

# **Oracle Utilities Load Analysis**

User's Guide (Web)

Release 1.11.1.3 for Windows

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Oracle Utilities Load Analysis User's Guide (Web), Release 1.11.1.3 for Windows

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# Chapter 1

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## Oracle Utilities Load Analysis Overview

This chapter provides an overview of the Oracle Utilities Load Analysis application, including:

- **What is Oracle Utilities Load Analysis?**
- **What is this book?**

## What is Oracle Utilities Load Analysis?

Oracle Utilities Load Analysis is a web-enabled application that provides access to load analysis functionality via an Intranet/Internet using Microsoft Internet Explorer. Oracle Utilities Load Analysis incorporates programs for interval data input, editing, validation, analysis, reporting and graphing.

Because all Oracle Utilities web applications share a common framework, users can switch between different Oracle Utilities web applications (such as Oracle Utilities Billing Component and Oracle Utilities Quotations Management) without having to open multiple applications.

Key functional areas of the Oracle Utilities Load Analysis application include:

- **Analysis Classes:** Analysis classes are database tables that store load research information. They allow you to create and manage relational classes for use with analysis programs. For example, you can create a class for your residential customers. Then for analysis, select the class and an available period to run. You can search, create, edit, and delete the data in these tables. See **Chapter 2: Working with the Energy Information Platform** for more information about searching and viewing data in the database.

Analysis classes can be loaded into the following analysis programs:

- 100% Sample Analysis
- Standard Load Analysis
- Ratio Analysis
- **Administration:** The Administration category contains programs that are used for database maintenance.
- **Input:** The Input category contains programs that are responsible for loading interval data into the database for load research.
- **Validation:** The Validation category contains programs that check specified cuts in the database to ensure that the data is accurate and error free.
- **Reporting:** The Reporting category contains programs that produce various detailed reports and statistical information about data in the database.
- **Editing:** The Editing category contains programs that modify, move, copy or delete interval data in the database.
- **Extract Data:** The Extract Data programs output data so it can be used by other programs, or move data to another database so it can be used by the analysis programs.
- **Analysis:** The Analysis category contains programs that are used for creating class profiles and ad hoc analysis profiles.
- **Query:** The Query category contains the Key Generator program that is used to create a list of cut keys in the database.



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## What is this book?

The *Oracle Utilities Load Analysis User's Guide* describes the Oracle Utilities Load Analysis functionality, including the following:

- **Chapter 1: Oracle Utilities Load Analysis Overview** provides an overview of the Oracle Utilities Load Analysis application and the documentation provided with it.
- **Chapter 2: Working with the Energy Information Platform** describes how users work with the Energy Information Platform web interface and includes information about general navigation and common controls. It also describes how to run and view Oracle Utilities Load Analysis reports.
- **Chapter 3: Running Load Research Programs** describes how users initiate and run Oracle Utilities Load Analysis programs.
- **Chapter 4: Setting Up Analysis Classes** describes how users set up analysis classes in the database for use in certain Oracle Utilities Load Analysis programs.
- **Chapter 5: Administration Programs** describes how users work with the Oracle Utilities Load Analysis Administration programs to maintain their databases.
- **Chapter 6: Input Programs** describes how users work with the Oracle Utilities Load Analysis programs to input interval data into their databases.
- **Chapter 7: Validation Programs** describes how users submit interval data for validation.
- **Chapter 8: Reporting Programs** describes how users create various detailed reports about the interval data.
- **Chapter 9: Editing Programs** describes how users can edit, copy, move, or delete interval data using the editing programs.
- **Chapter 10: Extract Data Programs** describes how users can use the output programs to export the data in formats that can be used by other applications.
- **Chapter 11: Analysis Programs** describes the various programs used for analyzing the interval data.
- **Chapter 12: Query Programs** describes the Key Generator program, which is used to create a list of cut keys in the database.
- **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** contains links to PDF files of Oracle Utilities Load Analysis documentation.



# Chapter 2

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## Working with the Energy Information Platform

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

- **Starting the Application and Logging In**
- **Navigating the Energy Information Platform**
- **Searching, Viewing and Entering Data in the 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 Energy Information Platform

This section describes the framework of the 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  |
|---|--|
|  | <b>Default Menu:</b> Changes the Left menu from the <b>Main Menu</b> to the <b>Data Menu</b> .   |
|  | <b>Default Menu:</b> Changes the Left menu from the <b>Data Menu</b> to the <b>Main Menu</b> .   |
|  | <b>Current Data Base:</b> Opens the <b>Set Preferences</b> screen. When you hover the mouse over this icon, a tool tip opens, displaying currently selected data source. |
|  | <b>Security Administration:</b> Opens the <b>Security Administration</b> screen.   |
|  | <b>Home:</b> Returns the user to the home dashboard screen.  |
|  | <b>Change Theme:</b> 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 Load Analysis options are listed under the **Load Research** menu. Load Research uses the following menus:

### Oracle Utilities Load Research Menu

The Load Research menu includes the following options:

- **Reports:** Opens the **Reports** screen that displays Oracle Utilities Load Analysis reports.
- **Interval Data Sources:** Opens the **Interval Data Sources** screen.
- **Analysis Classes:** Expands to display the Analysis Classes menu, which includes the following options:
  - **Classes:** Opens the **Load Analysis Classes** screen.
  - **Analysis Periods:** Opens the **Load Analysis Period** screen.
  - **Strata:** Opens the **Load Analysis Strata** screen.
  - **Strata Periods:** Opens the **Load Analysis Strata Period** screen.
  - **Sample Points:** Opens the **Load Analysis Sample Points** screen.
  - **Sample Billed Energies:** Opens the **Load Analysis Sample Billed Energies** screen.
  - **Supplied Peaks:** Opens the **Load Analysis Supplied Peaks** screen.
- **Administration:** Expands to display the **Administration** menu, which includes the following options:
  - **Scan Archive Delete:** Opens the **Scan Archive Delete** screen.
  - **Archive Delete:** Opens the **Archive Delete** screen.
  - **Load Data Retrieval:** Opens the **Load Data Retrieval** screen.
  - **Data Retrieval:** Opens the **Data Retrieval** screen.
- **Input:** Expands to display the Input menu, which includes the following options:
  - **Production Input:** Opens the **Production Input** screen.

- **AXDB Update:** Opens the **AXDB Update** screen.
- **Validation:** Expands to display the Validations menu, which includes the following option:
  - **Cut Series Validation:** Opens the **Cut Series Validation** screen.
- **Reporting:** Expands to display the Reporting menu, which includes the following options:
  - **AXDB Summary Reporter:** Opens the **AXDB Summary Reporter** screen.
  - **Summary Reporter:** Opens the **Summary Reporter** screen.
  - **Load Data Reporter:** Opens the **Load Data Reporter** screen.
  - **Totalizing Reporter:** Opens the **Totalizing Reporter** screen.
  - **Late Cut Reporter:** Opens the **Late Cut Reporter** screen.
  - **Validation Statistics Reporter:** Opens the **Validation Statistics Reporter** screen.
  - **Cut Series Gap Reporter:** Opens the **Cut Series Gap Reporter** screen.
  - **Cut Series Overlap Reporter:** Opens the **Cut Series Overlap Reporter** screen.
- **Editing:** Expands to display the Editing menu, which includes the following options:
  - **Load Data Editor (CLDB):** Opens the **Load Data Editor (CLDB)** screen.
  - **Load Data Editor (ELDB):** Opens the **Load Data Editor (ELDB)** screen.
  - **Copy Cuts:** Open the **Copy Cuts** screen.
  - **Move Cuts:** Open the **Move Cuts** screen.
  - **Delete Cuts:** Open the **Delete Cuts** screen.
- **Extract Data:** Expands to display the Extract Data menu, which includes the following options:
  - **Direct Output:** Opens the **Direct Output** screen.
  - **Load Data Extraction:** Open the **Load Data Extraction** screen.
- **Analysis:** Expands to display the Analysis menu, which includes the following options:
  - **Billed Energy:** Opens the **Billed Energy** screen.
  - **100% Sample Analysis:** Opens the **100% Sample Analysis** screen.
  - **Standard Load Analysis:** Opens the **Standard Load Analysis** screen.
  - **Ratio Analysis:** Opens the **Ratio Analysis** screen.
  - **Aggregate Load Analysis:** Opens the **Aggregate Load Analysis** screen.
  - **Domains Analysis MPU:** Opens the **Domains Analysis MPU** screen.
  - **Domains Analysis Ratio:** Opens the **Domains Analysis Ratio** screen.
  - **Individual Customer Analysis:** Opens the **Individual Customer Analysis** screen.
  - **Coincident Peak Analysis:** Opens the **Coincident Peak Analysis** screen.
  - **Load Data Transformation:** Opens the **Load Data Transformation** screen.
  - **Day Type Analysis:** Opens the **Day Type Analysis** screen.

## 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 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(s). 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.

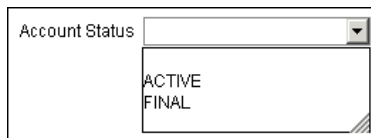
Enter the appropriate parameters for your search and click **Search**. The dialog will display a list of records that match the search criteria.

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.

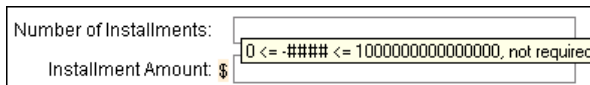
To select a value from a drop-down list, click the arrow next to the field. This opens a lists that includes all the values available.



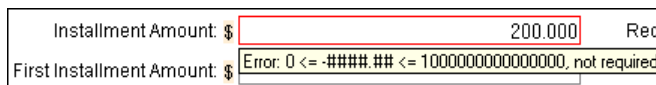
If one or more of the values is longer than the default size of the list, click the lower right corner of the list and resize the list as necessary.

### 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 its 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 “WQAgging” 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 occurrence:** 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 its 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.

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  |
|---|--|
|  | <b>Report Starting:</b> Report processing is starting.   |
|  | <b>Report in Process:</b> Report processing  |
|  | <b>Report Complete:</b> Report processing is complete.   |
|  | <b>Report Complete (Adobe Acrobat format):</b> Report processing is complete.  |
|  | <b>Report Complete (Microsoft Excel format):</b> Report processing is complete.  |
|  | <b>Report Complete (Microsoft Word format):</b> Report processing is complete.   |
|  | <b>Report Complete (Rich Text format):</b> Report processing is complete.  |
|  | <b>Report Complete (Comma Separated Values format):</b> Report processing is complete.   |
|  | <b>Report Scheduled:</b> 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 <b>Edit</b> . |
|  | <b>Report Reminder:</b> Indicates that a scheduled report is due to run in 15 minutes or less.   |



| Icon  | Description  |
|---|--|
|  | <b>Report Error:</b> 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.

