places:

Round Revenue ID to X: 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. The default setting is 0.

Currency displayed to X: 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. The default setting is 2.

Display Format:

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

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

Interval Data Options

The Interval Data tab specifies the source of interval data used by the system, and how interval data is loaded and processed by the system.

Source:

File: Specify a Btrieve file with a fully justified path. The Browse button below becomes active when this option is selected. This is the default setting.

Default: Specifies that the default Interval Data Database identified in the LODESTAR.CFG File be used. See the *Oracle Utilities Energy Information Platform 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. This the default setting.

Export:

Records Overwritten by SAVE to File: This option saves interval data cuts 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.

Intervals:

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

The meaning of the codes is utility-specific. If your utility uses the Oracle Utilities Load Analysis, the quality is expressed using the Oracle Utilities Load Analysis status codes shown

below (Oracle Utilities Load Analysis automatically attaches one of these codes to each interval in a cut). 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. Along with the Oracle Utilities Load Analysis codes, your facility may add its own codes.

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)
5	Aggregated interval used in rolling format with partially missing or unavailable data
7	Aggregated or transformed interval with partially missing data
9	Missing

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.

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.

Display interval end time: 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.

Add Fall DST (Daylight Savings Time) value to Energy requests: The Oracle Utilities Data Repository stores energy in a 24-hour format. As such, the system must compensate for the extra hour of interval data that is left over on the day in October 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 2:00 a.m. hours and averages them together for a single hour. This option enables you to specify how Oracle Utilities applications handle 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.

Error Handling Options

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

Upon Rules Language Interval Data Error:

- **Stop**: Stop processing bill in any billing mode.

- **Log Message**: Complete processing of bill; include warning message in error log, but not in bill report.

- **Continue**: Complete processing of bill; 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 of bill; include informational message in bill report.

Info Errors:

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.

User Files Options

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 path as default in next browse: 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. When the application starts it uses the Default User Directory/USERDIR path in the first open or save.

Rate Analysis Options

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

Default:

Rate Schedule: The default rate schedule for calculations.

Season Schedule: The default season schedule for 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.

Analysis:

Test Period: Can be any period, one month or greater.

Billing Options

Billing Options allow users to specify default global options that apply to all accounts in the system. These options apply to all billing types (Approval Required, Automatic Billing, etc.) and to all Oracle Utilities Billing Component users, unlike the user-specific General Options. However, you can override any of these settings for specific rate schedules, rate codes, or accounts in the Oracle Utilities Data Repository.

How to set and save billing options:

1. Under the **Tools and Utilities** menu, expand the **Options** sub-menu and select **Billing Options**. The **Billing Options** screen appears.

2. Set options as appropriate on the **Billing Options**, **Billing Rules**, **Report Options**, **Summary Options, Multiple Bill History Records**, and **Check Options** tabs.

3. To set the current settings as the settings for the DEFAULTUSER (the default settings for all new users), check the **Set DEFAULTUSER Options** checkbox.

4. Click **Save** to save the changes. To reset the options, click **Reset**. To close the Billing Options dialog without saving changes, click **Cancel**.

Billing Options

The Billing Options tab is used to define global defaults that apply to all accounts for all users.

Default Billing Mode

The Default Billing Mode specifies 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

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 it comes in 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.

Special Event Pre Window

The Special Event Pre Window specifies 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, but 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.

Billing Rules

The Billing Rules tab defines specific rules that are applied to billing.

Effective Date is

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

- Bill Stop

- Bill Start

- 1st of Bill Month

- Scheduled Read Date

- Governing Date.

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, allowing you to 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 your rate schedules use indirect identifiers (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.

Report Options

The Report Options tab is used to define global defaults for report options. These defaults apply to all reports generated by Oracle Utilities Billing Component. These can be overridden for a single report by selecting **Options: Report** from the report window. See **Report Options** on page 4-12 for more information.

Print Detail

The Print Detail 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.

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 is used to define how accounts with multiple rates and customer summary rate schedules are processed.

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 Account 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.

- **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.

  Note: If you use either of the latter 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.

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 is used to define how accounts with multiple Bill History records per bill period are processed.

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.

Check Options

The Check Options tab is used to define how Oracle Utilities Billing Component performs several checks before billing an account. In some billing systems, some of these checks are unnecessary. Use these options to turn off the unneeded checks, to improve performance.

Do not use Interval Data

This option turns off all support for Interval Data during billing.

Do not use Interval Data to Compute Start/Stop

This option disables use of 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

This option turns 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

This option disables checks for Account Notes/Work Queue Items that stop billing in Automatic Billing or Approval Required. Do not write Account Notes/Work Queue Items from Automatic Billing or Approval Required.

Do not check Override Ready

This option disables checks that Special Events or Overrides are Ready.

Do not check Bill Determinant Use

This option disables checks of the account's Bill Determinants' Use.

Do not check Account's Meter Values

This option disables verification that an account's scalar data is in the Meter Value Table.

Do not check Rate Code Flags

This option disables use of 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

This option disables use of the BILLINGMODEFLAG, PRINTDETAIL or FULLDAYBILL values in the RATEFORM Table, independent of the RATECODE Table.

Use MDM schema for Billing

When this option is checked, Oracle Utilities Billing Component checks the Oracle Utilities Meter Data Management (Oracle Utilities Meter Data Management) 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

Report Options

Report options allow users to customize the contents of a report, including the report presentation, the print detail level, and the problem determination options.

> **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:

- **Presentation**
- **Print Detail**
- **Problem Determination**
- **Results Columns**

The current active tab is white. Inactive tabs are gray.

> **Note**: Not all tabs and/or report options are available for all reports. If a tab/option is not available, it is not displayed or greyed out.

How to set and save report options:

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

2. Make any appropriate changes on the **Presentation**, **Print Detail**, **Problem Determination**, and **Results Columns** tabs.

3. Click **Save** to save the changes. To reset the Print Options, click **Reset**. To close the Print Options dialog without saving changes, click **Cancel**.

Presentation

The Presentation tab allows users to customize the presentation of a report.

Report Titles

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

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

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

To override the **Print Detail Options** setting for specific components of a bill report and transaction record, select the specific options for each component. 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

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.

Results Columns

The 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.

Results Columns Options

- To change one or more of the Bill Calculation labels, check the **Show all input options** 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 Label** checkbox and delete the appropriate label.

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

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

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

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

Chapter 5

Approval Required Billing

Approval Required billing involves calculating bills that must be viewed and approved before the transaction records can be issued and the bill history record updated. This chapter describes how to process approval required billing, including:

- **Running Approval Required Billing**

- **Viewing Billing Results**

Approval Required 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).

Approval Required billing results are usually viewed and approved in order for Oracle Utilities Billing Component to issue the transaction records and update the Oracle Utilities Data Repository.

When viewing the results, users have the option to reject bills that appear unsatisfactory. If a user rejects 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. If a user skips a bill (neither approving nor rejecting it), Oracle Utilities Billing Component will retry the calculations the next time Approval Required billing 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 option.

Running Approval Required Billing

How to run Approval Required Billing:

1. Select **Billing-›Calculations-›Approval Required**.

   The **Approval Required** screen appears.

2. Select the customers or accounts to bill.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts to bill.

   - **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (…). This opens the Accounts (or Customers) dialog.

     If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

     To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

     Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

     Note: You can only select accounts that you have been granted access to via Security Administration.

   - **List:** Select the list of customers or accounts to be billed from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

   - **All**: When this option is selected, Oracle Utilities Billing Component bills all accounts or customers whose scheduled billing date matches the value in the **Bill Date:** field.

   - **File**: Specify 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). You can either type the path and filename of the file, or click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Enter the **Bill Date** for the bill. This date is compared to the eligibility window dates. Typically, this should be today (the current date), but you can use other dates for testing purposes.

   You can change the Bill Date either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the Bill Date.

4. Select the appropriate **Billing Mode** to use for the bill. You can select any one or a combination of the following 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 Billing Options screen. See **Billing Options** on page 4-7 for more information.

To bill all accounts that require approval, leave all boxes checked.

Check the "Also show accounts not billed" checkbox to display an explanation of 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 processed successfully.

5. Select **Approval Options**, **Accounts Billed,** and the **Output File** for the bill.

Approval Options: Select how bills are to be approved from the following options:

- **Do not enable saves of any kind**: When this option is selected, Rules Language SAVEs do not save and no CIS transactions records 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 page if it is OK**: If you select this option, the 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.

- **Automatically save/approve groups of related pages if all OK**: If you select this option, accounts (or related accounts, for summary customers) that billed without errors are automatically approved, and their database and CIS records are written.

Accounts Billed: Select how to handle summary billing from the following options:

- **Include related summary accounts**: This option enables you to bill only the accounts with read dates 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.

Output File Name: Specify the name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS.

6. 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 **Options: Report** button. The **Report Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

7. If you want to change your general options for this report, click the **Options: General** button. The **General Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

8. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The bill will appear as an item on the **View Reports** screen.

Viewing Billing Results

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Unit pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

Each Customer or Account listed in the Business Units pane includes an icon that indicates the status of the report results for that Customer or Account. The meanings of these icons are as follows:

Icon	Description
	Read-Only: Billing results for this Customer/Account are read-only. Billing results are read-only if they were generated using the **Do not enable saves of any kind** option, or if they have already been approved.
	Error: Billing results for this Customer/Account contain and Error or Warning.
	Approving: Billing results for this Customer/Account are in the process of being saved and/or exported.
	Approved: Billing results for this Customer/Account have been saved and/or exported.
	Rejecting: Billing results for this Customer/Account are in the process of being rejected.
	Rejected: Billing results for this Customer/Account have been rejected.

How to view billing results:

1. Click the ID row for the specific Customer or Account to view in the Business Units pane. The appropriate report results then display in the Report pane.

2. *Optional.* Customer and Account IDs appear as links in the Report pane. To view information concerning the Customer and/or Account, click the appropriate link.

3. *Optional.* To detach the report and view it in a separate window, click **Detach**. From this separate window you can print and/or save the report.

4. *Optional.* To go back to the Reports List window, click **Reports List**.

Viewing Manually Approved Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), when you approve an account (or an account and all its related accounts), the bill is rerun with Automatic Approval. This second run should generate the same results as the initial run. In the rare case of a change in billing data between the initial and subsequent run, you can view each set of results.

When you select a Customer or Account ID from the Business Units pane, the original billing results are displayed. To view the results of the second run, click **Adjusted**. To go back to view the original results, click the **Original** button.

Approving and Rejecting Billing Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), you must review the billing results for each Customer or Account and manually Approve or Reject each.

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Units pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

- To approve a bill, click **Approve**.

- To reject a bill, click **Reject**..

Important notes about Approving/Rejecting Bills:

Here are some important points when approving or rejecting a 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.

- Once 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.

How to email billing results:

You can also email billing results. To do this, use the following procedure:

1. With the billing results displayed in the Report pane, click the **Detach** button to open the billing results in a separate window.

2. Select **Save As...** from the Internet Explorer **File** menu.

3. Enter a file name, select the destination for the file, and click **Save**.

4. Attached the saved file to an outgoing email using your email application.

Chapter 6

Automatic Billing

Automatic Billing 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 run automatic billing, including:

- **Running Automatic Billing**
- **Viewing Billing Results**

Running Automatic Billing

How to run Automatic Billing:

1. Select **Billing-›Calculations-›Automatic Billing**.

   The **Automated Billing** screen appears.

2. Enter the **Bill Date** for the bill. This date is compared to the eligibility window dates. Typically, this should be today (the current date), but you can use other dates for testing purposes.

   You can change the Bill Date either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the Bill Date.

3. Select the appropriate **Billing Mode** to use for the bill. You can select any one or a combination of 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.

4. Select **Approval Options**, **Accounts Billed**, **Messages**, and the output **File** for the bill.

   Approval Options: Select how bills are to be approved from the following options:

   - **Do not enable saves of any kind**: When this option is selected, Rules Language SAVEs do not save and no CIS transactions records are written to the CIS file. This is the option you'll choose most often when testing rate forms.

   - **Automatically save/approve groups of related pages if all OK**: If you select this option, accounts (or related accounts, for summary customers) that billed without errors are automatically approved, and their database and CIS records are written.

   Accounts Billed: Select how to handle summary billing from the following options:

   - **Include related summary accounts**: This option enables you to bill only the accounts with read dates 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.

   Messages: 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.

   Write to File: Specify the name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS.

5. 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 **Options: Report** button. The **Report Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

   Note: The Automatic Billing report can display only up to 9,999 accounts. This limitation only applies to running Automatic Billing from the web user interface.

6. If you want to change your general options for this report, click the Options: General button. The **General Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

7. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The bill will appear as an item on the **View Reports** screen.

Viewing Billing Results

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Report View** window. When the Report View window opens, the report displays the first Customer or Account included in the report.

The **State** section above the top left corner of the report displays the state of the report, including the number of Errors, the number of Pages expected and ready, and the elapsed time (in seconds) it took for the report to run.

The **From:** and **To:** fields above the top right corner of the report show the current pages displayed. The **From:** field displays the current page. The ◄ and ► buttons and the field between them are used to navigate the report. The field between the buttons defines how many pages display in the report window at a time. The default is 1. To display more than one page at a time, enter the number of pages you wish to view in the field.

How to view billing results:

1. The billing results for the first Customer or Account are displayed when the Report View window opens.

2. To view the next page(s), click the '**>>**' button. To view the previous page(s), click the '**<<**' button. To skip ahead/back to a specific page, enter the page number in the **From:** field and the click the '**<<**' or '**>>**' button.

   To view all Customers or Accounts, click the **All** button. To refresh the contents of the Report View window, click the **Refresh** button.

   > **Note**: The Automatic Billing report can display only up to 9,999 accounts. This limitation only applies to running Automatic Billing from the web user interface.

3. *Optional*. To detach the report and view it in a separate window, click **Detach**.

4. *Optional*. To go back to the Report List window, click **Report List**.

Chapter 7

Bill Corrections

This chapter describes how to process bill corrections, including:

*   **Running Bill Corrections**
*   **Viewing Billing Results**

Bill corrections enable users 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.

Bill corrections are 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).

Bill correction results are usually viewed and approved in order for Oracle Utilities Billing Component to issue the transaction records and update the Oracle Utilities Data Repository.

When viewing the results, users have the option to reject bills that appear unsatisfactory. If a user rejects a bill, Oracle Utilities Billing Component attaches a "USER REJECTED" note to it.

Running Bill Corrections

How to run bill corrections:

1. Select **Billing-›Calculations-›Bill Correction**.

    The **Bill Correction** screen appears.

2. Select the customers or accounts to bill.

    By: Select **Account** or **Customer** from the drop-down list.

    Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts to bill.

    *   **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (**...**). This opens the Accounts (or Customers) dialog.

        If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the button to return the first page, and the button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

        To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

        Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

        Note: You can only select accounts that you have been granted access to via Security Administration.

    *   **List:** Select the list of customers or accounts to be billed from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

    *   **All**: When this option is selected, Oracle Utilities Billing Component bills all accounts or customers whose scheduled billing date matches the value in the **Bill Date:** field.

    *   **File**: Specify 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). You can either type the path and filename of the file, or click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Select the type of bill correction and the bill period(s) to correct.

    Type: Select the type from the drop-down list:

    *   **Cancel/Rebill:** Cancels the previous bill(s) and issues new one(s) in their place. This option 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

4. Select the **Bill Dates** for the bill correction. You can run the bill correction based on either a number of previous bill periods, or a specified bill history record. Select the option from the drop-down list.

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 that 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 the **Browse** button (...). The Bill History dialog window opens.

To select a Bill History record, click the Start Time link. The Start Time, Stop Time, Bill Month, and Read Date values are automatically populated. **Note:** This option calculates adjustments for the selected bill period **only**, and does not affect any subsequent billing periods.

5. Select **Check** options.

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.

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.

Do not use current Bill History determinant values: If the account uses interval data, has already been billed, and you want to run the bill correction without using the saved bill determinants, check this option. Otherwise the current Bill History values will be used.

6. Select **Approval Options**, **Rebill Reason,** and the output **File** for the bill.

Approval Options: Select how bills are to be approved from the following options:

- **Do not enable saves of any kind**: When this option is selected, Rules Language SAVEs do not save and no CIS transactions records 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 page if it is OK**: If you select this option, the 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.

- **Automatically save/approve groups of related pages if all OK**: If you select this option, accounts (or related accounts, for summary customers) that billed without errors are automatically approved, and their database and CIS records are written.

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).

Write to File: Specify the name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS.

7. 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 **Options: Report** button. The **Report Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

8. If you want to change your general options for this report, click the Options: General button. The **General Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

9. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The bill will appear as an item on the **View Reports** screen.

Viewing Billing Results

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Unit pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

Each Customer or Account listed in the Business Units pane includes an icon that indicates the status of the report results for that Customer or Account. The meanings of these icons are as follows:

Icon	Description
	Read-Only: Billing results for this Customer/Account are read-only. Billing results are read-only if they were generated using the **Do not enable saves of any kind** option, or if they have already been approved.
	Error: Billing results for this Customer/Account contain and Error or Warning.
	Approving: Billing results for this Customer/Account are in the process of being saved and/or exported.
	Approved: Billing results for this Customer/Account have been saved and/or exported.
	Rejecting: Billing results for this Customer/Account are in the process of being rejected.
	Rejected: Billing results for this Customer/Account have been rejected.

How to view billing results:

1. Click the ID row for the specific Customer or Account to view in the Business Units pane. The appropriate report results then display in the Report pane.

2. *Optional.* Customer and Account IDs appear as links in the Report pane. To view information concerning the Customer and/or Account, click the appropriate link.

3. *Optional.* To detach the report and view it in a separate window, click **Detach**. From this separate window you can print and/or save the report.

4. *Optional.* To go back to the Reports List window, click **Reports List**.

Viewing Manually Approved Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), when you approve an account (or an account and all its related accounts), the bill is rerun with Automatic Approval. This second run should generate the same results as the initial run. In the rare case of a change in billing data between the initial and subsequent run, you can view each set of results.

When you select a Customer or Account ID from the Business Units pane, the original billing results are displayed. To view the results of the second run, click **Adjusted**. To go back to view the original results, click the **Original** button.

Approving and Rejecting Billing Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), you must review the billing results for each Customer or Account and manually Approve or Reject each.

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Units pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

- To approve a bill, click **Approve**.

- To reject a bill, click **Reject**..

Important notes about Approving/Rejecting Bills:

Here are some important points when approving or rejecting a 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.

- Once 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.

How to email billing results:

You can also email billing results. To do this, use the following procedure:

1. With the billing results displayed in the Report pane, click the **Detach** button to open the billing results in a separate window.

2. Select **Save As...** from the Internet Explorer **File** menu.

3. Enter a file name, select the destination for the file, and click **Save**.

4. Attached the saved file to an outgoing email using your email application.

Chapter 8

Current/Final Bill

This chapter describes how to process current and/or final bills, including:

*   **Running Current/Final Bill**
*   **Viewing Billing Results**

Current/Final Bill enables you to manually initiate bill calculations for a single account for a user-specified period. After you have examined and approved the results, Oracle Utilities Billing Component sends the transaction records to the output file and updates the Bill History records in the Oracle Utilities Data Repository.

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.

Running Current/Final Bill

How to run current/final bill:

1. Select **Billing-›Calculations-›Current Final Bill**.

   The **Current/Final Bill** screen appears.

2. Select the customers or accounts to bill.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts to bill.

   - **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (…). This opens the Accounts (or Customers) dialog.

     If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

     To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

     Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

     Note: You can only select accounts that you have been granted access to via Security Administration.

   - **List:** Select the list of customers or accounts to be billed from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

   - **All**: When this option is selected, Oracle Utilities Billing Component bills all accounts or customers whose scheduled billing date matches the value in the **Bill Date:** field.

   - **File**: Specify 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). You can either type the path and filename of the file, or click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Enter 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:

   - **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. You can enter the Bill Date either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the Bill Date.

   - **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.

4. Select the **Bill Type**:

- • **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. **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.

6. Select **Approval Options** and the output **File** for the bill.

    Approval Options: Select how bills are to be approved from the following options:

    - • **Do not enable saves of any kind**: When this option is selected, Rules Language SAVEs do not save and no CIS transactions records 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 page if it is OK**: If you select this option, the 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.

    - • **Automatically save/approve groups of related pages if all OK**: If you select this option, accounts (or related accounts, for summary customers) that billed without errors are automatically approved, and their database and CIS records are written.

    Write to File: Specify the name of the file to which Oracle Utilities Billing Component writes the transaction record for approved bills. The default is LODESTAR.CIS.

7. 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 **Options: Report** button. The **Report Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

8. If you want to change your general options for this report, click the Options: General button. The **General Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

9. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

    The bill will appear as an item on the **View Reports** screen.

Viewing Billing Results

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Unit pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

Each Customer or Account listed in the Business Units pane includes an icon that indicates the status of the report results for that Customer or Account. The meanings of these icons are as follows:

Icon	Description
👓	**Read-Only**: Billing results for this Customer/Account are read-only. Billing results are read-only if they were generated using the **Do not enable saves of any kind** option, or if they have already been approved.
⚠	**Error**: Billing results for this Customer/Account contain and Error or Warning.
🚩	**Approving**: Billing results for this Customer/Account are in the process of being saved and/or exported.
📋	**Approved**: Billing results for this Customer/Account have been saved and/or exported.
✗🚩	**Rejecting**: Billing results for this Customer/Account are in the process of being rejected.
✗📋	**Rejected**: Billing results for this Customer/Account have been rejected.

How to view billing results:

1. Click the ID row for the specific Customer or Account to view in the Business Units pane. The appropriate report results then display in the Report pane.

2. *Optional*. Customer and Account IDs appear as links in the Report pane. To view information concerning the Customer and/or Account, click the appropriate link.

3. *Optional*. To detach the report and view it in a separate window, click **Detach**. From this separate window you can print and/or save the report.

4. *Optional*. To go back to the Reports List window, click **Reports List**.

Viewing Manually Approved Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), when you approve an account (or an account and all its related accounts), the bill is rerun with Automatic Approval. This second run should generate the same results as the initial run. In the rare case of a change in billing data between the initial and subsequent run, you can view each set of results.

When you select a Customer or Account ID from the Business Units pane, the original billing results are displayed. To view the results of the second run, click **Adjusted**. To go back to view the original results, click the **Original** button.

Approving and Rejecting Billing Results

When you select the **Enable user approve/reject of saves** approval option (available in Approval Required Billing, Current/Final Billing, and Bill Corrections), you must review the billing results for each Customer or Account and manually Approve or Reject each.

To view billing results, click the appropriate link on the **View Reports** window. The selected report opens in the **Business Units** window. The Business Units window consists of two panes: the Business Units pane and the Report pane.

The Business Units pane lists all the Customers or Accounts for the report. The Report pane displays the report results of the Customer or Account selected in the Business Units pane. When the Business Units window opens, the Report pane displays the first Customer or Account listed in the Business Units pane.

- To approve a bill, click **Approve**.

- To reject a bill, click **Reject**..

Important notes about Approving/Rejecting Bills:

Here are some important points when approving or rejecting a 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.

- Once 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.

How to email billing results:

You can also email billing results. To do this, use the following procedure:

1. With the billing results displayed in the Report pane, click the **Detach** button to open the billing results in a separate window.

2. Select **Save As...** from the Internet Explorer **File** menu.

3. Enter a file name, select the destination for the file, and click **Save**.

4. Attached the saved file to an outgoing email using your email application.

Chapter 9

Trial Calculation

This chapter describes how to run trial bill calculations, including:

- **Running A Trial Calculation**

- **Viewing Billing Results**

The Trial Calculation option enables you to create "trial bills" by applying any rate form to any account's historical data over a user-specified date range. Because it is intended for testing and analysis, the Trial Calculation option does not permit data to be saved to the Oracle Utilities Data Repository, nor does it output results to a CIS file.

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.

Running A Trial Calculation

How to run a trial bill calculation:

1. Select **Billing-›Calculations-›Trial Calculation**.

    The **Trial Bill** screen appears.

2. Select the customers or accounts to bill.

    By: Select **Account** or **Customer** from the drop-down list.

    Using: Select **ID** from the drop-down list. Trial calculations can only be run for a single Customer or Account ID.

    Type the ID of the account or customer in the text box, or click the **Browse** button (...). This opens the Accounts (or Customers) dialog.

    If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⤒ button to return the first page, and the ⤓ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

    To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

    Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

    Note: You can only select accounts that you have been granted access to via Security Administration.

3. Enter the **Bill Period:** You have two options:

    *   **Bill Month:** To select the bill period for the selected customer or account from the Bill History table, click the **Browse** button (...). The From Bill History dialog opens. Click the Start Time to select the appropriate record.

    *   **Compute:** The program determines the end of the most recent bill period for the selected account, using the following rules:

        *   If the account is billed using one channel of interval data, the program 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.

4. Select the **Billing Rate Schedule** to use for the trial calculation using one of the following options:

    *   **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.

    *   **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, go on to step 5.

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.

   Optional. Select a rate code from the **Select 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.

   Check the desired **Type** (**Current/Historical 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. To display all versions of the selected rate schedule, check the **Show All** checkbox.

   Select one rate form version in the **Rate Form Version** selection box by clicking the corresponding radio button.

   Click **Save**. The selected rate schedule version appears under **Billing Rate Schedule**. To close the dialog, click **Close**.

6. 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 **Options: Report** button. The **Report Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

7. If you want to change your general options for this report, click the Options: General button. The **General Options** dialog opens. See **Chapter 4: General, Billing, and Report Options** for more information.

8. Click the **Run** link to run the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

   The bill will appear as an item on the **View Reports** screen.

Viewing Billing Results

To view report results, click the appropriate link on the **View Reports** window. The selected report opens in the **Report View** window. When the Report View window opens, the report displays the first Customer or Account included in the report.

The **State** section above the top left corner of the report displays the state of the report, including the number of Errors, the number of Pages expected and ready, and the elapsed time (in seconds) it took for the report to run.

State: Errors: 0   Pages: 32 expected, 32 ready, 15 elapsed

The **From:** and **To:** fields above the top right corner of the report show the current pages displayed. The **From:** field displays the current page. The ◀ and ▶ buttons and the field between them are used to navigate the report. The field between the buttons defines how many pages display in the report window at a time. The default is 1. To display more than one page at a time, enter the number of pages you wish to view in the field.

How to view report results:

1. The report results for the first Customer or Account are displayed when the Report View window opens.

2. To view other pages (if applicable), click the '**>>**' button. To view the previous page(s), click the '**<<**' button. To skip ahead/back to a specific page, enter the page number in the **From:** field and the click the '**<<**' or '**>>**' button.

   To view all pages of the report, click the **All** button. To refresh the contents of the Report View window, click the **Refresh** button.

3. *Optional.* To detach the report and view it in a separate Internet Explorer window, clich the **Detach** button. From this separate window you can print and/or save the report.

4. *Optional.* To go back to the Report List window, click the **Report List** button.

Chapter 10

Billing Reports

This chapter describes the reports available with Oracle Utilities Billing Component, and explains how to produce and use them.

The available reports are:

- **Billing Checklist**
- **Billing Exceptions**
- **Billing History**
- **Late Billing**
- **Rider Summary**
- **Special Events**
- **Top Accounts**.

Billing Checklist

The Billing Checklist allows users to preview the availability and completeness of required billing data for selected accounts and customers. The Billing Checklist report lists any missing data for each selected customer and/or account over a specified date range. Missing data can include special events, interval data, and bill determinants. Billing Analysts can use this report to track down the data required to process bills on time.

How to run the Billing Checklist:

1. Select **Billing-›Reports-›Billing Checklist**.

    The **Billing Checklist** screen appears.

2. Select the customers or accounts for the report.

    By: Select **Account** or **Customer** from the drop-down list.

    Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

    - **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (...). This opens the Accounts (or Customers) dialog.

        If there is more than one page of records, you can move between pages using the ◀ and

        ▶ . buttons. Use the ⊮ button to return the first page, and the ⊯ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

        To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

        Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

        Note: You can only select accounts that you have been granted access to via Security Administration.

    - **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

    - **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

    - **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Enter the **Read Dates** for the report. This is the date range within which each account's scheduled meter read date must fall for its data to be evaluated. The date range initially displayed is automatically calculated using the Eligibility Pre-window and Post-window **Billing Options**.

    You can change the Read Dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

4. Select the information to display in the report. If you check **Only accounts with missing data**, you can check any or all three of the checkboxes below it (Special Events, Interval Data,

Bill Determinants). If you leave **Only accounts with missing data** unchecked, the display defaults to include all three options on the report.

Check the **Ignore bill accounts** checkbox to 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 the **Check Merge and Validation Flags** checkbox to check the Merge and Internal Validation flags on interval data cuts applicable for the specified bill period. A cut is considered valid when the Merge Flag is set to 'Y', or the Merge flag is set to 'N' but the Internal Validation flag is set to 'Y'.

5. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

6. If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The report will appear as an item on the **View Reports** screen.

Tips for Tracking Down Missing Data

The Billing Checklist report lists any missing data based on the specified accounts/customers and date range. Following are some tips that can help users 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 when the flag was set 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 for the account for the bill period have been entered in the Override History and/or Name Override History tables. Once you have verified this information, set the Override Ready flag. *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 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 whether or not 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 are outside the window, there are two possible solutions that will enable billing the account:

- You can bill the account with the Current/Final Bill module 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 occurs frequently for this account, consider increasing the size of the eligibility Pre- or Post-window for the account or its recorder.

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 table on the Account Details tab of the Account screen for the account to determine what determinants are missing.

Billing Exceptions

The Billing Exceptions report allows users to review the status of bills based on information in the Account Note Table. This report alerts 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 automatically by Oracle Utilities Billing Component or manually 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.

How to run the Billing Exceptions report:

1. Select **Billing-›Reports-›Billing Exceptions**.

    The **Billing Exceptions** screen appears.

2. Select the customers or accounts for the report.

    By: Select **Account** or **Customer** from the drop-down list.

    Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

    *   **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (**...**). This opens the Accounts (or Customers) dialog.

        If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

        To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

        Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

        Note: You can only select accounts that you have been granted access to via Security Administration.

    *   **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

    *   **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

    *   **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the **Account Note Period** for 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.

    You can change the dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

4. Specify the **Account Note Codes** to include in the report. If you check the **All** checkbox, the report includes all Account Note Codes Otherwise, using the checkboxes, you can select the

specific account note codes you want included on the report. To ignore previously billed accounts for this report, check the **Ignore Billed Accounts** checkbox.

5.   If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

6.   If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7.   Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The report will appear as an item on the **View Reports** screen.

> **Note:** 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.

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.

> **Note**: When using work queues, exceptions are written to the Work Queue Open Item table instead of the Account Notes table. To enable work queues, 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 their 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/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.

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

Code	Automatic	Appr Req	Meaning
WARNING	X		A WARNING statement in the rate form used for bill calculation.

Billing History

The Billing History report is used to examine and compare 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 run the Billing History report:

1. Select **Billing-›Reports-›Billing History**.

   The **Billing History** screen appears.

2. Select the customers or accounts for the report.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

   • **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (**...**). This opens the Accounts (or Customers) dialog.

   If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

   To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

   Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

   Note: You can only select accounts that you have been granted access to via Security Administration.

   • **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the **Test Period** for the report, including the beginning and end of the period for the report

   You can change the dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

4. *Optional*. Enter a name for the report in the **Analysis Name** field. This name appears on the printed report.

5. Select the number of decimal places to display when displaying Bill Determinants from the **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.

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. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

9. If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

10. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The report will appear as an item on the **View Reports** screen.

Late Billing

The Late Bill report allows users 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 note 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.

How to run the Late Billing report:

1. Select **Billing‑›Reports‑›Late Billing**.

   The **Late Billing** screen appears.

2. Select the customers or accounts for the report.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

   - **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (...). This opens the Accounts (or Customers) dialog.

     If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

     To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

     Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

     Note: You can only select accounts that you have been granted access to via Security Administration.

- **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

- **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

- **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the date range for the report, including the beginning and end of the period for the report. You can change the dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

   You can use *either* Bill Month or Read Date for this report.

   Note: Whether you specify Bill Month or Read Date, the information is reported for bill months.

   - **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.

4. Specify the **Number of Days Late** for the report. Enter the range for number of days late to be included on the report in the **From** and **To** fields.

5. Specify how you want to **Sort** the report. If you want the resulting report sorted by jurisdiction, check the **Sort by Jurisdiction** checkbox.

   You can also sort the report by **Account Number**, **Bill Amount**, or **Days Late**; these three options are mutually exclusive. If you select **Bill Amount**, select the billing determinant that will be used to create the report from the the **Select Determinant to be used for Bill Amt** drop-down list.

6. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7. If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

8. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

   The report will appear as an item on the **View Reports** screen.

Rider Summary

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.

- **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 run the Rider Summary report:

1. Select **Billing-›Reports-›Rider Summary**.

   The **Rider Summary** screen appears.

2. Select the customers or accounts for the report.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

   - **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (...). This opens the Accounts (or Customers) dialog.

     If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

     To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

     Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

     Note: You can only select accounts that you have been granted access to via Security Administration.

   - **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

   - **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

   - **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the **Rider Summary Period** for the report.

    You can change the dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

4. Specify how you wish to **Sort** the report. You can select either **Rider** or **Account Number**.

5. **Select Rider Options** for the report. To use all of the existing Rider Options for this report, check the **All** checkbox. To specify riders for the report, check the riders to use.

6. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7. If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

8. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

    The report will appear as an item on the **View Reports** screen.

Special Events

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

How to run the Special Events report:

1. Select **Billing-›Reports-›Special Events**.

   The **Special Events** screen appears.

2. Select the customers or accounts for the report.

   By: Select **Account** or **Customer** from the drop-down list.

   Using: Select **ID**, **List**, **All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

   • **ID**: Type the ID of the account or customer in the text box, or click the **Browse** button (**...**). This opens the Accounts (or Customers) dialog.

   If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ◀◀ button to return the first page, and the ▶▶ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

   To search for a specific account (or customer), click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of accounts (or customers) that match the search criteria.

   Click the **[...]** link to select the appropriate account (or customer). The field is automatically populated.

   Note: You can only select accounts that you have been granted access to via Security Administration.

   • **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

   • **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

   • **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the **Events Period** for the report.

   You can change the dates either by typing the date manually, or by clicking the drop-down arrow to the right of the date field. This opens a calendar dialog that you can use to select the correct dates for the report.

4. Select the **Events Code(s)** for the report. To select all special events, check the **All** checkbox. To select events codes individually, uncheck the **All** checkbox, and check the specific events to include in the report.

5. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

6.   If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7.   Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The report will appear as an item on the **View Reports** screen.

Top Accounts

The Top Accounts Report lists the largest customers by revenue, energy, or demand, and lets you see how their bills have changed from the previous year.

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 run the Top Accounts report:

1. Select **Billing-›Reports-›Top Accounts**.

    The **Top Accounts** screen appears.

2. Select the customers or accounts for the report.

    By: Select **Account** or **Customer** from the drop-down list.

    Using: Select **List All**, or **File** from the drop-down list. This indicates how you specify the accounts for the report.

    - **List:** Select the list of customers or accounts for the report from the drop-down list. If the contents of the list have changed since the last time that the associated query was run, check the "Refresh list" checkbox. This updates the list for this bill 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.

    - **All**: When this option is selected, Oracle Utilities Billing Component runs the report for all customers or accounts in the Oracle Utilities Data Repository.

    - **File**: Specify 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). Click the **Browse** button to find the file using the **Choose File** dialog. Locate the file you wish to use and click **Open**. The path and file name of the select file appear in the text field.

3. Specify the **Select Period** for the report.

    Enter the dates by typing the dates manually.

4. Select the appropriate **Options** for the report. The following options are available.

    - **Revenue Code**: Select a Revenue Code from the list.

    - **Top Customer(s)**: Enter the number of top customers to be reported, and select one of: Revenue, Energy, or Demand. This option indicates whether to report on Top Customers by amount of revenue, by energy consumption, or by energy demand.

    - **Type of Report**: Select either **By Revenue Code** or **As One Large Group**. Reporting By Revenue Code will present the top accounts or customers per revenue code, and reporting As One Large Group will provide the top accounts or customers for all the accounts or customers included on the report.

    - **Sort Report By**: Select one of: Revenue, Energy, Demand, or Customer Name. The resulting report will contain a heading reflecting your choice, and the information on the report will be sorted according to that choice.

5. Click on the **Select Determinants** arrow to display the determinant options. Select a **Revenue Determinant**, an **Energy Determinant**, and a **Demand Determinant** from the drop-down lists.

6. If you want to override your default report options for this report or add titles to the report, click the **Options: Report** button. The **Report Options** dialog opens. See **Report Options** in **Chapter 4: General, Billing, and Report Options** for more information.

7. If you want to override your default General options for this report, click the **Options: General** button. See **General Options** in **Chapter 4: General, Billing, and Report Options** for more information.

8. Click the **Run** link to run the report. Click **Schedule** to schedule the report. See **Run Reports** on page 2-10 and **Scheduling Reports** on page 2-11 for more information.

The report will appear as an item on the **View Reports** screen.

Viewing Report Results

To view report results, click the appropriate link on the **View Reports** window. The selected report opens in the **Report View** window. When the Report View window opens, the report displays the first Customer or Account included in the report.

The **State** section above the top left corner of the report displays the state of the report, including the number of Errors, the number of Pages expected and ready, and the elapsed time (in seconds) it took for the report to run.

> State: Errors: 0   Pages: 32 expected, 32 ready, 15 elapsed

The **From:** and **To:** fields above the top right corner of the report show the current pages displayed. The **From:** field displays the current page. The ◀ and ▶ buttons and the field between them are used to navigate the report. The field between the buttons defines how many pages display in the report window at a time. The default is 1. To display more than one page at a time, enter the number of pages you wish to view in the field.

How to view report results:

1. The report results for the first Customer or Account are displayed when the Report View window opens.

2. To view other pages (if applicable), click the '**>>**' button. To view the previous page(s), click the '**<<**' button. To skip ahead/back to a specific page, enter the page number in the **From:** field and the click the '**<<**' or '**>>**' button.

   To view all pages of the report, click the **All** button. To refresh the contents of the Report View window, click the **Refresh** button.

3. *Optional.* To detach the report and view it in a separate Internet Explorer window, clich the **Detach** button. From this separate window you can print and/or save the report.

4. *Optional.* To go back to the Report List window, click the **Report List** button.

Part Two

Contract Management

Part Two describes the contract management functions of Oracle Utilities Billing Component, and contains the following chapters:

- **Chapter 11**: **Contract Management Overview**
- **Chapter 12**: **Setting Up Contract Terms, Contract Products, and Contract Types**
- **Chapter 13**: **Working with Contracts**

Chapter 11

Contract Management Overview

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

- **Working with Contract Management**

Working with Contract Management

This section describes how you work with the contract management functionality of Oracle Utilities Billing Component, describing a typical process for creating a contract for a list of accounts.

Enter Account/Customer Data

The first step in creating a contract is to enter data for the accounts and/or service points or for which you're creating the contract. This is usually done by importing a file to the Oracle Utilities Data Repository that contains the appropriate customer and account data, including:

- Customer records
- Account records
- Service Point records
- Contact Information

Create List of Accounts for Contract

If creating contracts for accounts, the next step is to create lists of the accounts or customers to be included in the contract. Most Oracle Utilities Billing Component - Contract Management functions work with account or customer lists. See *Lists* on page 7-63 of the *Oracle Utilities Energy Information Platform User's Guide* for more information.

Create Contract

The next step is create a contract for your list of accounts or customers. This process creates all the records necessary to create the contract in the Oracle Utilities Data Repository.

Enter Contract Details

After creating the contract, the next step is to review the details of the contract and make any necessary changes. Some specific tasks to be performed at this step include:

- Reviewing basic information concerning the contract on the **Basics Tab**
- Reviewing details for the contract's accounts, customer, or service points on the **Items Tab**
- Selecting the appropriate Terms for the contract on the **Terms Tab**
- Selecting the appropriate documents for the contract on the **Documents Tab**
- Reviewing the contract approvals (once the Contract's Status is In Approval) on the **Approvals Tab**
- Reviewing the history of the contract on the **History Tab**
- Reviewing any related contracts on the **Related Contracts Tab**
- Viewing any events or exceptions related to the contract on the **Work Queue Detail Tab**

View Contract Calculations

The next (optional) step is to actually view any calculations associated with the contract. This step uses the contract details (products and terms) to calculate values included in the contract.

Submit/Revise/Terminate Contract

The next step(s) is based on your specific business processes, and can include submitting, revising, or terminating the contract, based on internal review or other factors (changes based on review from the counter party, etc.).

When you submit a contract, you create a formal contract that can be sent to the counter party for review and approval.

Execute Contract

The last step is to execute the contract, at which point the contract has been reviewed and approved by both parties (the contractee and the counter party), and has been signed.

Chapter 12

Setting Up Contract Terms, Contract Products, and Contract Types

Contract types are contract templates used to create contracts using the Oracle Utilities Billing Component - Contract Management application. Setting up contract types allows you to create default settings for different types of contracts, including default contract terms and contract products. This chapter describes how to set up contract terms, contract products, and contract types using Oracle Utilities Billing Component - Contract Management, including:

- **Contract Terms and Products**

- **Contract Types**

Contract Terms and Products

Contract terms are specific conditions and/or circumstance required to perform contract calculations. For example, a contract might require a specific margin, a minimum monthly volume of usage, or a date from which prices are in effect. These types of details and conditions are stored as Terms in the Oracle Utilities Data Repository. Contract products are pricing structures and rates used in contract and pricing calculations. Each account included in an offer has an associated product.

Setting up contract terms and products involves creating records in the following tables in the Oracle Utilities Data Repository:

- **Contract Products**
- **Terms**
- **Term Categories**
- **Templates**
- **Term Templates**

Contract Products

Records in the Contract Product table represent individual products used in contract calculations.

Searching Contract Products

You can search for existing contract products in the Oracle Utilities Data Repository.

How to search contract products:

1. Select **Contracts-›Contract Setup-›Contract Products** (or **Pricing and Contracts-›Contract Setup-›Contract Products**).

   The Contract Product screen opens.

2. Enter the search criteria in the appropriate field.

   You can search based on the Product ID, Description, Start Time, Stop Time, or Rate Form associated with the contract product.

   You can use the percent sign ("%") as a wildcard character when entering values in the Product ID or Description fields. For instance, if you want to search for all products whose ID begins with the letter G, you could enter "G%" in the Product ID field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all products whose ID end with the letter t, etc.).

   Note that Product IDs are **case-insensitive**. For example, there is no difference between the "Prod_1" and "prod_1" product IDs.

3. Specify how the search results are displayed.

   - Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information.

   - Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To clear all the search fields, click **Reset**. To add a new record, click **Add**.

5. The search results appear on the Contract Product screen.

   The Contract Product screen displays the following information for each product:

   - Product ID

- Description

- Start Time

- Stop Time

- Rate Form

6. To sort the results by one of the columns, click the appropriate arrow on the column heading. For example, to sort the results in ascending order by Product ID, click the "up" arrow on the Product ID column heading. See **Sorting Search Results** on page 2-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information.

   If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field and press the Enter key.

7. To view a product click on the Product ID. The selected record will appear in the Contract Product screen.

8. To perform another search, click **New Search**. To refresh the contents of the screen, click the refresh icon.

Viewing and Editing Contract Products

Individual contract products are viewed on the Contract Product screen. This screen opens when you select a record from the Contract Product search results screen.

How to view and edit contract products:

1. Click on the Product ID link for the product you wish to view. The selected record opens on the Basics tab of the Contract Product screen.

   This screen displays the following information for the selected record:

   - **Product ID**: A unique id for the product.

   - **Description**: A description of the product.

   - **Start Time**: The start time of the product. This is the time after which the product is available for use in pricing calculations.

   - **Stop Time**: The stop time of the product. This is the time before which the product is available for use in pricing calculations.

   - **Rate Form**: The rate form that defines the product, from the Rate Form table.

2. Edit data in the fields as appropriate. To restore the record to its original state (before saving), click **Reset**.

3. To save changes made to the record, click **Save**.

4. To delete the current record, click **Delete**.

Viewing and Editing Contract Product Terms

You can also view terms associated with the contract product.

How to view and edit contract product terms:

1. Click on the Terms tab of the Contract Product screen. The terms associated with the contract product appear on the Terms tab of the Contract Product screen.

   If there is more than one page of terms, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field and press the Enter key.

   The Terms tab displays the following information for each term associated with the Contract Product:

   • **Term Type**: The term type for the product term, from the Term Type table.

   • **Start Time**: The start time of the product term. This is the time after which the product term is available for use in pricing calculations.

   • **Standard**: A flag that indicates if the product term is the "standard" product term for the product.

   • **Required**: A flag that indicates if the product term is required for the product.

   • **Calculated**: A flag that indicates if the product term is calculated.

   • **Default Text Value**: *Optional.* The default text value of the product term, if applicable.

   • **Default Numeric Value**: *Optional.* The default numeric value of the product term, if applicable.

   • **UOM**: *Optional.* The unit-of-measure associated with the product term, from the Unit of Measure table.

   • **Default Date Value**: *Optional.* The default date value of the product term, if applicable.

   • **Default Start Time**: *Optional.* The default start time of the product term, if applicable.

   • **Default Stop Time**: *Optional.* The default stop time of the product term, if applicable.

2. To filter the terms displayed by Term Category, select the desired category from the Term Category drop-down list. The default is to display All Terms.

3. To change the order in which the terms are listed, click on the ⠿ area and move the term to the appropriate position in the list. This also determines how the terms are ordered when the contract product is associated with a contract item on a contract.

4. To add a new product term, select the Term Category for the term you wish to add from the Term Category drop-down list, select the Term Type for the term you wish to add from the Term Type drop-down list, and click **Add Term**.

5. To delete a product term(s), check the corresponding checkbox(es) and click **Delete Term**.

6. To save changes, click **Save**.

7. To edit or view a specific product term, click on the **Term Type** for the term. The selected product term will appear on the Terms tab.

   The Terms tab displays the following information for the selected product term:

   • **Product**: The contract product, from the Contract Product table.

   • **Term**: The term, from the Terms table.

   • **Start Time**: The start time of the product term. This is the time after which the product term is available for use in pricing calculations.

   • **Stop Time**: The stop time of the product term. This is the time before which the product term is available for use in pricing calculations.

- **Standard**: A flag that indicates if the product term is the "standard" product term for the product.

- **Required**: A flag that indicates if the product term is required for the product.

- **Default Start Time**: *Optional.* The default start time of the product term, if applicable.

- **Default Stop Time**: *Optional.* The default stop time of the product term, if applicable.

- **Default Text Value**: *Optional.* The default text value of the product term, if applicable.

- **Display Sequence**: A number that indicates the sequence in which the product term is displayed on the Terms tab list, as well as on the terms list for contract items on a contract.

- **Default Numeric Value**: *Optional.* The default numeric value of the product term, if applicable.

- **Default Date Value**: *Optional.* The default date value of the product term, if applicable.

- **Calculated**: A flag that indicates if the product term is calculated.

8. Edit data in the fields as appropriate. To restore the record to its original state (before saving), click **Reset**.

9. To save changes made to the record, click **Save**.

10. To delete the current record, click **Delete**.

Adding Contract Products

You can also add new contract products.

How to add contract products:

1. Click **Add** on the Contract Product search screen. The Create Contract Product screen opens.

2. Enter an ID for the product in the **Product ID** field.

3. Enter an optional description of the product in the **Description** field.

4. Enter the start time and stop time of the product in the **Start Time** and **Stop Time** fields.

5. Select an optional rate form for the product in the **Rate Form** field.

6. To clear all the fields (before saving the record), click **Reset**.

7. To return to the search screen without adding a record, click **Cancel**.

8. To save the record, click **Save**. The new contract product appears on the screen.

Adding Contract Product Terms

You can also add terms associated with the contract product.

How to add contract product terms:

1. Click on the Terms tab of the Contract Product screen.

2. Select the Term Category for the term you wish to add from the Term Category drop-down list, select the Term Type for the term you wish to add from the Term Type drop-down list, and click **Add Term**.

3. To delete a product term(s), check the corresponding checkbox(es) and click **Delete Term**.

4. To change the order in which the terms are listed, click on the ⁞⁞⁞⁞⁞ area and move the term to the appropriate position in the list. This also determines the order in which the terms are displayed after being added to a contract item on a contract.

5. To save the product terms, click **Save**.

Terms

As described above, terms are specific conditions and/or circumstances required to perform contract calculations.

Searching Terms

You can search for existing terms in the Oracle Utilities Data Repository.

How to search terms:

1. Select **Contracts-›Contract Setup-›Terms** (or **Pricing and Contracts-›Contract Setup-›Terms**).

   The Term screen opens.

2. Enter the search criteria in the appropriate field.

   You can search based on the Start Time, Stop Time, Term Type, Term Category, Term Status, Default Text Value, Default Start Time, Default Stop Time, UOM Code, Default Numeric Value, Default Date Value, or Style.

   See **Searching Database Tables** on page 8-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about searching records, including the use of operands and wildcards.

3. Click **Search** to perform the search. To reset the search fields to their previous values, click **Reset**. To clear all the search fields, click **Clear**. To add a new record, click **Add**.

4. The search results appear on the Term list screen.

   The Term list screen displays the following information for each record:

   • UID

   • Start Time

   • Stop Time

   • Term Type

   • Term Category

   • Term Status

   • Default Text Value

   • Default Start Time

   • Default Stop Time

   • UOM Code

   • Default Numeric Value

   • Default Date Value

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Start Time, click the Start Time column heading. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field.

6. To view a record, click on the corresponding **[...]** link. The selected record will appear in the Term screen.

7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.

8. *Optional.* To delete one or more records, check the check boxes corresponding to the records to be deleted, and click **Delete**. To clear all the checkboxes, click **Clear**.

Viewing and Editing Terms

Individual Terms are viewed on the Term screen. This screen opens when you select a record from the Term search results screen.

How to view and edit terms:

1. Click on the **[...]** link for the Term you wish to view. The selected record opens in the Term screen.

    The Term screen displays the following information for the selected record:

    • **UID**: the unique ID for the record.

    • **Start Time**: The start time of the term. This is the time after which the term is available for use in calculations.

    • **Stop Time**: The stop time of the term. This is the time before which the term is available for use in calculations.

    • **Term Type**: The term type for the term, from the Term Type table.

    • **Standard**: A flag that indicates if the term is the "standard" product term for the product.

    • **Required**: A flag that indicates if the term is required for the product.

    • **Calculated**: A flag that indicates if the term is calculated.

    • **Default Text Value**: *Optional.* The default text value of the term, if applicable.

    • **Default Numeric Value**: *Optional.* The default numeric value of the term, if applicable.

    • **UOM**: The unit-of-measure associated with the term, from the Unit of Measure table.

    • **Default Date Value**: *Optional.* The default date value of the term, if applicable.

    • **Default Start Time**: *Optional.* The default start time of the term.

    • **Default Stop Time**: *Optional.* The default stop time of the term.

2. Edit data in the fields as appropriate. See **Working with Data Types** on page 8-4 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about editing data values.

3. To save changes made to the record, click **Save**. To save the edited record as a new record, click **Save As New**.

    Note: The **Save As New** option only works if the identity of the record has been changed.

4. To perform a new search, click **Search**.

5. To open a list of records, click **List**.

6. To delete the current record, click **Delete**.

Adding Terms

You can also add new Terms.

How to add terms:

1. Click **Add** on either the Term search or list screens. A blank Term screen opens.

2. Enter the start time and stop time for the term in the **Start Time** and **Stop Time** field.

3. Select the term type for the term in the **Term Type** field.

4. Select an optional term category for the term in the **Term Category** field.

5. Select an optional term status for the term in the **Term Status** field.

6. Enter an optional default text value in the **Default Text Value** field.

7. Enter an optional default start time and default stop time for the term in the **Default Start Time** and **Default Stop Time** field.

8. Enter an optional default numeric value in the **Default Numeric Value** field.

9. Enter an optional default date value in the **Default Date Value** field.

10. Enter an optional XSL string to define the user interface when entering values for the term in the **Style** field. **Note**: If using Templates do NOT populate this field.

11. To save the record, click **Save**. The new Term record appears on the screen.

Term Categories

Terms categories are categories of terms (such as product terms, or contract terms).

Searching Term Categories

You can search for existing term categories in the Oracle Utilities Data Repository.

How to search term categories:

1. Select **Contracts-›Contract Setup-›Term Categories** (or **Pricing and Contracts-›Contract Setup-›Term Categories**).

   The Term Category screen opens.

2. Enter the search criteria in the appropriate field.

   You can search based on the Term Category Code or Description.

   See **Searching Database Tables** on page 8-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about searching records, including the use of operands and wildcards.

3. Click **Search** to perform the search. To reset the search fields to their previous values, click **Reset**. To clear all the search fields, click **Clear**. To add a new record, click **Add**.

4. The search results appear on the Term Category list screen.

   The Term list screen displays the following information for each record:

   • Term Category Code

   • Description

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Term Category Code click the Term Category Code column heading. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field.

6. To view a record, click on the corresponding **[...]** link. The selected record will appear in the Term screen.

7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.

8. *Optional.* To delete one or more records, check the check boxes corresponding to the records to be deleted, and click **Delete**. To clear all the checkboxes, click **Clear**.

Viewing and Editing Term Categories

Individual Term Categories are viewed on the Term Category screen. This screen opens when you select a record from the Term Category search results screen.

How to view and edit term categories:

1. Click on the **[...]** link for the Term Category you wish to view. The selected record opens in the Term Category screen.

    The Term Category screen displays the following information for the selected record:

    •   **Term Category Code**: The code for the term category.

    •   **Description**: a description of the term category.

2. Edit data in the fields as appropriate. See **Working with Data Types** on page 8-4 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about editing data values.

3. To save changes made to the record, click **Save**. To save the edited record as a new record, click **Save As New**.

    Note: The **Save As New** option only works if the identity of the record has been changed.

4. To perform a new search, click **Search**.

5. To open a list of records, click **List**.

6. To delete the current record, click **Delete**.

Adding Term Categories

You can also add new term categories.

How to add term categories:

1. Click **Add** on either the Term Category search or list screens. A blank Term Category screen opens.

2. Enter a code for the term category in the **Term Category Code** field.

3. Enter an optional description of the term category in the **Description** field.

4. To save the record, click **Save**. The new Term Category record appears on the screen.

Templates

Templates define sets of attributes and properties that define the user interface when entering values for terms used with Oracle Utilities Billing Component - Contract Management and Oracle Utilities Quotations Management. For example, if the terms used in contracts require an effective date value (stored in the Default Date Value field), you could create a template that defines a user interface screen that allows users to specify the effective date using a calendar control.

Searching Templates

You can search for existing templates in the Oracle Utilities Data Repository.

How to search templates:

1. Select **Contracts-›Contract Setup-›Templates** (or **Pricing and Contracts-›Contract Setup-›Templates**).

    The Template screen opens.

2. Enter the search criteria in the Template Name field.

    You can use the percent sign ("%") as a wildcard character when entering values the Template Name field. For instance, if you want to search for all templates whose name begins with the letter G, you could enter "G%" in the Template Name field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all templates whose ID end with the letter t, etc.).

    Note that Product IDs are **case-sensitive**. For example, there is a difference between the "Temp_1" and "temp_1" template names.

3. Specify how the search results are displayed.

    •   Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To add a new record, click **Add**.

5. The search results appear on the Template screen.

    The Template screen displays the following information for each product:

    •   UID

    •   Template Name

6. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field and press the Enter key.

7. To view a template click on the Template Name. The selected record will appear in the Template screen.

8. *Optional.* To delete one or more records, check the check boxes corresponding to the records to be deleted, and click **Delete**.

9. To perform another search, click **New Search**. To refresh the contents of the screen, click the refresh icon.

Viewing and Editing Templates

Individual templates are viewed on the Template screen. This screen opens when you select a record from the Template search results screen.

How to view and edit templates:

1. Click on the Template Name link for the template you wish to view. The selected record opens on the Template screen.

   This screen displays the following information for the selected record:

   - **Template Name**: A unique id for the template.

   - **Rate Code**: The rate form code associated with the template.

   - **Operating Company**: The operating company associated with the template.

   - **Jurisdiction**: The jurisdiction associated with the template.

   - **Attributes Properties**: The attributes and properties that define the user interface when entering values for the term. Each attribute is defined by the following:

     - **Attribute Name**: The name of the column on the Terms table where the values for the term are stored. Can be STARTTIME, STOPTIME, VAL (Default Text Value), VULNUM (Default Numeric Value), or VALDATE (Default Date Value).

     - **Attribute Type**: The type of attribute. Can be string, date, datetime, monthyear, long, double, boolean, lookup, or enumeration.

     - **Caption**: The caption that appears on the user interface when entering values for the term.

     - **Properties**: Click the plus ("+") in the far left column to display specific properties for the attribute.

   - **Script Document**: A expandable text box that defines Javascript validations and/or business rules related to values entered for the term. Click the **Script Document** plus ("+") sign to open the text box.

2. Edit data in the fields as appropriate. To restore the record to its original state (before saving), click **Reset**.

3. To add an attribute, click **Add**. Enter the attribute name in the **Attribute Name** column, select the attribute type from the **Attribute Type** drop-down list, and enter the label for the attribute in the **Caption** column.

4. To delete an attribute(s), check the corresponding checkbox(es) and click **Delete**.

5. To edit the **Script Document**, click the Script Document plus ("+") sign to open the text box and edit the script as appropriate.

6. To save changes made to the record, click **Save**.

Editing Attribute Properties

The data values defined in a template are called attributes, and each can be one of the following types:

- **String** (xs:string): A string (can contain letters or numbers)

- **Date** (xs:date): A date (e.g. 12/19/2005)

- **DateTime** (xs:dateTime): A date and time (e.g. 12/19/2005 16:03:45))

- **Bill Month** (xs:MonthYear): A bill month (12/2005). Note: when used with a date or date time field, bill months are converted to the first day of the selected month.

- **Long** (xs:long): A long integer

- **Double** (xs:double):

- **Boolean** (xs:boolean): A boolean value (indicated by a checkbox on the user interface)

- **Lookup** (ls:lookup): A lookup value from a table in the Oracle Utilities Data Repository

- **Drop-down list** (ls:enumeration): A drop-down list of possible values

Term attributes correspond to one of the following columns on the Term table:

- **Start Time** (STARTTIME): The start time of the term. This is the time after which the term is available for use in calculations (Date or DateTime attribute types).

- **Stop Time** (STOPTIME): The stop time of the term. This is the time before which the term is available for use in calculations (Date or DateTime attribute types).

- **Default Text Value** (VAL): The default text value of the term (String, Long, or Double attribute types).

- **Default Numeric Value** (VALNUM): The default numeric value of the term (Long or Double attribute types).

- **Default Date Value** (VALDATE): The default date value of the term (Date or DateTime attribute types).

Templates can contain up to five attributes (one for each of the columns in the Terms table described above). Templates can be used with multiple terms. For example, you might create a "Start_Stop" template that defines Start Time and Stop Time attributes that can be used for all terms that use Start Time and Stop Time values. Likewise, a "Start_Stop_Value" template could be used for all terms that use values for Start Time, Stop Time, and Value.

In addition to the Attribute Name, Attribute Type, and Caption, attributes also have other properties that can be defined. These properties help define default values for attributes, the values available with drop-down list attributes, and other parameters.

There are four types of attribute properties:

Common properties define some default behavior for the attribute, including:

- **Default Value**: The default value of the attribute. This default is overridden if a default value is specified for the Term. Note: Default values for Date and DateTime attributes must be in the "YYYY-MM-DD HH:mm:ss" format.

- **Is Required**: A flag that designates (Yes or No) whether or not the attribute is required.

- **Is Visible**: A flag that designates (Yes or No) whether or not the attribute is visible on the user interface.

- **Is Disabled**: A flag that designates (Yes or No) whether or not the attribute is accessible by the user from the user interface.

Event properties allow Javascript or Javascript functions to be called, and include:

- **Event**: The name of the event to trigger the script or call the function.

- **Function Name**: The name of the function called by the event.

- **Script**: The Javascript called by the event.

Entity properties define lookup attributes, including:

- **Table Name**: The name of the table in the Oracle Utilities Data Repository that is used by the lookup

- **IsUID**: A flag that designates (Yes or No) if the lookup field is a UID.

- **Entity Fields**: Filters applied to the lookup. To apply a filter, enter the column name in the left column, select the appropriate operand, and enter the filtering value in the right column.

Enumeration properties define drop-down lists.

To add an entry to the drop-down list, click **Add**, enter the value in the left column, and the label in the right column. For example, to create a drop-down list that displays Yes (value = Y) and No (value = N), you would create the following entries:

Left Column	Right Column
Y	Yes
N	No

To delete an entry (or entries), check the corresponding checkbox(es) and click **Delete**.

Adding Templates

You can also add new templates.

How to add templates:

1. Click **Add** on either the Template search or list screens. A blank Template screen opens.

2. Enter a name for the template in the **Template** field.

3. Enter an optional rate form code for the template in the **Rate Code** field.

4. Enter an optional operating company for the template in the **Operating Company** field.

5. Enter an optional jurisdiction for the template in the **Jursidiction** field.

6. Add attributes for the template in the **Attributes Properties** box. Each attribute is defined by the following:

    • **Attribute Name**: The name of the column on the Terms table where the values for the term are stored. Can be STARTTIME, STOPTIME, VAL (Default Text Value), VULNUM (Default Numeric Value), or VALDATE (Default Date Value).

    • **Attribute Type**: The type of attribute. Can be string, date, datetime, monthyear, long, double, boolean, lookup, or enumeration.

    • **Caption**: The caption that appears on the the user interface when entering values for the term.

    • **Properties**: Click the plus ("+") in the far left column to enter specific properties for the attribute.

7. Add an optional Javascript document for the template by clicking the **Script Document** plus ("+") sign and entering the Javascript in the text box.

8. To save the record, click **Save**. The new Template record appears on the screen.

Term Templates

Term templates define relationships between terms and templates. Note that a term can only be associated to a single template. However, templates may be associated to multiple terms.

Searching Term Templates

You can search for existing term templates in the Oracle Utilities Data Repository.

How to search term templates:

1. Select **Contracts-›Contract Setup-›Term Templates** (or **Pricing and Contracts-›Contract Setup-›Term Templates**)

    The Term GUI XSD screen opens.

2. Enter the search criteria in the appropriate field.

    You can search based on the Term or GUI XSD.

    See **Searching Database Tables** on page 8-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about searching records, including the use of operands and wildcards.

3. Click **Search** to perform the search. To reset the search fields to their previous values, click **Reset**. To clear all the search fields, click **Clear**. To add a new record, click **Add**.

4. The search results appear on the Term GUI XSD list screen.

    The Term GUI XSD list screen displays the following information for each record:

    *   Term

    *   GUI XSD (template)

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Term click the Term column heading. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field.

6. To view a record, click on the corresponding **[...]** link. The selected record will appear in the Term screen.

7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.

8. *Optional.* To delete one or more records, check the check boxes corresponding to the records to be deleted, and click **Delete**. To clear all the checkboxes, click **Clear**.

Viewing and Editing Term Templates

Individual term templates are viewed in the Term GUI XSD screen. This screen opens when you select a record from the Term Category search results screen.

How to view and edit term templates:

1. Click on the **[...]** link for the Term GUI XSD record you wish to view. The selected record opens in the Term GUI XSD screen.

    The Term GUI XSD screen displays the following information for the selected record:

    *   **Term**: The term.

    *   **GUI XSD**: The template associated with the term..

2. Edit data in the fields as appropriate. See **Working with Data Types** on page 8-4 in the *Oracle Utilities Energy Information Platform User's Guide* for more information about editing data values.

3. To save changes made to the record, click **Save**. To save the edited record as a new record, click **Save As New**.

    Note: The **Save As New** option only works if the identity of the record has been changed.

4. To perform a new search, click **Search**.

5. To open a list of records, click **List**.

6. To delete the current record, click **Delete**.

Adding Term Templates

You can also add new term templates.

How to add term templates:

1. Click **Add** on either the Term GUI XSD search or list screens. A blank Term GUI XSD screen opens.

2. Select the term for the record in the **Term** field.

3. Select the templates for the record in the **GUI XSD** field.

4. To save the record, click **Save**. The new Term GUI XSD record appears on the screen.

Contract Types

Contract types are contract templates used to create contracts using the Oracle Utilities Billing Component - Contract Management application. Setting up contract types allows you create default settings for different types of contracts. This section describes how to work with contract types with Oracle Utilities Billing Component - Contract Management and Oracle Utilities Quotations Management, including:

- **Searching Contract Types**

- **Creating Contract Types**

- **Viewing Contract Types**

Searching Contract Types

The **Contract Types** option allows users to search contract types in the Oracle Utilities Data Repository based on user-specified search criteria.

How to search contract types:

1. Select **Contracts-›Contract Setup-›Contract Types** (or **Pricing and Contracts-›Contract Setup-›Contract Types**).

   The Contract Type screen opens.

2. Enter the search criteria in the appropriate field.

   You can search based on the Contract Type, Contractee ID, Description, Contract Category, Start Time, Stop Time, and Work Queue Type associated with the Contract Type. To enter a date, click the arrow and select the date using the calendar control or enter the data manually.

   You can use the percent sign ("%") as a wildcard character when entering values in any of the text fields. For instance, if you want to search for all contract types whose contractee ID begins with the letter G, you could enter "G%" in the Contractee ID field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all contract types whose contractee ID end with the letter t, etc.).

   Note that Contractee IDs are **case-insensitive**. For example, there is no difference between the "Acct_1" and "acct_1" contractee IDs.

3. Specify how the search results are displayed.

   - Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information.

   - Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To clear all the search fields, click **Reset**. To add a new contract type, click **Add**.

5. The search results appear on the Contract Type result screen.

   The Contract Type result screen displays the following information for each contract type:

   - Contractee ID

   - Contract Type

   - Description

   - Contract Category

   - Start Time

   - Stop Time

- Work Queue Type

6. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field.

7. To view a contract type, click the **Contract Type** link. The selected contract type appears in the Contract Type screen.

8. To perform another search, click **New Search**.

Creating Contract Types

How to create a new contract type:

1. Click **Add** on the **Contract Types** screen. The Create Contract Type screen opens.

2. Enter a code for the contract type in the **Contract Type Code** field.

3. Select a **Contractee ID** using the **Browse** button (...). This button opens a dialog window that lists all the available contractees. Click the **[...]** link for the appropriate contractee. The field is automatically populated.