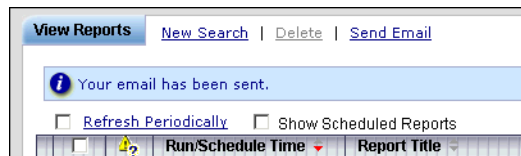
2. Select a **From** address from the drop-down list. This list is based on available records in the From Addresses table. If there are no available records in the From Addresses table, the current user's email address is populated (if provided on the User Overview screen on the Security Administration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

# Chapter 3

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## Running Load Research Programs

This chapter describes the general procedure for running load research programs using Oracle Utilities Load Analysis. The specific programs will be covered in more detail in other chapters of this guide. This chapter includes:

- **Running Oracle Utilities Load Analysis Load Research Programs**
- **Viewing Load Analysis Reports**

## Running Oracle Utilities Load Analysis Load Research Programs

Follow these steps to run an Oracle Utilities Load Analysis program:

1. Select a program by clicking the program name in the main menu under **Load Research**.
2. Specify the control settings or input file.

Control settings are a list of the specific data records and commands that you want to submit to a load research program. The settings typically consist of the keys of load data or statistics records. In the load research program the control settings are entered in the **Control Settings** field.

The following actions are available for the Control Settings field:

- Click **Edit** to open a current control settings file in a separate window for editing. In this window you can click **Save** to save the file, **Save As** to copy the file, or **Rename** to change the name of the file. Click **Close** to close the edit window.
  - Click **New** to open a blank control settings file in a separate window for composing.
  - Click **Load** to open a database search results window. In this window you can select a control settings file that you previously saved in the database.
  - Click **Save** to open the **Save As** screen. In the Save As screen enter a name for the control settings file and click **Save** to save it to the database. To return to the previous screen without saving the file, click **Cancel**.
  - Click **Import** to open the **Import Control File** screen. You can use this feature to import existing \*.ctl files created from the Load Analysis Client. In the Import Control File screen click **Browse** to navigate to a control file. To import the selected file into the Control Settings field, click **Import**. To return to the previous screen, click **Cancel**.
3. Select the database that holds the data that you want to use.

Oracle Utilities Load Analysis has several interval databases that store data used in the different stages of the load research cycle:

- **CLDB:** The CLDB (Current Load Database) contains raw customer interval data. It contains data that is in the process of being verified and edited, and the most recently collected load data. Typically, the CLDB contains 3 to 12 months of load data.
- **ALDB:** The ALDB (Archive Load Database) provides storage for data that has been verified as statistically reliable and ready for analysis. Load data that is more than a year old or no longer used is usually archived from the CLDB to the ALDB.
- **ELDB:** The ELDB (Extracted Load Database) is the working database for the analysis programs. This data is typically extracted from the CLDB/ALDB into the ELDB for analysis.
- **SLDB:** The SLDB (Statistics Load Database) is used to archive selected subsets of the ELDB. This is an optional, off-line storage for selected results from the ELDB.

One or more drop-down lists display the available databases or interval data tables for you to use for the program. Depending on the program, the available lists are:

- **Interval Database.** The source for the interval data for the program. Depending on the program selection, this can contain CLDBs, ALDBs, ELDBs or SLDBs.
  - **Target Database.** The interval data table to save results to. Depending on the program selection, this can contain CLDBs, ALDBs, ELDBs or SLDBs.
  - **AXDB.** The AXDB (Auxiliary Database) database selection. The AXDB can be used for modifying data before it is stored in the CLDB. The AXDB is essentially a place where you keep instructions for modifying incoming data.
4. Specify the report settings.

The report settings are the processing parameters for the program. To see a description of the parameter, place your cursor over the parameter name.

The following options are also available:

- **Reset:** Resets the report settings to blank or default settings.
- **Load:** Opens a search results screen that displays report settings that you previously saved.
- **Save:** Saves the report settings to the database.

The parameter settings for each program is discussed in greater detail in other sections.

5. For some analysis programs you can select interval data, control settings, and report settings that are stored in Analysis Class tables. For more information about Analysis Classes, see **Chapter 4: Setting Up Analysis Classes**.

To load an Analysis Class, click **Load Class** to open the Load Class screen. The Load Class screen displays the following fields:

- **Company:** You can use this field to filter the available Analysis Classes by company.
- **Jurisdiction:** You can use this field to filter the available Analysis Classes by jurisdiction.
- **Class Name:** You can select an Analysis Class using this drop-down list. The list displays all available analysis classes.
- **Analysis Period:** You can select an Analysis Period using this drop-down list. The list displays the available Analysis Periods for the selected Analysis Class.

The **Load Class** option is available when running the following programs:

- 100% Sample Analysis
- Standard Load Analysis
- Ratio Analysis

6. Run or Schedule the program.

Click **Run** to run the program. Click **Schedule** to schedule the program to run at a future time. See **Scheduling Reports** on page 2-11 for more information about the scheduler. Select the **Share** field if you want the program report to be visible to other users.

7. View the results.

When you run a program the Reports screen will open. The Reports screen lists all of your currently running and completed jobs, along with reports shared by other users. See **Viewing Load Analysis Reports** on page 3-4 for more information about viewing reports.

## Viewing Load Analysis Reports

When you run a load analysis program the Reports screen will automatically open. You can also access the Reports screen by selecting **Load Research > Reports**. From this screen you can view and delete reports.

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

- **Status Icon:** An icon that displays the status of the report.
- **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.
- **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. Note that users with “Super User” role can see all reports regardless of shared status.

Most Oracle Utilities Load Analysis programs produce three types of output files:

- **Reports:** The REPORT.HTML file can be viewed in the browser window. The SYSPRINT.REP file is a text file that can be saved.
- **Data:** Data files can include individual customer statistics files and keylists.
- **Log:** System log containing information about the program run. This is useful if there is a problem with the job.

### How to view and save reports:

1. To view a specific report, click the **Report Title** link for the report. The selected report opens in the Report View screen.

In the Report View screen the following options are available:

- **Report List:** Returns you to the Reports screen.
  - **Detach:** Opens a list of the report files. Each file can either be opened or saved.
2. You can also open or save the report by placing the cursor over the icon in the Status column and selecting one of the report files.

### How to delete reports:

1. Check the check box next to the report(s) to delete. To select all reports, check the top check box.
2. Click **Delete**.







# Chapter 4

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## Setting Up Analysis Classes

This chapter describes how users work with the Oracle Utilities Load Analysis Classes including:

- **Overview of Analysis Classes**
- **Setting Up Analysis Classes Tables**

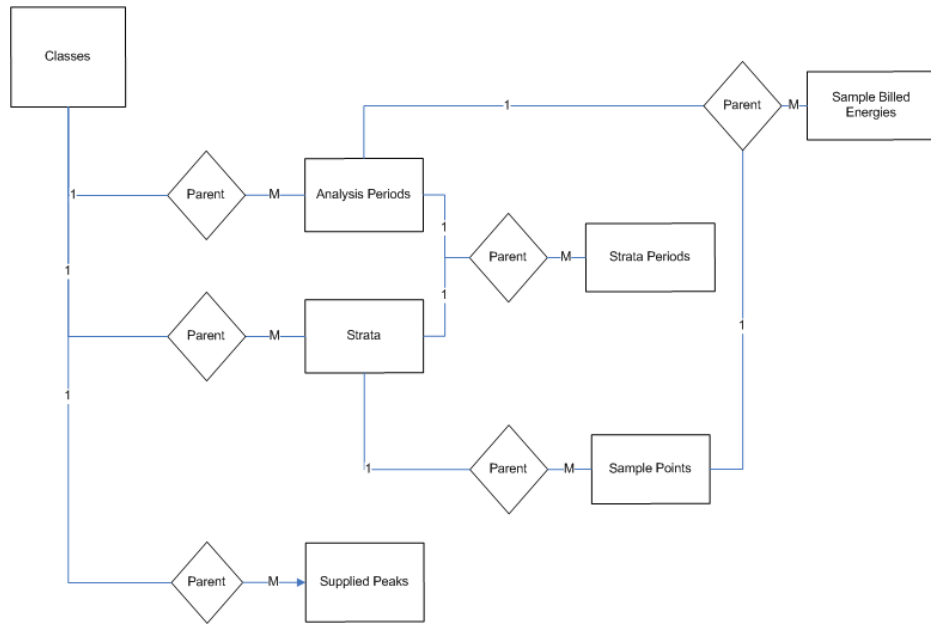
## Overview of Analysis Classes

Analysis classes are database tables in the Oracle Utilities data repository that store load research information. You can use analysis classes to manage the relationships between class data and analysis parameters that you submit to analysis programs. For example, you can create an analysis class to represent the load data for residential customers with air conditioning. When you want to run an analysis program for this class, you can load the analysis class into the program instead of individually setting the program parameters.

Analysis classes can be loaded into the following analysis programs:

- 100% Sample Analysis
- Standard Load Analysis
- Ratio Analysis

The following diagram shows the relationships between the analysis class database tables:



## Creating a New Class for Analysis

Use this procedure to create a new analysis class:

1. Create a New Class record.

Define your new class by creating a new record in the Classes table. Provide a name for the class you wish to create along with various class attributes you wish to apply relating to this class.

2. Create Strata Record(s) for the Class.

You will need to create a strata record in the Strata table for each strata that your class has. For each strata record, designate the stratum number assignment (starting from lowest (1) to highest (99)) and any available attributes such as boundary, weight, and population, regarding the stratum. For example, if your Residential Class has 4 strata, you will create 3 records with stratum numbers 1 - 4.

3. Create Sample Point Record(s) for each Stratum.

Each stratum is made up of list of sample points. Create sample point record(s) in the Sample Points table for each stratum you've created in step 2. For example, if your stratum 1 of your residential class has 15 customers (sample points), you will create 15 sample point records for that stratum.

4. Create Peak Record(s).

Create a peak record for each supplied peak date/time of interest (such as system peak) for the class.

5. Create Analysis Periods for the Class.

Create an Analysis Period record for each time period you wish to perform analysis for the class. For example, to perform analysis on your residential class for period of January 2010, create an Analysis Period record with a start date of January 1st 2010 and a stop date of January 31st 2010.

6. (Optional) Create Strata Period records for each Stratum for each Analysis Period.

Certain stratum information for your class might be different for each Analysis Period. For example, Strata population and/or billed energy could be different in the month of January than for February. Typically, this information is not readily available, however. If your company has this information available and you wish to apply it to your analysis, create a Strata Period record for each stratum/period.

7. (Ratio Analysis Only) Specify Billed Energy for each Sample Point for each Analysis Period.

For Ratio analysis, create a billed energy record for each sample point in the analysis period if you wish to provide billed energy values for each sample point. Billed Energy values in this table will be used when performing a Ratio Analysis when Billing attribute for the class is set to "YES". If you cannot provide accurate billed energy values for each sample point, you can have Load Analysis calculate the values based on interval data. In this case you will set the Billing attribute to "NO".

## Setting Up Analysis Classes Tables

Data setup for Oracle Utilities Load Analysis Classes includes creating records that define types of load research parameters, including:

- **Classes**
- **Analysis Periods**
- **Strata**
- **Strata Periods**
- **Sample Points**
- **Sample Billed Energies**
- **Supplied Peaks**

### Classes

Records in the Load Analysis Classes table represent specific classes of load information and parameters that can be submitted to the analysis programs.

#### Searching Classes

You can search for existing Load Analysis Classes in the Oracle Utilities Data Repository.

##### How to search classes:

1. Select **Load Research->Analysis Classes->Classes**.

The Load Analysis Classes screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the UID, Class Name, Aggregation, Analysis Key, Prorate, Quality, Alpha, Assign, Billing, Description, Rolling, Rolling Quality, Minimum, Report, Write, TOU Schedule Number, Season Schedule Number, Operating Company or Jurisdiction associated with the Class.

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**. See **Adding Classes** on page 4-7 for more information about adding new classes.
4. The search results appear on the Load Analysis Classes screen.

The Load Analysis Classes screen displays the following information for each class:

- UID
- Class Name
- Aggregation
- Drop
- Analysis Key
- Prorate
- Quality
- Alpha
- Assign

- Billing
- Description
- Rolling
- Rolling Quality
- Minimum
- Report
- Write
- TOU Schedule Number
- Season Schedule Number
- Operating Company
- Jurisdiction

See **Viewing and Editing Classes** on page 4-5 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Description, click the Description 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 Load Analysis Classes screen. See **Viewing and Editing Classes** on page 4-5 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Classes** on page 4-7 for more information about adding new classes.

## Viewing and Editing Classes

Individual classes are viewed on the Load Analysis Classes screen. This screen opens when you select a record from the Load Analysis Classes search results screen.

### How to view and edit classes:

1. Click on the [...] link for the class you wish to view. The selected record opens on the Load Analysis Classes screen.

This screen displays the following information for the selected record:

- **Class Name:** A name for the class record.
- **Aggregation:** The number of seconds-per-interval for the analysis data; 300, 900, 1800, 3600, and 86400 are permitted values. Default is 3600. Note: If 86400 is used, TOU schedule, Season number, and Rolling should not be used.
- **Drop:** Establishes the threshold (from 0 to 100) for dropping customers due to missing information missing or excluded data. If a customer is missing the specified value or more of the total expected intervals in the analysis period, the customer will be dropped from the analysis. Default is 100% (do not drop any customers).
- **Analysis Key:** The prefix that is assigned to the statistics produced by the program. You can use up to 40 characters. A combination of characters (A-Z) and digits (0-9) may be used. Special characters are not allowed.

- **Prorate:** The adjustment used to compensate for missing data. Total energy values for each customer would be adjusted to compensate for missing data. Application of Prorate affects any calculates based on energy, including floating point stratification assignments, load factors etc. However, it does not fill in missing demand values. When Prorate is set to “YES”, each customer's total energy value will be multiplied by the ratio of expected to actual intervals, within each Time-of-use period. When set to “NO”, no adjustment is made for missing or excluded data. Default is “NO”.
- **Quality:** The acceptable level of data quality for the analysis. Specify the worst acceptable status code. Any interval with status code worse than the specified value will be treated as missing. Default is “8”.
- **Alpha:** This significance level for t-statistics used for computing relative precision. The significance level may be either 5% or 10%. The default is 10%.
- **Assign:** The method used to assign customers to strata. Specify the method Load Analysis will use to assign customers to strata - either “FLOATING” or “FIXED”. When floating, the program will put each customer in a stratum according based on load factor (FLOAT LF), non-coincident demand (FLOAT KW), or energy (FLOAT KWH). Select “FIXED” if you are performing a pre-stratified or non-stratified analysis. If pre-stratified, Load Analysis will assign sample points (customers) to strata according to the stratum numbers they are assigned to.
- **Billing:** Ratio Analysis only. Specifies if the energy values for customers will be supplied. When “YES” is specified, billed energy values for each sample point found in the Sample Billed Energies table will be used. If “NO” is selected, energy values for each customer will be will be calculated for the analysis period specified. “NO” is the default.
- **Description:** A description for the class record. The class description will appear as a title at the top of each analysis report produced. Description is limited to 76 characters. If omitted, no title will be printed.
- **Rolling:** The level of aggregation used in computing a rolled interval. For a rolled interval, each interval of the analysis period is an average of a number of preceding interval values and the current interval itself. The Rolling aggregation level must be greater than, and a multiple of, the analysis data's interval length. For example, if the analysis aggregation level is 900 seconds-per-interval and you specify 3600 rolling, then each output interval will be the average of itself and three preceding 900-second interval values. If no value is selected, then no Rolling will be performed. Default is blank (Do not perform Rolling).
- **Rolling Quality:** The acceptable level of quality for the rolled interval data. Specify the minimum data quality you want included in the averaging of Rolled intervals. Any intervals that are missing or have status codes worse than the specified value will be excluded from the averaging. Default is 8 (only missing intervals are excluded).
- **Minimum:** Determines if the Daily Maximum, Minimum and Average Demands Report will process zero-values as minimums or ignore them as missing. If “ZERO” is specified, zero-values will be shown as minimums. This might be appropriate if, for example, the analysis is on street lighting data, because streetlights are known to have periods of zero demand on a daily basis. “NONZERO” is the default.
- **Report:** Specifies which group of statistics to calculate and report. Available options are:
  - PRELIMINARY - This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis. When selected, only the Analysis Environment and Individual Customer Statistics Reports are produced.
  - NO STRATA - This option produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports, nor does it produce strata level duration statistics. This option is useful when class



totals are needed for each interval of the analysis period, but none of the strata detail. This option does not affect the reporting of the major statistics, which still include results broken down by strata.

- **NO EVALUATION** - This option suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output. Use this option when you want only the major statistics and analysis environment reports.
  - **COMPLETE** - Select this option to calculate all statistics and print all reports. This is the default,
  - **Write:** Specifies which statistics are written to the database. Available options are:
    - **NONE** - No statistical records are written back to the ELDB. Use this option if you just need the reports.
    - **NO STRATA** - Individual strata information for the major statistics reports are written to the ELDB. Individual strata statistics in the Sample Evaluation reports and individual strata level duration statistics will not be written.
    - **COMPLETE** - Writes all statistical records produced by the analysis run back to the ELDB. This is the default.
  - **TOU Schedule Number:** The time-of-use schedule to be used for the analysis. Use this to select a single schedule from the default Time-of-Use file (designated at the Load Analysis Server). Specify a number 0 - 9. The default is 0, no time of use period is used.
  - **Season Schedule Number:** The season schedule to be used for the analysis. Use this to select a schedule from the Season Schedule file (designated from the Load Analysis Server). Specifying a season schedule makes it possible to apply different time-of-use schedules to different portions of the analysis period. Specify a number 0 - 9. The default is 0, no season schedule is used.
  - **Operating Company:** The operating company associated with the class. If you have one or more records in the Operating Company table, you can associate your class with an operating company. Grouping classes with Operating Company has no effect on the analysis outcome. Use this if you have a large number of classes and would like to organize them by Operating Company.
  - **Jurisdiction:** The jurisdiction associated with the class. If you have one or more records in the Jurisdiction table, you can associate your class with an jurisdiction. Grouping classes with jurisdiction has no effect on the analysis outcome. Use this if you have a large number of classes and would like to organize them by jurisdiction.
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 Classes

You can also add new classes.

### How to add Classes:

1. Click **Add** on the Load Analysis Classes search or list screens. A blank Load Analysis Classes screen opens.
2. Enter a name for the class in the **Class Name** field.
3. Select an optional level of aggregation in the **Aggregation** field.
4. Select the optional prorate value in the **Prorate** field.
5. Select the optional level of data quality in the **Quality** field.
6. Select the optional alpha value in the **Alpha** field.
7. Select the method for assigning customers to strata in the **Assign** field.
8. Specify if optional energy levels for customers are supplied in the **Billing** field.
9. Enter an optional description for the Load Analysis class in the **Description** field.
10. Select the optional level of aggregation to be used in the **Rolling** field.
11. Select an optional rolling quality in the **Rolling Quality** field.
12. Select an optional acceptable minimum level for values in the **Minimum** field.
13. Select the optional type of report that will be written in the **Report** field.
14. Select the optional type of statistics that will be written to the database in the **Write** field.
15. Specify the optional time-of-use schedule to use in the **TOU Schedule Number** field.
16. Specify the optional season schedule to use in the **Season Schedule Number** field.
17. Select an optional operating company for the class in the **Operating Company** field.
18. Select an optional jurisdiction for the class in the **Jurisdiction** field.
19. To return to the search screen without adding a record, click **Search**.
20. To save the record, click **Save**. The new class appears on the screen.

## Analysis Periods

Records in the Load Analysis Periods table represent the time period for the interval data associated with the class.

### Searching Analysis Periods

You can search for existing analysis periods in the Oracle Utilities Data Repository.

#### How to search analysis periods:

1. Select **Load Research->Analysis Classes->Analysis Periods**.

The Load Analysis Period screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the UID, Load Analysis Class, Period Start, or Period Stop associated with the Analysis Period.

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**. See **Adding Analysis Periods** on page 4-10 for more information about adding new analysis periods.
4. The search results appear on the Load Analysis Period screen.

The Load Analysis Period screen displays the following information for each analysis period.

- UID
- Period Id
- Load Analysis Classes
- Period Start
- Periods Stop
- Total Population
- Combined Billed energy

See **Viewing and Editing Analysis Periods** on page 4-9 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Description, click the Description 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 Load Analysis Period screen. See **Viewing and Editing Analysis Periods** on page 4-9 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Analysis Periods** on page 4-10 for more information about adding new analysis periods.

## Viewing and Editing Analysis Periods

Individual analysis periods are viewed on the Load Analysis Period screen. This screen opens when you select a record from the Load Analysis Periods search results screen.

### How to view and edit analysis periods:

1. Click on the [...] link for the analysis period you wish to view. The selected record opens on the Load Analysis Periods screen.

This screen displays the following information for the selected record:

- **Period Id:** A unique ID for the analysis period.
- **Load Analysis Classes:** The class associated with the analysis period
- **Period Start:** The start time for the period of data that is analyzed.
- **Period Stop:** The stop time for the period of data that is analyzed.
- **Total Population:** The total population for the analysis period. If you do not have strata population, you can supply total population for the class. The system will equally allocate total population supplied across all strata. If stratum weights are supplied, then the system will adjust stratum populations according to the assigned weights. Total population overrides individual supplied strata population.
- **Combined Billed Energy:** Stratified Combine Ratio Analysis only. The total billed energy for the entire population. If you do not have stratum-billed-energy values available, you can supply the combined billed energy for the class instead. If supplied, the system automatically performs Combined Ratio Expansion, and reporting is restricted to the corresponding reports.