4. Enter an optional description for the contract type in the **Description** field.

5. Select an optional **Contract Category** using the **Browse** button (...). This button opens a dialog window that lists all the available categories. Click the **[...]** link for the appropriate category. The field is automatically populated.

6. Enter an optional **Start Time** for the contract type. To enter a date and time, enter the date and time manually or click the arrow and select the date using the calendar control.

7. Enter an optional **Stop Time** for the contract type. To enter a date and time, enter the date and time manually or click the arrow and select the date using the calendar control.

8. For contract types that require an approval process, enter a **Work Queue Type** using the **Browse** button (...). This button opens a dialog window that lists all the available work queue types. Click the **[...]** link for the appropriate work queue type. The field is automatically populated.

9. Select an optional **Rate Form** using the **Browse** button (...). This button opens a dialog window that lists all the available rate forms. Click the **[...]** link for the appropriate rate form. The field is automatically populated. This rate form (of type RIDER) should contain Contract Type-specific business logic.

10. Click **Create** to create the Contract Type. To clear all the fields, click **Reset**. To return the previous screen, click **Cancel**.

The contract type appears in the Contract Type screen.

Viewing Contract Types

Contract types are viewed from the Contract Type screen. This screen opens when you select a contract type from the Contract Type Result screen, or when you first create an contract type. The Contract Type screen includes five tabs:

- **Basics Tab**

- **Terms Tab**

- **Documents Tab**

- **Approvals Tab**

- **Reports Tab**

Basics Tab

The Basics tab displays basic information about the contract type, including:

- **Contract Type**: The contract type code.

- **Contractee ID**: The contractee ID for the contract type.

- **Description**: A short description of the contract type.

- **Contract Category**: The contract category for the contract type.

- **Start Time**: The start date for the contract type.

- **Stop Time**: The stop date for the contract type.

- **Rate Form**: An optional rate form (of type RIDER) associated with the contract type that contains contract type-specific business logic.

You can modify any of the fields on this tab.

- To modify the **Contract Type**, edit the field as appropriate.

- To modify the **Contractee ID**, use the **Browse** button (...). This button opens a dialog window that lists all the available contractee IDs. Click the **[...]** link for the appropriate record. The field is automatically populated.

- To modify the **Description**, edit the field as appropriate.

- To modify the **Contract Category**, use the **Browse** button (...). This button opens a dialog window that lists all the available categories. Click the **[...]** link for the appropriate category. The field is automatically populated.

- To modify the **Start Time**, enter the date and time manually or click the arrow and select the date using the calendar control.

- To modify the **Stop Time**, enter the date and time manually or click the arrow and select the date using the calendar control.

- To modify the optional **Rate Form**, use the **Browse** button (...). This button opens a dialog window that lists all the available rate form. Click the **[...]** link for the appropriate record. The field is automatically populated.

Click **Save** to save the changes. To delete the contract type, click **Delete**. To reset the contract type to the previously saved version, click **Reset**.

Terms Tab

The Terms tab displays the following information for each term associated with the contract type:

- **Term Type**: The term type for the term, for this contract type.

- **Start Time**: The start time for the term, for this contract type.

- **Standard**: A flag that indicates if the term should be considered standard for the contract type.

- **Required**: A flag that indicates if the term is required for the contract type.

- **Calculated**: A flag that indicates if the term is calculated for the contract type.

- **Summary**:

- **Default Text Value**: The default text value for the term, for this contract type.

- **Default Numeric Value**: The default numeric value for the term, for this contract type.

- **UOM**: The unit-of-measure associated with the product term, from the Unit of Measure table.

- **Default Date Value**: The default date value for the term, for this contract type.

- **Default Start Time**: The default start time for the term, for this contract type.

- **Default Stop Time**: The default stop time for the term, for this contract type.

How to change the order of terms:

1. Click on the ⠿ area of the term you wish to move and move the term to the appropriate position in the list.

2. Click **Save** to save your changes.

How to modify a term:

1. Click the **Term Type** link. The selected term type appears on the Terms tab.

2. To modify the **Start Time**, enter the date and time manually or click the arrow and select the date using the calendar control.

3. To modify the **Stop Time**, enter the date and time manually or click the arrow and select the date using the calendar control.

4. To modify the **Standard**, **Required**, or **Calculated** flags, select the desired value from the drop-down list.

5. To modify the **Default Text Value**, edit the value as appropriate.

6. To modify the **Default Start Time**, enter the date manually or click the arrow and select the date using the calendar control.

7. To modify the **Default Stop Time**, enter the date manually or click the arrow and select the date using the calendar control.

8. To modify the **Display Sequence**, change the number as appropriate.

9. To modify the **Default Numeric Value**, edit the value as appropriate.

10. To modify the **Default Date Value**, enter the date manually or click the arrow and select the date using the calendar control.

11. Click **Save** to save the modified term. To reset the term to the previously saved version, click **Reset**. To return to the list of contract type terms without saving changes, click **Cancel**.

How to add a term to a contract type:

1. Select the Term Category for the term you wish to add from the Term Category drop-down list (from the Term Category table), select the Term Type for the term you wish to add from the Term Type drop-down list (from the Terms table), and click **Add Term Type**. The selected term type appears on the Terms tab.

2. To modify the term type, click the **Term Type** link. The term type appears on the Terms tab.

3. Click **Save** to save your changes.

How to delete a term from a contract type:

1. Check the checkbox in the far left column for the term type you wish to delete and click **Delete Term Type**. The term type will no longer appear on the Terms tab.

Documents Tab

The Documents tab displays the following information for each document type associated with the contract type:

- **Document Type**: The type of the document.

- **Standard**: A flag that indicates if the document type should be considered standard for the contract type.

- **Required**: A flag that indicates if the document type is required for the contract type.

How to modify a document type:

1. Click the **Document Type** link. The selected document type appears on the Documents tab.

2. To select an optional **Document Category**, use the **Browse** button (**...**). This button opens a dialog window that lists all the available categories. Click the **[...]** link for the appropriate category. The field is automatically populated.

3. To modify the **Standard** flag, select the desired value from the drop-down list.

4. To modify the **Start Time**, enter the date manually or click the arrow and select the date using the calendar control.

5. To modify the **Stop Time**, enter the date manually or click the arrow and select the date using the calendar control.

6. To modify the **Required** flag, select the desired value from the drop-down list.

7. Click **Save** to save the modified document type. To reset the document type to the previously saved version, click **Reset**. To return to the list of contract type documents without saving changes, click **Cancel**.

How to add a document type to a contract type:

1. Select the document type from the Choose Document Type drop-down list (from the Document Type table), and click **Add Document Type**. The selected document type appear on the Documents tab.

2. To modify the document type, click the **Document Type** link. The document type appears on the Documents tab.

3. Edit the data as appropriate and click **Save**.

How to delete a document from a contract type:

1. Check the checkbox in the far left column for the document type you wish to delete and click **Delete Document Type**. The document type will no longer appear on the Documents tab.

Approvals Tab

The Approvals tab displays the Work Queue Type (and related Approval Procedure) associated to the contract type (if any), including the following information:

- **Work Queue Type**: The work queue type associated to the contract type.

- **Approval Process**: The Approval Procedure associated with the Work Queue Type.

- **Description**: A description of the Approval Procedure associated with the Work Queue Type.

- **Approval Steps**: A table outlining the approval steps that comprise the approval procedure, including:

  - **Step Number**: The step number for the approval step.

  - **Number of Approvals**: The number of approval required for the approval step.

  - **Approval Level Code**: The approval level for the approval step.

How to add a work queue type or change an existing work queue type:

1. Click the **Browse** button (**...**). This button opens a dialog window that lists all the available work queue types. Click the **[...]** link for the appropriate record. The screen is automatically populated with the appropriate data.

2. Click **Save** to save the approval.

3. To delete the approval, click **Delete**.

Reports Tab

The Reports tab lists any substitute reports used when viewing calculation and/or contracts for contracts of this contract type, including the following information:

- **Report Name**: The name of the report for which a substitute report template will be used. Can be either ViewCalculations or ViewContract.

- **Start Time**: The start of the relationship between the Report Name and the Substitute Report Name.

- **Stop Time**: The stop of the relationship between the Report Name and the Substitute Report Name.

- **Substitute Report Name**: The name of the report template used as a substitute for the report.

How to modify a substitute report:

1. Click the **Report Name** link. The selected report appears on the Reports tab.

2. To modify the **Report Name**, select the appropriate report (ViewCalculations or ViewContract) from the Report Name drop-down list.

3. To modify the **Start Time**, enter the date manually or click the arrow and select the date using the calendar control.

4. To modify the **Stop Time**, enter the date manually or click the arrow and select the date using the calendar control.

5. To select a different **Substitute Report Name**, use the **Browse** button (**...**). This button opens a dialog window that lists all the available report templates. Click the **[...]** link for the appropriate report template. The field is automatically populated.

6. Click **Save** to save the modified report. To reset the report to the previously saved version, click **Reset**. To return to the list of contract type reports without saving changes, click **Cancel**.

How to add a substitute report to a contract type:

1. Click **Add** on the Reports tab. A blank report screen appears on the Reports tab.

2. Select the report (ViewCalculations or ViewContract) for which a substitute report template will be used from the **Report Name** drop-down list.

3. Enter the **Start Time** by either entering date manually or clicking the arrow and selecting the date using the calendar control.

4. Enter the **Stop Time** by either entering date manually or clicking the arrow and selecting the date using the calendar control.

5. Select the **Substitute Report Name** by clicking the **Browse** button (**...**). This button opens a dialog window that lists all the available report templates. Click the **[...]** link for the appropriate report template. The field is automatically populated.

How to delete a substitute report from a contract type:

1. Check the checkbox in the far left column for the report you wish to delete and click **Delete**. The report will no longer appear on the Reports tab.

Chapter 13

Working with Contracts

This chapter describes how you work with and manage contracts with Oracle Utilities Billing Component - Contract Management, including:

- **Searching Contracts**

- **Creating Contracts**

- **Viewing Contracts**

- **Contract Actions**

Searching Contracts

The **Contracts** option allows users to search for contracts in the Oracle Utilities Data Repository based on user-specified search criteria.

How to search contracts:

1. Select **Contracts-›Contracts** (or **Pricing and Contracts-›Contracts**).

   The Contracts screen opens.

2. Enter the search criteria in the appropriate field.

   You can search based on the Contract ID, Contains Service Point ID (if Service Points are enabled) Contains Customer ID, Contract Description, Contain Account ID, Start Time, Stop Time, Contractee ID, Date Created, Contract Type, Date Submitted, Contract Status, Date Executed, Contract Category, Date Approved, Parent Contract ID, Date Terminated, External Contract Status, Valid Until, Margin, or Cost of Good Sold. To enter a date, click the arrow and select the date using the calendar control or enter the data manually.

   You can use the percent sign ("%") as a wildcard character when entering values in any of the text fields. For instance, if you want to search for all pricing contracts whose ID begins with the letter G, you could enter "G%" in the Contract ID field. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all pricing contracts whose ID end with the letter t, etc.).

   Note that Contract IDs, Contractee IDs, and Counter Party IDs are **case-insensitive**. For example, there is no difference between the "Acct_1" and "acct_1" contract IDs.

3. Specify how the search results are displayed.

   - Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 in the *Oracle Utilities Energy Information Platform User's Guide* for more information.

   - Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To clear all the search fields, click **Reset**.

5. The search results appear on the Contract Search Result screen.

   The Contract Search Result screen displays the following information for each pricing contract:

   - Contract ID
   - Contract Description
   - Contract Type
   - Start Time
   - Stop Time
   - Contract Category
   - Contract Status
   - External Status
   - Date Created
   - Contractee ID
   - Counter Party ID
   - Parent Contract ID
   - Date Submitted

- Date Approved

- Date Executed

- Date Terminated

- Valid Until

- Margin

- Cost of Good Sold

6. If there is more than one page of results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appears on each page, enter the number in the **Rows** field.

7. To view a contract, click **Contract ID** link. The selected contract appears in the Contract screen.

8. To perform another search, click **New Search**.

Creating Contracts

How to create a new contract:

1. Click **Add** on the **Contracts** screen. The Create Contract screen opens.

2. Enter a **Contractee ID** using the **Browse** button (**...**). This button opens a dialog window that lists all the available contractee IDs. Click the **[...]** link for the appropriate contractee ID. The field is automatically populated.

3. Select a **Counter Party ID** for the contract. The counter party ID can be either an individual Account, Customer, or Service Point, or a list of Accounts or Customers.

   Note: If using Contract Item Groups, the Counter Party ID field may be hidden.

4. Select **Account**, **Customer**, or **Service Point** for the counter party from the drop-down list. To select an account, customer, or service point, proceed with steps 5 through 12. To select a list of accounts or customers, skip to steps 13 through 20.

   Note: Selecting a Service Point as the Counter Party is only available if the use of service points with contracts is enabled.

5. To select an account, customer, or service point, select ID from the drop-down list and click the **Browse** button (**...**). The Accounts (or Customers or Service Points) window opens.

   If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

   To search for a specific record, click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of records that match the search criteria.

6. To select an account, customer, or service point, click on the **[...]** link. The selected Account (or Customer or Service Point) ID will appear in the Counter Party field.

7. To select a list of accounts or customers, select List from the drop-down list and click the **Browse** button (**...**). The Lists window opens.

   If there is more than one page of records, you can move between pages using the ◀ and ▶ . buttons. Use the ⏮ button to return the first page, and the ⏭ button to navigate to the last page. To change the number of results that appears on each page, enter the number in the **Rows** field.

   To search for a specific record, click **Search**. The dialog displays a search screen. Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of records that match the search criteria.

8. To select a list, click the **[...]** link. The selected list will appear in the Counter Party field.

9. Enter a **Contract ID**.

   Note: If using automatic generation of contract IDs, the Contract ID field is not visible.

10. Enter a **Contract Description**.

11. Enter a **Contract Type** using the **Browse** button (**...**). This button opens a dialog window that lists all the available types for the selected Contractee ID. Click the **[...]** link for the appropriate type. The field is automatically populated.

12. Select a **Contract Category** from the drop-down list.

13. Enter a **Start Time** for the contract. To enter a date, enter the date manually or click the arrow and select the date using the calendar control.

14. Enter a **Stop Time** for the contract. To enter a date, enter the date manually or click the arrow and select the date using the calendar control.

15. Click **Create** to create the contract. The **Process** window appears.

   When the contract has successfully been created, it appears in the Contract screen.

Viewing Contracts

Contracts are viewed from the Contract screen. This window opens when you select a contract from the Contract Search Results screen, or when you first create a contract.

The Contract window includes seven tabs:

*   **Basics Tab**

*   **Items Tab**

*   **Terms Tab**

*   **Documents Tab**

*   **Approvals Tab**

*   **History Tab**

*   **Related Contracts Tab**

The Contract window also contains the following (read-only)information about the contract (above the tabs):

*   **Contract ID**: The contract ID.

*   **Revision #**: The revision number of the contract.

*   **Status**: The current status of the contract.

Basics Tab

The Basics tab displays basic information about the contract, including:

*   **Contractee ID**: The contractee ID. Read-only.

*   **Description**: Description of the contract.

*   **Start Time**: The start time of the contract.

*   **Stop Time**: The stop time of the contract.

*   **Counter Party ID**: The counter party ID. Read-only. The Counter Party ID is displayed according to the following rules:

    *   If the contract is based on a list of accounts/customers, the Counter Party ID is the list name.

    *   If the contract is based on a single account, customer, or service point, the Counter Party ID is the ID of the account, customer, or service point.

    *   If the contract is based on multiple accounts associated with a single customer, the Counter Party ID is the Customer ID.

*   **Date Created**: The date the contract was created. Read-only.

*   **Contract Type**: The contract type. Read-only.

*   **Date Submitted**: The date the contract was submitted. Read-only.

*   **External Contract Status**: The external status of the contract.

*   **Date Approved**: The date the contract was approved. Read-only.

*   **Contract Category**: The contract's category (contract, subcontract, amendment, offer, etc.). Read-only.

*   **Date Executed**: The date the contract was executed. Read-only.

*   **Parent Contract ID**: The ID of the contract's parent contract, if applicable.

- **Date Terminated**: The date the contract was terminated. Read-only.

- **Margin**: The margin on the contract.

- **Valid Until**: The date the contract is valid until. This is **required** for calculating an contract.

- **Cost of Goods Sold**: The Cost of Goods Sold (COGS) for the contract.

How to modify contract basics:

You can modify the **Description**, **External Contract Status**, **Parent Contract ID**, **Margin**, and **Cost of Goods Sold** of a contract.

1. To change the **Description**, edit the text as appropriate.

2. To change the **External Contract Status** select the appropriate value from the drop-down list.

3. To change the **Parent Contract ID**, click the **Browse** button (...). This button opens a dialog window that lists all the available contracts that can be parents to the current contract. Click the **[...]** link for the appropriate contract. The field is automatically populated.

4. To change the **Margin** or **Cost of Good Sold**, edit the field as appropriate.

5. To save changes made on this tab, select **Save** from the **Actions** drop-down list.

6. To save the changes and add comments, select **Save w/Comments** from the **Actions** drop-down list.

   The **Script Prompt** dialog opens.

7. Enter the comment and click **OK**. To close the window without saving changes, click **Cancel**.

   The comment appears on the **History Tab**.

The Basics tab can only be modified when the contract's status is **In Process**.

Items Tab

The Items tab displays information about the individual accounts or service points associated with the contract. There are two versions of the Items tab, one that displays the individual items (Items View), and one that displays groupings of items (Groups View). Contract Item Groups allow users to apply terms common to groups of contract items (accounts or service points) rather than having to apply the same terms to each account or service point individually. This can save consider time when creating, updating, and altering contracts. The specific version of the Items tab that appears on the Contract screen is based on the security privileges of the user. When Contract Item Groups are disabled, the Items View is displayed. When Contract Item Groups are enabled, the Group View is displayed.

Items View

The Items View of the Items tab displays the following information for each individual account or service point associated with the contract:

- **Service Point ID**: The service point ID.

- **Customer ID**: The customer ID (not displayed for Service Points).

- **Account ID**: The account ID (not displayed for Service Points).

- **Account Name**: The name of the account (not displayed for Service Points).

- **Commodity**: The commodity (Electric, Gas, etc.) the contract is based on.

- **Usage Forecast**: The usage forecast used when calculating the contract (Oracle Utilities Quotations Management only).

- **Usage Status**: The status of usage stored for the contract item (Oracle Utilities Quotations Management only).

- **Terms**: A link that provides access to the terms associated with the contract item for the contract.

- **Product**: The product associated with the contract item for the contract.

- **Product Terms**: A link that provides access to the specific terms for the selected product.

For each contract item, you can change the Usage Forecast, Terms, Product, and Product Terms. You can also add and/or remove accounts or service points.

How to add contract items (accounts or service points) to a contract:

1. Click **Add Account** (or **Add Service Point**).

   The Accounts (or Service Points) window opens.

   Enter the search criteria and click **Search**. See **Searching and Viewing Data** on page 2-7 for more information about searching records.

   The search results appear on the Accounts (or Service Points) window.

2. Select the accounts (or service points) you wish to add to the contract by checking the corresponding checkboxes.

3. Click **Save**.

   The selected accounts (or service points) will appear on the Items tab.

How remove contract items from a contract.

1. Select the accounts (or service points) you wish to remove from the contract by checking the corresponding checkboxes.

2. Click **Delete Item**.

How to change the usage forecast for a contract item (Oracle Utilities Quotations Management only):

1. Click the **Usage Forecast** link for the contract item. The **Forecast Options** window opens.

2. Select the appropriate usage forecast from those listed under Forecast ID. The selected forecast will appear in the Usage Forecast column for the contract item. To close the window without making a select, click **Cancel**.

    If the contract item has no forecasts associated with it, the only (default) option is Automatic. This means that Oracle Utilities Quotations Management will create a forecast based on the contract item's usage. See **Chapter 3**: **Working with Forecasts** and **Chapter 4**: **Validating Usage** in the *Oracle Utilities Quotations Management User's Guide* for more information about forecasts and usage.

Usage forecasts can only be modified when the contract's status is **In Process**.

How to change the terms for a contract item:

1. Click the **Terms** link for the contract item. The **Contract Item Terms** window opens.

    This window displays the specific terms for the contract item (if any), including the following for each:

    •   **Term Type**: The Term Type for the contract item term.

    •   **Text Value**: The text value (if any) for the contract item term.

    •   **Numeric Value**: The numeric value (if any) for the contract item term.

    •   **UOM**: The unit of measure associated with the contract item term (if applicable)

    •   **Date Value**: The date value (if any) for the contract item term.

    •   **Status**: The status of the contract item term.

2. To add a term, select the term category from the **All Terms** drop-down list, select the term type of the term to add from the **Choose Term** drop-down list, and click **Add Term**. The selected term appears on the Contract Item Terms window.

3. To edit an individual term, click the **Term Type** link.

    The selected term appears in the Contract Item Terms window.

    To reset the fields to their default values, click **Set Default**. Edit the values for the term as needed and click **Save**. To reset the fields to their default values, click **Set Default**. To reset the fields to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

4. To edit all contract item terms, select **Contract** from the **All Terms** dorp-down list, and click the **Edit All**.

    The Contract Item Terms window displays all the current terms. This window allows users to edit values for multiple terms on a single screen.

    To reset the fields for all terms to their default values, click **Set Default**. Edit the values for each term as needed and click **Save**. To reset the fields for all terms to their default values, click **Set Default**. To reset the fields for all terms to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

5. To delete a contract item term, select the term(s) you wish to delete by checking the corresponding checkboxes and click **Delete Term**. The term will no longer appear on the Contract Item Terms window.

6. To apply the selected contract items terms to this contract item, click **Apply Items Terms**. This option requires customized configuration.

7. To close the Contract Item Terms window and return to the Items tab, click **Close**.

Contract Item Terms can only be modified when the contract's status is **In Process**.

How to change the product for a contract item:

1. Click the **Product** link for the contract item. The **Product Options** window opens.

2. Select the appropriate product from those listed under Product. The selected product will appear in the Product column for the contract item. To close the window without making a select, click **Cancel**.

Products can only be modified when the contract's status is **In Process**.

How to change the product terms for a contract item:

1. Click the **Product Terms** link for the contract item. The **Contract Product Terms** window opens.

   This window displays the specific terms for the product (if any), including the following for each:

   - **Term Type**: The Term Type for the contract product term.

   - **Text Value**: The text value (if any) for the contract product term.

   - **Numeric Value**: The numeric value (if any) for the contract product term.

   - **UOM**: The unit of measure associated with the contract product term (if applicable)

   - **Date Value**: The date value (if any) for the contract product term.

   - **Status**: The status of the contract product term.

2. To add a term, select the term category from the **All Terms** drop-down list, select the term type of the term to add from the **Choose Term** drop-down list, and click **Add Term**. The selected term appears on the Contract Product Terms window.

3. To edit an individual term, click the **Term Type** link.

   The selected term appears in the Contract Product Terms window.

   To reset the fields to their default values, click **Set Default**. Edit the values for the term as needed and click **Save**. To reset the fields to their default values, click **Set Default**. To reset the fields to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

4. To edit all contract product terms, select **Product** from the **All Terms** dorp-down list, and click the **Edit All**.

   The Contract Product Terms window displays all the current terms. This window allows users to edit values for multiple terms on a single screen.

   To reset the fields for all terms to their default values, click **Set Default**. Edit the values for each term as needed and click **Save**. To reset the fields for all terms to their default values, click **Set Default**. To reset the fields for all terms to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

5. To delete a contract product term, select the term(s) you wish to delete by checking the corresponding checkboxes and click **Delete Term**. The term will no longer appear on the Contract Product Terms window.

6. To apply the selected product terms to this product for all contract items on the contract that have the product associated to them, click **Apply Product Terms**. This option requires customized configuration.

7. To close the Contract Product Terms window and return to the Items tab, click **Close**.

Contract Product Terms can only be modified when the contract's status is **In Process**.

Note that there are no product terms associated with the default product.

Group View

The Group View of the Items tab can list information about contract items by Service Point or by Group.

Viewing by Service Points

When viewing by service point, this tab displays the following information for each service point associated with the contract:

- **Service Point ID**: The service point ID.

- **Commodity**: The commodity (Electric, Gas, etc.) the contract is based on.

- **Usage Forecast**: The usage forecast used when calculating the contract (Oracle Utilities Quotations Management only).

- **Usage Status**: The status of usage stored for the service point (Oracle Utilities Quotations Management only).

- **Terms**: A link that provides access to the terms associated with the service point for the contract.

- **Product**: The product associated with the service point for the contract.

- **Product Terms**: A link that provides access to the specific terms for the selected product.

- **Group ID**: The ID of the group to which ths service point belongs.

For each service point, you can change the Usage Forecast, Terms, Product, and Product Terms. These actions are performed in the same manner as when viewing the Items tab via the Items View.

You can also add and/or remove service points, and move service points between groups, and add/remove groups.

How to add service points to a contract: group

1. Select the active group from the **Active Group** drop-down list.

2. Click **Add to Active Group**.

   The Service Points window opens.

   Enter the search criteria and click **Search**. See **Searching and Viewing Data** on page 2-7 for more information about searching records.

   The search results appear on the Service Points window.

3. Select the service points you wish to add to the contract by checking the corresponding checkboxes.

4. Click **Save**.

   The selected service points will appear on the Items tab.

How to move service points between groups:

1. Select the active group from the **Active Group** drop-down list.

2. Select the service points you wish to mov by checking the corresponding checkboxes.

3. Click **Move to Active Group**.

How remove contract items from a contract.

1. Select the service points you wish to remove from the contract by checking the corresponding checkboxes.

2. Click **Delete**.

How to create a new contract group:

1. Click **Add Group**.

   The Contract Item Group window opens.

2. Enter the Group ID and select the product from the Product ID drop-down list.

3. Click **Save**. To close the window without adding the new group, click **Close**.

How delete a contract group:

1. Select the active group from the **Active Group** drop-down list.

2. Click **Delete Group**.

Viewing by Groups

When viewing by grup, this tab displays the following information for each contract group associated with the contract:

- **Group ID**: The service point ID

- **Members**: The number of service points in the group

- **Product**: The product associated with the group for the contract.

- **Terms**: A link that provides access to the terms associated with the group for the contract.

For each contract group, you can specify or change the terms associated with the group, view the individual service points associated with the group, and add/remove groups.

How to change the terms for a contract group:

1. Click the **Terms** link for the contract group. The **Contract Group Terms** window opens.

   This window displays the specific terms for the contract group (if any), including the following for each:

   - **Term Type**: The Term Type for the contract group term.

   - **Text Value**: The text value (if any) for the contract group term.

   - **Numeric Value**: The numeric value (if any) for the contract group term.

   - **UOM**: The unit of measure associated with the contract group term (if applicable)

   - **Date Value**: The date value (if any) for the contract group term.

   - **Status**: The status of the contract group term.

2. To add a term, select the term category from the **All Terms** drop-down list, select the term type of the term to add from the **Choose Term** drop-down list, and click **Add Term**. The selected term appears on the Contract Group Terms window.

3. To edit an individual term, click the **Term Type** link.

   The selected term appears in the Contract Group Terms window.

   To reset the fields to their default values, click **Set Default**. Edit the values for the term as needed and click **Save**. To reset the fields to their default values, click **Set Default**. To reset the fields to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

4. To edit all contract group terms, select **Contract** from the **All Terms** dorp-down list, and click the **Edit All**.

   The Contract Group Terms window displays all the current terms. This window allows users to edit values for multiple terms on a single screen.

   To reset the fields for all terms to their default values, click **Set Default**. Edit the values for each term as needed and click **Save**. To reset the fields for all terms to their default values,

click **Set Default**. To reset the fields for all terms to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

5. To delete a contract group term, select the term(s) you wish to delete by checking the corresponding checkboxes and click **Delete Term**. The term will no longer appear on the Contract Group Terms window.

6. To close the Contract Group Terms window and return to the Items tab, click **Close**.

How to view service points belonging to a contract: group

1. Click the plus sign ('+') for the group you wish to view.

   A list of service points belonging to the group opens, displaying the following for each service point:

   • **Service Point ID**: The service point ID.

   • **Commodity**: The commodity (Electric, Gas, etc.) the contract is based on.

   • **Usage Forecast**: The usage forecast used when calculating the contract (Oracle Utilities Quotations Management only).

   • **Usage Status**: The status of usage stored for the service point (Oracle Utilities Quotations Management only).

   • **Terms**: A link that provides access to the terms associated with the service point for the contract.

   For each service point, you can change the Usage Forecast and Item Terms. These actions are performed in the same manner as when viewing the Items tab via the Items View.

2. To move a service point to a different group, select the service points you wish to move by checking the corresponding checkboxes, select the group to which you wish to move the service points, and click **Move**.

3. To delete a service point from the group, select the service points you wish to move by checking the corresponding checkboxes, and click **Delete**.

4. To add a service point to the group, click **Add**.

   The Service Points window opens.

   Enter the search criteria and click **Search**. See **Searching and Viewing Data** on page 2-7 for more information about searching records.

   The search results appear on the Service Points window.

   Select the service points you wish to add to the contract by checking the corresponding checkboxes.

   Click **Save**.

   The selected service points will appear on the list of service points for the group.

How to create a new contract group:

1. Click **Add Group**.

   The Contract Item Group window opens.

2. Enter the Group ID and select the product from the Product ID drop-down list.

3. Click **Save**. To close the window without adding the new group, click **Close**.

How delete a contract group:

1. Select the groups you wish to delete by checking the corresponding checkboxes.

2. Click **Delete Group**.

Terms Tab

The Terms tab displays specific terms for the contract (if any). This includes the following information for each term:

• **Term Type**: The type of the term.

• **Text Value**: The text value (if any) for the contract term.

• **Numeric Value**: The numeric value (if any) for the contract term.

• **UOM**: The unit of measure associated with the contract term (if applicable)

• **Date Value**: The date value (if any) for the contract term.

• **Details**: Details for the term (minimum values, dates, etc.).

• **Class**: The class of term (Calculated, Optional, Standard, Standard/Required).

How to add a term:

1. Select the term category from the **All Terms** drop-down list, select the term type of the term to add from the **Choose Term** drop-down list, and click **Add Term**. The selected term will appear.

2. To edit the details of the term, click the **Term Type** link.

    The **Edit Term** window opens.

3. Edit the term values as needed and click **Save**. To close the window without saving changes, click **Cancel**.

    The updated values will appear on the **Terms** tab.

4. To edit all contract terms, select **Contract** from the **All Terms** dorp-down list, and click the **Edit All**.

    The Edit Term window displays all the current editable terms. This window allows users to edit values for multiple terms on a single screen.

    To reset the fields for all terms to their default values, click **Set Default**. Edit the values for each term as needed and click **Save**. To reset the fields for all terms to their default values, click **Set Default**. To reset the fields for all terms to their original values, click **Reset**. To close the window without saving changes, click **Cancel**.

Terms can only be added when the contract's status is **In Process**.

How to delete a term:

1. Select the term(s) you wish to delete by checking the corresponding checkboxes and click **Delete Term**. The term will no longer appear on the Terms tab.

Only terms whose Source is Optional or Standard can be deleted. Calculated and Standard/Required terms cannot be deleted.

Terms can only be deleted when the contract's status is **In Process**.

How to calculate terms:

1. Select **Calculate Terms** from the **Actions** drop-down list.

    This calculates (and in some cases, recalculates) and updates the values of the terms (with a Source of Calculated) whose values are defined by records in the Oracle Utilities Data Repository or by the Oracle Utilities Rules Language.

Terms can only be calculated when the contract's status is **In Process**.

Documents Tab

The Documents tab displays documents associated to the contract. This includes the following information for each document:

- **Class**: The class of the document (Optional, Standard, or Standard/Required).

- **Document Type**: The type of the document (from the Document Type table).

- **Image**: A link used to download the document.

- **Document ID**: The document ID.

- **Document Title**: The document's title.

- **Date Entered**: The date the document was added to the contract. This field defaults to the date the contract was created, but is updated when the document is added to the contract.

How to add an Optional or an additional Standard document:

1. Select the type of document from the Choose Document Type drop-down list (from the Document Type table in the Oracle Utilities Data Repository), and click **Add Document**.

   The **Upload Document** window opens.

2. Enter a **Document ID** for the document.

3. Enter a **Document Title** for the document.

4. Enter a **Document Type** using the **Browse** button (...). This button opens a dialog window that lists all the available document types. Click the **[...]** link for the appropriate type. The field is automatically populated.

5. Enter a **Document Category** using the **Browse** button (...). This button opens a dialog window that lists all the available document categories. Click the **[...]** link for the appropriate category. The field is automatically populated.

6. Enter the **Current Location** of the document. Clicking the **Browse** button opens **Choose File** dialog. Navigate to the document's location, select the document and click **Open**.

   The selected path and document appear in the **Current Location** field.

7. Click **Upload** to add the document to the contract.

8. The uploaded document appears on the Documents tab.

Documents can be added to the contract when it is at any Status.

How to add a document image to a Required or Standard document:

1. Click on the **Document Type** link of an existing document.

   The **Upload Document** window opens.

2. Enter the **Current Location** of the document. Clicking the **Browse** button opens **Choose File** dialog. Navigate to the document's location, select the document and click **Open**.

   The selected path and document appear in the **Current Location** field.

3. Click **Upload** to add the document to the contract.

4. The uploaded document appears on the Documents tab.

Documents can be added to the contract when it is at any Status.