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 Analysis Periods

You can also add new analysis periods for an analysis class.

### How to add analysis periods:

1. Click **Add** on the Load Analysis Periods search or list screens. A blank Load Analysis Period screen opens.
2. Select a Load Analysis Class to be associated with the analysis period in the **Load Analysis Classes** field.
3. Select a starting date and time for the period in the **Period Start** field.
4. Select a stopping date and time for the period in the **Period Stop** field.
5. Enter the optional total population in the **Total Population** field.
6. Enter the optional total billed energy in the **Combined Billed Energy** field.
7. To return to the search screen without adding a record, click **Search**.
8. To save the record, click **Save**. The new analysis period code appears on the screen.

## Strata

Records in the Load Analysis Strata table define the number of strata in the class.

## Searching Strata

You can search for existing Load Analysis Strata in the Oracle Utilities Data Repository.

### How to search strata:

1. Select **Load Research->Analysis Classes->Strata**.

The Load Analysis Strata screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the UID or Load Analysis Class associated with the strata.

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**. See **Adding Strata** on page 4-12 for more information about adding new classes.
4. The search results appear on the Load Analysis Strata screen.

The Load Analysis Strata screen displays the following information for each strata:

- UID

- Load Analysis Classes
- Stratum
- Upper Boundary
- Weight

See **Viewing and Editing Strata** on page 4-11 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Stratum, click the Stratum 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 Load Analysis Strata screen. See **Viewing and Editing Strata** on page 4-11 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Strata** on page 4-12 for more information about adding new strata.

## Viewing and Editing Strata

Individual strata records are viewed on the Load Analysis Strata screen. This screen opens when you select a record from the Load Analysis Strata search results screen.

### How to view and edit strata:

1. Click on the [...] link for the strata you wish to view. The selected record opens on the Load Analysis Strata screen.

This screen displays the following information for the selected record:

- **UID:** A unique id for the strata record.
- **Load Analysis Class:** The analysis class associated with the analysis period
- **Stratum:** The number of strata in the analysis class, used to identify the stratum. Must be a positive integer from 1 to 99.
- **Upper Boundary:** The upper boundary for the strata record. For a post-stratified analysis - If you are performing floating sample points assignment (FLOAT LF, FLOAT KWH, etc.), Then upper boundary must be defined for each stratum. The value must be a positive floating point number. Specify the largest possible value (i.e.: 9999999) for the last stratum. For pre-stratified analysis - If you specified FIXED assignment or are performing a non-stratified analysis, then you may leave this field blank.
- **Weight:** The weighting factor for the strata. Value must be a floating point number between zero and one. If you input zero (0.0) or do not supply a weight, the system will assign a weight based on the stratum population.

**Note:** Strata boundaries and weight typically come from the original sample design criteria.

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 Strata

You can also add new strata record for an analysis class.

### How to add strata:

1. Click **Add** on the Load Analysis Strata search or list screens. A blank Load Analysis Strata screen opens.
2. Select the analysis class that this strata is associated with in the **Load Analysis Classes** field.
3. Enter the number of strata in the **Stratum** field.
4. Enter the optional upper boundary of the strata record in the **Upper Boundary** field.
5. Enter the optional weight factor for the stratum in the **Weight** field.
6. To return to the search screen without adding a record, click **Search**.
7. To save the record, click **Save**. The new strata appears on the screen.

## Strata Periods

Records in the Load Analysis Strata Periods table represent the strata billed energy and strata population for each analysis period. Strata billed energy is used only for the Ratio Analysis program.

## Searching Strata Periods

You can search for existing strata periods in the Oracle Utilities Data Repository.

### How to search strata periods:

1. Select **Load Research->Analysis Classes->Strata Periods**.  
The Load Analysis Strata Period screen opens.
2. Enter the search criteria in the appropriate field.  
You can search based on the Load Analysis Period or the Load Analysis Strata associated with the Class.  
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**. See **Adding Strata Periods** on page 4-14 for more information about adding new classes.
4. The search results appear on the Load Analysis Strata Period screen.  
The Load Analysis Strata Period screen displays the following information for each strata period:
  - Load Analysis Period

- Load Analysis Strata
- Sample Billed Energy
- Population

See **Viewing and Editing Strata Periods** on page 4-13 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Population, click the Population 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 Load Analysis Strata Period screen. See **Viewing and Editing Strata Periods** on page 4-13 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Strata Periods** on page 4-14 for more information about adding new strata periods.

## Viewing and Editing Strata Periods

Individual strata periods are viewed on the Load Analysis Strata Period screen. This screen opens when you select a record from the Load Analysis Strata Period search results screen.

### How to view and edit strata periods:

1. Click on the [...] link for the strata period you wish to view. The selected record opens on the Load Analysis Strata Period screen.

This screen displays the following information for the selected record:

- **Load Analysis Period:** The analysis period associated with the strata period.
- **Load Analysis Strata:** The stratum associated with the analysis period.
- **Stratum Billed Energy:** Ratio Analysis only. The total billed energy for the stratum for the analysis period.

**Note:** If you can supply accurate billed energy for each stratum, the program will perform Separate Ratio Estimation-producing demand estimates for each stratum, as well as the class total. Typically, however, only the total billed energy for the entire population is available. In that case, you can perform Combined Ratio Estimation, which produces demand estimates for just the class, as explained below:

- **For Stratified Separate Ratio Estimation:** Input the actual total billed energy for the stratum population as a positive floating point number. Stratum-billed-energy is required for separate ratio estimation even if you set the Billing option to NO. (See the BILLING attribute option)
- **For Stratified Combined Ratio Estimation:** Input zero (0) or leave this field blank. The value will not be used in calculations. Combined Billed Energy (See Analysis Periods table) must be supplied to specify the total billed energy for the population.
- **For Non-Stratified Ratio Estimation:** You must provide the actual total billed energy for the population as a floating point number. This is required even if the Billing Option is set to NO.

- **Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis for the current analysis period. If omitted and Total population (See Analysis Period Table) is not supplied, the system will assume the population equals the stratum sample size (100% sampling).
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 Strata Periods

You can also add new strata periods for an analysis class.

### How to add strata periods:

1. Click **Add** on the Load Analysis Strata Periods search or list screens. A blank Load Analysis Strata Periods screen opens.
2. Select a period for the strata period in the **Load Analysis Periods** field.
3. Select a strata for the strata period in the **Load Analysis Strata** field.
4. Enter an optional billed energy value for the strata period in the **Sample Billed Energy** field.
5. To return to the search screen without adding a record, click **Search**.
6. To save the record, click **Save**. The new strata period appears on the screen.

## Sample Points

Records in the Load Analysis Sample Points table represent the recorder ID and channel combinations assigned to the analysis class and stratum.

## Searching Sample Points

You can search for existing sample points in the Oracle Utilities Data Repository.

### How to search sample points:

1. Select **Load Research->Analysis Classes->Sample Points**.

The Load Analysis Sample Points screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the Load Analysis Strata or Recorder associated with the sample point.

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**. See **Adding Sample Points** on page 4-16 for more information about adding new classes.
4. The search results appear on the Load Analysis Sample Points screen.



The Load Analysis Sample Points screen displays the following information for each Sample Point:

- **Load Analysis Strata:** The strata associated with the sample point.
- **Recorder:** The recorder ID associated with the sample point.
- **Channel:** The Channel associated with the sample point.

See **Viewing and Editing Sample Points** on page 4-15 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Channel, click the Channel 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 Load Analysis Sample Point. See **Viewing and Editing Sample Points** on page 4-15 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Sample Points** on page 4-16 for more information about adding new sample points.

## Viewing and Editing Sample Points

Individual sample points are viewed on the Load Analysis Sample Points screen. This screen opens when you select a record from the Load Analysis Sample Points search results screen.

### How to view and edit sample points:

1. Click on the [...] link for the sample point you wish to view. The selected record opens on the Load Analysis Sample Point screen.

This screen displays the following information for the selected record:

- **Load Analysis Strata:** The strata associated with the sample point. Enter the fixed stratum number to which the customer belongs (if you are performing a fixed strata analysis).
- **Recorder:** The recorder ID associated with the sample point. Enter the Load Analysis customer id.
- **Channel:** The channel associated with the sample point. Enter the channel number associated with the customer id.

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 Sample Points

You can also add new sample points for an analysis class.

### How to add Sample Points:

1. Click **Add** on the Load Analysis Sample Points search or list screens. A blank Load Analysis Sample Points screen opens.
2. Select a strata from the **Load Analysis Strata** field.
3. Enter a recorder ID in the **Recorder** field.
4. Enter channel in the **Channel** field.
5. To return to the search screen without adding a record, click **Search**.
6. To save the record, click **Save**. The new sample point appears on the screen.

## Sample Billed Energies

Records in the Load Analysis Sample Billed Energy table represent the billed energy for a sample point in an analysis period. This table is required for the Ratio Analysis program.

## Searching Sample Billed Energies

You can search for existing sample billed energies in the Oracle Utilities Data Repository.

### How to search sample billed energies:

1. Select **Load Research->Analysis Classes->Sample Billed Energies**.

The Load Analysis Sample Billed Energies screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the Load Analysis Period or Load Analysis Sample Billed Energies associated with the Class.

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**. See **Adding Sample Billed Energy** on page 4-17 for more information about adding new classes.
4. The search results appear on the Load Analysis Sample Billed Energies screen.

The Load Analysis Sample Billed Energies screen displays the following information for each sample billed energies:

- Load Analysis Period
- Load Analysis Sample Points
- Sample Billed Energy

See **Viewing and Editing Sample Billed Energy** on page 4-17 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Sample Billed Energy, click the Sample Billed Energy 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 Load Analysis Sample Billed Energies screen. See **Viewing and Editing Sample Billed Energy** on page 4-17 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Sample Billed Energy** on page 4-17 for more information about adding new sample billed energies.

## Viewing and Editing Sample Billed Energy

Individual sample billed energies are viewed on the Load Analysis Sample Billed Energies screen. This screen opens when you select a record from the Load Analysis Sample Billed Energies search results screen.

### How to view and edit sample billed energies:

1. Click on the [...] link for the sample billed energy you wish to view. The selected record opens on the Load Analysis Sample Billed Energies screen.

This screen displays the following information for the selected record:

- **Load Analysis Period:** The analysis period associated with the sample billed energy.
  - **Load Analysis Sample Points:** The sample point associated with the sample billed energy.
  - **Sample Billed Energy:** Ratio Analysis only. The billed energy for the sample point. Specify the amount of energy for which the customer was billed corresponding to the analysis period. Enter the value as a positive floating point number. This energy should come from “Billing” and should represent a billing cycle. If you cannot provide accurate billed energy values for each and every customer, you can have the system calculate the values based on the interval data. Leave this field blank and set BILLING to NO (See Class table)
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 works only 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 Sample Billed Energy

You can also add new sample billed energy records for an analysis class.

### How to add sample billed energy:

1. Click **Add** on the Load Analysis Sample Billed Energies search or list screens. A blank Load Analysis Sample Billed Energies screen opens.
2. Select an analysis period in the **Load Analysis Period** field.
3. Select a sample point in the **Load Analysis Sample Point** field.
4. Enter the sample billed energy in the **Sample Billed Energy** field.

5. To return to the search screen without adding a record, click **Search**.
6. To save the record, click **Save**. The new sample billed energy appears on the screen.

## Supplied Peaks

Records in the Load Analysis Peaks table represent the peaks for the class that are supplied to the analysis program.

### Searching Supplied Peaks

You can search for existing peaks in the Oracle Utilities Data Repository.

#### How to search peaks:

1. Select **Load Research->Analysis Classes->Supplied Peaks**.

The Load Analysis Peaks screen opens.

2. Enter the search criteria in the appropriate field.

You can search based on the analysis class or peak datetime associated with the supplied peak.

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**. See **Adding Peaks** on page 4-19 for more information about adding new peaks.

4. The search results appear on the Load Analysis Peaks screen.

The Load Analysis Peaks screen displays the following information for each peak:

- Load Analysis Class
- Peak Datetime

See **Viewing and Editing Peaks** on page 4-19 for more information about viewing individual records.

5. To sort the results by one of the columns, click the appropriate column heading. For example, to sort the results by Peak Datetime, click the Peak Datetime 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 Load Analysis Peaks screen. See **Viewing and Editing Peaks** on page 4-19 for more information.
7. To perform another search, click **Search**. To refresh the contents of the list screen, click the refresh icon.
8. 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**.
9. To add a new record, click **Add**. See **Adding Peaks** on page 4-19 for more information about adding new peaks.

## Viewing and Editing Peaks

Individual peaks are viewed on the Load Analysis Peaks screen. This screen opens when you select a record from the Load Analysis Peaks search results screen.

### How to view and edit peaks:

1. Click on the [...] link for the peak you wish to view. The selected record opens on the Load Analysis Peaks screen.

This screen displays the following information for the selected record:

- **Load Analysis Classes:** The analysis class that is associated with the peak.
  - **Peak Datetime:** The date and time of the peak. Specify the date and time of peaks of interest that are not automatically computed by the program - such as system peak. The analysis program will compute statistics for the entire day in which each supplied peak falls. Peaks that do not fall within the analysis period will not be applied.
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 Peaks

You can also add new peaks for an analysis class.

### How to add peaks:

1. Click **Add** on the Load Analysis Peaks search or list screens. A blank Load Analysis Peaks screen opens.
2. Select an analysis class in the **Load Analysis Classes** field.
3. Enter a date and time for the peak in the **Peak Datetime** field.
4. To return to the search screen without adding a record, click **Search**.
5. To save the record, click **Save**. The new peak appears on the screen.



# Chapter 5

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## Administration Programs

This chapter describes how users work with the Oracle Utilities Load Analysis administration programs to perform database maintenance, including:

- **Scan Archive Delete**
- **Archive Delete**
- **Load Data Retrieval**
- **Data Retrieval**

## Scan Archive Delete

The Scan Archive Delete program enables you to identify and transfer eligible cuts from the CLDB to the ALDB. The program then deletes the cuts from the CLDB.

To run the Scan Archive Delete program, select **Load Research > Administration > Scan Archive Delete**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Scan Archive Delete program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which cut series you want to archive. If you want to archive the entire contents of the database, you can leave this section blank and choose Select “All” under Report Settings.

Each request has the following format:

```
customer-id, channel-number
```

Enter one request per line. You can separate the two elements of a request (customer-id and channel-number) with blank spaces and/or a comma.

For more information about creating the Control Settings for this program see **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The CLDB that contains the cuts that will be moved.
- **Target Database:** The ALDB where the cuts will be stored.

### Report Settings

The following report settings are available for running the program:

- **Report Title:** The title for the report that the program produces.
- **Select:** Indicates which cuts in the CLDB should be archived. The following options are available:
  - **All:** All eligible cuts and cut series are moved to the ALDB. Keys listed in the control settings are not processed.
  - **Key:** Only the cut series listed in the control settings are eligible for archiving.
- **Retain:** Indicates the number or range of valid cuts the program leaves in the CLDB. You may specify either the number of valid cuts to be retained, or a retention date. The following options are available:
  - **Retain N Cuts:** The program leaves the specified number of recent valid cuts in the CLDB. For example if you retain “2”, the two most recent, valid cuts for the specified series will remain in the CLDB, and the rest will be moved to the ALDB.



- **Retain by Date:** The program leaves all valid cuts in the CLDB that have a start time after the specified date. For example, if you specify “03/18/1999”, any valid cuts with start times after “03/18/1999-23:59:59” will remain in the CLDB.  
**Note:** Retain N Cuts and Retain by Date are mutually exclusive; specifying Retain by Date overrides the Retain N Cuts setting.
- **Archive Mode:** Specifies how the program handles cuts that are flagged for archive. The following options are available:
  - **Normal:** Cuts that are flagged for archive are treated as if they are normal, valid cuts. They are subject to retention and other disqualification criteria. Unless you have special archiving requirements, you should normally select this method.
  - **Forced:** Cuts that have their archive flag set to “Y” are archived regardless of the validation status or disqualification criteria.

## Archive Delete

The Archive Delete program enables you to transfer cuts from the ELDB to the SLDB. The program then deletes the cuts from the ELDB.

To run the Archive Delete program, select **Load Research > Administration > Archive Delete**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Archive Delete program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which cut series you want to archive.

Construct a Key Generator type control file to select which cuts or statistics to archive. Output format from this control should have the following format:

```
Customer-id, channel-number, start time
```

The following is an example control setting that shows how to select a set of statistic records for archive:

```
SUBSTR(CUSTID,1,6) = 'RES12-' T(PRINT 1) F(NEXT)

FORMATS:
1: TRIM(CUSTID) ' , ' TRIM(CHANNEL) ' , ' TRIM(START)
```

The statement, `SUBSTR(CUSTID,1,6) = 'RES12-'`, looks for all statistical records beginning with the 6-character prefix “RES12-”. Each time it is true, the format statement outputs the customer ID, channel and start-time of the cut to the key list to be archived.

For more information about creating the Control Settings for this program see **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The ELDB that contains the cuts that will be moved.
- **Target Database:** The SLDB where the cuts will be stored.

### Report Settings

The following report settings are available for running the program:

- **Report Title:** The title for the report that the program produces.

## Load Data Retrieval

The Load Data Retrieval program copies cuts from the ALDB back to the CLDB, where you can reexamine and reedit data if necessary.

To run the Load Data Retrieval program, select **Load Research > Administration > Load Data Retrieval**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Load Data Retrieval program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which cuts you want to retrieve from the ALDB. If you want to retrieve the entire contents of the database, you can leave this section blank and choose “Select All” under Report Settings.

Each request has the following format:

```
customer-id, channel-number, [start time]
```

Enter one request per line.

For more information about creating the Control Settings for this program see **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The ALDB that contains the cuts that will be copied.
- **Target Database:** The CLDB where the cuts will be stored.

### Report Settings

The following report settings are available for running the program:

- **Report Title:** The title for the report that the program produces.
- **Start Time** and **Stop Time:** The date range of the cuts to be retrieved.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** All eligible cuts specified by the date range are retrieved.
  - **Key:** Only the cuts or cut series listed in the control file are processed.
- **Reset Archive Flag?:** Specifies if the archive flags for the cuts are reset. Select “No” if you want to leave the merge and archive flags unchanged from their status in the ALDB. Specify “Yes” if you want to reset the flags.

## Data Retrieval

The Data Retrieval program copies cuts from the SLDB back to the ELDB.

To run the Data Retrieval program, select **Load Research > Administration > Data Retrieval**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Data Retrieval program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which cut series you want to retrieve from the SLDB. If you want to archive the entire contents of the database, you can leave this section blank and choose Select “All” under Report Settings.

Each request has the following format:

- For load data:  
`Customer-id, channel-number, [start time]`
- For Statistics:  
`Statistic name, strata number, [start time]`

Enter one request per line. You can separate the two elements of a request (customer-id and channel-number) with blank spaces and/or a comma.

For more information about creating the Control Settings for this program see **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The SLDB that contains the cuts that will be copied.
- **Target Database:** The ELDB where the cuts will be stored.

### Report Settings

The following report settings are available for running the program:

- **Report Title:** The title for the report that the program produces.
- **Start Time** and **Stop Time:** The date range of the cuts to be retrieved.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** All eligible cuts specified by the date range are copied to the ELDB.
  - **Key:** The cuts or cut series listed in the control file are copied.
- **Reset Archive Flag?:** Specifies if the archive flags for the cuts are reset. Select “No” if you want to leave the merge and archive flags unchanged from their status in the SLDB. Specify “Yes” if you want to reset the flags.

# Chapter 6

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## Input Programs

This chapter describes how users work with the Oracle Utilities Load Analysis input programs to input data into the interval database, including:

- **Production Input**
- **Manual Entry**
- **AXDB Update**

# Production Input

The Production Input program is used to input large amounts of interval data into the database. To run the Production Input program, select **Load Research > Input > Production Input**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 6** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Production Input program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running the Production Input program, including:

- **Input File**
- **Databases**
- **Report Settings**

## Input File

The **Input File** specifies which data will be input into the database. For more information about creating the input file, see **Chapter 6** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **AXDB:** Used to select the AXDB database if the data needs to be modified before being input to the interval database.
- **Interval Database:** The database into which the data will be loaded.

## Report Settings

The following Report Settings are available for running the Production Input program:

- **Report Title:** The title for the report that the program produces.
- **Combine Reports:** Indicates if the reports produced by the program should be combined into one report.
- The **Load Options** section contains the following settings:
  - **Replace:** Indicates if an incoming cut will automatically replace an existing cut in the CLDB that has the same cut key. Use this option with care. If you do not select Replace, any incoming cuts with keys that already exist in the CLDB will not be entered, and the existing cuts in the database will remain intact.
  - **Valid:** Used to set the internal validation, external validation, merge, and archive flags on incoming data to “Yes” — in other words, to override Oracle Utilities Load Analysis’s built-in validation procedure. If you do not select **Valid**, all flags will be set to “No”, and Oracle Utilities Load Analysis will apply the validation tests to the cuts.
  - **Select Keys from AXDB:** Indicates if you want to input only specific cuts from the incoming file. This option limits processing to those incoming cuts whose Select keys appear in the AXDB.
  - **Skip GLDB ID Conversion (GLDB only):** Indicates if you want to load the cuts without translating the ID. For GLDB database only.
  - **Translated Only:** Loads only translated cuts (those with a corresponding “T” record in the AXDB). Cuts with no corresponding AXDB “T” record will not be written to the database.