How to edit an existing document:

1. Click the **Document Type** link.

   The **Upload Document** window opens.

2. Edit the **Document ID** for the document.

3. Edit the **Document Title** for the document.

4. Change the **Document Type** using the **Browse** button (...). This button opens a dialog window that lists all the available document types. Click the **[...]** link for the appropriate type. The field is automatically populated.

5. Change the **Document Category** using the **Browse** button (...). This button opens a dialog window that lists all the available document categories. Click the **[...]** link for the appropriate category. The field is automatically populated.

6. Change **Current Location** of the document or select a new document. Clicking the **Browse** button opens **Choose File** dialog. Navigate to the document's location, select the document and click **Open**.

   The selected path and document appear in the **Current Location** field.

7. Click **Upload** to add the document to the contract.

8. The edited document appears on the Documents tab.

Documents can only be edited when the contract's status is **In Process**.

How to delete a document:

1. Check the checkbox in the far left column for the document you wish to delete and click **Delete Document**. The document will no longer appear on the **Documents** tab.

Only documents whose Class is Optional or Standard can be completely deleted. If you delete a Standard/Required document, only the document image is deleted; the document record remains associated with the contract.

Documents can only be deleted when the contract's status is **In Process**.

How to download a document:

1. Click the **[...]** link in the **Image** column of the document you wish to download.

   The **File Download** dialog opens.

2. To open the file, click **Open**. To close the window without opening the file, click **Cancel**.

   The file will open using an appropriate application.

3. To save the file, click **Save**. To close the window without saving the file, click **Cancel**.

   The **Save As** dialog opens.

4. Select the destination and enter a name for the file and click **Save**. To close the window without saving the file, click **Cancel**.

Documents can be downloaded when the contract is at any Status.

Approvals Tab

The Approvals tab displays approvals associated to the contract. This includes the following information for each approval:

- **Approval Level**: The approval level for the approval.

- **Approval Status**: The current status of the approval. This can be one of Approved, Rejected, or Waiting.

- **Date Approved**: The date the approval was approved/rejected.

- **User**: The user who approved/rejected the approval.

- **Comments**: Additional added by the user concerning the approval.

A contract's approvals are created when the Ready for Approval action on the Actions drop-down list is selected. This also sets the contract's status to In Approval.

At any one time, only one approval will have a status of **Waiting**, indicating that it is the approval to be approved or rejected.

How to approve or reject an approval:

1. To approve the approval, click **Approve**. To reject the approval, click **Reject**.

   The Enter Note for Approval (or Reject) dialog opens.

2. Enter an optional note concerning the approval (or rejection) and click **OK**. To close the dialog without approving/rejecting the approval, click **Cancel**.

3. The status of the approval will change to **Approved** or **Rejected**, as appropriate, and the optional note will appear in the Comments column.

Approvals can only be approved or rejected when the contract's status is **In Approval.**

History Tab

The History tab displays actions performed on the contract, such as creating, submitting, revising, and executing the contract. This includes the following information for each action:

- **Creation Date**: The date the action was performed.

- **Type**: The type of action performed.

- **Revised By**: The user who performed the action.

- **Details**: Details about the action.

You can also add notes to the contract on this tab.

How to add an action:

1. Click **Add**.

   The **Add Contract History** window opens.

2. Enter an **Action Time** for the action. The Action Time defaults to the current system time. To enter a date, enter the date manually or click the arrow and select the date using the calendar control.

3. Enter an **Action Type**.

4. Edit the **User ID** (optional). This defaults to the current user ID.

5. Enter a description for the action in the **Details** field.

6. Click **Add** to save the action. To close the window without saving changes, click **Cancel**.

   The note appears on the **History** tab.

You can add notes to the contract when it is at any Status.

Related Contracts Tab

The Related Contracts tab displays a tree diagram that illustrates the relationship between the contract and any related contracts, such as subcontracts, amendments, or a parent contract. The Contract ID, Revision #, Contract Type, Description, and Start and Stop Dates are displayed for each contract.

Note: The Related Contracts tab is view-only.

How to view a related contract:

1. Click the **ID** link of the related contract you wish to view.

2. The selected contract appears on the **Basics Tab**.

How to add a contract relationship:

1. Click **Add**.

   The **Contracts** window opens.

2. To search for an existing contract, enter the search criteria and click **Search**. See **Searching Contracts** for more information.

3. To add a new contract, click **Add**.

   The **Create Contract** window opens.

   Enter the details for the new contract. See **Creating Contracts** for more information.

Work Queue Detail Tab

The Work Queue Detail tab displays work queue items and approvals related to the contract. The Approvals section displays work queue approvals associated to the contract. The Items section displays work queue items associated to the contract. For each item or approval listed, the Work Queue Detail tab displays the following:

- **UID**: The unique ID of the work queue item

- **Work Queue Type**: The work queue type associated with the item

- **Work Queue**: The work queue associated with the item

- **Priority**: The priority of the work queue item

- **Work By Time**: The date by which the work queue item should be resolved/approved.

- **Hints**: Hints associated with the work queue item. To view a hint, click the hint link.

If there is more than one page of items, you can move between pages using the ◀ and ▶. buttons. To change the number of items that appears in each section, enter the number in the **Rows** field.

Viewing and Working with Work Queue Items and Approvals

You can view work queue items and approvals for either the current contract, or for the current contract and all related subcontracts. You can also view details for each work queue item.

- To filter the list of items displayed, select **Current Contract** or **All Sub Contracts** from the **Show** drop-down list.

  In the Item section, you can also filter by Open or Closed items.

- To view Hint Details and an Item History for an item, click the plus sign (+) next to the item you wish to view.

- To view and edit an item, click the **UID** for the item. The selected item will display in the Work Queue Item View screen.

You can also perform other actions (such as approve/reject, resolve, close, etc.) on work queue items

How to perform an action on a work queue item:

1. Check the checkbox for the approvals or items you wish to work on, or click the UID link for the item.

2. Click the appropriate action.

   Available actions include:

   - Assign

   - Unassign

   - Approve (Approvals only)

   - Reject (Approvals only)

   - Resolve (Items only)

   - Close

See **Chapter 10**: **Working with Work Queues** in the *Oracle Utilities Energy Information Platform User's Guide* for more information about working with work queue items and approvals.

Contract Actions

The Actions drop-down list on the Contact window lists the available actions that can be performed on contracts, including:

- **Save**
- **Save w/Comments**
- **Calculate Terms**
- **View Calculations**
- **View Contract**
- **Ready for Approval**
- **Submit Contract**
- **Execute Contract**
- **Terminate Contract**
- **Revise Contract**

Note: The descriptions below describe the default behavior for each of the actions. The specific tabs on which each action is available, as well as the Statuses and External Statuses at which each action is permissible can be modified. Refer to the *Oracle Utilities Billing Component Installation and Configuration Guide* or *Oracle Utilities Quotations Management Installation and Configuration Guide* for more information.

Save

The **Save** action saves the contract and any changes made on the **Basics Tab**. This action is only available from the Basics Tab.

Save w/Comments

The **Save w/Comments** action saves the contract and any changes made on the **Basics Tab**, and allows the user to enter comments related to the contract. Comments appear on the **History Tab**. This action is only available from the Basics Tab.

Calculate Terms

The Calculate Terms action calculates (and in some cases, recalculates) and updates the values of the terms (with a Class of Calculated) whose values are defined by records in the Oracle Utilities Data Repository or by the Oracle Utilities Rules Language.

This action can be performed from any tab, and but only when the contract's status is **In Process**.

View Calculations

The View Calculations action performs any calculations associated with the contract and displays the results.

This action can be performed from any tab, and when the contract is at any Status.

When you click the **View Calculation**, the Process window opens. After the calculations are complete, the Report Generate window opens.

Contract calculations are displayed using report templates. Oracle Utilities Quotations Management includes a default contract calculations template that can customized to suit your specific needs.

When the contract calculations are complete, the contract calculations open.

View Contract

The **View Contract** action generates an contract based on the Items, Terms, and Documents specified on the Contract screen.

This action can be performed from any tab, and when the contract is at any Status.

When you select **View Contract** action on the Actions drop-down list, the Report Generate window opens.

Contracts are created using report templates. Oracle Utilities Quotations Management and Oracle Utilities Billing Component - Contract Management both include a default contract template that can customized to suit your specific needs.

When the contract generation is complete, the contract window opens.

Ready for Approval

The **Ready for Approval** action sets the contract's Status to **In Approval,** and if applicable, generates work queue items for the contract's approvals.

This action can be performed from any tab, but only when the contract's status is **In Process**.

Submit Contract

The **Submit Contract** action sets the contract's Status to **Submitted**.

This action can be performed from any tab, but only when the contract's status is **In Approval**.

Execute Contract

The **Execute Contract** action sets the contract's Status to **Executed**.

This action can be performed from any tab, but only when the contract's status is **Submitted**.

Terminate Contract

The **Terminate Contract** action sets the contract's Status to **Terminated**.

This action can be performed from any tab, but only when the contract's status is **In Process**, **In Approval**, **Submitted**, or **Executed**.

Revise Contract

The **Revise Contract** action creates a copy of the current contract with an updated Revision number (current revision number plus 1), and sets the original contract's Status to **Revised**, and the revision contract's Status to **In Process**.

This action can be performed from any tab, but only when the contract's status is anything other than **Revised**.

Part Three

Receivables Management - Oracle Utilities Receivables Component

Part Three describes Oracle Utilities Receivables Component, used for the receivables management functions of Oracle Utilities Billing Component, and contains the following chapters:

- **Chapter 14**: **Oracle Utilities Receivables Component Overview**

- **Chapter 15**: **Viewing Financial and Collections Data**

- **Chapter 16**: **Managing Financial Transactions with Oracle Utilities Receivables Component**

- **Chapter 17**: **Receivables Management Work Queues**

- **Chapter 18**: **Receivables Management Controls**

- **Chapter 19**: **Collections**

- **Chapter 20**: **Viewing Oracle Utilities Receivables Component Reports**

Chapter 14

Oracle Utilities Receivables Component Overview

This chapter provides a broad overview of the Oracle Utilities Receivables Component user interface, including:

- **The Oracle Utilities Receivables Component User Interface**

- **Oracle Utilities Receivables Component User Interface Functions**

The Oracle Utilities Receivables Component User Interface

The Oracle Utilities Receivables Component user interface is a web-based application used to perform a number of functions available through the Oracle Utilities Receivables Component. This includes searching and viewing account/customer information, managing transactions, working with work queue items and controls, and viewing reports.

How the Oracle Utilities Receivables Component User Interface Is Used

The Oracle Utilities Receivables Component user interface is used through Microsoft Internet Explorer (Version 5.01 with Service Pack 1 or later). The application is a set of interactive web pages that allow access to and (in the case of some functions) manipulation of data stored in the Oracle Utilities Data Repository, the same data accessed and used by other Oracle Utilities applications such as Oracle Utilities Billing Component and Data Manager.

Later chapters in this book describe how to perform the various functions available through the Oracle Utilities Receivables Component user interface.

Oracle Utilities Receivables Component User Interface Functions

The Oracle Utilities Receivables Component user interface provides a number of functions to users, including the following:

Account Management

The Account Management functions allow users to search and view account, customer, meter, and recorder data based on specified search criteria.

Transactions

The Transaction functions allow users to perform a number of account and transaction maintenance functions, including the following:

Installment Plans

Installment plan functions include the ability to create and cancel installment plans for accounts.

Deposits

Deposit functions include the ability to post, cancel, apply, or unapply deposits for an account and to post and cancel deposit interest.

Payments

Payments functions include transfer of payments between accounts and cancelling payments due to insufficient funds (NSF), and optionally to assess a penalty fee to the account for the cancelled payment.

Adjustments

Adjustments functions include the ability to post and cancel adjustment credit or charge transactions against an account.

Refunds

Refunds functions include the ability to post and cancel refund charge transactions against an account, as well as update the status of refunds in the system.

Write Offs

Write Off functions include the ability to post and cancel write-off credit or charge transactions against an account.

Balance Transfers

Balance transfers functions include the ability to transfer and return balances between accounts.

Work Queues

The Work Queues function is used to process work queue items associated with transactions.

Controls

The Controls function is used to view control items associated with transactions based on specified search criteria (date, control type, etc.).

Collections

The Collections functions (accessible from the Collections menu) allow users to perform a number of collections-related functions, including the following:

Collections Arrangements

The Collections Arrangements function is used to create and maintain collections arrangements and related payment arrangements for accounts.

Collections Exemptions

The Collections Exemptions function is used to create and maintain collections exemptions for accounts.

Work Queue

The Work Queue function is used to view and work with work queue items associated with collections processes.

Manual Submission

The Manual Submission function is used to manually initiate a collections process for an account.

Reports

The Collections reports include a number of reports detailing collections-related information.

Reports List

The Reports List function allows users to view reports based on data processed by the Oracle Utilities Receivables Component and the Oracle Utilities Receivables Component user interface. These include the following:

- **Payment Posting Report**

- **Issue Refund Report**

- **Account Balance Report**

- **AR Aging Report**

- **G/L Activity Report**

- **System Balance Report**

- **Market Participant Aging Report**

- **Performance Rating Summary Report** (Collections)

- **Work Queue Summary Report** (Collections)

- **Collection Exemption Summary Report** (Collections)

- **Collection Activity Summary Report** (Collections)

- **Process Status Report** (Collections)

Chapter 15

Viewing Financial and Collections Data

Oracle Utilities Energy Information Platform allows users to search for and view information about selected customers and accounts. When Oracle Utilities Billing Component (which includes Oracle Utilities Receivables Component) is installed, this information includes account-specific financial and collections data. This chapter describes how to view financial and collections data from the Account View, and includes the following:

- **Viewing Financial Data**

- **Viewing Collections Data**

Viewing Financial Data

The Financials clip on the Account dashboard displays the account's Receivable Status, Current Balance, Past Due Balance, and Deferred Balance.

To view more detailed financial data, click **Details**. The Financials screen opens.

The Financials screen displays financial information about the account on three panes: the Account Balance pane, the Financial Profile pane, and the Detailed View pane.

> **Note:** The information displayed on the Financials screen is *View-only*. You cannot change, update, delete, or modify this data in any way.

Account Balance Pane

The Account Balance pane contains account balance information about the account, including:

- **Receivable Status**: the account's receivable status, including Current, Past Due, Collections, Uncollectible, or Unrefundable

- **Current Balance**: the account's current balance

- **Past Due Balance**: any past due amount

- **Deferred Balance**: the amount of the variance on the Budget Plan, if any.

Financial Profile Pane

The Financial Profile pane displays records associated with the account in a "tree" format. This includes any service plans, autopayment plans, transactions or other financial records associated with the account.

Each of the sections below the account (such as Service Plans) can be expanded to display specific records by clicking the arrow. To collapse the tree so that fewer levels of detail are shown, click the arrow next to individual item.

When you click on an item in the tree (Service Plans, Autopay Plans, Transactions, etc), detailed information about the selected item appears in the Detailed View pane.

Detailed View Pane

The Detailed View pane displays information based on selected items in the Financial Profile pane. The default view is AR aging information, listing balances for different receivable types grouped by a number of day ranges. The specific contents of the Detailed View pane are determined by the item(s) selected in the Financial Profile pane, and include the following:

Aging

The Aging pane displays balances for different receivable types grouped by day ranges (0-15, 16-30, 31-45, etc.). The information in this pane is based on the Invoice Date on the account's transaction records. Transactions that have an Invoice Date of NULL are grouped in the 0-15 range.

Service Plans

The Service Plans pane displays records identifying individual service plans from the Service Plan Table including:

- **Type:** the service plan type.

- **LDC Acc:** the local distribution company (LDC) account number.

- **Start/Stop:** the start/stop dates of the service plan. A future stop date is allowed. A blank Stop date indicates that there is no known date when the service plan is to terminate.

- **Op. Co:** the operating company associated with the service plan.

- **Juris:** the jurisdiction associated with the service plan.

Service Plan

The Service Plan pane displays data concerning individual service plans, including:

- **Service Type:** the service plan type.

- **LDC Account:** the local distribution company (LDC) account number.

- **Service Address:** the address associated with the service plan.

- **Start Date/Stop Date:** the start/stop dates of the service plan. A future stop date is allowed. A blank Stop date indicates that there is no known date when the service plan is to terminate.

- **Operating Company:** the operating company associated with the service plan.

- **Jurisdiction:** the jurisdiction associated with the service plan.

Budget Plan

The Budget Plan section displays records from the Budget Plan Table related to the Service Plan, including:

- **Type:** the budget plan type,

- **Amount:** the amount associated with the budget plan,

- **Variance:** the variance of the budget plan,

- **Start Date/Stop Date:** the start/stop dates of the budget plan. A future stop date is allowed. A blank Stop date indicates that there is no known date when the service plan is to terminate,

- **True-up Date:** the date on which the next budget bill true-up transaction should occur.

Deposits

The Deposits pane displays records from the Deposits Table in the Oracle Utilities Data Repository, including:

- **Date:** the date of the deposit.

- **Amount:** the amount of the deposit.

- **Principal Bal:** the current balance of the deposit, less any accrued interest.

- **Interest Bal:** the amount of interest earned on the deposit.

- **Last Paid Date:** the last date a payment was made against the deposit

- **Last Int Date:** the last date interest was accrued against the deposit

- **Last App Date:** the last date any portion of the deposit balance was applied to the account's balance.

- **Interest Rate:** the interest rate for the deposit.

Deposit

The Deposit pane displays data concerning individual deposits, including:

- **Date:** the date of the deposit.

- **Amount:** the amount of the deposit.

- **Principal Balance:** the current balance of the deposit, less any accrued interest.

- **Interest Balance:** the amount of interest earned on the deposit.

- **Interest Rate:** the interest rate for the deposit.

- **Last Paid Date:** the last paid date of the deposit.

- **Last Int Date:** the last date on which interest accrued for the deposit.

- **Last App Date:** the date on which the deposit was last applied.

Installment Plans

The Installment Plan pane displays records from the Installment Plans Table in the Oracle Utilities Data Repository, including:

- **Date:** the start date of the installment plan.

- **Total # Insts:** the total number of installments in the plan.

- **Remaining # Insts:** the remaining number of installments in the plan.

- **Total Amt:** the total amount of the installment plan.

- **Remaining Amt:** the remaining amount of the installment plan.

- **1st Inst Amount:** the amount of the first installment in the plan (if different than the Installment Amount).

- **Inst Amount:** the amount of the installment in the plan.

Installment Plan

The Plan pane displays data concerning individual installment plans, including:

- **Date:** the start date of the installment plan.

- **Total # Insts:** the total number of installments in the plan.

- **Remaining # Insts:** the remaining number of installments in the plan.

- **Total Amt:** the total amount of the installment plan.

- **Remaining Amt:** the remaining amount of the installment plan.

- **1st Inst Amt:** the amount of the first installment in the plan (if different than the Installment Amount).

- **Inst Amt:** the installment amount

- **Stop Date:** the stop date of the installment plan.

- **Receivable Type:** The receivable type associated with the installment plan.

- **Charge Type:** The charge type associated with the installment plan.

- **Operating Company:** The operating company associated with the installment plan.

- **Jurisdiction:** The jurisdiction associated with the installment plan.

AutoPay Plans

The AutoPay Plans pane displays records from the Auto Payment Plan Table including:

- **Payment Method:** the payment method associated with the autopayment plan.

- **Institution:** the name of the financial institution used for direct debit automatic payment or the name of the institution that issued the Visa or MasterCard being used for automatic payment.

- **Account Name:** the name on the bank or credit card account used for automatic payment.

- **Acc No:** the account number for the bank or credit card account used for automatic payment.

- **Postal Code:** the postal code associated with the account.

- **Start Date/Stop Date:** the start/stop dates of the autopayment plan. A future stop date is allowed. A blank Stop date indicates that there is no known date when the service plan is to terminate.

- **Exp Date:** the expiration date for credit card accounts.

- **RTN:** the routing transit number used for direct debit from checking accounts.

AutoPay Plan

The AutoPay Plan pane displays data about specific automatic payment plans, including:

- **Payment Method:** the payment method associated with the autopayment plan.

- **Institution:** the name of the financial institution used for direct debit automatic payment or the name of the institution that issued the Visa or MasterCard being used for automatic payment.

- **Account Name:** the name on the financial institution or credit card account used for automatic payment.

- **Account No:** the account number for the financial institution or credit card account used for automatic payment.

- **Postal Code:** the postal code associated with the account.

- **Start Date/Stop Date:** the start/stop dates of the autopayment plan. A future stop date is allowed. A blank Stop date indicates that there is no known date when the autopayment plan is to terminate.

- **Expiration Date:** the expiration date for credit card accounts.

- **Routing Number:** the routing transit number used for direct debit from checking accounts.

- **Autopayments**: a listing of the automatic payments associated with the automatic payment plan, including: the Date, Amount, Batch No, Cancel Time, and Status of each.

Assistance Plans

The Assistance Plans pane displays records from the Assistance Plans table, including:

- **Plan ID:** the identifier of the assistance plan in the system.

- **Start:** the start date of the assistance plan.

- **Stop:** the stop date of the assistance plan.

Assistance Plan

The Assistance Plan pane displays data concerning individual assistance plans, including:

- **Plan ID:** the identifier of the assistance plan in the system.

- **Start Date:** the start date of the assistance plan.

- **Stop Date:** the stop date of the assistance plan.

- **Pledge Details:** individual assistance pledges associated with the assistance plan, including: the Pledge Date, Pledge Amount, Received Date, and Received Amount of each

Collection Agencies

The Collection Agencies pane displays records from the Collection Agency table, including:

- **Agency ID:** the identifier of the collection agency in the system.

- **Type:** the type of collection agency.

- **Start:** the start date of the collection agency.

- **Stop:** the stop date of the collection agency.

Collection Agency

The Collection Agency pane displays data concerning individual collection agencies, including:

- **Agency ID:** the identifier of the collection agency in the system.

- **Type:** the type of collection agency.

- **Start:** the start date of the collection agency.
- **Stop:** the stop date of the collection agency.
- **Fee:** the fee, if any, associated with the collection agency.
- **Comments**: optional comments for the collection agency.

Collection Arrangements

The Collection Arrangements pane displays records from the Collection Arrangements table, including:

- **Payments:** the number of payments associated with the collection arrangement.
- **Total Amount:** the total amount of the collection arrangement.
- **Status:** the status of collection arrangement.
- **Start:** the start date of the collection arrangement.
- **Stop:** the stop date of the collection arrangement.

Collection Arrangement

The Collection Arrangement pane displays data concerning individual collection arrangements, including:

- **Payments:** the number of payments associated with the collection arrangement.
- **Total Amount:** the amount of the collection arrangement.
- **Start Date:** the start date of the collection arrangement.
- **Stop Date:** the stop date of the collection arrangement.
- **Status:** the status of collection arrangement.
- **Modification Date**: The date on which the collection arrangement was last modified.
- **Document Date:** The date on which documents regarding the collection arrangement were sent.
- **Payment Details:** individual payments associated with the collection arrangement, including: the Date Due and Amount Due of each.

Refunds

The Refunds pane displays records from the Refunds table, including:

- **Type:** the type of refund.
- **Reason:** the reason for the refund.
- **Amount:** the amount of the refund.
- **Status:** the status of the refund.
- **Check #:** the check number for the refund (if applicable).
- **Routing #:** the routing number for the refund (if applicable).
- **Send Date:** the date the refund was sent.
- **Issue Date:** the date the refund was issued.
- **Cashed Date:** the date the check issued for the refund was cashed.
- **Void Date:** the date the refund was voided.
- **Check Acc #:** the checking account number for the check issued for the refund.
- **Institution:** the name of the financial institution associated with the refund.

Refund

The Refund pane displays data concerning individual refunds, including:

- **Type:** the type of refund.

- **Reason:** the reason for the refund.

- **Amount:** the amount of the refund.

- **Status:** the status of the refund.

- **Check #:** the check number for the refund (if applicable).

- **Routing #:** the routing number for the refund (if applicable).

- **Send Date:** the date the refund was sent.

- **Issue Date:** the date the refund was issued.

- **Cashed Date:** the date the check issued for the refund was cashed.

- **Void Date:** the date the refund was voided.

- **Check Acc #:** the checking account number for the check issued for the refund.

- **Institution:** the name of the financial institution associated with the refund.

Transactions

When you select Transactions from the Financials Tree, the Transactions window opens.

The Transactions window displays transaction records from the Transaction Table including:

- ✖ indicates the transaction has been cancelled.

- **Date:** the date the transaction was posted to the system.

- **Description:** an optional description of the transaction.

- **Debits:** the amount of the transaction for debit transactions.

- **Credits:** the amount of the transaction for credit transactions.

- **Balance:** the balance of the transaction.

- **Charge Type:** the charge type associated with the transaction.

- **Receivable Type:** the receivable type associated with the transaction.

- **Due Date:** the due date of the transaction (if a charge).

- **Rev. Month:** the revenue month associated with the transaction.

- **User ID:** the user ID of the user who posted the transaction.

- **Invoice Id:** the invoice ID associated with the transaction (optional).

- **Invoice Date:** the invoice date associated with the transaction (optional).

- **Transfer To:** The transaction to which the transaction was transferred, if applicable.

- **Transfer From:** The transaction from which the transaction was transferred, if applicable.

- **Cancel User/Cancel Reason:** the user ID of the user who cancelled the transaction (if applicable), and the reason the transaction was cancelled (if applicable).

How to view transaction details:

1. Click on the **Date** of the transaction you wish to view. The Details window opens.

How to export the contents of the Transactions window:

You can export the contents of the Transactions window

1. Click the **Export** link. The File Download dialog opens.

2. Select either **Open this file from its current location** or **Save this file to disk** as appropriate, and click **OK**.

3. If you selected the **Open this file from its current location** option, the file will open a *.csv file compatible application (such as Microsoft Excel).

4. If you selected the **Save this file to disk option**, enter the file name and select the destination for the file.

Viewing Collections Data

The Collections clip on the Account dashboard displays the account's Collection Status, Collectible Balance, and Performance Score.

To view more detailed collections data, click **Details**. The Collections screen opens.

The Collections screen displays collections-related information about the account on three panes: the Collections Information pane, the Collections Profile pane, and the Detailed View pane.

> **Note:** The information displayed on the Collections screen is *View-only*. You cannot change, update, delete, or modify this data in any way.

Collections Information Pane

The Collections Information pane contains collections-related information about the account, including:

- **Receivable Status**: the account's current receivable status, including Current, Past Due, Collections, Inactive Collections, Uncollectible, or Unrefundable

- **Collection Status**: the account's current collection status

- **Active Arrangement**: whether or not the account has an active collection arrangement. If yes, click **YES** to view the Collections Arrangements for the account.

- **Active Exemption**: whether or not the account has an active collection exemption. If yes, click YES to view the Collections Exemptions for the account.

- **Total Balance**: the account's current balance

- **Past Due Balance**: any past due amount

- **Performance Score**: a score that represents the account's payment behavior, based on the account's past payment and collection history.

- **Special Handling Code**: a code that indicates if the account has required special handling

Collections Profile Pane

The Collections Profile pane displays different types of collections-related data associated with the account. This includes aging, Collection Agencies, and Collection History.

When you click on an item in the tree, detailed information about the selected item appears in the Detailed View pane.

Detailed View Pane

The Detailed View pane displays information based on selected items in the Collections Profile pane. The default view is AR aging information, listing balances for different receivable types grouped by a number of day ranges. The specific contents of the Detailed View pane are determined by the item(s) selected in the Collections Profile pane, and include the following:

Aging

The Aging pane displays balances for different receivable types grouped by day ranges defined in the Factor and Factor Value tables (ex: 0-15, 16-30, 31-45, etc.). See **Factor and Factor Value Tables** on page 9-5 in the *Oracle Utilities Billing Component User's Guide* for more information about defining the day ranges on the Aging pane. If no day ranges are defined in the Factor and Factor Value tables, the default is one range labeled "0+".

The information in this pane is based on the Invoice Date on the account's transaction records. Transactions that have an Invoice Date of NULL are grouped in the first range.

Collection Agencies

The Collection Agencies pane displays collection agencies associated with the account, including:

- **Agency ID:** the identifier of the collection agency in the system.

- **Type:** the type of collection agency.

- **Start:** the date the account was assigned to the collection agency.

- **Stop:** the date the account was removed from the collection agency.

Collection History

The Collections History pane displays collections activities for the account, including:

- **View:** an icon that allows you to view details related to the activity. For collections process activities that created messages, this is the message payload in XML format. For other activities, the view displays detailed information about the activity. For example, for a collection arrangement, this would display the total amount of the arrangement, the arrangement type, and the number of payments.

  Click the icon to view the activity.

- **Issued:** the date the activity was issued

- **Implementation:** the implementation of the activity

- **State:** the current state of the activity. This is only populated for activities created by a collections process.

- **Completed:** whether or not the activity has been completed

- **Activity:** the type of activity

- **Source:** the source of the activity. For activities created by a collections process, this is the name of the process. For other types of activities, this is the type of activity, such as Arrangement Review Process, Exemption Review Process, etc.

Chapter 16

Managing Financial Transactions with Oracle Utilities Receivables Component

This chapter describes the Transactions functionality of the Oracle Utilities Receivables Component user interface, including:

- **Transaction Function Overview**

- **Working with Transactions**

- **Installment Plans**

- **Deposits**

- **Payments**

- **Adjustments**

- **Refunds**

- **Write Offs**

- **Balance Transfers**

The use of each of these functions is described in this chapter. More information about how these functions are processed by the Oracle Utilities Receivables Component can be found in **Chapter 6**: **Billing** and **Chapter 8**: **Maintenance**, in the *Oracle Utilities Billing Component Installation and Configuration Guide. Volume 2*.

Transaction Function Overview

The Transactions functionality of the Oracle Utilities Receivables Component user interface includes the ability to process a variety of transaction types. Below is an overview of each.

Installment Plans

Create Installment Plan

This function creates an installment plan related to a previously posted deferred charge transaction. This process can alternatively occur as a single transaction if the installment plan is related to the deferred charge when the deferred charge is initially posted. See **Create Installment Plan** on page 16-6 for more information.

Cancel Installment Plan

This function cancels a previously created installment plan. See **Cancel Installment Plan** on page 16-7 for more information.

Deposits

Post Deposit

This function posts either a non-deferred or deferred charge transaction against a specified account. The default is non-deferred, since a deferred deposit would typically have an installment plan created for it. See **Post Deposit** on page 16-8 for more information.

Cancel Deposit

This function cancels a previously posted deposit transaction. See **Cancel Deposit** on page 16-9 for more information.

Apply Deposit

This function posts non-deferred credit transactions for a specified account representing the principal balance and/or interest balance associated with the deposit that is applied to the account. See **Apply Deposit** on page 16-10 for more information.

Unapply Deposit

This function cancels a previously posted deposit application transaction. See **Unapply Deposit** on page 16-10 for more information.

Post Deposit Interest

This function posts deferred credit transactions for a specified account representing an amount of interest accrual for an associated deposit. See **Post Deposit Interest** on page 16-12 for more information.

Cancel Deposit Interest

This function cancels a previously posted deposit interest transaction. See **Cancel Deposit Interest** on page 16-12 for more information.

Payments

Transfer Payment

This function transfers individual payments between accounts. See **Transfer Payment** on page 16-14 for more information.

Process NSF

This function cancels a payment due to insufficient funds (NSF), and optionally, to assess a penalty fee to the account for the cancelled payment. See **Process NSF** on page 16-15 for more information.

Adjustments

Post Adjustment

This function posts an adjustment transaction credit or charge against an account. See **Post Adjustment** on page 16-17 for more information.

Cancel Adjustment

This function cancels a previous adjustment. See **Cancel Adjustment** on page 16-18 for more information.

Refunds

Post Refund

This function posts a refund transaction charge against an account. See **Post Refund** on page 16-20 for more information.

Cancel Refund

This function cancels a previous refund. See **Cancel Refund** on page 16-21 for more information.

Update Refund

This function updates the status of a refund. See **Update Refund** on page 16-22 for more information.

Write Offs

Post Write Off

This function posts a write-off transaction credit or charge against an account. See **Post Write Off** on page 16-23 for more information.

Cancel Write Off

This function cancels a previous write-off transaction. See **Cancel Write Off** on page 16-24 for more information.

Write Off Account

This function posts a write-off transaction for each outstanding (balance > 0) transaction that has been previously posted for the account. See **Write Off Account** on page 16-25 for more information.

Write On Account

This function cancels all previous write-off transactions for the account. See **Write On Account** on page 16-26 for more information.

Balance Transfers

Transfer Balance

This function posts a balance transfer transaction for each outstanding transaction (balance > 0) that has been previously posted for the account. See **Transfer Balance** on page 16-27 for more information.

Return Balance

This function cancels all previous balance transfer transactions for the account. See **Return Balance** on page 16-28 for more information.

Working with Transactions

This section provides general information related to working with transactions, including:

- **Selecting Accounts**
- **Refreshing Transaction Data**

Selecting Accounts

Before you can work with transactions using the Oracle Utilities Receivables Component, you must first select the account(s) you wish to work with. If an account has not been previously selected, you can select an account using the following procedure.