- **Recorder ID Length Limit:** Specifies the recorder ID length limit. This setting truncates incoming recorder id's to the length specified.
- **Overcount:** Specifies how the program should handle the data when the number of intervals supplied exceeds the number of intervals expected. The following options are available:
  - **Reject:** (Default) If the number of intervals supplied is greater than the number of intervals expected the cut will be rejected as an error.
  - **As-Is:** If the number of intervals supplied is greater than the number of intervals expected the cut will be accepted as is. A warning message will be posted to the Execution Log.
- **Undercount:** Specifies how the program should handle the data when the number of intervals supplied is fewer than the number of intervals expected. The following options are available:
  - **Fill:** (Default) If the number of intervals supplied is fewer than the number of intervals expected the cut will be filled out with missing data intervals (intervals with a value of "0" and status of "9"). A warning message will be posted to the Execution Log.
  - **Reject:** If the number of intervals supplied is fewer than the number of intervals expected the cut will be rejected as an error.
  - **As-Is:** If the number of intervals supplied is fewer than the number of intervals expected the cut will be accepted as is. A warning message will be posted to the Execution Log.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
- **DST Participant Flag:** Indicates what DST format the incoming data is recorded in. The following options are available:
  - **Yes:** (Default) Indicates the incoming data is DST participant (23 hours in spring DST, 25 intervals in fall DST).
  - **No:** Indicates the incoming data does NOT participate in DST (always 24 hour days).
  - **24Hr Adjusted:** Indicates that the incoming data participates in DST, but is adjusted to 24 hour days. (A missing interval inserted for spring DST, and the extra interval is combined for fall DST).
- **Prefix:** A prefix that will be added to all incoming cuts. Ensure that the combination of prefix, recorder ID and suffix is not longer than 64 characters or truncation may occur.
- **Suffix:** A suffix that will be added to all incoming cuts. Ensure that the combination of suffix, recorder ID and suffix is not longer than 64 characters or truncation may occur.
- **Split:** Cuts are split when they start and end in different years.
- **Enhanced Format Only:** Specifies that cuts should be written to the database that cannot be exported in the INP format.
- The **Append input Recorder ID to Translated Cuts** section provides the following information for appending the original recorder ID onto the end of the translated ID from the AXDB:
  - **Source ID Start Position:** The beginning of the string in the original ID to be appended to the translated ID.
  - **Source ID Length:** The number of characters from the start position to append to the translated ID.
  - **Exemptions:** String combinations, comma separated, that are exempt from this operation and will not be appended if found. Strings listed must be of the same length as the Source ID length specified.

**Note:** If the translated ID is not found for a specified cut, this operation is not performed.

- The **Non Zero Missing Intervals Behavior** section provides settings that specify how an interval cut will be handled if it has a status code of 9 (“missing interval”) but has a value other than zero:
  - **Substitute Status code:** A status code to replace the original code.
  - **List:** Lists the records in the execution log.
  - **Bypass:** The program will bypass writing the cut to the database.
- The **Convert Status Codes** section specifies any status codes in the input files that you want replaced with new status codes. Click **Add** if you want to convert more than one status code.
  - **From Status:** The status code that you want to replace.
  - **To Status:** The new status code to use as a replacement code.
- The **Convert UOM** section specifies any unit of measure codes in the direct input files that you want to convert to a different unit of measure code. Click **Add** if you want to convert more than one unit of measure code.
  - **From UOM:** The unit of measure code that you want to replace.
  - **To UOM:** The unit of measure code that you want to use as the replacement code.
- The **Full Intervals** section provide the following information for adjusting the start and stop times of cuts to full interval boundaries (for example, a start time of 13:00:00 and a stop time of 23:59:59). This command is used in conjunction with records in the AXDB.
  - **Adjust Start/Stop Times to Full-Interval Boundaries:** Specifies if start and stop time should be adjusted.
  - **Identify Cuts to Adjust by 3 Char. Code:** Defines the code used to identify the cuts that should be adjusted.
- **File Logging:** Specifies which adjustments should be logged.
- The **Automatic Editor** specifies the edit rules to be applied to certain conditions that may be detected in the cuts being validated, causing Load Data Editor commands to be generated for the correction of those conditions. This file should not be changed except under special circumstances and in accordance with the policies of your utility. See **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Automatic Editor.



## Manual Entry

The Manual Entry program is used when you have small amounts of data to put into the CLDB or ELDB. To run the Manual Entry program select **Load Research > Input > Manual Entry**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 8** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Manual Entry program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify the information that you want to load into the database. For more information about creating the Control Settings for this program see **Chapter 8** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

You construct the Control File out of “blocks” of data, one block per cut. Use the following commands:

```
KEY customer-id, channel, start-time
SET PULSE-MULT [pm | 0]
SET PULSE-OFFSET [po | 0.0]
SET UOM [ci | 01]
SET TIME-ZONE [tz | (-1)]
SET SECONDS-PER-INTERVAL [spi | 900]
SET POPULATION [pop | 0]
SET WEIGHT [wt | 0]
SET METER-MULT [mm | 0]
SET METER-OFFSET [mo | 0.0]
SET METER-START [mstart | 0.0]
SET METER-STOP [mstop | 0.0]
SET DES [descriptor]
SET DES1 [descriptor1]
SET DES2 [descriptor2]
DATA Interval data
STATUS Status codes
```

You can insert blank lines anywhere in the Control File, either within or between blocks. You can also insert commas or blanks between entries on a line. Commands must be entered in the following order: KEY, SET, DATA, STATUS.

**Key:** Each block must begin with a KEY Command. Use it to establish the cut key — “customer-id, channel-number, start-time”. Specify the start-time in the “mm/dd/yy-hh:mm:ss” format.

**Set:** These optional commands can be used to override the default values for the cut’s fixed data fields. You can enter the SET commands in any order. Set commands include the following:

- **PULSE-MULT:** Enter a non-zero, positive real number. If a pulse multiplier is specified, all data values will be treated as pulses. If no pulse multiplier is specified, the data values will be treated as energy. Note that if no pulse multiplier is specified, “0” will be stored in the database; however, it is invalid to specify a pulse multiplier of “0”. If a pulse offset is specified, a pulse multiplier must also be specified.

- **PULSE-OFFSET:** Enter a real number; positive, negative, or zero. The default is 0. If a pulse multiplier is specified, a pulse offset must also be specified.
- **UOM:** Enter the appropriate numeric code for the unit of measure. (See the Quick Reference Guide or Appendix A: Oracle Utilities Unit of Measure Codes for a list of Oracle Utilities UOM codes.) The default is 01, which stands for kilowatts.
- **SECONDS-PER-INTERVAL:** 60, 300, 900, 1800, 3600, or 86400. The default is 900.
- **POPULATION:** For use with statistics only. Enter a non-negative numeric value no larger than 9999999999. The default is 0.
- **WEIGHT:** For use with statistics only. Enter a non-negative numeric value no larger than 9999999999. The default is 0.
- **METER-MULT:** Enter a positive real number. If no value is specified, 0 will be stored in the database. While 0 is not a valid value for the meter multiplier, its presence in the database indicates that no meter multiplier was supplied.
- **METER-OFFSET:** Enter a real number; positive, negative, or zero. The default is 0.
- **METER-START:** Enter a non-negative real number. The default is 0.
- **METER-STOP:** Enter a non-negative real number. The default is 0.
- **DES1:** Enter the first half (40 characters) of the cut descriptor.
- **DES2:** Enter the second half (40 characters) of the cut descriptor. Set DES2 is optional. If used, it must be accompanied by a Set DES1 Command.
- **DES:** Enter the entire cut descriptor (80 characters). If DES is specified, then DES1 and DES2 should not be.

**Data:** Use this required command to indicate the start of the load data. If a Pulse Multiplier has been provided, you must specify each value in integer form, preferably as a positive value less than 32767. If necessary, use the pulse multiplier and pulse offset fields to rescale and offset the data. If your data does include values that exceed 32767, Oracle Utilities Load Analysis will automatically rescale the data. If no Pulse Multiplier has been provided, data will be treated as energy. The data may be negative, and may include decimal digits.

You can enter an unlimited number of load data records in the Control File.

**Status:** This command is used to indicate the start of the status code records. Use of the status codes is optional, but if you do enter status codes, you must enter the Status Command. You can find a list of status codes in the Quick Reference Guide.

If you do not enter this command and the status codes, Oracle Utilities Load Analysis will automatically assign an 'A' status code to each interval ('A' means "normal, hand-entered"). If you do include status codes in the Control File, the number of status codes must equal the number of load data values. If not, the block will be discarded. Note: A status code of ' ' (normal data) cannot be used for manual entry input.

The following is an example of a Manual Entry control file:

```
KEY B016, 1, 08/01/98-00:00:00
SET UOM 02
SET PULSE-MULT 2.0
SET PULSE-OFFSET 2.0
SET SECONDS-PER-INTERVAL 3600
DATA
325 315 313 312 329 374 996 1025 902 1040 1502 1921
945 715 545 385 857 1455 568 775 640 501 1451 451
351 338 305 298 593 632 1087 999 505 919 334 527
874 685 906 1375 1785 1094 743 766 1133 1215 606 295
325 315 313 312 329 374 996 1025 902 1040 1502 1921
945 715 545 385 857 1455 568 775 640 501 1451 451
```

```

351 338 305 298 593 632 1087 999 505 919 334 527
874 685 906 1375 1785 1094 743 786 1133 1215 606 295
STATUS
A A A A A A A M M 2 2
A A A A A A A A A A A
A A A A A A A A A A A
2 2 M M A A A A A A A
A A A A A A A A M M 2 2
A A A A A A A A A A A
A A A A A A A A A A A
2 2 M M A A A A A A A
KEY B018, 1, 08/01/98-00:00:00
SET UOM 02
SET SECONDS-PER-INTERVAL 3600
DATA
325.79 315.42 313.21 312.09 329.16 374.33 996.44 1025.01
902.90 1040.06 1502.36 1921.48 945.39 715.43 545.97 385.66

```

## Databases

The following database options are available for this program:

- **Interval Database:** Used to select the database into which the data will be loaded.

## Report Settings

The following report settings are available for running the Manual Entry program:

- **Report Title:** The title for the report that the program produces.
- **DST Participant Flag:** Indicates what DST format the incoming data is recorded in. The following options are available:
  - **Yes:** (Default) Indicates the incoming data is for a DST participant (23 hours in spring DST, 25 intervals in fall DST).
  - **No:** Indicates the incoming data does NOT participate in DST (always 24 hour days).
  - **24Hr Adjusted:** Indicates that the incoming data participates in DST, but is adjusted to 24 hour days. (A missing interval inserted for spring DST, and the extra interval is combined for fall DST).
- **Replace Existing:** Specifies that data in the control file will replace data in the database if it has the same key.

## AXDB Update

The Auxiliary Database (AXDB) enables you to select or modify cuts from the input files during the Production Input process before entering in to the CLDB. AXDB Update allows you to manage and control the Auxiliary Database (AXDB).