How to select accounts when working with transactions:

1. Click the Search Account button (...) at the top of the transaction screen. This opens the Accounts window.

2. Enter the search criteria in the appropriate field.

   You can search based on the customer Name, Customer ID, or an Account ID associated with the account. You can also search based on Account Status, Operating Company, and/or Jurisdiction. To search on one of these, select it from the drop-down lists. In addition, you can search based on contact information such as phone number, address, city/state, etc.

   You can use the percent sign ("%") as a wildcard character when entering values in any of the fields. For instance, if you want to search for all accounts whose name begins with the letter G, you could enter "G%" in the Name field, and the search would retrieve all users that begin with the letter G. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all accounts whose name ends with the letter t, etc.).

3. Specify how the search results are displayed.

   - Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 for more information.

   - Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To clear all the search fields, click **Reset**.

5. The Accounts window displays the search results.

6. Click on the Account ID of the account you wish to use. If there is more than one page of search results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appear on each page, enter the number in the **Rows** field.

7. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the transaction screen.

Refreshing Transaction Data

Most of the transaction screens include a list of transactions related to the selected account(s). This data is retrieved from the Oracle Utilities Data Repository when the account is selected, and include transactions of all kinds, as well as payments. To refresh the data on transaction lists, click the Refresh icon ( ).

Installment Plans

When you select the Installment Plans option from the Financials menu, the Installment Plans screen opens.

The Installment Plan screen includes the following functions:

- **Create Installment Plan**
- **Cancel Installment Plan**

To access one of the functions, select the appropriate tab on the Installment Plans screen.

Create Installment Plan

The Create Installment Plan function creates an installment plan related to a previously posted deferred charge transaction. When you select the Create tab on the Installment Plans screen, the Create Installment Plan screen opens.

Create Installment Plan Summary

Creating an installment plan involves the following steps:

- Select the account for the installment plan,
- Select the deferred charge transaction that the installment will be related to,
- Enter the specific data concerning the installment plan, and
- Create the installment plan.

How to Create an Installment Plan:

1. Select **Financials-›Transactions-›Installment Plans** and select the Create tab.

    The Create Installment Plan screen opens.

2. If the account hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deferred charge transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the transaction to which the installment plan will be related.

4. Fill in the appropriate data in the Installment Plan pane. This includes:

    - **Number of Installments:** enter the number of installments for the installment plan,
    - **Installment Amount:** enter the amount of each installment for the installment plan,
    - **First Installment Amount:** enter the amount of the first installment for the installment plan (only necessary if different than the installment amount),
    - **Transaction ID:** select the appropriate Transaction ID from the drop-down list,
    - **Receivable Type:** select the appropriate receivable type for the installment plan,
    - **Charge Type:** select the appropriate charge type for the installment plan,
    - **Operating Company:** select the appropriate operating company for the installment plan, and
    - **Jurisdiction:** select the appropriate jurisdiction for the installment plan.

5. Click **Process** to create the installment plan.

6. A dialog box will appear asking you to confirm the installment plan. Verify the information concerning the installment plan. To confirm, click **OK**. To cancel, click **Cancel**.

7. To create additional installment plans for the same account, repeat steps 4 through 6 for each additional installment plan. To create additional installment plans for different accounts, repeat steps 1 through 6 as appropriate.

Cancel Installment Plan

The Cancel Installment Plan function cancels a previously created installment plan. When you select the Cancel tab on the Installment Plans screen, the Cancel Installment Plan screen opens.

Cancel Installment Plan Summary

Cancelling an Installment Plan involves the following steps:

• Select the account associated with the installment plan,

• Select the installment plan, and

• Cancel the installment plan.

How to cancel an installment plan:

1. Select **Financials-›Transactions-›Installment Plans** and select the Cancel tab.

   The Cancel Installment Plan screen opens.

2. If the account hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of installment plans associated with the selected account will appear in the Installment Plan box. If there is more than one page of installment plans, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the installment plan to be cancelled.

4. Click **Process** to cancel the installment plan.

5. A dialog box will appear asking you to confirm the process. Verify the Account and Installment Plan on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

6. To cancel additional installment plans for the same account, repeat steps 3 through 5 for each additional installment plan. To cancel additional installment plans for different accounts, repeat steps 1 through 5 as appropriate.

Deposits

When you select the Deposits option from the Financials Menu, the Deposits screen opens.

The Deposits screen includes the following functions:

- **Post Deposit**

- **Cancel Deposit**

- **Apply Deposit**

- **Unapply Deposit**

- **Post Deposit Interest**

- **Cancel Deposit Interest**

To access one of the functions, select the appropriate tab on the Deposits screen.

Post Deposit

The Post Deposit function posts either a non-deferred or deferred charge transaction against a specified account. The default is non-deferred, since a deferred deposit would typically have an installment plan created for it. When you select the Post tab on the Deposits screen, the Post Deposit screen opens.

Post Deposit Summary

Posting a refund involves the following steps:

- Select the account to which the deposit is to be posted,

- Enter the appropriate data for the deposit, and

- Post the deposit.

How to post a deposit:

1. Select **Financials-›Transactions-›Deposits** and select the Post tab.

   The Post Deposit screen opens.

2. If the account to which the deposit is to be posted hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen.

3. Fill in the appropriate data for the deposit, including:

   - **Amount:** enter the amount of the deposit,

   - **Transaction ID:** select the appropriate transaction ID for the deposit,

   - **Interest Rate** (optional): enter the interest rate for the deposit,

   - **Receivable Type:** select the appropriate receivable type for the deposit,

   - **Charge Type:** select the appropriate charge type for the deposit,

   - **Installment Plan:** if the deposit is related to an installment plan, check the Installment Plan checkbox and fill in the appropriate data to create the installment plan:

     - **Number of Installments:** enter the number of installments for the installment plan,

     - **Installment Amount:** enter the amount of each installment for the installment plan,

     - **First Installment Amount:** enter the amount of the first installment for the installment plan (only necessary if different than the installment amount),

- **Transaction ID:** select the appropriate Transaction ID from the drop-down list,

- **Receivable Type:** select the appropriate receivable type for the installment plan,

- **Charge Type:** select the appropriate charge type for the installment plan,

- **Operating Company:** select the appropriate operating company for the installment plan, and

- **Jurisdiction:** select the appropriate jurisdiction for the installment plan.

4. Click **Process** to post the deposit.

5. A dialog box will appear asking you to confirm the deposit. Verify the information for the deposit on the dialog. To confirm the deposit, click **OK**. To cancel the deposit, click **Cancel**.

6. To post additional deposits for the same account, repeat steps 3 through 5 for each additional deposit. To post additional deposits for different accounts, repeat steps 1 through 5 as appropriate.

Cancel Deposit

The Cancel Deposit function is used to cancel a previously posted deposit transaction. When you select the Cancel tab on the Deposits screen, the Cancel Deposit screen opens.

Cancel Deposit Summary

Cancelling a deposit involves the following steps:

- Select the account associated with the deposit,

- Select the deposit to cancel,

- Select a cancel reason, and

- Cancel the deposit.

How to cancel a deposit:

1. Select **Financials-›Transactions-›Deposits** and select the Cancel tab.

   The Cancel Deposit screen opens.

2. If the account associated with the deposit hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deposits associated with the selected account will appear in the Deposits box. If there is more than one page of deposits, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the deposit to be cancelled. A list of transactions associated with the selected deposit will appear in the Transactions box.

4. Select the **Cancel Reason**.

5. Click **Process** to cancel the deposit.

6. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Cancel Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

7. To cancel additional deposits for the same account, repeat steps 4 through 6 for each additional deposit. To cancel additional deposits for different accounts, repeat steps 1 through 6 as appropriate.

Apply Deposit

The Apply Deposit function posts non-deferred credit transactions for a specified account representing the principal balance and/or interest balance associated with the deposit that is applied to the account. When you select the Apply tab on the Deposits screen, the Apply Deposit screen opens.

Apply Deposit Summary

Applying a deposit involves the following steps:

- Select the account associated with the deposit,

- Select the deposit to apply,

- Select a transaction ID, enter the amount, and

- Apply the deposit.

How to apply a deposit:

1. Select **Financials-›Transactions-›Deposits** and select the Apply tab.

   The Apply Deposit screen opens.

2. If the account associated with the deposit hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deposits associated with the selected account will appear in the Deposits box. If there is more than one page of deposits, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the deposit to apply. A list of transactions associated with the selected deposit will appear in the Transactions box.

4. Select the appropriate **Transaction ID**.

5. Enter the **Amount** of the deposit to be applied to the account.

6. Click **Process** to apply the deposit.

7. A dialog box will appear asking you to confirm the process. Verify the Account, Transaction ID, Amount, and Deposit on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

8. To apply additional amounts for the same account, repeat steps 4 through 7 for each additional deposit. To apply additional amounts for different accounts, repeat steps 1 through 7 as appropriate.

Unapply Deposit

The Unapply Deposit function cancels a previously posted deposit application transaction. When you select the Unapply tab on the Deposits screen, the Unapply Deposit screen opens.

Unapply Deposit Summary

Unapplying a deposit involves the following steps:

- Select the account associated with the deposit,

- Select the appropriate deposit,

- Select the previously posted Apply Deposit transaction to cancel,

- Select a cancel reason, and

- Unapply the deposit.

How to unapply a deposit:

1. Select **Financials-›Transactions-›Deposits** and select the Unapply tab.

   The Unapply Deposit screen opens.

2. If the account associated with the deposit hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deposits associated with the selected account will appear in the Deposits box. If there is more than one page of deposits, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the appropriate deposit. A list of transactions associated with the selected deposit will appear in the Transactions box.

4. Select the previously posted Apply Deposit transaction to cancel.

5. Select the appropriate **Cancel Reason**.

6. Click **Process** to unapply the deposit.

7. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Cancel Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

8. To unapply additional deposits for the same account, repeat steps 4 through 7 for each additional deposit. To unapply additional deposits for different accounts, repeat steps 1 through 7 as appropriate.

Post Deposit Interest

The Post Deposit Interest function posts deferred credit transactions for a specified account representing an amount of interest accrual for an associated deposit. When you select the Post Interest tab on the Deposits screen, the Post Deposit Interest screen opens.

Post Deposit Interest Summary

Posting deposit interest involves the following steps:

- Select the account associated with the deposit,
- Select the deposit to apply the interest to,
- Select a transaction ID, enter the amount, and
- Post the deposit interest.

How to post deposit interest:

1. Select **Financials-›Transactions-›Deposits** and select the Post Interest tab.

   The Post Deposit Interest screen opens.

2. If the account associated with the deposit hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deposits associated with the selected account will appear in the Deposits box. If there is more than one page of deposits, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the deposit to post the interest to. A list of transactions associated with the selected deposit will appear in the Transactions box.

4. Select the appropriate **Transaction ID**.

5. Enter the **Amount** of the deposit interest.

6. Click **Process** to post the deposit interest.

7. A dialog box will appear asking you to confirm the process. Verify the Account, Transaction ID, Amount, and original deposit on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

8. To post additional deposit interest for the same account, repeat steps 4 through 7 for each additional deposit. To post additional deposit interest for different accounts, repeat steps 1 through 7 as appropriate.

Cancel Deposit Interest

The Cancel Deposit Interest function cancels a previously posted deposit interest transaction. When you select the Cancel Interest tab on the Deposits screen, the Cancel Deposit Interest screen opens.

Cancel Deposit Interest Summary

Cancelling deposit interest involves the following steps:

- Select the account associated with the deposit interest to be cancelled,
- Select the appropriate deposit,
- Select the deposit interest transaction to cancel,
- Select a cancel reason, and
- Cancel the deposit interest.

How to cancel deposit interest:

1. Select **Financials-›Transactions-›Deposits** and select the Cancel Interest tab.

   The Cancel Deposit Interest screen opens.

2. If the account associated with the deposit interest to be cancelled hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of deposits associated with the selected account will appear in the Deposits box. If there is more than one page of deposits, you can move between pages using

   the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the appropriate deposit. A list of deposit interest transactions associated with the deposit account will appear in the Transactions box.

4. Select the **Deposit Interest** transaction to be cancelled from the list in the Transactions box.

5. Select the **Cancel Reason**.

6. Click **Process** to cancel the deposit interest.

7. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Cancel Reason on the dialog. To confirm the process, click 'OK'. To cancel the process, click 'Cancel'.

8. To cancel additional deposit interest transactions for the same account, repeat steps 4 through 7 for each additional deposit interest transaction. To cancel additional deposit interest transactions for different accounts, repeat steps 1 through 7 as appropriate.

Payments

When you select the Payments option from the Financials Menu, the Payments screen opens.

The Payments screen includes the following functions:

- **Transfer Payment**
- **Process NSF**

To access one of the functions, select the appropriate tab on the Payments screen.

Transfer Payment

The Transfer Payment function transfers individual payments between accounts. When you select the Transfer tab on the Payments screen, the Transfer Payment screen opens.

Transfer Payment Summary

Transferring a payment from one account to another involves the following steps:

- Select the account to transfer the payment from,
- Select the payment to be transferred,
- Select the account to transfer the payment to, and
- Transfer the payment.

How to Transfer a Payment from one account to another:

1. Select **Financials-›Transactions-›Payments** and select the Transfer tab.

   The Transfer Payment screen opens.

2. If the account to transfer the payment from hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of payments associated with the selected account will appear in the Payments box. If there is more than one page of payments, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

   Note: If you reached this screen by clicking the Lock & Transfer button on the Work Queue screen, the Payments box will only display the item selected from the Work Queue Items list.

3. Select the payment to be transferred.

4. Select the account to transfer the payment to as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the Account 2 pane, and a list of payments associated with the selected account will appear in the Payments box. If there is more than one page of payments, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

5. Click **Process** to transfer the payment.

6. A dialog box will appear asking you to confirm the transfer. Verify the account IDs and payment amount. To confirm the transfer, click **OK**. To cancel the transfer, click **Cancel**.

7. To transfer additional payments between the same accounts, repeat steps 3 through 7 (skipping step 4) for each additional payment. To transfer additional payments between different accounts, repeat steps 1 through 7 as appropriate.

Note: If you initiated the Transfer Payment by clicking the Lock & Transfer button on the Work Queue screen, once the transfer is completed successfully, the status of the Work Queue item is automatically changed to CLOSED.

Process NSF

The Process NSF function cancels payments due to insufficient funds, and optionally to assess a penalty fee to the account for the cancelled payment. When you select the Process NSF tab on the Payments screen, the Process NSF screen opens.

Process NSF Summary

Processing an insufficient funds (NSF) payment involves the following steps:

• Select the account associated with the NSF payment,

• Select the payment to be cancelled due to NSF,

• Select the reason for the NSF,

• Check the Apply NSF Penalty? checkbox (optional), and

• Process the NSF payment.

How to Process Insufficient Funds Payments:

1. Select **Financials-›Transactions-›Payments** and select the Process NSF tab.

    The Process NSF screen opens.

2. If the account associated with the NSF payment hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of payments associated with the selected account will appear in the Payments box. If there is more than one page of payments, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Payment** to be cancelled.

4. Select the **Reason** for the cancellation from the drop-down list.

5. If appropriate, check the **Apply NSF Penalty?** checkbox to assess a penalty fee to the account associated with the cancelled payment.

    The 'Apply NSF Penalty?' box only appears if the Reason selected is NSF. When the box appears, its default value is "checked". Optionally, the user may "uncheck" it.

6. Click **Process** to cancel the payment.

7. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, Reason, and Penalty information on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

8. To cancel additional payments for the same account, repeat steps 4 through and 7 for each additional payment. To cancel additional payments for different accounts, repeat steps 1 through 7 as appropriate.

Adjustments

When you select the Adjustments option from the Financials Menu, the Adjustments screen opens.

The Adjustments screen includes the following functions:

- **Post Adjustment**

- **Cancel Adjustment**

To access one of the functions, select the appropriate tab on the Adjustments screen.

Post Adjustment

The Post Adjustment function posts an adjustment transaction credit or charge against an account. When you select the Post tab on the Adjustments screen, the Post Adjustment screen opens.

Post Adjustment Summary

Posting an adjustment involves the following steps:

- Select the appropriate account for the adjustment,

- Select the transaction to be adjusted (optional),

- Provide the necessary data to process the adjustment, and

- Post the adjustment.

How to post an adjustment:

1. Select **Financials-›Transactions-›Adjustments** and select the Post tab.

   The Post Adjustment screen opens.

2. If the account hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. If the adjustment is to be related to an existing transaction, select the transaction from the list.

4. Fill in the appropriate data for the Adjustment, including:

   - **Amount:** enter the amount of the adjustment. If the adjustment is related to an existing transaction, the system automatically adjusts the balance by the amount of the transaction (though the Amount field is not populated). Optionally, the user may enter an amount to override the amount of the related transaction.

   - **Budget Plan (drop-down list)**: select the appropriate budget plan for the adjustment. If a Budget Plan is selected, the resulting adjustment is automatically DEFERRED. If the adjustment is related to a transaction (see Step 3) that is related to an existing Budget Plan, this drop-down list defaults to the related Budget Plan.

   - **Adjustment Type (drop-down list):** select the appropriate Adjustment Type.

   - **Receivable Type (drop-down list):** select the appropriate receivable type for the adjustment. If the adjustment is related to an existing transaction, this defaults to the receivable type of the selected transaction.

- **Credit or Charge (drop-down list):** select whether the adjustment is to be a Charge or Credit transaction. If the adjustment is related to an existing transaction, this defaults to the Reverse of the selected transaction.

- **Charge Type (drop-down list):** select the appropriate charge type for the adjustment. If the adjustment is related to an existing transaction, this defaults to the charge type of the selected transaction.

- **Application Method (drop-down list)**: select the appropriate application method for the adjustment. Available methods include:

  - **Related:** relates the adjustment to the selected transaction. Checking this may populate other fields on the Post Adjustment screen, based on the related transaction. Available only if the Charge or Credit field is set to **Charge**.

  - **Defer Balance:** defers the account balance. Available only if the Charge or Credit field is set to **Charge**.

  - **Invoice ID**: applies the adjustment to a specified Invoice ID. Selecting this method causes the Invoice ID field to appear on the Post Adjustment screen.

  - **Deferred Credit**: places an unapplied credit on the account.

  - **Immediate**: applies the adjustment against any outstanding charges.

- **Invoice ID (drop-down list)**: select the appropriate invoice ID. Note that this field only appears if **Invoice ID** is selected from the **Application Method** drop-down list.

5. Click **Process** to post the adjustment. Click **Reset** to reset all the values on the screen.

6. A dialog box will appear asking you to confirm the process. Verify the information on the dialog. To confirm the adjustment, click **OK**. To cancel the adjustment, click **Cancel**.

7. To process additional adjustments for the same account, repeat steps 3 through 6 for each additional payment. To process additional adjustments for different accounts, repeat steps 1 through 6 as appropriate.

Cancel Adjustment

The Cancel Adjustment function cancels a previous adjustment. When you select the Cancel tab on the Adjustments screen, the Cancel Adjustment screen opens.

Cancel Adjustment Summary

Cancelling an adjustment involves the following steps:

- Select the account associated with the adjustment,

- Select the adjustment,

- Select a cancel reason, and

- Cancel the adjustment.

How to cancel an adjustment:

1. Select **Financials-›Transactions-›Adjustments** and select the Cancel tab.

   The Cancel Adjustment screen opens.

2. If the account associated with the adjustment hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of adjustment transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Adjustment** to be cancelled.

4. Select the **Cancel Reason**.

5. Click **Process** to cancel the adjustment. Click **Reset** to reset all the values on the screen.

6. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

7. To cancel additional adjustments for the same account, repeat steps 3 through 6 for each additional adjustment. To cancel additional adjustments for different accounts, repeat steps 1 through 6 as appropriate.

Refunds

When you select the Refunds option from the Left Menu, the Refunds screen opens.

The Refunds screen includes the following functions:

- **Post Refund**
- **Cancel Refund**
- **Update Refund**

To access one of the functions, select the appropriate tab on the Refunds screen.

Post Refund

The Post Refund function posts a refund transaction charge against an account. When you select the Post tab on the Refunds screen, the Post Refund screen opens.

Post Refund Summary

Posting a refund involves the following steps:

- Select the account associated with the refund to be posted,
- Select the refund type and refund reason,
- Enter the amount of the refund,
- Select an optional credit transaction, and
- Post the refund.

How to post a refund:

1. Select **Financials-›Transactions-›Refunds** and select the Post tab.

   The Post Refund screen opens.

2. If the account associated with the refund to be posted hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of payment, credit adjustment, and other refund transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Enter the amount of the refund in the **Amount** field or select a credit transaction from the Transactions list. The Amount is automatically populated with the amount of the credit transaction.

   Note: Selecting transactions on this window is restricted. To enable this functionality, select the "Allow Transaction Selection" permission on the Roles screen in the Security Administration user interface for all applicable Roles.

4. Select the **Refund Reason** from the drop-down.

5. Select the **Refund Type** from the drop-down list.

6. Click **Process** to post the refund. Click **Reset** to reset all the values on the screen.

7. A dialog box will appear asking you to confirm the refund. Verify the Account ID, the Amount of the refund, and the Refund Type on the dialog. To confirm the refund, click **OK**. To cancel the refund, click **Cancel**.

8. To post additional refunds for the same account, repeat steps 3 through 7 for each additional refund. To post additional refunds for different accounts, repeat steps 1 through 7 as appropriate.

Cancel Refund

The Cancel Refund function cancels a previous refund. When you select the Cancel tab on the Refunds screen, the Cancel Refund screen opens.

Cancel Refund Summary

Cancelling a refund involves the following steps:

• Select the account associated with the refund to be cancelled,

• Select the refund transaction to cancel,

• Select a cancel reason, and

• Cancel the refund.

How to cancel a refund:

1. Select **Financials-›Transactions-›Refunds** and select the Cancel tab.

   The Cancel Refunds screen opens.

2. If the account associated with the refund to be cancelled hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of refund transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Refund** to be cancelled.

4. Select the **Cancel Reason** from the drop-down list.

5. Click **Process** to cancel the refund. Click **Reset** to reset all the values on the screen.

6. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

7. To cancel additional refunds for the same account, repeat steps 3 through 6 for each additional refund. To cancel additional refunds for different accounts, repeat steps 1 through 7 as appropriate.

Update Refund

The Update Refund function updates a refund's status. When you select the Update tab on the Refunds screen, the Update Refund screen opens.

Update Refund Summary

Update a refund's status involves the following steps:

• Select the account associated with the refund to be updated,

• Select the refund transaction to update,

• Select the status you wish to update the refund to, and

• Update the refund.

How to update a refund:

1. Select **Financials-›Transactions-›Refunds** and select the Update tab.

   The Update Refunds screen opens.

2. If the account associated with the refund to be updated hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of refund transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Refund** to be updated.

4. Select the **Refund Status** from the drop down list. Note that it is an error if the selected status is inappropriate for the selected transaction. Also note that the drop down list will appear blank if there is no appropriate status to update the selected refund to.

5. Click **Process** to update the refund. Click **Reset** to reset all the values on the screen.

6. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

7. To update additional refunds for the same account, repeat steps 4 through 6 for each additional refund. To update additional refunds for different accounts, repeat steps 1 through 6 as appropriate.

Write Offs

When you select the Writeoffs option from the Financials Menu, the Writeoffs screen opens.

The Writeoffs screen includes the following functions:

- **Post Write Off**
- **Cancel Write Off**
- **Write Off Account**
- **Write On Account**

To access one of the functions, select the appropriate tab on the Writeoffs screen.

Post Write Off

The Post Write Off function posts a write-off transaction credit or charge against an account. When you select the Post tab on the Writeoffs screen, the Post Writeoff screen opens.

Post Write Off Summary

Posting a write off involves the following steps:

- Select the appropriate account for the transaction to be written off,
- Select the transaction to be written off,
- Select the reason for the write off, and
- Post the write off.

How to post a write off:

1. Select **Financials-›Transactions-›Writeoffs** and select the Post tab.

   The Post Writeoff screen opens.

2. If the account for the transaction to be written off hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of transactions with a non-zero balance associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Transaction** to be written off.

4. Select the **Transaction ID** for the write off from the drop-down list.

5. Click **Process** to post the write off.

6. A dialog box will appear asking you to confirm the write off. Verify the Account ID, Transaction ID, and Balance for the transaction being written off on the dialog. To confirm the write off, click **OK**. To cancel the write off, click **Cancel**.

7. To process additional write offs for different transactions for the same account, repeat steps 3 through 6 for each additional write off. To process additional write offs for different accounts, repeat steps 1 through 6 as appropriate.

Cancel Write Off

The Cancel Write Off function cancels a previous write-off transaction. When you select the Cancel tab on the Writeoffs screen, the Cancel Writeoff screen opens.

Cancel Write Off Summary

Cancelling a write off involves the following steps:

- Select the account associated with the write off transaction,

- Select the write-off transaction to cancel,

- Select a Cancel Reason, and

- Cancel the write off.

How to cancel a write off:

1. Select **Financials-›Transactions-›Writeoffs** and select the Cancel tab.

   The Cancel Writeoff screen opens.

2. If the account associated with the write off transaction hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of write off transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the write-off **Transaction** to be cancelled.

4. Select the **Cancel Reason** from the drop-down list.

5. Click **Process** to cancel the write off.

6. A dialog box will appear asking you to confirm the process. Verify the Account, Amount, and Reason on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

7. To cancel additional write offs for the same account, repeat steps 3 through 6 for each additional write off. To cancel additional write offs for different accounts, repeat steps 1 through 6 as appropriate.

Write Off Account

The Write Off Account function posts a write-off transaction for each outstanding (balance > 0) transaction that has been previously posted for the account. When you select the Writeoff Account tab on the Writeoffs screen, the Writeoff Account screen opens.

Write Off Account Summary

Writing off an account involves the following steps:

- Select the appropriate account to be written off,

- Select the Transaction ID and reason for the write off, and

- Write off the account.

How to write off an account:

1. Select **Financials-›Transactions-›Writeoffs** and select the Writeoff Account tab.

   The Writeoff Account screen opens.

2. If the account to be written off hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the appropriate **Transaction ID** for the write off.

4. Select the **Writeoff Reason** for the write off from the drop-down list.

5. Click **Process** to write off the account.

6. A dialog box will appear asking you to confirm the write off. Verify the Account, Transaction ID, Balance, and Writeoff Reason on the dialog. To confirm the write off, click **OK**. To cancel the write off, click **Cancel**.

7. To write off other accounts, repeat steps 1 through 8 as appropriate.

Write On Account

The Write On Account function cancels all previous write-off transactions for the account. When you select the Writeon Account tab on the Writeoffs screen, the Writeon Account screen opens.

Write On Account Summary

Writing on an account involves the following steps:

- Select the appropriate account to be written on,

- Select the Transaction ID, Cancel Reason, and Receivable Status for the account, and

- Write on the account.

How to write on an account:

1. Select **Financials-›Transactions-›Writeoffs** and select the Writeon Account tab.

    The Writeon Account screen opens.

2. If the account to be written on hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of write off transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◄ and ► buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the **Cancel Reason** for the write on from the drop-down list.

4. Select the new **Receivable Status** for the Account.

5. Click **Process** to write on the account.

6. A dialog box will appear asking you to confirm the write on. Verify the Account, Cancel Reason, and Receivable Status on the dialog. To confirm the write on, click **OK**. To cancel the write on, click **Cancel**.

7. To write on other accounts, repeat steps 1 through 9 as appropriate.

Balance Transfers

When you select the Balance Transfers option from the Financials Menu, the Balance Transfers screen opens.

The Balance Transfers screen includes the following functions:

- **Transfer Balance**

- **Return Balance**

To access one of the functions, select the appropriate tab on the Balance Transfers screen.

Transfer Balance

The Transfer Balance function posts a balance transfer transaction for each outstanding transaction (balance > 0) that has been previously posted for the account. When you select the Transfer Balance tab on the Balance Transfers screen, the Transfer Balance screen opens.

Transfer Balance Summary

Transferring a balance involves the following steps:

- Select the account from which the balance is to be transferred,

- Select the target account to which the balance will be transferred,

- Transfer the balance.

How to transfer a balance:

1. Select **Financials-›Transactions-›Balance Transfers** and select the Transfer Balance tab.

    The Transfer Balance screen opens.

2. If the account from which the balance is to be transferred hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of write off transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Select the account to transfer the balance to as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the Target pane, and a list of transactions with a balance greater than zero associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

4. Select the Application Method from the drop-down box. Balance transfers can be either "Unapplied" (the default), or "Immediate."

5. Click **Process** to transfer the balance.

6. A dialog box will appear asking you to confirm the transfer. Verify the information concerning the transfer. To confirm, click **OK**. To cancel, click **Cancel**.

7. To transfer additional balances for different accounts, repeat steps 1 through 5 as appropriate.

Return Balance

The Return Balance function cancels all previous balance transfer transactions for the account. When you select the Return Balance tab on the Balance Transfers screen, the Return Balance screen opens.

Return Balance Summary

Returning a balance involves the following steps:

• Select the account associated with the balance to be returned, and

• Return the balance.

How to return a balance:

1. Select **Financials-›Transactions-›Balance Transfers** and select the Return Balance tab.

   The Return Balance screen opens.

2. If the account associated with the balance to be returned hasn't been previously selected, select the account as described under **Selecting Accounts** on page 16-5. The Account ID, Customer Name, and Current Balance for the selected account will appear at the top of the screen, and a list of previously transferred transactions associated with the selected account will appear in the Transactions box. If there is more than one page of transactions, you can move between pages using the ◀ and ▶ buttons. To change the number of transactions that appear on each page, enter the number in the **Rows** field.

3. Click **Process** to return the balance.

4. A dialog box will appear asking you to confirm the process. Verify the Account on the dialog. To confirm the process, click **OK**. To cancel the process, click **Cancel**.

5. To return additional balances for different accounts, repeat steps 1 through 4 as appropriate.

Chapter 17

Receivables Management Work Queues

This chapter describes how users work with work queues in the Oracle Utilities Receivables Component user interface. Work queue items represent transactions, including charges, payments and other transactions, that for some reason need to be processed by a user manually (usually through one or more of the functions of the Oracle Utilities Receivables Component user interface).

More information about work queues can be found in **Appendix C**: **Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide. Volume 2.*

Working with Work Queues

The Work Queues function is used to process work queue items associated with transactions. When you select the Work Queue option from the Financials Menu, the Work Queue screen opens.

There are four main work queue functions available through the Work Queue screen, some of which correspond to messaging functions described in **Appendix C**: **Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide. Volume 2*, including:

- **Lock:** locks the work queue item to prevent other users from working with it (this corresponds to the Hold Message function),

- **Unlock:** unlocks a previously locked work queue item to allow other users to work with it (this corresponds to the Release Message function),

- **Close:** closes the work queue item (this corresponds to the Close Message function), and

- **Lock & Transfer:** locks the work queue item to prevent other users from working with it (as above), and triggers the Transfer Payment function. See **Transfer Payment** on page 16-3 for more information.

Work Queue Summary

Working with work queues involves the following steps:

- Select the function you wish to perform (Lock, Unlock, Close, or Lock & Transfer),

- Search for the work queue items to be processed, based on specific criteria,

- View details of work queue (if necessary or desired),

- Select the work queue item to process.

How to work with Work Queue items:

1. Select **Financials-›Work Queue**.

   The Work Queue screen opens.

2. In the lower pane of the Work Queue screen, select the tab for the function you wish to perform. There are four choices:

   - **Lock:** locks the work queue item to prevent other users from working with it, and changes the status of the item to 'Locked'.

   - **Unlock:** unlocks a previously locked work queue item to allow other users to work with it, and restores the status to 'Open'.

   - **Close:** closes the work queue item, and changes the status to 'Closed'.

   - **Lock & Transfer:** locks the work queue item to prevent other users from working with it, changes the status of the item to 'Locked' (as above), and triggers the Transfer Payment function. See **Transfer Payment** on page 16-3 for more information.

3. In the top pane of the Work Queue screen, enter the search criteria for the work queue items you wish to work with.

You can search by the following criteria:

- **Account ID:** the account ID associated with the work queue item(s) (see **Selecting Accounts** on page 16-5 for more information about searching accounts),

- **Date:** the date of the work queue item(s),

- **Proc. by User ID:** the User ID of the user who closed the work queue item(s), or who currently has the item(s) locked.

- **Work Queue Type:** the type of work queues you want to work with (such as UNPOSTABLE_PAYMENT),

- **Market:** the market (operating company) associated with the work queue item(s).

You can enter search criteria in any or all of the above fields. To clear the data in the pane, click the **Reset** link.

To start the search based on the entered criteria, click the **Search** link.

4. A list of work queue items based on the search criteria will appear in the lower pane. If there is more than one page of search results, you can move between pages using the ◀ and ▶ buttons. To change the number of work queue items that appear on each page, enter the number in the **Rows** field.

The results displayed are filtered based on the tab (function) selected. The **Lock** tab displays only **Open** items. The **Unlock** tab displays only **Locked** items. The **Close** and **Lock and Transfer** tabs display **Open** and **Locked** items.

5. To view the details of the transaction associated with the work queue item, click the icon at the far left of the line on which the work queue item appears. The Details window opens, displaying data related to the transaction.

6. Click the **Message ID** link for the work queue item you wish to process. If the **Message ID** link is not active, you can't process the item. For example, users can't Unlock items that were previously locked by a different user.

7. To process additional work queue items based on the same search criteria, repeat steps 4 through 6 for each additional work queue item. To process additional work queue items based on different criteria, repeat steps 2 through 6 as appropriate.