The AXDB Update program is used to re-create or update specific record types in the AXDB. In other words, it allows you to define instructions to the programs for selecting and/or modifying incoming records. To run the AXDB Update program select **Load Research > Input > AXDB Update**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the AXDB Update program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which records you want to place in the AXDB. For more information about creating the Control Settings for this program see **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **AXDB:** Used to select the AXDB database for modifying the interval data.

### Report Settings

The following report settings are available for running the AXDB Input program:

- **Report Title:** The title for the report that the program produces.
- **Record Type:** The record type to be updated. The following options are available:
  - **D Records:** Modifies the descriptor field of a cut series or a specific cut, and/or adjust the start-and stop-time fields.
  - **S Records:** Selects specific cuts from the input file.
  - **T Records:** Changes the customer-id and channel field.
  - **V Records:** Select a specific set validation criteria for a cut series.
- **Mode:** The modes in which the program operates. The following options are available:
  - **Add.** Adds new records of the specified record type to the database. Any existing records will not be replaced.
  - **Delete.** Deletes records in the database identified by records in the control file.
  - **Replace.** Replace and adds records to the database that are supplied in the control file.
- **Start Times Included in Control:** Indicates that the control setting records include the start time. It may not be used with the V records because type V records may not contain start times.

# Chapter 7

---

## Validation Programs

This chapter describes how users work with the Oracle Utilities Load Analysis cut series validation program to validate data in the interval database, including:

- **Cut Series Validation**

## Cut Series Validation

The Cut Series Validation program checks newly entered, newly edited, or user-specified cuts in the Current Load Database (CLDB) to ensure that the data is accurate and error free. The Cut Series Validation Program checks all data against tolerance parameters specified by your utility in the Validation Environment File. Data that fails these standards cannot be transferred to the Archive Load Database (ALDB) without first being edited.

To run the Production Input program select **Load Research > Validation > Cut Series Validation**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Cut Series Validation program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** specify which records you want to validate. Each validation request has the following format:

```
customer-id, channel-number
```

For more information about creating the Control Settings for this program see **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **AXDB:** Used to identify if certain cut series are subject to different set of validation criteria block.
- **Interval Database:** The database that contains the data to be verified.

### Report Settings

The following report settings are available for running the Cut Series Validation program:

- **Report Title:** The title for the report that the program produces.
- **Output Keys File (Opt.):** The name of the missing keys file. The default file name is KEYSLIST.DAT.
- **Use Default Validation Rules:** Specifies that the program will use the system default validation file (TGX21B.ENV) For more information regarding the default validation file, see **Chapter 5** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*. This field is selected by default.

If you clear the **Use Default Validation Rules** field the following validation criteria are available:

- **Block:** Specifies that you are using multiple sets of validation criteria. The value of this field is the sequential number of the block(s). Click **Add** if you want to add another block of validation criteria.
- The **Effective Date Range** section contains the following settings:
  - **Start Time** and **Stop Time:** The date range of the cuts to be validated.

- **Meter Reading Match-up Test:** The meter-stop-reading of the current cut must be within the specified tolerance of the meter-start-reading of the following cut. This section contains the following settings:
  - **Maximum Meter Underlap:** The maximum gap (or “underlap”) allowed between two meter readings. The default gap is 1 meter reading unit.
  - **Maximum Meter Overlap:** The maximum overlap allowed between two meter readings. The default overlap is 1 meter reading unit.
  - **Max Meter Multiplier Differences Allowed:** The number of meter multiplier differences per cut that is allowed.
- **Recording Period Match-Up Test:** The stop-time of the current cut must be within the specified tolerance of the start-time of the following cut. This section contains the following settings:
  - **Maximum Time Underlap:** The maximum time gap (also called “underlap”) allowed between two cuts. Specify tolerance levels in minutes “mm” or minutes with seconds “mm:ss”. The default gap is 3600 seconds (60 minutes).
  - **Maximum time Overlap:** The maximum overlap between two cuts. Specify tolerance levels in minutes “mm” or minutes with seconds “mm:ss”. The default overlap is 900 seconds (15 minutes).
- **Energy Discrepancy Test:** The difference between the meter energy and the interval energy must not be greater than the meter multiplier times the meter multiplier factor, and the ratio of the meter energy to the interval energy must be within the tolerance range specified. This section contains the following settings:
  - **Minimum Discrepancy Tolerance and Maximum Discrepancy Tolerance:** Establishes tolerance levels for the Energy Discrepancy Test. Specifically, enter values to specify the range in which the ratio of metered energy to interval energy in each cut must fall. The valid range is 0 to 1.999. The default range is 0.98 to 1.02 (i.e., a +2% discrepancy).

Entering “OFF” will turn off the Energy Discrepancy Test. However, this should be done only if your utility does not use metered energy in Oracle Utilities Load Analysis, or if testing for an energy discrepancy is otherwise detrimental to the validation process; not just because there is a large difference between your metered energy and interval energy.
- **Outages:** The number of consecutive uncorrected power outage status codes must not be greater than the tolerance level specified. This section contains the following settings:
  - **Max Number of Outages Allowed:** The maximum allowable number of intervals with status codes of 1 (uncorrected outage) per cut. The default is 0 intervals.
  - **Consecutive Outages Only:** Specifies that validation will be based on the maximum number of consecutive outages. If this field is not selected, validation will be based on the total number of outages.
- **Non-normals:** The number of consecutive non-normal intervals must not be greater than the tolerance level specified. This section contains the following settings:
  - **Max Number of Non-normals Allowed:** The maximum allowable number of intervals with non-normal status codes (values from 2 to 9) per cut. The default is 0 intervals.
  - **Consecutive Non-normals Only:** Specifies that the validation will be based on the maximum number of consecutive non-normal intervals. If this field is not selected, validation will be based on the total number of normal intervals.
  - **Non-normal Status Codes:** Defines custom non-normal status codes.
- **Low Interval Demand Test:** Interval demands must not exceed limits. This section contains the following settings:

- **Minimum Demand Value:** The level below which an interval's demand will be considered high. If you omit this value the test will not be performed.
- **Max Consecutive Low Demand Intervals Allowed:** The maximum allowable number of consecutive intervals with demand below the Minimum Demand Value. The default is 0 intervals.
- **High Interval Demand Test:** Interval demands must not exceed limits specified. This section contains the following settings:
  - **Maximum Demand Value:** The level above which an interval's demand will be considered high. If you omit this value the test will not be performed.
  - **Max Consecutive High Demand Intervals Allowed:** The maximum allowable number of consecutive intervals with demand above the Maximum Demand Value. The default is 0 intervals.
- **Dip Intervals Test:** Interval values must not exceed the rolling average of a specified number of preceding intervals by a percentage greater than or equal to the limits specified. This section contains the following settings:
  - **Number of Intervals for Rolling Average:** The number of intervals to compute a rolling average over for the test. Each interval will be compared to the rolling average of the intervals preceding it to determine if it is abnormally low (a dip). This value must be an integer from 1 to 10. The default value is 0. If you omit this value the test will not be performed.
  - **Dip Percentage Threshold:** The percentage by which an interval's value is not to exceed the computed rolling average. This value must be an integer from 1 to 100. The default value is 50%.
- **Spike Intervals Test:** Interval values must not exceed the average of a specified number of peaks in a cut by a percentage greater than or equal to the limits specified. This section contains the following settings:
  - **Number of Intervals for Peak Average:** The number of highest values or peaks to be averaged from the cut. Each interval in the cut is compared to this average to determine if it is abnormally high (a spike). The value must be an integer from 1 to 10. The default value is 0. If you omit this value the test will not be performed.
  - **Spike Percentage Threshold:** The percentage by which an interval's value is not to exceed the average of the peaks. This value must be an integer from 1 to 100. The default value is 50%.
- **UOM Exemptions:** Exempt cuts with specified units-of-measure from undergoing specified Validation tests section specifies UOM codes that will be exempt from specified validation tests. Select **Add** if you want to exempt UOM codes from additional validation tests. This section contains the following settings:
  - **Exempt Validation Test:** Specifies a validation test from which you want to exempt UOM codes.
  - **Exempt UOM(s):** Specifies one or more UOM codes (separated by commas or spaces) that are exempted from the validation test. Only those entered UOM codes that exist in the cuts being validated will have any actual effect on the running of the Validation program.
- **Zero Interval Values Test:** The number of consecutive intervals with a value of 0 must not be greater than the tolerance level specified by the ZERO parameter in the Validation Environment File. This section contains the following setting:
  - **Zero Intervals Threshold:** Specifies the maximum number of consecutive intervals in a cut whose data value can be 0 (with status code blank ("") or "A" - "P"). This command



will accept either a constant or a percentage of the total number of intervals. If omitted or if the keyword 'OFF' is specified, no zeros-testing will be performed.

- **Report:** Specifies if the invalid cuts will be reported or the series that contains the invalid cuts.
- The **Automatic Editor** section contains the following settings:
  - The **Automatic Editor** specifies the edit rules to be applied to certain conditions that may be detected in the cuts being validated, causing Load Data Editor commands to be generated for the correction of those conditions. This file should not be changed except under special circumstances and in accordance with the policies of your utility. See **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Automatic Editor.



# Chapter 8

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## Reporting Programs

This chapter describes how users work with the Oracle Utilities Load Analysis reporting programs to report the contents of the database, including:

- **AXDB Summary Reporter**
- **Summary Reporter**
- **Load Data Reporter**
- **Totalizing Reporter**
- **Late Cut Reporter**
- **Validation Statistics Reporter**
- **Cut Series Gap Reporter**
- **Cut Series Overlap Reporter**

## AXDB Summary Reporter

The AXDB Summary Reporter enables you to examine the contents of the AXDB. It is useful when you are preparing to execute the Direct Input or Load Data Input programs.

To run the AXDB Summary Reporter program, select **Load Research > Reporting > AXDB Summary Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the AXDB Summary Reporter. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Databases**
- **Report Settings**

### Databases

The following database types are available for this program:

- **AXDB:** Used to select the AXDB database that contains the data for the report.

### Report Settings

The following report settings are available for running the AXDB Summary Reporter:

- **Report Title:** The title for the report that the program produces.
- In the **AXDB Summary Reporter** section, the **Select** field specifies which record type will be reported. The following options are available:
  - **All:** Reports all record types in the AXDB.
  - **D Records:** Reports the descriptor /start-and stop-time modification table.
  - **S Records:** Reports all records contained in the selection list.
  - **T Records:** Reports all records in the translation table.
  - **V Records:** Reports all records in the validation criteria table.

# Summary Reporter

The Summary Reporter reports the entire contents of the interval databases, contents of selected cut series, and/or contents of all cuts within a specified time period. The Summary Reporter will also generate important statistics — including the total number of cuts; the number of valid and invalid cuts; the number of active records, inactive records, and edit trails; and the number of cuts with forced Merge and Archive fields. This program is useful for examining the database and investigating problems.