Chapter 18

Receivables Management Controls

This chapter describes how users work with controls in the Oracle Utilities Receivables Component user interface. Control items are messages generated by the various functions of the Oracle Utilities Receivables Component related to specific transactions. These can include messages confirming the posting of a charge or credit transaction, or the cancellation or transfer of a payment, or other transactions processed by Oracle Utilities Receivables Component. The Controls functionality of the Oracle Utilities Receivables Component user interface allows users to view control messages based on specified search criteria.

More information about controls and control messages can be found in **Appendix C**: **Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide. Volume 2.*

Working with Controls

The Controls function is used to view control items associated with transactions based on specified search criteria (date, control type, etc.). When you select the Controls option from the Financials Menu, the Controls screen opens.

Controls Summary

Working with controls involves the following steps:

- Search for the controls items to be viewed, based on specific criteria,

- Select the control item to view, and

- View details of the control item

How to view Control items:

1. Select **Financials-›Controls**.

   The Controls screen opens.

2. In the Search Controls pane, enter the search criteria for the control items you wish to view.

You can search by the following criteria:

- **Account ID:** the account ID associated with the work queue item(s) (see **Selecting Accounts** on page 16-5 for more information about searching accounts),

- **Posted Date:** the date of the work queue item(s),

- **User ID:** the User ID of the user who closed the work queue item(s), or who currently has the item(s) locked.

- **Control Type:** the type of control messages you want to work with (such as SRVCHG_TXACTION_POSTED),

- **Market:** the market (operating company) associated with the work queue item(s).

- **Amount:** the amount of the transaction associated with the control item(s).

You can enter search criteria in any or all of the above fields. To clear the data in the pane, click the **Reset** link.

To start the search based on the entered criteria, click the **Search** link.

3. A list of control items based on the search criteria will appear in the Items box. If there is more than one page of search results, you can move between pages using the ◄ and ► buttons.

4. Select the control item you wish to view.

5. To view the details of the transaction associated with the control item, click the icon at the far left of the line on which the control item appears. The Details window opens, displaying data related to the transaction.

6. To view additional control items based on the same search criteria, repeat steps 4 through 5 for each additional work queue item. To view additional control items based on different criteria, repeat steps 2 through 5 as appropriate.

Chapter 19

Collections

This chapter describes how users work with collections functions in the Oracle Utilities Receivables Component user interface, including:

- **Collections Functions Overview**

- **Working with Collections Functions**

- **Collection Arrangements**

- **Collections Exemptions**

- **Work Queue**

- **Manual Submission**

- **Collections Reports**

More information about collections functions can be found in **Chapter 9**: **Collections** in the *Oracle Utilities Billing Component Installation and Configuration Guide. Volume 2*.

Collections Functions Overview

The collections functionality of the Oracle Utilities Receivables Component includes the ability to perform a variety of collections-related tasks types, including:

- **Collection Arrangements**: functionality allows the user to view, create, and edit collection arrangements and related payment arrangements for accounts.

- **Collections Exemptions**: allows the user to view, create, and edit collection exemptions for accounts.

- **Work Queue**: functionality allows the user to view and work with work queue items generated from collection processes.

- **Manual Submission**: allows the user to manually initiate a collections process for a selected account. This process can be initiated at any point in the process.

- **Collections Reports**: include a number of reports detailing collections-related information. These reports include:

  - **Performance Rating Summary Report**: provides a summary of the overall credit worthiness of the customer base based on the customer's collection process and payment history.

  - **Work Queue Summary Report**: provides a summary of the total number of items in the Collections work queue.

  - **Collection Exemption Summary Report**: lists the overall number of accounts that have Collection Exemptions by exemption status.

  - **Collection Activity Summary Report**: provides overall totals of the collections activities executed between a user-specified Start and Stop time.

  - **Process Status Report**: lists collections processes based on Operating Company, Jurisdiction, Process Name, Account ID, and Process State.

Working with Collections Functions

This section provides general information related to working with collections functions, including:

* **Selecting Accounts**

Selecting Accounts

Before you can work with most of the collections functions using the Oracle Utilities Receivables Component, you must first select the account(s) you wish to work with. If an account has not been previously selected, you can select an account using the following procedure.

How to select accounts when working with collections functions:

1. Click the Search Account button (...) at the top of the screen. This opens the Accounts window.

2. Enter the search criteria in the appropriate field.

   You can search based on the customer Name, Customer ID, or an Account ID associated with the account. You can also search based on Account Status, Operating Company, and/or Jurisdiction. To search on one of these, select it from the drop-down lists. In addition, you can search based on contact information such as phone number, address, city/state, etc.

   You can use the percent sign ("%") as a wildcard character when entering values in any of the fields. For instance, if you want to search for all accounts whose name begins with the letter G, you could enter "G%" in the Name field, and the search would retrieve all users that begin with the letter G. You can use this wildcard before or after specified letters or numbers (i.e. you would use %t to search for all accounts whose name ends with the letter t, etc.).

3. Specify how the search results are displayed.

   * Select the manner in which the results are sorted by clicking the **Sort by** plus ("+") sign. See **Specifying How Results are Sorted** on page 2-7 for more information.

   * Specify how many results should appear on each page in the **Page Length** field.

4. Click **Search** to perform the search. To clear all the search fields, click **Reset**.

5. The Accounts window displays the search results.

6. Click on the Account ID of the account you wish to use. If there is more than one page of search results, you can move between pages using the ◀ and ▶ buttons. To change the number of results that appear on each page, enter the number in the **Rows** field.

7. The Account ID and Customer Name for the selected account will appear at the top of the screen.

Collection Arrangements

The Collection Arrangements functions are used to view, create, and edit collection arrangements and related payment arrangements for accounts.

Collection Arrangements Summary

Working with collection arrangements involves the following steps:

• Select the appropriate account (see **Selecting Accounts** on page 19-3),

• Select the collection arrangement to view/edit, and

• View/edit details of the collection arrangement and related payment arrangements.

How to view Collection Arrangements for an account:

1. Select **Financials-›Collections-›Arrangements**.

   The Collection Arrangements screen opens.

   If you haven't yet selected an account, click the Search Account button (...) at the top of the screen to select the account you wish to view. See **Selecting Accounts** on page 19-3 for more information.

2. A list of collection arrangements for the selected account will appear on the Collection Arrangements screen.

How to view or edit Collection Arrangements details:

1. Click the **Edit Record** icon ( ) for the collection arrangement you wish to view or edit.

   The Collection Arrangement screen opens displaying details of the arrangement and a list of related payment arrangements beneath it. If there is more than one page of payment arrangements, you can move between pages using the ◀ and ▶ buttons. To change the number of records that appear on each page, enter the number in the **Rows** field.

2. To edit the collection arrangement record, click **Modify** in the Collection Arrangement box.

   The Collection Arrangement screen opens as an edit screen.

3. Modify the record as appropriate:

   • To change the **Start Date**, click the arrow and select the date using the calendar control or type the date manually.

   • Edit the **No. of Payments** as appropriate.

   • Edit the **Total Amount** as appropriate.

   • To change the **First Payment Due Date**, click the arrow and select the date using the calendar control or type the date manually.

   • Change **Collection Arrangement Type** using the **Browse** button (...). This button opens a dialog window that lists all the available types. Click the **[...]** link for the appropriate type. The field is automatically populated.

4. Click **Save** to save the changes made to the collection arrangement. To close this screen without saving changes, click **Cancel**.

   If you made changes to either the **No. of Payments** or the **Total Amount**, the values of the related payments arrangements are adjusted accordingly. The **Total Amount** is distributed evenly among the payments.

How to delete a Collection Arrangement:

1. Click the **Delete Record** icon (🗑️)for the collection arrangement you wish to delete.

   The **Delete Arrangement Record** dialog opens.

2. Click **OK** to delete the collection arrangement. To close the dialog without deleting the collection arrangement, click **Cancel**.

   The deleted collection arrangement no longer appears on the Collection Arrangements screen.

How to add a Collection Arrangement:

1. Click **Add** on the Collections Arrangements screen.

   The Collection Arrangement screen opens as an edit screen.

2. Enter the **Start Date** by clicking the arrow and selecting the date using the calendar control or by typing the date manually.

3. Enter the **No. of Payments** for the collection arrangement

4. Enter the **Total Amount** for the collection arrangement.

5. Enter the **First Payment Due Date** by clicking the arrow and selecting the date using the calendar control or by typing the date manually.

6. Select the **Collection Arrangement Type** for the collection arrangement using the **Browse** button (…). This button opens a dialog window that lists all the available types. Click the **[...]** link for the appropriate type. The field is automatically populated.

7. Click **Save** to save the collection arrangement. To close this screen without saving the collection arrangement, click **Cancel**.

   The collection arrangement appears on the Collection Arrangement screen, along with a list of related payment arrangements, based on the **Total Amount** and the **No. of Payments** of the collection arrangement. By default, payments are scheduled as due monthly starting one month after the Start Date of the collection arrangement. The amount of each payment is equal to the **Total Amount** divided by the **No. of Payments**.

   When a collection arrangement is created, the system automatically creates a collection exemption of type 'Arrangement Exemption' for the total amount of the arrangement. When the arrangement is completed or defaulted, the status of the exemption is set to EXPIRED. Deleting a collection arrangement also deletes the associated collection exemption for that arrangement.

   In addition, when a collection arrangement is created, the status of any collections processes running for the account are set to SUSPENDED.

How to edit a Payment Arrangement related to a Collection Arrangement:

1. Click the **Edit Record** icon (📝)for the payment arrangement you wish to edit.

   The Collection Arrangement screen opens as an edit screen.

2. Modify the record as appropriate:

   • To change the **Due Date**, click the arrow and select the date using the calendar control or type the date manually.

   • Edit the **Due Amount** as appropriate.

3. Click **Save** to save the changes made to the payment arrangement. To close this screen without saving changes, click **Cancel**.

   If you changed the **Due Amount**, the Total Value of the Collection Arrangement is adjusted accordingly.

How to delete a related Payment Arrangement:

1. Click the **Delete Record** icon () for the payment arrangement you wish to delete.

    The **Delete Payment Record** dialog opens.

2. Click **OK** to delete the payment arrangement. To close the dialog without deleting the payment arrangement, click **Cancel**.

    The deleted payment arrangement no longer appears in the Payment Arrangements list, and the **Total Value** of the collection arrangement is adjusted accordingly.

How to add a related Payment Arrangement:

1. Click **Add** in the Payment Arrangements box.

    The Collection Arrangement screen opens as an edit screen.

2. Enter the **Due Date** by clicking the arrow and selecting the date using the calendar control or by typing the date manually.

3. Enter the **Due Amount** as appropriate.

4. Click **Save** to save the payment arrangement. To close this screen without saving the payment arrangement, click **Cancel**.

    The payment arrangement appears in the Payment Arrangements list, and the Total Value of the collection arrangement is adjusted accordingly.

Collections Exemptions

The Collections Exemptions functions are used to view, create, and edit collection exemptions for accounts.

Collection Exemptions Summary

Working with collection exemptions involves the following steps:

- Select the appropriate account (see **Selecting Accounts** on page 19-3),

- Select the collection exemption to edit, and

- Edit details of the collection exemption as appropriate.

How to view Collection Exemptions for an account:

1. Select **Financials-›Collections-›Exemptions**.

   The Collection Exemptions screen opens.

   If you haven't yet selected an account, click the Search Account button (...) at the top of the screen to select the account you wish to view. See **Selecting Accounts** on page 19-3 for more information.

2. A list of exemptions for the selected account will appear on the Collection Exemptions screen.

How to edit a Collection Exemption:

1. Click the **Edit Record** icon ( )for the exemption you wish to view or edit.

   The Collection Exemption screen opens as an edit screen.

2. Modify the record as appropriate:

   - Change **Collection Exemption Type** using the **Browse** button (...). This button opens a dialog window that lists all the available types. Click the **[...]** link for the appropriate type. The field is automatically populated.

   - To change the **Start Date**, click the arrow and select the date using the calendar control or type the date manually.

   - To change the **Stop Date**, click the arrow and select the date using the calendar control or type the date manually.

   - Edit the **Exemption Amount** as appropriate.

   - Edit (or enter) an optional **Note**.

   - Select the appropriate **Status** (Current or Expired) from the drop-down list.

3. Click **Save** to save the changes made to the exemption. To close this screen without saving changes, click **Cancel**.

How to delete a Collection Exemption:

1. Click the **Delete Record** icon ( )for the exemption you wish to delete.

   The **Delete Exemption Record** dialog opens.

2. Click **OK** to delete the collection exemption. To close the dialog without deleting the collection exemption, click **Cancel**.

   The deleted exemption no longer appears on the Collection Exemptions screen.

How to add a Collection Exemption:

1. Click **Add** on the Collections Exemptions screen.

   The Collection Exemption screen opens as an edit screen.

2. Select the **Collection Exemption Type** using the **Browse** button (...). This button opens a dialog window that lists all the available types. Click the **[...]** link for the appropriate type. The field is automatically populated.

3. Enter the **Start Date** by clicking the arrow and selecting the date using the calendar control or by typing the date manually.

4. Enter the **Stop Date** by clicking the arrow and selecting the date using the calendar control or by typing the date manually.

   If you don't enter a Stop Date, the collection exemption remains in effect indefinitely. The only exception to this rule is in the case of collection exemptions that are created automatically by creating a collection arrangement. These exemptions do not have a Stop Date when they are initially created, but after the arrangement is completed or expired, the Stop Date will be populated with the date that the arrangement was completed or expired.

5. Enter the **Exemption Amount** as appropriate.

   Leaving the amount blank exempts the entire account. In this case, regardless of what the past due balance is on the account, the account will never go into collections.

6. Enter an optional **Note**.

7. Click **Save** to save the exemption. To close this screen without saving the exemption, click **Cancel**.

   The exemption appears on the Collection Exemption screen.

Work Queue

The Work Queue function is used to process work queue items associated with collections processes.

Working with the work queue involves the following steps:

• Search for work queue items based on specific criteria,

• View details of work queue (if necessary or desired),

• Select the work queue item(s) to process.

• Select the function you wish to perform (Lock, Unlock, Update, or Close)

Work Queue Functions

There are four main work queue functions available through the Work Queue screen. Some of these functions correspond to messaging functions described in **Appendix C: Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*, including:

• **Lock:** locks the work queue item to prevent other users from working with it (this corresponds to the Hold Message function).

• **Unlock:** unlocks a previously locked work queue item to allow other users to work with it (this corresponds to the Release Message function).

• **Update:** updates the data associated with the work queue item. This is useful when the context of the activity represented by the item must be updated.

• **Close:** closes the work queue item (this corresponds to the Close Message function).

How to search for work queue items:

1. Select **Financials-›Collections-›Work Queue**.

   The Work Queue screen opens.

2. Enter the search criteria for the work queue items you wish to work with.

   You can search by the following criteria:

   • **Account ID:** the account ID associated with the work queue item(s), and

   • **Work Queue Type:** the type of work queues you want to work with,

   • **Juris:** the jurisdiction associated with the work queue item(s),

   • **Locked User:** the User ID of the user closed the work queue item(s), or who currently has the item(s) locked.

   • **Opco:** the operating company associated with the work queue item(s),

   You can enter search criteria in any or all of the above fields. To start the search based on the entered criteria, click **Search**. To reset the fields, click **Reset**.

3. A list of work queue items based on the search criteria will appear.

How to work with work queue items:

1. Select the work queue item you wish to work with using the radio buttons in the far left column. The activity context of the selected item will appear in the Message Data box. If there is a note associated with the item, it will be displayed in the Note box.

   To select multiple work queue items, check the checkbox on each item to be selected. To select all the work queue items, check the top checkbox, located in the row of headings. If you select multiple items, the Data and Note boxes will be blank.

   To view a work queue, click the Type link. The Work Queue Item dialog opens displaying the selected item.

2. Click the appropriate function based what you wish to do with the item(s). There are four choices:

- **Lock:** locks the work queue item to prevent other users from working with it, and changes the status of the item to 'Locked'.

- **Unlock:** unlocks a previously locked work queue item to allow other users to work with it, and restores the status to 'Open'.

- **Update:** updates the work queue item based on changes made to either the Data or Note associated with the work queue item. This function cannot be used with multiple work queue items.

- **Close:** closes the work queue item, and changes the status to 'Closed'. If the **Approved** checkbox is checked, this function also inserts the Approved attribute into the CONTEXT element of the activity context, the value of which is set to TRUE (Approved="TRUE"). The work queue item disappears from the list once it has been closed. This function also triggers the Activity Finished function.

3. To process additional work queue items based on the same search criteria, repeat steps 1 and 2 for each additional work queue item. To process additional work queue items based on different criteria, repeat the steps outlined under **How to search for work queue items:** on page 19-9 and repeat steps 1 and 2 above as appropriate.

Manual Submission

The Manual Submission functions are used to manually initiate collection processes for accounts.

Manual Submission Summary

Working with manual submission involves the following steps:

• Select the appropriate account (see **Selecting Accounts** on page 19-3),

• Select the process you wish to initiate and the activity at which point you wish to start the process,

• Enter details required by the process/activity as appropriate.

How to manually initiate a collections process for an account:

1. Select **Financials-›Collections-›Manual Submission**.

   The Manual Submission screen opens.

   If you haven't yet selected an account, click the Search Account button (...) at the top of the screen to select the account you wish to view. See **Selecting Accounts** on page 19-3 for more information.

2. Select the process you wish to initiate for the account from the **Process** drop-down list. The processes in this list are those where the Manual Submission flag is set to yes on the Processes screen of the workflow management application. See **Manual Submission Flag** on page 24-2 of the *Oracle Utilities Billing Component User's Guide* for more information.

   The activities associated with the selected process appear in the box below the Process drop-down list.
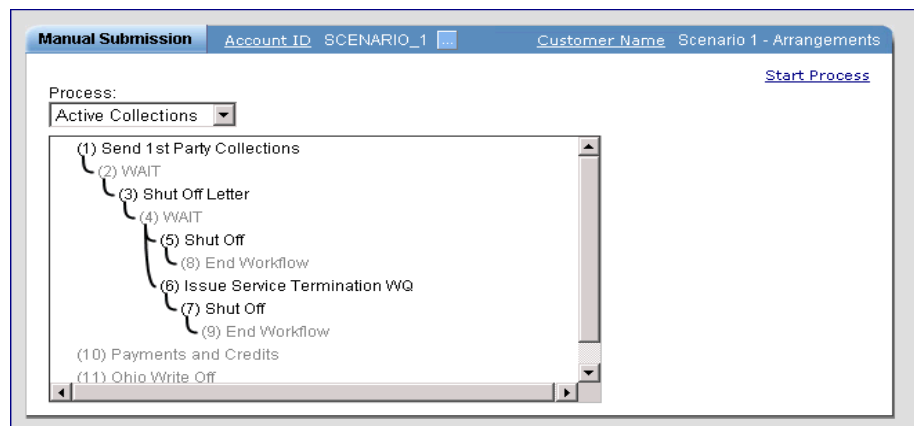
3. Select the activity at which point you wish to start the collections process. Unavailable activities appear in light grey type and cannot be selected. The process activities in this list are those where the Recommended Starting Point flag is set to yes on the Process Activities screen of the workflow management application. See **Recommended Starting Point Flag** on page 25-4 of the *Oracle Utilities Billing Component User's Guide* for more information.

   The **Transition Condition** and **Process Context** (if any) associated with the selected activity below the activities list box.

4. Enter the appropriate value for the Transition Condition or Process Context in the **Transition Condition** or **Value** field(s) as appropriate.

5. Click **Start Process** to initiate the process.

Collections Reports

The Collections Reports are used to create collections-related reports, including:

- **Performance Rating Summary Report**

- **Work Queue Summary Report**

- **Collection Exemption Summary Report**

- **Collection Activity Summary Report**

- **Process Status Report**

Collections Reports Summary

Working with collections reports involves the following steps:

- Select the report you wish to run from the Run Reports screen,

- Enter the appropriate parameters for the report,

- View the report results in the View Reports screen.

Performance Rating Summary Report

The Performance Rating Summary report provides a summary of the overall credit worthiness of the customer base based on the customer's collection process and payment history.

How to run the Performance Rating Summary report:

1. Select **Financials-›Run Reports**.

2. Select **Performance Score Rate** from the Run Reports screen.

   The **Enter Report Parameters** screen opens.

3. Enter the **Report Start Time** for the report. To enter a date, enter the date manually or click the arrow and select the date using the calendar control. To enter the time, type in the time manually.

4. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

5. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** on page 2-11 for more information).

   The **Report Generate** screen opens.

6. When the contract generation is complete, the contract window opens in a report viewer.

Work Queue Summary Report

The Work Queue Summary report provides a summary of the total number of items in the Collections work queue.

How to run the Work Queue Summary report:

1. Select **Financials-›Run Reports**.

2. Select **Work Queue Summary** from the Run Reports screen.

    The **Enter Report Parameters** screen opens.

3. Enter the **Report Start Time** and **Report Stop Time** for the report. To enter a date, enter the date manually or click the arrow and select the date using the calendar control. To enter the time, type in the time manually.

4. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

5. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** on page 2-11 for more information).

    The **Report Generate** screen opens.

6. When the contract generation is complete, the contract window opens in a report viewer.

Collection Exemption Summary Report

The Collection Exemption Summary report lists the overall number of accounts that have Collection Exemptions by exemption status.

How to run the Collection Exemption Summary report:

1. Select **Financials-›Run Reports**.

2. Select **Collection Exemption Summary** from the Run Reports screen.

   The **Enter Report Parameters** screen opens.

3. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

4. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** on page 2-11 for more information).

   The **Report Generate** screen opens.

5. When the contract generation is complete, the contract window opens in a report viewer.

Collection Activity Summary Report

The Collection Activity Summary report provides overall totals of the collections activities executed between a user-specified Start and Stop time.

How to run the Collection Activity Summary report:

1. Select **Financials-›Run Reports**.

2. Select **Collection Activity Summary** from the Run Reports screen.

   The **Enter Report Parameters** screen opens.

3. Enter the **Report Start Time** and **Report Stop Time** for the report. To enter a date, enter the date manually or click the arrow and select the date using the calendar control. To enter the time, type in the time manually.

4. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

5. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** on page 2-11 for more information).

   The **Report Generate** screen opens.

6. When the contract generation is complete, the contract window opens in a report viewer.

Process Status Report

The Process Status report lists collections processes based on Operating Company, Jurisdiction, Process Name, Account ID, and Process State.

How to run the Process Status report:

1. Select **Financials-›Run Reports**.

2. Select **Process Status Report** from the Run Reports screen.

   The **Enter Report Parameters** screen opens.

3. Enter the **Report Start Time** and **Report Stop Time** for the report. To enter a date, enter the date manually or click the arrow and select the date using the calendar control. To enter the time, type in the time manually.

4. Enter the **OPCO** (Operating Company) **Code** for the report (optional).

5. Enter the **JURIS** (Jurisdiction) **Code** for the report (optional).

6. Enter the **Process Name** for the report (optional).

7. Enter the **Account ID** for the report (optional).

8. Select the **Process Type** for the report from the drop-down list (optional).

9. Uncheck the **Shared Report** checkbox if you wish to make the results of the report private. If you leave this checkbox checked, the report results will be available to all users.

10. Click **Run** to run the report. Click **Schedule Report** to schedule the report using the Schedule Process screen (see **Scheduling Reports** on page 2-11 for more information).

    The **Report Generate** screen opens.

11. When the contract generation is complete, the contract window opens in a report viewer.

Chapter 20

Viewing Oracle Utilities Receivables Component Reports

This chapter describes how users can view Oracle Utilities Receivables Component reports, including:

- **Oracle Utilities Receivables Component Reports Overview**

    - **Payment Posting Report**

    - **Issue Refund Report**

    - **Account Balance Report**

    - **AR Aging Report**

    - **G/L Activity Report**

    - **System Balance Report**

    - **Market Participant Aging Report**

Oracle Utilities Receivables Component reports are generated using the LSReports.EXE command line program (described in **Chapter 10**: **Reports** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*). Once a report has been generated, it can be viewed via the **View Reports** screen.

Oracle Utilities Receivables Component Reports Overview

Descriptions of each of the reports available through the Oracle Utilities Receivables Component are provided below. For more information, see **Chapter Eight: Reports** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*.

Payment Posting Report

The Payment Posting report tracks the number of payments processed each night. This report is broken down by payment file processed, and it is assumed that each payment source will be processed in a separate file. See **Payment Posting Report** on page 10-4 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

Issue Refund Report

The Issue Refund report details the refunds issued by the system by refund type. This report lists the number of refunds and the total amount of refunds processed by the Post Refund function. See **Issue Refund Report** on page 10-6 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

Account Balance Report

Each night, a particular segment of the bill accounts are checked to ensure they are "in balance" (the term "balance" refers to the charges, credits, and payments being captured on the database). The Account Balance report details the number of accounts balanced and the number of accounts that were "out-of-balance", along with necessary details. See **Account Balance Report** on page 10-8 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

AR Aging Report

The AR Aging report details aging for accounts receivables in the database. Accounts receivables represents those sales that have not yet been collected, and aging refers to the classification of receivable items into different groups based on the length of time that an item has been outstanding. The AR Aging report format breaks down AR items by Market, then by Rate. See **AR Aging Report** on page 10-10 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

G/L Activity Report

At scheduled intervals, the records in the Journal Transaction Table are balanced against records in the Transaction Table and the Credit Application Table. The G/L Activity report details this process. This report displays the total number of financial records balanced, and sum of the amounts for these transactions. It also displays the total number of journal transactions that resulted, and the sum of the amounts for these transactions. See **G/L Activity Report** on page 10-12 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

System Balance Report

As transactions are posted to Oracle Utilities Receivables Component, the AR Engine creates records in both the Transaction and Journal Transaction tables. At the end of each day, the subledger rollup is performed, updating each entry in the Journal Transaction table with a rolled up date, and the Subledger Account table is updated accordingly. The total of the balances on the Journal Transaction records are added to the BALANCE column for the given Subledger Account/Cost Center/Revenue Month. If the record does not already exist, it is created. The

Running Balance is set equal to the previous Revenue Month's Running Balance plus the current month's Balance.

The System Balance report compares the Subledger Balances for those Journal Accounts that have a Type of either A/R or DEFERRED A/R with the net of the sum of the debit and credit balances posted to the Transaction table. There is a separate line on the report for each Type/Journal Account ID/Cost Center combination. The Subledger Balance, Transaction Balance and any difference between the two is reported.

See **System Balance Report** on page 10-14 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

Market Participant Aging Report

The Market Participant Aging report details aging for accounts receivables in the database based on individual accounts. Accounts receivables represents those sales that have not yet been collected, and aging refers to the classification of receivable items into different groups based on the length of time that each item has been outstanding.

See **Market Participant Aging Report** on page 10-16 in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about this report.

Part Four

Workflow Management

Part Four describes the workflow management functions of Oracle Utilities Billing Component, and contains the following chapters:

- **Chapter 21**: **Oracle Utilities Billing Component - Workflow Management Overview**
- **Chapter 22**: **Working with Workflow Management**
- **Chapter 23**: **Workflow Activity Implementations**
- **Chapter 24**: **Workflow Processes and Process Versions**
- **Chapter 25**: **Workflow Process Activities**
- **Chapter 26**: **Workflow Management Work Queues**
- **Chapter 27**: **Workflow Management Process Controls**

Chapter 21

Oracle Utilities Billing Component - Workflow Management Overview

This chapter provides an overview of the workflow management functionality of Oracle Utilities Billing Component (referred to hereafter as Workflow Management), including:

- **What Workflow Management Does**

- **How Workflow Management Is Used**

What Workflow Management Does

Workflow Management is used to create, run, and maintain processes (a process is defined as a series of activities performed in a predetermined sequence relating to a specific operation). Processes are represented in Workflow Management through process models that associate specific activities to a specific process. Workflow management provides tools used both in the design and creation of processes and activities, as well as in the running maintenance of processes and activities. **Chapter 22**: **Working with Workflow Management** provides more detailed information about how Workflow Management is used.

The Workflow Management Database

The individual records that comprise the processes and activities used with Workflow Management are stored in a set of database tables in the Oracle Utilities Data Repository. These tables store records detailing processes, activities, and the relationships between process and activities.

The Workflow Management Messaging System

Workflow management also includes a messaging system, designed to support external interfacing, control activities, work queues, and internal messages. The messaging system is described in **Appendix C: Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*.

How Workflow Management Is Used

Workflow management allows users to design, create, run, and maintain processes and related activities.

Several Workflow Management functions operate "behind the scenes;" functions are triggered automatically when certain operations are performed by external systems interfaced with Workflow Management through one of the workflow interfaces. Refer to **Chapter 13: The Workflow Engine** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about how workflow management engine performs certain functions.

In addition, a number of Workflow Management functions can also be performed through the Oracle Utilities Billing Component user interface, a web-enabled interface that allows users to create processes and activities and process work queue items and process controls.

Chapter 22

Working with Workflow Management

This chapter provides an overview of how you work with Oracle Utilities Billing Component -
Workflow Management, including:

- **Designing Processes with Workflow Management**
- **Running Processes with Workflow Management**

Designing Processes with Workflow Management

Designing processes with Workflow Management involves the following steps:

- **Step One: Define the Process**
- **Step Two: Define the specific activities that take place within the process**
- **Step Three: Define the possible paths between activities within the process**
- **Step Four: Create Message and Event Types as required**
- **Step Five: Create Activity Implementations**
- **Step Six: Create Process and Process Version**
- **Step Seven: Create Process Activities in Workflow Management**

Steps 1, 2, and 3 identify and define business activities and events. Steps 4 through 7 translate those activities and events into Workflow Management. Each step is described in detail below. Definitions and descriptions of terms and concepts used by the Workflow Management are highlighted in **bold-faced** type.

Step One: Define the Process

The first step is to define the process to be run. A **process** is a series of activities performed in a defined sequence relating to a specific operation. A **process model** is a representation of a process in Workflow Management.

This can be an existing business process, such as performing collections in an accounts receivable system, or a sales process.

Step Two: Define the specific activities that take place within the process

The next step is to define the specific activities within the process. An **activity** is a single task or step involved in a process. Each process can have any number of activities, one for each of the possible tasks associated with a process. Each activity can be implemented in one of several ways. An activity can invoke a function of a COM object, wait for an external event, post a message, start another process, execute a Oracle Utilities Rules Language rate form, resume a process, suspend a process, terminate a process, or end a process.

Step Three: Define the possible paths between activities within the process

The next step is to define the possible paths between activities within the process. A **path** establishes a connection between individual activities within a process. Each path has a source activity, a transition condition, and a target activity. The **source activity** is the specific activity from which a given path originates. The **transition condition** determines which path the process follows upon exiting a given activity. The **target activity** is the specific activity to which a given path leads.

Step Four: Create Message and Event Types as required

The next step is to create message and event types required by the activities in the process. You must create a record in the Message Type table for each message type created, and a record in the Event Type table for each event type created.

Step Five: Create Activity Implementations

The next step is to create activity implementations that can be used to perform the specific activities defined in Step 2. An **activity implementation** is how a specific type of activity is implemented. There are ten types of Activity Implementations: COMOBJECT, EVENT, MESSAGE, PROCESS, RATEFORM. RESUME, SUSPEND, TERMINATE, WAIT, and END. You must create an Activity Implementation record for each activity implementation. More information about creating activity implementations can be found in **Chapter 23**: **Workflow Activity Implementations**.

Step Six: Create Process and Process Version

The next step is to create the process within Workflow Management. A **process** is a series of activities performed in a defined sequence relating to a specific operation. A **process model** is a representation of a process in Workflow Management. A **process version** is a specific version of a process. This includes both the process itself, and a specific version of the process. You must create Process and Process Version records for each process and process version (respectively). More information about creating processes and process versions can be found in **Chapter 24**: **Workflow Processes and Process Versions**.

Step Seven: Create Process Activities in Workflow Management

The last step is to create process activities for the process. A **process activity** is a specific activity associated with a process. Creating process activities involves creating Process activity records for each process activity that link specific activities and activity implementations, and activities and process versions. This determines which specific activities (each of a specified activity implementation type) are performed within a specific process version. More information about creating process activities can be found in **Chapter 25**: **Workflow Process Activities**.

Running Processes with Workflow Management

This section outlines how processes are run using Workflow Management, including:

- **Workflow Management Run Time Components**
- **How Workflow Management Runs Processes**

Workflow Management Run Time Components

Workflow Management uses **run time** components in the running of processes. These components work together to provide the services necessary to execute and maintain process instances.

Workflow Engine

The Workflow Engine is the core component in Workflow Management. It creates and navigates process and activity instances, evaluates activity start, exit, and transition conditions, transfers data between process and activity contexts, handles process events, and archives process and activity instances. More information about the Workflow Engine can be found in **Chapter 13: The Workflow Engine** in the *Workflow Management Installation and Configuration Guide*.

Scheduler

The Scheduler provides message scheduling services based on business days and calendars. More information about the Scheduler can be found in **Chapter 14: The Workflow Scheduler** in the *Workflow Management Installation and Configuration Guide*.

Rules Language Engine

The Rules Language Execution Engine executes Rules Language activities. More information about the Rules Language Execution Engine can be found in **Chapter 15: The Rules Language Engine** in the *Workflow Management Installation and Configuration Guide*.

Work Queue

The Workflow Management Work Queue provides interfaces for processing work queue message activities. More information about the Workflow Management Work Queue can be found in **Chapter 26**: **Workflow Management Work Queues**.

Process Controls

The Workflow Management Process Controls provides interfaces to view and manipulate process and activity instances. More information about the Workflow Management Process Controls can be found in **Chapter 27**: **Workflow Management Process Controls**.

How Workflow Management Runs Processes

Workflow Management runs processes by evaluating specific data associated with the process and the activities belonging to that processes. Workflow Management uses the context of the process, the Start/Exit Conditions of each activity, the paths between activities, and the context of each activity within the process to navigate from the start to end of each process.

Most activities within a process require some user-intervention or action. This is often the action represented by the activity (such as placing a phone call to a customer, or sending appropriate information to a prospective client). Once the user action has been completed, the user indicates that the activity has been finished via an interface or application (such as a CRM application) which triggers the continuation of the process in Workflow Management.

Processes Step-by-Step

The steps below outline the general method used by Workflow Management.

1. A user initiates the process using the Start Process function of the Workflow Engine via an interface or using the PROCESS START Rules Language statement.

2. A message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and creates a process instance based on the specified process version. A **process instance** is a current started instance of a process version. The Workflow Engine then sets the process instance's State to RUNNING, and initializes the process context as specified. If the process is specified to start at a later time, the process instance's state is set to SUSPENDED, and a scheduled message is posted.

3. The Workflow Engine creates an activity instance for each activity in the process, and sets the Activity State of each to INACTIVE. An **activity instance** is a current started instance of a given process activity. The Workflow Engine evaluates the Input Path of each inactive activity instance to determine which to determine which should be started and evaluates the start condition of each. If the start condition evaluates to TRUE, the Workflow Engine sets the activity instance's State to RUNNING. If the start condition evaluates to FALSE, the Workflow Engine sets the activity instance's State to SKIPPED.

4. The next step depends on the Activity Implementation of the activity instance.

    •   If the activity implementation is COMOBJECT, the Workflow Engine invokes the specified method of the COM Object.

    •   If the activity implementation is EVENT, the Workflow Engine registers the activity event, and waits for the specified event to occur. An **activity event** is a specific instance of an event related to an activity instance.

    •   If the activity implementation is MESSAGE, a message of the appropriate Message Type is placed into the appropriate message queue (based on the Message Type). Depending the specific message type, the message is picked up by either an external system or the Workflow Work Queue and the appropriate action indicated by the message is performed.

    •   If the activity implementation is PROCESS, a message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and creates a process instance for the process and sets the process instance's State to RUNNING.

    •   If the activity implementation is RATEFORM, the Workflow Engine posts a message in the Rules Language Engine Queue. The Rules Language Execution Engine picks up the message and runs the rate form specified by the activity.

    •   If the activity implementation is RESUME, a message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and resumes the process and sets the process instance's State to RUNNING.

- If the activity implementation is SUSPEND, a message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and suspends the process and sets the process instance's State to SUSPENDED.

- If the activity implementation is TERMINATE, a message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and terminates the process and sets the process instance's State to TERMINATED.

- If the activity implementation is WAIT, a message is posted to the Workflow Engine Queue with a scheduled expiration time. The Workflow Engine picks up the message, and when the scheduled time expires, the process continues. The WAIT activity does not change the process instance's State.

- If the activity implementation is END, a message is posted to the Workflow Engine Queue. The Workflow Engine picks up the message and ends the process and sets the process instance's State to COMPLETED.

If there is an error when running the activity, the Workflow Engine triggers the Activity InError function and sets the activity instance's state to INERROR.

If the activity instance's Wait For Flag if set to TRUE and the expiration time elapses, the Workflow Engine triggers the Activity Expired function and sets the activity instance's state to EXPIRED. The Workflow Engine then evaluates the Exit/Error parameter of the expiration time and triggers the Activity Finished or Activity InError function as appropriate, changing the activity instance's state to either FINISHED or INERROR.

5. After the activity has been successfully resolved, the Activity Finished function is sets the activity instance's State to FINISHED, and updates the activity instance's context as specified. The Workflow Engine then evaluates the activity instance's Exit Condition. If the exit condition evaluates to TRUE, the Workflow Engine sets the activity instance's State to COMPLETED, and proceeds to the next activity in the process.

Chapter 23

Workflow Activity Implementations

This chapter explains how to create activity implementations using Workflow Management, including:

- **Understanding Activity Implementations**

- **Working with Activity Implementations**

- **Activity Implementation API**

Understanding Activity Implementations

An activity implementation is how a specific activity is performed in Workflow Management. This section includes:

- **Activity Implementation Data**
- **Creating Activity Implementations**

Activity Implementation Data

Activity Implementations are defined by the following data.

Name

The name of the activity implementation. The name can be no longer that 64 characters.

Description

An optional description of the activity implementation. The description can be no longer that 254 characters.

Type

There are ten Activity Implementation types:

- **COMOBJECT**: The activity invokes a function of a COM interface. COM objects and the functions available from each must be configured in the COM Object Type and COM Object tables in the Oracle Utilities Data Repository See **Chapter 12: Setting Up Workflow Management Database Tables** in the *Workflow Management Installation and Configuration Guide* for more information about setting up these tables.

- **EVENT**: The activity registers a specific type of event.

- **MESSAGE**: The activity posts a specific type of message to the appropriate message queue.

- **PROCESS**: The activity starts another specified process

- **RATEFORM**: The activity runs a specified rate form.

- **RESUME**: The activity resumes a suspended process.

- **SUSPEND**: The activity suspends a process.

- **TERMINATE**: The activity terminates a process.

- **WAIT**: The activity posts a message to a message queue with a scheduled expiration time. When the scheduled time expires, the process continues.

- **END**: The activity ends a process.

Type Code

Most activity implementations requires a type code that specifies the particular COM object, event, message, process, or rate form that is associated with the activity implementation record. The Resume, Suspend, Terminate, Wait, and End activity implementations do not require type codes. The format for each of the different type codes is described below.

COM Object

The type code for COM Object activity implementations is the COM Object function from the COM Object table.

Event

The type code for Event activity implementations is the Event Code from the Event Type table.

Message

The type code for Message activity implementations is the Message Code from the Message Type table.

Process

The type code for Process activity implementations is the Process Name from the Process table. If the process is associated with a specific Operating Company and Jurisdiction, the appropriate Operating Company Jurisdiction codes should be appended to the Process name, separated by **commas**.

To create a Process activity implementation that started a Process named WORKQUEUE_MSG (Work Queue Message):

•   If the Process is associated with a specific Operating Company and Jurisdiction (GECO and CA, respectively), the Process name should appear in the activity implementation record as: WORKQUEUE_MSG,GECO,CA.

•   If the Process is not associated with a specific Operating Company and Jurisdiction, the Process name should appear in the activity implementation record as: WORKQUEUE_MSG.

Rate Form

The type code for Rate Form activity implementations is the Rate Form code from the Rate Form table. If the rate form is associated with a specific Operating Company and Jurisdiction, the appropriate Operating Company and Jurisdiction codes should precede the Rate Form code, separated by **colons**.

To create a Rate Form activity implementation that ran a Rate Form named DEPAPP (Post Deposit Application):

•   If the Rate Form is associated with a specific Operating Company and Jurisdiction (AGL and GA, respectively), the Rate Form name should appear in the activity implementation record as: AGL:GA:DEPAPP.

•   If the Rate Form is not associated with a specific Operating Company and Jurisdiction, the Process name should appear in the activity implementation record as: DEPAPP.

Product Code

A code that indicates the product associated with the activity implementation, from the LODESTAR Product table.

Context Schema

An Activity Implementation's Context Schema is an optional XML structure that defines the data context in which the activity is executed. The context itself contains all the actual data needed to perform the activity.

There are two primary uses of activity implementation context schemas. Context schemas define:

•   Data required by activities (Required Data)

•   Data needed to evaluate an activity's Exit Condition (Evaluation Data)

Required Data

Required data is data needed to perform the activity, based on the activity implementation. For example, if an activity involves contacting a customer, required data for that activity includes some means of identifying the customer, such as an Account ID or unique ID of the Account in the Data Repository (UIDACCOUNT).

Where possible, we recommend that context schemas define **the minimal amount of data needed** for the activity to be performed, and if possible, data that is not likely to change over time. This practice reduces the amount of data moving through Workflow Management and reduces the

need to alter data used by a process once it's running. For example, rather than include numerous types of contact information for an account or customer such as the account name, ID, telephone number, address, etc., it's preferable to include only the Account ID, since the Account ID can be used to locate other account-related data, and it's unlikely that an account's ID will change.

Evaluation Data

Evaluation data is specific data used to evaluate the activity's Exit Condition. An activity's exit condition indicates the conditions under which the activity is completed (i.e. the activity's State is set to "Completed").

Evaluation data is needed only if there are specific conditions or data that determine the conditions under which the activity is completed. This can occur with activities that have more than one possible outcome, such as determining the current status of an account or determining if an account is eligible for service shut-off. In this case, the activity's exit condition is evaluated against data in the activity context (as defined by the activity implementation context schema) to determine if the exit condition has been met. For instance, if an activity's exit condition requires that the activity is completed only if the customer is eligible for service shut-off, the context schema must define data that can be used to determine if the customer is eligible or not.

Many activities will not require evaluation data. The activity's exit condition might simply be TRUE, indicating that once the activity has been performed, that activity is completed, and the process automatically moves on to the next activity.

More information about Exit Conditions can be found in **Chapter 25: Workflow Process Activities**.

Context Schema Format

Context schemas are implemented as XML schemas using Microsoft's XML-Data Reduced (XDR) schema format. These schemas define how the XML data is used by the activities.

Note: Refer to the Microsoft Developer Network website (http://msdn.microsoft.com) for information about the format of XDR schemas.

Creating Activity Implementations

Creating activity implementations using Workflow Management involves four steps.

Step One: Determine the activity implementations to be created.

First, determine the activity implementations that need to be created. This should be based on the activities that take place within the specific processes you plan to model using Workflow Management. For example, if one or more of your processes involves contacting a customer by telephone, you should create an activity implementation for this type of activity.

You should create an activity implementation for each specific **type** of activity that takes place in a process or processes. Activity implementations should be made to be as generic and reusable as possible. If a process involves making three different phone calls to a customer, rather than create three 'Phone Call' activity implementations (one for each phone call), create a single 'Phone Call' activity implementation that can be used for all three. The type of phone call can be specified in the activity implementation context schema.

At this point you must determine the activity implementation type for each activity implementation. Each must be either a Message, an Event, a Process, or a Rate Form. Each type is used to perform a different operation.

- **COMOBJECT:** COM Object activities trigger functions within COM interfaces. COM Objects are used when a process must trigger a specific function available through a COM interface. In a financial collections process, a COM Object might be the creation of a letter to a customer concerning an outstanding past due balance.

- **EVENT:** Event activities register events of specified types. Events are used when a process must wait for an external event before proceeding. In a financial collections process, an event might be the receipt of payment from a customer whose account is currently past due.

- **MESSAGE:** Message activities post specific types of messages to appropriate message queue(s). Messages can be used to send data to a Customer Relationship Management (CRM) system or other external system to alert users to perform specific tasks related to the activity and process being performed. Messages can also be used to post items in a work queue for later processing. Most activity implementations will be messages.

- **PROCESS**: Process activities start other processes. Process activity implementations are used most often when activities within a process initiate other related processes. Determining if a customer is eligible for service shut-off might be a single activity in a process, but the actual shutting-off of the customer's service might be a completely separate process.

- **RATEFORM:** Rate form activities run specified rate forms. Rate form activity implementations are used when a process requires a specific Rules Language rate form be run.

- **RESUME**: Resume activities resume suspended processes.

- **SUSPEND**: Suspend activities suspend processes.

- **TERMINATE**: Terminate activities terminate processes.

- **WAIT**: Wait activities cause a process to wait for pre-defined amount of time, after which time the process resumes.

- **END**: End activities end processes.

Step Two: Assign the specific type of COM Object, Event, Message, Process, or Rate Form to each activity implementation.

The next step is to assign the specific COM Object, Event Type, Message Type, Event Type, Process or Rate Form to each activity implementation. The Resume, Suspend, Terminate, Wait, and End activity implementations do not require type codes. COM Object, Event, Message, Process, and Rate Form activity implementations must have a specific type code:

- **COM Object**: COM Object function from the COM Object table.

- **EVENT:** Event Code from the Event Type table.

- **MESSAGE:** Message Code from the Message Type table.

- **PROCESS**: Name (and unique ID) of the Process to be run from the Process table.

- **RATEFORM:** Rate Form code (and unique ID) of the rate form to be run from the Rate Form table.

Step Three: Determine the data to be defined in the context schema for each activity implementation.

Next, determine the data required in the context schema of each activity implementation. This can include virtually any information, but must include any Required Data and Evaluation Data needed by the activity. See **Context Schema** on page 23-3 for more information.

Step Four: Create the actual activity implementation record.

Finally, create the actual activity implementation records in the Oracle Utilities Data Repository. These include:

- **Name:** Name of the activity implementation

- **Description:** An optional description of the activity implementation

- **Type:** COM Object, Event, Message, Process, Rate Form, Resume, Suspend, Terminate, Wait, or End

- **Type Code:** A code that designates the specific COM Object, Event, Message, Process, or Rate Form associated with the activity implementation.

- **Product Code:** A code that designates the specific Oracle Utilities product associated with the activity implementation.

- **Context Schema:** An optional XML schema that defines the data required by the activity implementation.

Example: Phone Call

If a process includes a number of activities that involve placing a phone call to the customer, these could all use a single activity implementation, a message. The following example steps through creating this activity implementation.

1. Enter a name for the activity implementation.

   Name: Phone Call to Customer

2. Enter an optional description for the activity implementation.

   Description: Place a phone call to customer.

3. Select the activity implementation type

   Type: MESSAGE

4. Select the appropriate type code for the selected activity implementation type. In this case, the appropriate Message Code from the Message Type table.

   Message Type: PHONE_CALL

5. Create the context schema used by the activity implementation. The context schema needs to define the Account ID (which in turn will be used to obtain other contact information such as the customer's telephone number) and the Type of phone call (i.e. notification of past due amount, arrange payment, shut-off warning, etc.). Keep the data as minimal as possible.

   Context Schema:

```
<?xml version="1.0" encoding="UTF-8"?>
<Schema name="phone_call_act_impl" xmlns="urn:schemas-microsoft-com:xml-data"
xmlns:dt="urn:schemas-microsoft-com:datatypes">
  <ElementType name="ACCOUNTID" model="closed" content="textOnly" dt:type="i1"/
>
  <ElementType name="TYPE" model="closed" content="textOnly" dt:type="string"/>
</Schema>
```

Working with Activity Implementations

You work with activity implementations via the Workflow Management user interface, accessed from the Oracle Utilities Energy Information Platform framework.

How to select and view and/or edit Activity Implementations:

1. Select **Financials-›Work Flow-›Activity Types**.

    The Activity Implementation screen opens.

2. Enter the search criteria in the appropriate field.

    You can search based on the Activity Name or Type.

    You can use the percent sign ("%") as a wildcard character when entering values in the Activity Name field. The Activity Name field automatically appends a wildcard character to the end of any search criteria you enter. For example, if you want to search for all activity implementations that begin with the letter G, you could simply enter "G" in the Activity Name field.

    If you want to search for all users that contain the letter G, you could enter "%G" in the Activity Name field, and the search would retrieve all activity implementations that contain the letter G.

    Note that Activity Names are **case-sensitive**. For example, there is a difference between the "Calc_Payment" and "calc_payment" activity names.

3. Click **Search**.

4. A list of all activity implementation records that match the search criteria appear on the Activity Implementations screen.

5. Click the **Activity Name** link for the record you wish to view from the list. The selected record appears in the Activity Implementations screen.

6. *Optional.* Change the activity implementation type on the **Type** drop-down list.

7. *Optional.* Change the Type Code for the activity implementation from the drop-down list, based on the Activity Implementation Type.

8. *Optional.* Change the product code from the **Product Code** drop-down list.

9. *Optional.* Enter or edit an optional **Description** for the activity implementation.

10. *Optional.* Enter or edit an optional **Context Schema** for the activity implementation.

11. Click **Save** to save the changes. Click **Delete** to delete the activity implementation. Click **List Activities** to list all the activity implementation records in the system.

How to create a new Activity Implementation:

1. Select **Financials-›Work Flow-›Activity Types**.

    The Activity Implementation screen opens.

2. Click **Add Activity**.

    The Activity Implementation screen displays the Name and Type fields.

3. Enter the **Name** of the activity implementation.

4. Select the activity implementation type from the **Type** drop-down list.

5. Click **Continue**.

    An activity implementation record appears in the Activity Implementations screen, with the entered Name and Type.

6. Select a Type Code for the activity implementation from the drop-down list, based on the Activity Implementation **Type**.

7. Select a product code from the **Product Code** drop-down list.

8. Enter an optional **Description** for the activity implementation.

9. Enter an optional **Context Schema** for the activity implementation.

10. Click **Save** to save the record. Click **Delete** to delete the activity implementation. Click **List Activities** to list all the activity implementation records in the system.

Activity Implementation API

Workflow Management also provides access to a number of functions for working with activity implementations from external systems such as a Customer Relationship Management (CRM) application. These functions require the following data:

- An XML file that contains data source connection data (user id, password, datasource, and qualifier), and

- An XML file that specifies the activity implementation data itself, as described under **Activity Implementation Data** on page 23-2.

The Workflow Management user interface automatically supplies this data. When used from an external system, the data must be supplied.

Insert Activity Implementation

Creates a new activity implementation record and inserts it into the Activity Implementation table in the Oracle Utilities Data Repository.

Update Activity Implementation

Updates an existing activity implementation record.

Delete Activity Implementation

Delete an existing activity implementation record.

List Activity Implementations

Provides a list of activity implementation records from the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Select Activity Implementation

Selects a specific activity implementation record in the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface), and in conjunction with the Update and Delete functions.

See **Chapter 22**: **Workflow Management Activity Implementations Interface** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about using the Activity Implementation API.

Chapter 24

Workflow Processes and Process Versions

This chapter describes how to work with processes and process versions using Workflow Management, including:

- **Understanding Processes and Process Versions**

- **Working with Processes**

- **Working with Process Versions**

- **Process Versions API**

Understanding Processes and Process Versions

A process is a series of activities performed in a defined sequence relating to a specific operation. A process version is a specific version of a process. A process instance is a current started instance of a process version. Whenever a process is initiated, a new process instance of the appropriate process version is created. This section includes:

- **Process Data**

- **Process Version Data**

- **Creating Processes and Process Versions**

Process Data

Processes are defined by the following data.

Name

The name of the process. The name can be no longer that 64 characters, and must be unique within the related Operating Company and Jurisdiction.

Operating Company

Operating company associated with the process (optional).

Jurisdiction

Jurisdiction associated with the process (optional).

Description

Description of the process. The description can be no longer that 254 characters (optional).

Manual Submission Flag

A flag that indicates if the process can be initiated manually.

Process Version Data

Process versions are defined by the following data.

Process

The process on which the process version is based. This is taken from the Process table.

Major/Minor Version

Process versions are defined by major and minor version numbers. The major version is the number before the decimal point. The minor version is the number after the decimal point. For example, process version 1.4 would have a major version number of 1, and a minor version number of 4.

Important Note: Do not change the major or minor version numbers once a process version has been used by Workflow Management (i.e. a process instance based on that version number has been run or is currently running). Create a new version of the process (with appropriate major/minor version numbers) if changes are required.

Note

An optional note about the process version.

Validated Flag

A flag that indicates whether or not the process version has been validated by Workflow Management. Process versions must be validated (VALIDATED="Y") before they can be run in Workflow Management.

Context Schema

A Context Schema is an optional XML structure that defines the data used by a process. The context itself contains all the actual data needed to perform the process.

Process version context schemas define:

- Data required by processes (Required Data)

- Data needed to evaluate an activity's Transition Condition (Evaluation Data)

Required Data

Required data is needed to perform the process. For example, if a process involves contacting a customer, required data for that process includes some means of identifying the customer, such as an Account ID or unique ID of the Account in the Data Repository (UIDACCOUNT).

Where possible, we recommend that context schemas define **the minimal amount of data needed** for the process to run, and if possible, data that is not likely to change. This practice reduces the amount of data moving through Workflow Management and reduces the need to alter data used by a process once it's running. For example, rather than include numerous types of contact information for an account or customer such as the account name, ID, telephone number, address, etc., include only the Account ID, since the Account ID can be used to locate other account-related data, and it's unlikely that an account's ID will change.

Evaluation Data

Evaluation data is used to evaluate the Transition Conditions of the input paths of activities within the process. Transition conditions determine which path a process follows after exiting an activity.

Evaluation data is needed if there are specific conditions or data that determine whether the process follows one path or another. This will occur in processes that include activities with more than one possible outcome. The transition condition is evaluated against data defined by the process version context schema to determine if the transition condition has been met.

Many processes will not require evaluation data. A transition condition of TRUE indicates that once the activity has been performed and completed, the process automatically moves to the next activity. A linear process that moves from one activity to the next without branching doesn't require transition conditions because there is only one possible path between activities.

More information about Exit Conditions can be found in **Chapter 25**: **Workflow Process Activities**.

Context Schema Format

Context schemas are implemented as XML schemas using Microsoft's XML-Data Reduced (XDR) schema format. These schemas define how the XML data is used.

> **Note:** Refer to the Microsoft Developer Network website (http://msdn.microsoft.com) for information about the format of XDR schemas.

Creating Processes and Process Versions

Creating processes and process versions involves four steps.

Step One: Create the process record.

First, create a process record in the Oracle Utilities Data Repository. This includes the following:

- **Name:** Name of the process.

- **Operating Company:** Optional operating company associated with the process.

- **Jurisdiction:** Optional jurisdiction associated with the process.

- **Description:** Optional description of the process.

Step Two: Determine the Version number (major and minor).

Determine the version number (major version and minor version). The first process version for any process should be 1.0. The major version should be changed whenever significant changes are made, such as the addition or removal or one or more activities or substantial changes to the process version context schema. The minor version should be changed whenever minor changes are made, such as changes to one or more activities and activity implementations, or minor changes to the process version context schema.

> **Important Note:** Do not change the major or minor version numbers once a process version has been used by Workflow Management (i.e. a process instance based on that version number has been run or is currently running). Create a new version of the process (with appropriate major/minor version numbers) if changes are required.

Step Three: Determine the data to be defined in the context schema.

Determine the data that needs to be defined in the context schema of the process version. This can include virtually any information, but must include any Required Data and Evaluation Data needed by the process (see **Context Schema** on page 24-3 for more information).

Step Four: Create the process version record.

Create the actual process version record in the Oracle Utilities Data Repository. This includes the following:

- **Process:** The process upon which the process version is based, from the Process table.

- **Major Version:** The major version number of the process version.

- **Minor Version:** The minor version number of the process version.

- **Note:** An optional note about the process version.

- **Validated Flag:** A flag that indicates whether or not the process version has been validated by Workflow Management.

  > **Note:** The Validated flag is a display value only. It is automatically updated when the process version has been validated.

- **Context Schema:** An XML schema that defines the data required by the process.

Example: Collections

Suppose a process includes a number of activities related to performing collections procedures for past due customers. The following example demonstrates how to create this process.

Process Record

1. Enter a name for the process.

   Name: Collections

2. Enter an optional Operating Company and Jurisdiction for the process.

   Operating Company: LSE

   Jurisdiction: GA.

3. Enter an optional description for the process.

   Description: Collections of past due accounts.

Process Version Record

1. Select the Process to create the process version

   Process: Collections

2. Enter the version number of the process version

   Major Version: 1 (new version)

   Minor Version: 0 (new version)

3. Enter an optional note for the process version.

   Description: Initial version of collections process.

4. Create the context schema for the process version. Use the minimum data required. The Account ID, used to obtain other contact information such as the customer's telephone number.

   Context Schema:

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <Schema name="collections_process" xmlns="urn:schemas-microsoft-com:xml-data"
xmlns:dt="urn:schemas-microsoft-com:datatypes">
  <ElementType name="ACCT_ID" model="closed" content="textOnly" dt:type="i1"/>
</Schema>
```

Working with Processes

You work with processes using the Workflow Management user interface, accessed from the Oracle Utilities Energy Information Platform framework.

How to select and view Process records:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to view from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

How to create a new Process record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Enter a name for the process in the **Name** field.

3. *Optional.* Select the operating company for the process from **Operating Company** drop-down list.

4. *Optional.* Select the jurisdiction for the process from **Jurisdiction** drop-down list.

5. *Optional.* Select the receivable status for the process from **Receivable Status** drop-down list.

6. If the process can be initiated manually, check the **Allow Manual Submissions** checkbox.

7. *Optional.* Enter a description for the process in the **Description** field.

8. Click **Create** to create the process record.

9. The new process record appears on the **Processes** screen.

How to create a new Process Record based on an existing record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to use as the basis for the new process from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Enter the name for the new process or edit the existing name in the **Name** field.

4. *Optional.* Select the operating company for the new process from **Operating Company** drop-down list.

5. *Optional.* Select the jurisdiction for the new process from **Jurisdiction** drop-down list.

6. *Optional.* Select the receivable status for the new process from **Receivable Status** drop-down list.

7. If the new process can be initiated manually, check the **Allow Manual Submissions** checkbox.

8. *Optional.* Enter a description for the new process or edit the existing description in the **Description** field.

9. Click **Create** to create the new process record.

10. The new process record appears on the **Processes** screen.

How to create a new Process (including all related process activities) based on an existing version of the process:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Enter the name for the new process (or edit the existing name) in the **Name** field.

3. Click **Create from Version**.

   The **Create from Version** dialog opens.

4. Select the process you wish to use as the basis for the new record from the **Process** drop-down list.

5. Select the version of the process you wish to use as the basis for the new record from the **Version** drop-down list.

6. Click **OK**. To close the dialog with saving your selections, click **Cancel**.

7. The new process record appears on the **Processes** screen.

   Note: Creating a new process using this procedure includes all process activities related to the process version selected on the Create from Version dialog. See **Chapter 25**: **Workflow Process Activities** for more information about process activities.

How to edit an existing Process record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to edit from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Enter the name for the new process or edit the existing name in the **Name** field.

4. *Optional*. Select the operating company for the new process from **Operating Company** drop-down list.

5. *Optional*. Select the jurisdiction for the new process from **Jurisdiction** drop-down list.

6. *Optional*. Select the receivable status for the new process from **Receivable Status** drop-down list.

7. If the new process can be initiated manually, check the **Allow Manual Submissions** checkbox.

8. *Optional*. Enter a description for the new process or edit the existing description in the **Description** field.

9. Click **Update** to save the changes to the record.

10. The updated process record appears on the **Processes** screen.

How to delete an existing Process record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to delete from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Delete**.

4. The deleted process record no longer appears on the **Processes** screen.

Working with Process Versions

You work with process versions using the Workflow Management user interface, accessed from the Oracle Utilities Energy Information Platform framework.

How to select and view Process Version records:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to view from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

   The **Build Process Versions** screen opens listing all the process versions for the selected process.

4. Select the process version you wish to view from the list by checking the radio button in the far left column. The process version data for the selected record will be displayed.

How to create a new Process Version record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to create a new version for from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

   The **Build Process Versions** screen opens.

4. Enter the major version number in the **Major Version** field.

5. Enter the minor version number in the **Minor Version** field.

6. *Optional.* Enter a note for the new version in the **Note** field.

7. *Optional.* Enter a context schema for the new version in the **Context Schema** box.

8. Click **Create**.

9. The new process version record appears on the **Build Process Versions** screen.

How to create a new Process Version record based on an existing record:

1. Select **Financials-›Work Flow-›Process Versions**.

   The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to create a new version for from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

   The **Build Process Versions** screen opens.

   Select the process version you wish to base the new version on.

4. Enter the major version number in the **Major Version** field.

5. Enter the minor version number in the **Minor Version** field.

6. Click **Copy**.

7. The new process version record appears on the **Build Process Versions** screen. The minor version number of the process version will increment by 1.

How to edit an existing Process Version record:

1. Select **Financials-›Work Flow-›Process Versions**.

    The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to view from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

    The **Build Process Versions** screen opens listing all the process versions for the selected process.

4. Select the process version you wish to view from the list by checking the radio button in the far left column. The process version data for the selected record will be displayed.

5. Edit the major version number in the **Major Version** field as appropriate.

6. Edit the minor version number in the **Minor Version** field as appropriate.

7. *Optional*. Edit the note for the new version in the **Note** field as appropriate.

8. *Optional*. Edit a context schema for the new version in the **Context Schema** box as appropriate.

9. Click **Update**.

10. The updated process version record appears on the **Build Process Versions** screen.

How to delete an existing Process Version record:

1. Select **Financials-›Work Flow-›Process Versions**.

    The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to view from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

    The **Build Process Versions** screen opens listing all the process versions for the selected process.

4. Select the process version you wish to delete from the list by checking the radio button in the far left column. The process version data for the selected record will be displayed.

5. Click **Delete**.

6. The deleted process version record no longer appears on the **Build Process Versions** screen.

How to validate an existing Process Version record:

1. Select **Financials-›Work Flow-›Process Versions**.

    The **Processes** screen opens listing all the process records in the system.

2. Select the process you wish to view from the list by checking the radio button in the far left column. The process data for the selected record will be displayed.

3. Click **Versions**.

    The **Build Process Versions** screen opens listing all the process versions for the selected process.

4. Select the process version you wish to validate from the list by checking the radio button in the far left column. The process version data for the selected record will be displayed.

5. Click **Validate**.

Process Versions API

Workflow Management also provides a number of functions for working with processes and process versions from external systems such as a Customer Relationship Management (CRM) application. These functions require the following data:

• An XML file that contains data source connection data (user id, password, datasource, and qualifier), and

• An XML file that specifies the process or process version data itself, as described under **Process Data** and **Process Version Data** on page 24-2.

The Workflow Management user interface automatically supplies this data. When used from an external system, the data must be supplied.

Insert Process

Creates a new process record and inserts it into the Process table in the Oracle Utilities Data Repository.

Update Process

Updates an existing process record.

Delete Process

Deletes an existing process record.

List Process

Provides a list of process records in the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Select Process

Selects a specific process record from the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface), in conjunction with the Update and Delete functions.

Insert Process Version

Creates a new process version record and inserts it into the Process Version table in the Oracle Utilities Data Repository.

Update Process Version

Updates an existing process version record.

Delete Process Version

Deletes an existing process version record.

Copy Process Version

Copies an existing process version record from the database, along with all its child process activity records, and inserts the copies into the database.

Validate Process Version

Validates a process version record.

List Process Versions

Provides a list of process version records from those in the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Select Process Version

Selects a specific process version record from those in the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface), and in conjunction with the Update and Delete functions.

See **Chapter 23**: **Workflow Management Process Versions Interface** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about using the Process Version API.

Chapter 25

Workflow Process Activities

This chapter describes how to create process activities using Workflow Management, including:

*   **Understanding Process Activities**

*   **Working with Process Activities**

*   **Process Activity API**

Understanding Process Activities

Process activities are activities associated with a process. An activity instance is a current started instance of a process activity. Whenever an activity is initiated, a new activity instance of the appropriate process activity is created. This section includes:

• **Process Activity Data**

• **Creating Process Activities**

Process Activity Data

Process activities are defined by the following data.

Process Version

The process version to which the process activity belongs, from the Process Version table. This data includes the Process Name, Operating Company, Jurisdiction, Major Version number, and Minor Version number.

ID

A unique ID of the process activity within the process version.

Activity Implementation

The activity implementation associated with the process activity, from the Activity Implementation table. Note that this does not mean only the activity implementation type, but the actual activity implementation record associated with the activity.

Start Condition

The condition under which the activity is started. A process activity's Start Condition is either "ALL" or "ANY".

• **ALL** indicates that all Input Path Transition Conditions must evaluate to TRUE for the activity to start. This is the default Start Condition. "ALL" should be used if there is only one input path to the activity, or when multiple input paths have Transition Conditions that **all** must evaluate to TRUE.

• **ANY** indicates that one or more Input Path Transition Conditions must evaluate to TRUE for the activity to start. "ANY" should be used if there is more than possible input path. If the Transition Condition of any of the input paths evaluates to TRUE, the activity starts.

Exit Condition

The condition under which the activity exits and the process moves to the next activity. Exit conditions are either XPath expressions that are evaluated against the Evaluation Data of the activity implementation context (see **Evaluation Data** on page 23-4), or are the literal value TRUE (the default exit condition if a specific condition is not provided).

Exit conditions are evaluated when an activity instance's state is set to Finished (usually through the Activity Finished function of the Workflow Engine, see **Chapter Eight: The Workflow Engine**). Exit conditions specify conditions that must be met for an activity instance's state to change from Finished to Completed.

An exit condition of TRUE indicates that once the activity has been performed, that activity is completed and the process automatically moves to the next activity.

Exit Conditions Format

Common formats for exit condition xPath formats:

```
<DATA_ELEMENT>[@<ATTRIBUTE><EXPRESSION><VALUE>]
```

or

```
<DATA_ELEMENT><EXPRESSION><VALUE>
```

Where:

- DATA_ELEMENT is a specific data element defined in the activity implementation context schema. If the data element is nested beneath other data elements, it is notated:

  ```
  <DATA_ELEMENT1>\<DATA_ELEMENT2>...
  ```
  In this case, DATA_ELEMENT2 is nested beneath DATA_ELEMENT1.

- ATTRIBUTE is a specific attribute of the data element defined in the activity implementation context schema. Attributes are proceeded by the @ symbol.

- EXPRESSION is a mathematical expression. This must be one of:

  - = (equals)

  - > (less than)

  - < (greater than)

  - >= (greater than or equal to)

  - <= (less than or equal to)

  - != (not equal to)

- VALUE is a string that contains the value against which the exit condition evaluates the corresponding value in the activity implementation context.

    Note: Exit Condition XPath expressions should be written relative to the CONTEXT (root) element in the activity implementation context.

Example:

An activity in a typical collections process might involve contacting a customer concerning a Past Due balance. This activity is completed only after the customer has been contacted. The exit condition for this activity might be:

```
CUSTOMER[@CONTACT = TRUE]
```

If the CONTACT attribute of the CUSTOMER data element is TRUE, the exit condition is TRUE, and the process would move on to the next activity. If the activity implementation context for this activity was:

```
<CONTEXT>
  <CUSTOMER CONTACT='TRUE'/>
</CONTEXT>
```

the exit condition would evaluate to TRUE. If the value of the CONTACT attribute was FALSE, the exit condition would evaluate to FALSE, and the activity instance's state would change from Finished to Running.

Refer to the Microsoft Developer Network website
 (http://msdn.microsoft.com) for additional information about XPath and valid XPath expressions.

Wait For Flag

A flag that indicates an activity is waiting for a defined duration or condition. The default value for the Wait For Flag is TRUE. There are two values associated with the Wait For flag:

- **Expiration Time** is the amount of time the process waits before expiring, at which time the activity instance's state will be set to Expired. The Expiration Time can be either an absolute date, or a duration relative to the date the activity instance was started. Relative expiration times can be configured to use business days (defined in the Business Calendar and Business Day tables) or all days. Expiration time is optional.

- **Exit/Error** indicates whether the activity instance's state will change from Expired to Finished (Exit) or InError (Error) when the Expiration Time elapses. The default value is Error.

Recommended Starting Point Flag

A flag that indicates if the process activity can be used as the starting point for a manually initiated process.

Input Paths

The input path or paths to the process activity. A process activity can have zero or more input paths. An input path includes a source activity and transition condition.

Source Activity

An input path's source activity is the proceeding activity in the process.

Transition Condition

An input path's transition condition is the condition under which the activity can move from its source activity. Transition conditions are evaluated when an activity instance's state is Inactive and its source activity instance's state is Completed. Transition conditions are used to specify conditions that must be met for an activity instance's state to change from Inactive to Running.

Transition conditions are XPath expressions that are evaluated against the Evaluation Data of the process version context (see **Evaluation Data** on page 23-4), or are the literal value TRUE (which is the default exit condition). A transition condition of TRUE indicates that once an activity has been performed, the process automatically moves to the next activity. For instance, a linear process that simply moves from one activity to the next with no branching will not require specific transition conditions because there is only one possible path between activities.

Transition Condition Format

Common formats for transition conditions are as follows:

```
<DATA_ELEMENT>[@<ATTRIBUTE><EXPRESSION><VALUE>]
```

or

```
<DATA_ELEMENT><EXPRESSION><VALUE>
```

Where:

- DATA_ELEMENT is a specific data element defined in the process version context schema. If the data element is nested beneath other data elements, it is notated as:

  ```
  <DATA_ELEMENT1>\<DATA_ELEMENT2>...
  ```
  where DATA_ELEMENT2 is nested beneath DATA_ELEMENT1.

- ATTRIBUTE is a specific attribute of the data element defined in the process version context schema. Attributes are proceeded by the @ symbol.

- EXPRESSION is a mathematical expression. This must be one of:

  - = (equals)

- > (less than)

- < (greater than)

- >= (greater than or equal to)

- <= (less than or equal to)

- != (not equal to)

- VALUE is the value against which the transition condition evaluates the corresponding value in the process version context.

   Note: Transition Condition XPath expressions should be written relative to the CONTEXT (root) element in the activity implementation context.

Example:

The first activity in a typical collections process might involve reviewing the current status of the customer to determine whether or not the customer is Past Due on their account. If the customer is past due, the process moves to the Contact Customer activity. The transition condition for the input path to this activity might be as follows:

```
BILL[@PastDue > 50.00]
```

If the PastDue attribute of the BILL data element is greater than $50.00, the transition condition is TRUE, and the process would start this activity (contact customer). If the process version context for the process was as follows:

```
<CONTEXT Approved="TRUE">
  <BILL PastDue='90.00'/>
</CONTEXT>
```

the transition condition would evaluate to TRUE. If the value of the PastDue attribute was less than $50.00, the transition condition would evaluate to FALSE.

Refer to the Microsoft Developer Network website (http://msdn.microsoft.com) for additional information about XPath and valid XPath expressions.

Context Maps

Context Maps are optional data mappings between the contexts of activities and processes. These determine how data is passed from the context of a process to the individual activities within that process, and from the individual activities to the process.

There are two types of context maps, input maps and output maps.

Input Maps

Input maps plot data from the process context to the activity context. Each input map consists of one or more items, each of which has FROM and TO expressions.

- **FROM:** The FROM expression should be either an XPath expression that defines a data element or attribute defined in the process version context schema or a literal value enclosed in quotes.

- **TO:** The TO expression should be an XPath expression that defines a data element or attribute defined in the activity implementation context schema.

Output Maps

Output maps plot data from the activity context to the process context. Each output map consists of one or more items, each of which has FROM and TO expressions.

- **FROM:** The FROM expression should be either an XPath expression that defines a data element or attribute defined in the activity implementation context schema or a literal value enclosed in quotes.

- **TO:** The TO expression should be an XPath expression that defines a data element or attribute defined in the process version context schema.

We recommend that context maps plot **the minimal amount of data needed** for the process and activity, and data that is not likely to change over time. This practice reduces the amount of data moving through Workflow Management and reduces the need to alter data used by a process once it's running.

For example, it's preferable to map only the Account ID, since the Account ID can be used to locate other account-related data, and it's unlikely that an account's ID will change.

Context Maps Data Types

FROM and TO expressions in both input and output maps can define three types of data: Data Elements, Attributes, and Strings. The Data Type Names and examples of how each data type might appear in an XML context are provided below.

Data Type	Data Type Name	Example
Data Element	Element Text Node Value	<ACCOUNTID>123</ACCOUNTID>
Attribute	Value	<ACCOUNT Id='123'/>
String	String Value	"123"

There are six possible FROM>TO combinations of these three data types. Each combination results in a unique data map between contexts, as shown on the table below.

FROM>TO Combination	Data Mapping
Data Element>Data Element	The Element Text Node Value (ETNV) of the FROM data element becomes the ETNV of the TO data element.
Data Element>Attribute	The ETNV of the FROM data element becomes the value of the TO attribute.
Attribute>Data Element	The value of the FROM attribute becomes the ETNV of the TO data element.
Attribute>Attribute	The value of the FROM attribute becomes the value of the TO attribute.
String>Data Element	The string value of the FROM string becomes the ETNV of the TO data element.
String>Attribute	The string value of the FROM string becomes the value of the TO attribute.

Context Map Format

Context map expressions can be constructed in any one of the following six formats:

```
FROM: <DATA_ELEMENT>TO: <DATA_ELEMENT>
FROM: <DATA_ELEMENT>TO: <DATA_ELEMENT>/@<ATTRIBUTE>
FROM: <DATA_ELEMENT>/@<ATTRIBUTE>TO: <DATA_ELEMENT>
FROM: <<DATA_ELEMENT>/@ATTRIBUTE>TO: <DATA_ELEMENT>/@<ATTRIBUTE>
FROM: <STRING>TO: <DATA_ELEMENT>
FROM: <STRING>TO: <DATA_ELEMENT>/@<ATTRIBUTE>
```

Where:

- DATA_ELEMENT is a specific data element defined in the activity implementation and/or process version context schema. If the data element is nested beneath other data elements, it is notated as:

    ```
    <DATA_ELEMENT1>\<DATA_ELEMENT2>...
    ```
    where DATA_ELEMENT2 is nested beneath DATA_ELEMENT1.

- ATTRIBUTE is a specific attribute of the data element defined in the activity implementation and/or process version context schema. Attributes are proceeded by the appropriate data element, followed by a slash (/) and the @ symbol.

- STRING is a literal string value. Note that strings are always enclosed by double quotes (" ").

    Note: Context Map XPath expressions should be written relative to the CONTEXT (root) element in the activity implementation context.

Example

A process activity requires that the Account ID, Past Due Amount, and Arrangement values be mapped from the following process context:

```
<CONTEXT>
  <ACCOUNTID>123</ACCOUNTID>
  <BILL Amount='200.00' PastDue='90.00'/>
</CONTEXT>
```

to the following activity context.

```
<CONTEXT>
  <ACCOUNT Id='123'/>
  <PASTDUEAMT>90.00</PASTDUEAMT>
  <OTHER Arrangement='TRUE'/>
</CONTEXT>
```

The Account ID is a data element in the process context and an attribute in the activity context, the Past Due Amount is an attribute in the process context and a data element in the activity context, and Arrangement doesn't exist in the process context. The following context map could be used to properly map the data as required.

```
FROM: ATTRIBUTEIDTO: ACCOUNT/@ID
FROM: BILL/@PastDueTO: PASTDUEAMNT
FROM: "TRUE"TO: OTHER/@Arrangement
```

Refer to the Microsoft Developer Network website
(http://msdn.microsoft.com) for additional information about XPath and valid XPath expressions.

Creating Process Activities

Creating process activities involves five steps.

Step One: Determine the appropriate activity implementation for the process activity.

Determine the appropriate activity implementation for the process activity. Since activity implementations are based on specific activities that occur within the process, this involves matching the activity in the process with the appropriate activity implementation.

Step Two: Determine the Start Condition, Exit Condition, (optionally) Wait For Flag, and Recommended Starting Point Flag for the process activity.

Determine the appropriate Start and Exit Conditions for the activity, if appropriate the specifics of the Wait For Flag, and if the activity should be used as a starting point for the process when initiated manually.

- **Start Condition:** The condition under which the activity is started. Should be "ALL" if there is only one input path to the activity (or if in the case of multiple input paths, that their Transition Conditions must **all** evaluate to TRUE), and should be "ANY" if there is more than one possible input path to the activity (in this case, if the Transition Condition of any of the input paths evaluates to TRUE, the activity is started). See **Start Condition** on page 25-2 for more information.

- **Exit Condition**: The condition under which the activity exits and the process moves to the next activity. Should be either an XPath expression that can be evaluated against the activity context or the literal value TRUE (indicating that once the activity has been performed, that activity is completed and the process automatically moves on to the next activity). See **Exit Condition** on page 25-2 for more information.

- **Wait For Flag:** Should only be set to TRUE if the activity is waiting for a pre-determined duration or condition. If set to TRUE, an appropriate Exit/Error value must be supplied. See **Wait For Flag** on page 25-4 for more information.

- **Recommended Starting Point Flag:** Should only checked if the activity is to be used as the starting point for the process when manually initiated.

Step Three: Determine the Input Path(s) for the process activity.

The next step is to determine the appropriate input path (or paths) for the process activity. A process activity can have zero or more input paths. An input path includes a source activity and transition condition.

- **Source Activity:** The proceeding activity in the process.

- **Transition Condition:** The condition under which the activity can transition from the source activity to this activity. Should be either an XPath expression that can be evaluated against the process context or are the literal value TRUE (indicating that once the activity has been performed the process automatically moves on to the next activity). See **Input Paths Transition Condition** on page 25-4 for more information.

Step Four: Create the Context Maps for the process activity.

The next step is to create the context maps for the process activity. These should be based on the Required and Evaluation data (see **Evaluation Data** on page 23-4) needed by the process and activities to run properly. Data to be mapped from the process to the activity should be defined in the Input Map. Data to be mapped from the activity to the process should be defined in the Output Map. See **Context Maps** on page 25-5 for more information.

Step Five: Create the actual process activity record.

The last step is to create the actual process activity record in the Oracle Utilities Data Repository. As described under **Process Activity Data** on page 25-2, this includes the following:

- **Process Version:** The process version to which the process activity belongs, from the Process Version table.

- **ID:** A unique ID of the process activity within the process version.

- **Implementation:** The activity implementation associated with the process activity, from the Activity Implementation table.

- **Start Condition:** The condition under which the activity is started.

- **Exit Condition:** The condition under which the activity exits and the process moves to the next activity.

- **Wait For Flag:** A flag that indicates that the activity is waiting for a pre-determined duration or condition.

- **Recommended Starting Point Flag:** A flag that indicates that the activity can be used as a starting point when the process is manually initiated.

- **Input Paths:** The input path or paths to the process activity.

- **Context Maps:** Optional data mappings between the contexts of activities and processes that determine how data is passed from the context of a process to the individual activities within that process, and from the activities to the process.

Example: Phone Call

Suppose a process includes an activity that involve placing a phone call to the customer to arrange a payment for past due charges. The following step-by-step example demonstrates how this process activity might be created.

1. Select the appropriate activity implementation for the activity.

   Implementation: Phone Call to Customer

2. Select the Start Condition for the activity.

   Start Condition: ALL

3. *Optional.* Set the Wait For Flag as appropriate for the activity.

   Wait For Flag: FALSE

4. *Optional.* Set the Recommend Starting Point as appropriate for the activity.

   Recommended Starting Point Flag: FALSE

5. Enter the Exit Condition for the activity.

   Exit Condition: CUSTOMER[@Contact= 'TRUE']

6. Enter the input path for the activity.

   Source Activity: Review Status

   Transition Condition: ACCOUNT[@PastDue='TRUE']

7. Create the context maps used by the activity. Keeping to the minimum data required for the process and activity, the context maps need to map the Account ID (which in turn will be used to obtain other contact information such as the customer's telephone number) from the process to the activity, and the 'Contact' attribute of the CUSTOMER element and the 'PastDue' attribute of the ACCOUNT element from the activity to the process.

   Input Map:

```
FROM: ATTRIBUTEIDTO: ATTRIBUTEID
```

   Output Map:

```
FROM: CUSTOMER/@ContactTO: CUSTOMER/@Contact
FROM: ACCOUNT/@PastDueTO: ACCOUNT/@PastDue
```

Working with Process Activities

You work with process activities using the Workflow Management user interface, accessed from the Oracle Utilities Energy Information Platform framework.

How to select and view Process Activity records:

1. Click **Activities** on the **Build Process Versions** screen.

   The **Process Activities** screen opens, displaying the ID and activity implementation of each process activity associated with the Process Version.

2. Select the process activity you wish to view from the list. The process activity data for the selected record will be displayed.

3. To validate the process version, click **Validate**. To return the Processes screen, click **Process Versions**.

How to create a new Process Activity record:

1. Click **Activities** on the **Build Process Versions** screen.

   The **Process Activities** screen opens, displaying the ID and activity implementation of each process activity associated with the Process Version. If there are no process activities for the process version, the screen is blank.

2. Select the activity implementation for the new process activity from the **Activity Implementations** drop-down list.

3. Select the **Start Condition** for the process activity (All or Any). See **Start Condition** on page 25-2 for more information.

4. Enter the **Exit Condition** for the process activity. See **Exit Condition** on page 25-2 for more information.

5. *Optional.* Set the **Wait For** flag for the process activity. See **Wait For Flag** on page 25-4 for more information.

6. Set the **Recommended Starting Point** flag for the process activity. See **Recommended Starting Point Flag** on page 25-4 for more information.

7. Click **New**.
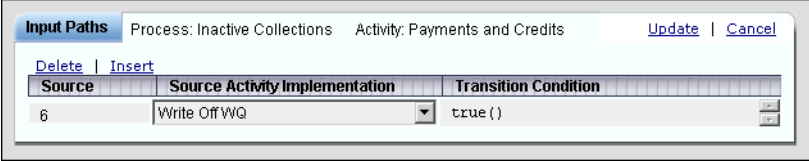
   The new record appears in the Process Activities window.

8. Enter the **Input Path**, **Input Map**, and **Output Map** for the process activity. **Note**: This step can only be performed if there are two or more process activities.

   Input Paths

   To add a new input path, click **Modify** in the Input Paths portion of the screen.

   The **Input Paths** screen opens.

   Select the **Source Activity Implementation** and enter the **Transition Condition** for the input path.

   To add another input path to the process activity, click **Insert**. The new path appears on the Input Path screen. Select the **Source Activity Implementation** and enter the **Transition Condition** for the next input path.

   To delete an existing input path, select the input path to delete and click **Delete**.

Click **Update** to save the input paths for the process activity.

See **Input Paths** on page 25-4 for more information about input paths.

Input/Output Maps

To add a new input/output map, click **Modify** in the Input Map or Output Map portion of the screen (as appropriate).

The **Input (or Output) Map** screen opens.

Enter a **From** and **To** value for the input/output map.

To add another input or output map, click **Insert**. A new row appears. Enter a **From** and **To** value for the new map.

To delete an existing input or output map, select the map to delete and click **Delete**.

Click **Update** to save the input/output maps for the process activity.

See **Context Maps** on page 25-5 for more information about input and output maps.

9. Click **Update** to save the process activity.

10. To validate the process version, click **Validate**. To return the Processes screen, click **Process Versions**.

How to create a new Process Activity record based on an existing record:

1. Click **Activities** on the **Build Process Versions** screen.

    The **Process Activities** screen opens, displaying the ID and activity implementation of each process activity associated with the Process Version.

2. Select the process activity you wish to use as the basis for the new process activity from the list. The process activity data for the selected record will be displayed.

3. Click **Copy**.

    The new process activity appears in the Process Activities window.

4. Select the activity implementation for the new process activity from the **Activity Implementations** drop-down list.

5. Select the **Start Condition** for the new process activity (All or Any). See **Start Condition** on page 25-2 for more information.

6. Enter the **Exit Condition** for the new process activity. See **Exit Condition** on page 25-2 for more information.

7. *Optional.* Set the **Wait For** flag for the new process activity. See **Wait For Flag** on page 25-4 for more information.

8. Set the **Recommended Starting Point** flag for the new process activity. See **Recommended Starting Point Flag** on page 25-4 for more information.

9. Enter the **Input Path**, **Input Map**, and **Output Map** for the new process activity. See **How to create a new Process Activity Record**, p. 5-10 for information about creating and deleting Input Paths and Input/Output Maps.

    Note: This step can only be performed if there are two or more process activities.

10. Click **Update**.

    The new process activity appears in the Process Activities window.

11. To validate the process version, click **Validate**. To return the Processes screen, click **Process Versions**.

How to update an existing Process Activity record:

1. Click **Activities** on the **Build Process Versions** screen.

    The **Process Activities** screen opens, displaying the ID and activity implementation of each process activity associated with the Process Version.

2. Select the process activity you wish to update from the list. The process activity data for the selected record will be displayed.

3. Select the appropriate activity implementation for the process activity from the **Activity Implementations** drop-down list.

4. Change the appropriate **Start Condition** as appropriate for the process activity (All or Any). See **Start Condition** on page 25-2 for more information.

5. Change the appropriate **Exit Condition** as appropriate for the process activity. See **Exit Condition** on page 25-2 for more information.

6. *Optional*. Change the **Wait For** flag as appropriate for the process activity. See **Wait For Flag** on page 25-4 for more information.

7. Set the appropriate **Recommended Starting Point** flag for the process activity. See **Recommended Starting Point Flag** on page 25-4 for more information.

8. Edit the **Input Path**, **Input Map**, and **Output Map** for the process activity as appropriate. See **How to create a new Process Activity Record**, p. 5-10 for information about creating and deleting Input Paths and Input/Output Maps.

    Note: This step can only be performed if there are two or more process activities.

9. Click **Update**.

    The updated process activity appears in the Process Activities window.

10. To validate the process version, click **Validate**. To return the Processes screen, click **Process Versions**.

How to delete an existing Process Activity record:

1. Click **Activities** on the **Build Process Versions** screen.

    The **Process Activities** screen opens, displaying the ID and activity implementation of each process activity associated with the Process Version.

2. Select the process activity you wish to delete from the list. The process activity data for the selected record will be displayed.

3. Click **Delete**.

    The deleted process activity no longer appears in the Process Activities window.

4. To validate the process version, click **Validate**. To return the Processes screen, click **Process Versions**.

Process Activity API

Workflow Management also provides functions for working with process activities from external systems such as a Customer Relationship Management (CRM) application. These functions require the following data:

- An XML file that contains data source connection data (user id, password, datasource, and qualifier), and

- An XML file that specifies the process activity data itself, as described under **Process Activity Data** on page 25-2.

The Workflow Management user interface automatically supplies this data. When used from an external system, the data must be supplied.

Insert Activity

Creates a new process activity record and inserts it into the Process Activity table in the Oracle Utilities Data Repository.

Update Activity

Updates an existing process activity record.

Delete Activity

Deletes an existing process activity record.

List Activity

Provides a list of process activity records from those in the Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Select Activity

Selects a specific process activity record from the Oracle Utilities Data Repository. This function is most often employed through a user-interface (such as the Workflow Management user interface), and in conjunction with the Update and Delete functions.

See **Chapter 24**: **Workflow Management Process Instance Interface** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about using the Process Activity API.

Chapter 26

Workflow Management Work Queues

This chapter describes how to work with the Workflow Management work queue, including:

- **Purpose of the Workflow Management Work Queue**

- **Working with Work Queues**

- **Workflow Management Work Queue Message Queue**

The Workflow Management Work Queue uses the same messaging system used by Oracle Utilities Receivables Component. For more information about the messaging system, refer to **Appendix C: Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*.

Purpose of the Workflow Management Work Queue

As processes and activities are run by Workflow Management, the system creates messages for a number of reasons, such as notifying external systems that a given activity has been performed, logging activities for control purposes, or maintaining work queues. These messages are sent to specific message queues (based on the specific message type).

The Workflow Management Work Queue can support multiple types of message queues. Message queues can be thought of as containers for types of messages related to specific uses, such as input messages, output messages, control messages, etc. The system can support any number of message queues, but includes a number of default queues as part of the system's basic functionality.

Working with Work Queues

As noted above, the Work Queues function is used to process work queue items associated with processes running in Workflow Management.

Working with the work queue involves the following steps:

• Search for work queue items based on specific criteria,

• View details of work queue (if necessary or desired),

• Select the work queue item(s) to process.

• Select the function you wish to perform (Lock, Unlock, Update, or Close)

Work Queue Functions

There are four main work queue functions available through the Work Queue screen. Some of these functions correspond to messaging functions described in **Appendix C: Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2*., including:

• **Lock:** locks the work queue item to prevent other users from working with it (this corresponds to the Hold Message function).

• **Unlock:** unlocks a previously locked work queue item to allow other users to work with it (this corresponds to the Release Message function).

• **Update:** updates the data associated with the work queue item. This is useful when the context of the activity represented by the item must be updated.

• **Close:** closes the work queue item (this corresponds to the Close Message function).

How to search for work queue items:

1. Select **Financials-›Work Flow-›Work Queue**.

   The Work Queue screen opens.

2. Enter the search criteria for the work queue items you wish to work with.

   You can search by the following criteria:

   • **Account ID:** the account ID associated with the work queue item(s), and

   • **Work Queue Type:** the type of work queues you want to work with,

   • **Juris:** the jurisdiction associated with the work queue item(s),

   • **Locked User:** the User ID of the user closed the work queue item(s), or who currently has the item(s) locked.

   • **Opco:** the operating company associated with the work queue item(s),

   You can enter search criteria in any or all of the above fields. To start the search based on the entered criteria, click **Search**. To reset the fields, click **Reset**.

3. A list of work queue items based on the search criteria will appear.

How to work with work queue items:

1. Select the work queue item you wish to work with using the radio buttons in the far left column. The activity context of the selected item will appear in the Message Data box. If there is a note associated with the item, it will be displayed in the Note box.

   To select multiple work queue items, check the checkbox on each item to be selected. To select all the work queue items, check the top checkbox, located in the row of headings. If you select multiple items, the Data and Note boxes will be blank.

   To view a work queue, click the Type link. The Work Queue Item dialog opens displaying the selected item.

2. Click the appropriate function based what you wish to do with the item(s). There are four choices:

    •   **Lock:** locks the work queue item to prevent other users from working with it, and changes the status of the item to 'Locked'.

    •   **Unlock:** unlocks a previously locked work queue item to allow other users to work with it, and restores the status to 'Open'.

    •   **Update:** updates the work queue item based on changes made to either the Data or Note associated with the work queue item. This function cannot be used with multiple work queue items.

    •   **Close:** closes the work queue item, and changes the status to 'Closed'. If the **Approved** checkbox is checked, this function also inserts the Approved attribute into the CONTEXT element of the activity context, the value of which is set to TRUE (Approved="TRUE"). The work queue item disappears from the list once it has been closed. This function also triggers the Activity Finished function.

3. To process additional work queue items based on the same search criteria, repeat steps 1 and 2 for each additional work queue item. To process additional work queue items based on different criteria, repeat the steps outlined under **How to search for work queue items:** on page 26-3 and repeat steps 1 and 2 above as appropriate.

Messaging API

Workflow Management uses the Messaging API to provide a number of functions for working with work queue items from external systems. These functions require the following data:

- An XML file that contains data source connection data (user id, password, data source, and qualifier), and

- An XML file that specifies the work queue item data itself (see **Appendix C: Messaging** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information).

The Workflow Management user interface automatically supplies this data. When used from an external system, the data must be supplied.

List Messages

Retrieves a list of messages of a single message type or all the message types associated with the LSWFWQ message queue.

Peek Message

Retrieves a single message from a single message queue.

Hold and Release Message

The Hold and Release Message functions support special message functionality required for work queues. A user "holds" a message in a work queue to indicate that the work queue item is currently being investigated. This prevents two or more people from accidentally working on the same work queue item at the same time. A held message can be subsequently "released".

Update Message

Updates an existing message in a single message queue. This function can only be used on message that have been held via the Hold Message function.

Remove Message

This function is identical to the Peek function described above, except that it will also remove the returned message from the message queue. This function can only be used on message that has been held via the Hold Message function.

See **Chapter 21**: **Messaging Interface** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about using the Messaging API.

Workflow Management Work Queue Message Queue

The Workflow Management Message Queue is the message queue used by the Workflow Management Work Queue. As messages are posted to this queue, they become available to the Workflow Management Work Queue.

In order for the Workflow Management Work Queue Message Queue to function properly, a number of records must be created in the Message Queue, Message Type, and Message Type Queue tables in the Oracle Utilities Data Repository. The specifics of these records are provided below.

Message Queue Table

The single record in the Message Queue table specifies the code, type, and name of the Workflow Management Work Queue Message Queue. These should be as follows:

- **Code:** LSWFWQ

- **Type:** LSDBWF

- **Name:** WFWQMSG

Message Type Table

Records in the Message Type table define specific message types used by the Workflow Management Work Queue. These message types can be user-defined, based on the Activity Implementations used in the process. An example record might be as follows:

- **Code:** PHONE_CALL

- **Description:** Place phone call to customer

- **File Path:** *Optional*

Message Type Queue Table

A record in the Message Type Queue table associates the specific message types used by the Workflow Management Work Queue with the Workflow Management Work Queue Message Queue. An example record might be as follows:

- **Message Type:** PHONE_CALL

- **Message Queue:** LSWFWQ

Chapter 27

Workflow Management Process Controls

This chapter describes how to work with the Workflow Management process controls including:

- **The Purpose of the Workflow Management Process Controls**

- **Working with Process Controls**

- **Process Controls API**

The Purpose of the Workflow Management Process Controls

As processes and activities are run by Workflow Management, it may become necessary for users to perform a number of functions on specific process and activity instances. For example, a process that has been suspended could be resumed or terminated. The Workflow Management process controls provide a number of functions that allow users to monitor and maintain process and activity instances in Workflow Management, such as:

• List and Select Process Instances,

• Suspend, Resume, Terminate, or Repair Process Instances,

• List, Select, and Repair Activity Instances

Working with Process Controls

The process controls function is used to monitor and maintain process and activity instances in Workflow Management.

The following outlines a number of typical tasks performed using the Workflow Management Process Controls. All of these functions are performed using the Workflow Management Process Controls user interface.

- Retrieve a list of process instances.

- Select and view specific process instances.

- If a selected process instance is either SUSPENDED or INERROR, users can update the process context and Repair the process instance using the Workflow Management Process Controls user interface.

- Suspend, Resume, or Terminate process instances as necessary.

- Retrieve a list of activity instances associated with the process instance and select one to work on.

- If the activity instance is INERROR, users can update the activity context and Repair the activity instance and set its state to INACTIVE using the Workflow Management Process Controls user interface.

Process Controls Functions

There are four main process controls functions available through the Process Controls screen:

- **Suspend:** used to suspend an existing running process instance.

- **Repair:** used to update the context of an existing suspended or in error process instance.

- **Resume:** used to resume an existing suspended process instance.

- **Terminate:** used to terminate an existing running, suspended or in error process instance.

In addition, the Process Controls screen also provides the following function for use with activity instances.

- **Repair:** used to update the state (to INACTIVE) and context of an existing in error activity instance.

How to search for process instances:

1. Select **Financials-›Work Flow-›Process Control**.

   The Process Controls screen opens.

2. Enter the search criteria for the process instance you wish to work with.

   You can search by the following criteria:

   - **Name:** Select the name of process instance(s) from the drop-down list.

   - **Juris:** Select the jurisdiction associated with the process instance(s) by clicking the **Browse** button (...).

   - **Opco:** Select the operating company associated with the process instance(s) by clicking the **Browse** button (...).

   - **State:** Select the State (RUNNING, SUSPENDED, etc.) of the process instance(s) from the drop-down list.

   - **Major Version:** Enter the major version number of the process instance(s).

   - **Minor Version:** Enter the major version number of the process instance(s).

- **Account ID:** Enter the account ID associated with the process instance(s) or click the **Browse** button (...) to search for an account ID.

- To search archived process instances, check the **Search Archive** checkbox.

You can enter search criteria in any or all of the above fields. See **Process Data** on page 24-2 and **Process Version Data** on page 24-2 for more information about the above data.

3. Click **Search**. To reset the fields, click **Reset**.

A list of process instances based on the search criteria will appear on the screen.

How to work with process and activity instances:

1. Select the process instance you wish to work with.

The process context of the selected item will appear in the **Process Context** box. If there is a note associated with the item, it will be displayed in the **Note** box.

2. Do one of the following, based on the selected process instance:

   a. Click **Suspend** to suspend an existing running process instance.

   b. If needed, edit the process context or note, and click **Repair** to update the context of an existing suspended or in error process instance.

   c. Click **Resume** to resume an existing suspended process instance.

   d. Click **Terminate** to terminate an existing running, suspended or in error process instance.

5. To view the activity instances associated with the selected process instance, click **Details**.

The Activity screen opens.
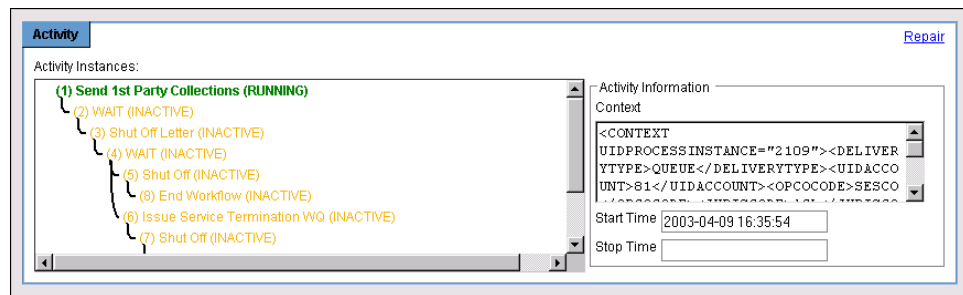
6. Select the activity instance you wish to view, its activity Context, Start Time, and Stop Time will appear in the Activity Information box. If necessary or appropriate, make any necessary updates/corrections to the activity context.

7. Click **Repair** to update the activity context based on the changes.

Process Controls API

Workflow Management also provides a number of functions for working with processes and activities from external systems. They require the following data:

- An XML file that contains data source connection data (user id, password, data source, and qualifier), and

- An XML file that specifies the process or activity data itself.

The Workflow Management user interface automatically supplies this data. When used from an external system, the data must be supplied.

List Process Instances

Provides a list of zero or more process instances in Workflow Management.

Select Process Instance

Selects a specific process instance from those in Workflow Management. This function is most often employed through a user-interface (such as the Workflow Management user interface) and in conjunction with the Suspend, Resume, Repair and Terminate functions.

Suspend Process Instance

Suspends an existing running process instance.

Resume Process Instance

Resumes an existing suspended process instance.

Terminate Process Instance

Terminates an existing running, suspended or in error process instance.

Repair Process Instance

Updates the context of an existing suspended or in error process instance.This function is most often employed through a user-interface (such as the Workflow Management user interface).

List Activity Instances

Provides a list of zero or more activity instances. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Select Activity Instance

Selects a specific activity instance. This function is most often employed through a user-interface (such as the Workflow Management user interface).

Repair Activity Instance

Updates the state (to INACTIVE) and context of an existing in error activity instance.

See **Chapter 24**: **Workflow Management Process Instance Interface** in the *Oracle Utilities Billing Component Installation and Configuration Guide, Volume 2* for more information about using the Process Controls API.

Index