To run the Summary Reporter program select **Load Research > Reporting > Summary Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 13** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Summary Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** specify which cut series you want to report on. If you want to report the entire contents of the database, you can leave this section blank and choose Select “All” under Report Settings.

Each request has the following format:

```
customer-id, channel-number
```

Enter one request per line. You can separate the two elements of a request (customer-id and channel-number) with blank spaces and/or a comma.

For more information about creating the Control Settings for this program see **Chapter 13** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database type are available for this program:

- **Interval Database:** The database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Summary Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** Indicates that you want every cut in the database that falls within the specified date range to be reported. Control setting contents will be ignored.
  - **Key:** Only the customer whose keys appear in the control file and whose start- and stop-times fall within the specified reporting period is reported.
- **Start Time and Stop Time:** The reporting period for the selected cuts. If not provided, all cuts are eligible to be reported.

- **Source:** Identifies the report format you want the cuts reported in. Specify “CLDB” if you wish to execute the CLDB Summary Reporting Program and have the data reported in the CLDB format. Specify “ELDB” if you wish to execute the ELDB Summary Reporting Program and have the data reported in the ELDB format, etc.
- **Report Edit Trails:** Determines if the Edit Trail output file will be produced.
- **Report Dips:** Any dips noted in each cut’s validation messages are reported.
- **Report Spikes:** Spikes noted in each cut’s validation messages are reported.
- **Report Outages:** Outages noted in each cut’s validation messages are reported.
- **Report Load Factors:** The load factor for each cut is reported.
- **Report Maximum Interval Demand:** The maximum demand for any interval in each cut listed is reported.
- **Report Hours Used:** The hours used for each cut is reported.

# Load Data Reporter

The Load Data Reporter produces detailed reports on individual cuts, cut series, or subsisted portions of cut series in the CLDB, ELDB, SLDB, and/or ALDB. This program is useful to investigate cuts before editing or to generate detailed information in response to specific requests from customers or other departments.

To run the Load Data Reporter Input program select **Load Research > Reporting > Load Data Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Load Data Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** contain your report requests. Each request consists of the key for the customer you want to report. In each request, you can specify a single cut or a cut series. You specify a cut by supplying the full key using the following format:

```
customer-id, channel-number, start-time
```

You specify a cut series by using the following format:

```
customer-id, channel-number
```

To create the Control setting, you will use the following format. Input one request per line:

- **Customer-id:** Input the customer-id of the cut or cut series you want to report on. This is a required field.
- **Channel:** Input the channel number of the cut or cut series you want to report on. This is a required field.
- **Start-time:** If you want to report on a single cut, input its start-time (“mm/dd/yy-hh:mm:ss”). If you do not specify a start-time, Oracle Utilities Load Analysis will use the date-range specified in the Environment File.

For more information about creating the Control Settings for this program see **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.
- **Interval Database 2:** An additional database that contains the data used for the report.
- **Interval Database 3:** An additional database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.

- **Source:** The source of the data which is used for the report. Use this to specify the origin of the data you wish to report. “CLDB” must be specified with this command if you are using the CLDB Load Data Reporter. “ALDB” if you are using the ALDB Load Data Reporter. To report data from both the CLDB and an ALDB, specify “CLDB BOTH”. To report data from both CLDB, and two ALDBs, specify “CLDB BOTH 2”.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none**, **300**, **900**, **1800**, **3600**, **86400**. The default is no aggregation - the intervals would be reported in their current seconds per interval.
- **Start Time and Stop Time:** The date range of the cuts used for the report. Use this to identify the date range of the reports, where “start-time” specifies the beginning boundary of the date range and “stop-time” specifies the ending boundary of the date range. Those cuts specified in the Control File whose Start Times fall within the date range will be reported.
- **Subset:** Specify “YES” if you want to produce one report for the portion of each cut series that falls between the start and stop times specified. Note: If you use the Subset, you must specify both a start- and stop-times.
- **Merge Options:** Specifies how the invalid cuts are handled. This setting only applies when Subset is set to “YES”. The following options are available:
  - **Yes:** The program merges all cuts found within the specified date range regardless of validation status.
  - **No:** (Default) The program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Exclude:** The program merges all cuts found within the specified date range, but excludes all invalid data.
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- The following **Sub Report Options** are available.
  - **Demand Report:** Specifies if the report includes a complete listing of actual intervals in demand units ([intervals] x [# of intervals per hour]). The following options are available.
    - **None:** The report is not produced.
    - **Report:** The report is produced in report format.
    - **Report and Spreadsheet Output:** The report is produced in both report format and in a comma delimited format.
  - **Energy Report:** Specifies if the report includes a complete listing of actual intervals in energy units (pulse x pulse multiplier + pulse offset). The following options are available:
    - **None:** The report is not produced.
    - **Report:** The report is produced in report format.
    - **Report and Spreadsheet Output:** The report is produced in both report format and in a comma delimited format.
  - **Daily Report:** Produces a list of the total energy, peak, and minimum values for each day in the cut or cut series.
  - **Minimum Summary Report:** Produces a list of the one to 10 lowest energy values in the cut or cut series, with times.
  - **Peak Summary Report:** Produces a list of the one to 10 highest energy values of the cut or cut series, with times.



- **# of Peaks/Minimums:** The number of values reported by the Minimum Summary and Peak Summary reports.
- **Separate Peak/Minimum Reports by Season:** Produces a separate Peak Summary and/or Minimum Summary report — a list of the one to 10 highest/lowest energy values in the cut or cut series, with times — for each season. Used in conjunction with the season schedule.
- **Report Original Cuts Only:** Produces the report using the original unedited version of a cut.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to graph the reported cuts.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.

# Totalizing Reporter

The Totalizing Reporter produces detailed reports on multiple channels of data.

To run the Totalizing Reporter select **Load Research > Reporting > Totalizing Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 14** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Totalizing Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The Control Settings consists of one or more sets of report blocks that produce a separate output report. Each report block contains a set of commands that control the report's form and content.

For more information about creating the Control Settings for this program see **Chapter 14** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Totalizing Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Summary Statistics Output (Opt.):** Specifies the name of the optional output file.
- **Valid Cuts Only?:** Specifies whether invalid data should be merged within the reporting period. Specify "No" to indicate that both valid and invalid data may be merged within the reporting period. Specify "Yes" to indicate that only internally valid data may be merged within the reporting period.
- The **Summary Statistics Report** section specifies values that can be included in the Summary Statistics Report.
  - **# of Peaks:** Specifies the number of interval peaks to report for each customer.
  - **Average Demand:** Specifies if an average demand value is reported.
  - **Coincident Peak:** Specifies if the values of coincident peaks are reported.
- **Quality:** Specifies the worst acceptable status code that is accepted for the data.
- **Status Codes:** Specifies how status codes should be displayed next to each reported value. Specify "Yes" to indicate that an "\*" is printed next to any value whose status code is worse than the Quality specified. Specify "No" if no status codes should be displayed. Specify "All" to print the actual status code associated with each peak and coincident peak on the summary report section.
- **Stop:** Determines if the program should stop if it encounters a missing cut in the database.

- **Check for UOM Compatibility:** Determines if unit-of-measure codes should be compared. Select “Yes” if you want to check the unit-of-measure code of each cut in a report block for compatibility with the other cuts in the block.
- **Save Totals and Subtotals?:** Specifies whether to save a total or a subtotal to the database.
- **Reporting Options:** Specifies if output should be limited. The following options are available:
  - **All** produces both detail and summary statistics reports.
  - **All - Detail and Incomplete Summary** produces a detail report along with a summary statistics report that lists only records less than 100% complete.
  - **Summary Only** produces only the summary statistics Report.
  - **Incomplete Summary Only** produces a Summary Statistics report that lists only records less than 100% complete.
  - **None** suppresses both detail and summary statistics reports.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to graph the reported cuts.

# Late Cut Reporter

The Late Cut Reporter reports late cuts by identifying channels whose data ends before a specified cutoff time.

To run the Late Cut Reporter, select **Load Research > Reporting > Late Cut Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Late Cut Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The Control File contains a list of cut series to be examined for meter stop-times. The file contains one request per line. Each request has the following format:

```
customer-id, channel number
```

For more information about creating the Control Settings for this program see **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Totalizing Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** Indicates that you want every cut in the database tested for late cuts. Control setting contents will be ignored.
  - **Key:** Only the cuts that appear in the control file are tested for late cuts.
- **Cutoff Date:** Specifies the cutoff time for the cut series. Any cut with a stop time on or before the cutoff date is reported.

---

# Validation Statistics Reporter

The Validation Statistics Reporter produces a report summarizing the results of internal validation for selected cuts. The report indicates the number of cuts and the percentage of cuts that failed each internal validation test and certain combinations of internal validation tests.

To run the Validation Statistics Reporter select **Load Research > Reporting > Validation Statistics Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Validation Statistics Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The Control File contains a list of cuts to be included in the report. The file contains one request per line. Each request has the following format:

```
customer-id, channel number, start-time
```

For more information about creating the Control Settings for this program see **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Validation Statistics Reporter:

- **Report Title:** The title for the report that the program produces.

# Cut Series Gap Reporter

The Cut Series Gap Reporter lists the start date and time of the series for each specified cut, along with any gaps in data and the stop date and time of the series. The report also shows the start and stop times of each gap.

To run the Cut Series Gap Reporter select **Load Research > Reporting > Cut Series Gap Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 17** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Cut Series Gap Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The Control File contains a list of cut series to be included in the report. The file contains one request per line. Each request has the following format:

```
customer-id, channel number
```

If you want to process the entire contents of the database, you can leave this section blank and choose “Select All” under Report Settings. For more information about creating the Control Settings for this program see **Chapter 17** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Cut Series Gap Reporter:

- **Report Title:** The title for the report that the program produces.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** Indicates that you want every cut in the database tested for gaps. Control setting contents will be ignored.
  - **Key:** Only the cuts that appear in the control file are tested for gaps.
- **Start Time and Stop Time:** The reporting period for the selected cuts. If not provided, all cuts are eligible to be reported.
- **Source:** Identifies the format in which you want the cuts reported. For example, specify “CLDB” if you want to execute the CLDB Summary Reporting Program and have the data reported in the CLDB format. Specify “ELDB” if you want to execute the ELDB Summary Reporting Program and have the data reported in the ELDB format.
- **Report Statistics?:** Specifies whether entire period type statistics (“-ENTR-”) should be processed for gaps. This option applies only when Source is “ELDB” or “SLDB.”
- **Quality:** Specifies the worst acceptable status code that is accepted for the data.

- **Print Options:** Specifies if output should be limited. Select “Gaps Only” to report the cut series with one or more gaps. Select “All” if you want all tested cut series in the report.
- **User-Supplied Title:** Defines an additional title line in the reports.
- **Output File Format:** Specifies the format for an output file. The following options are available:
  - **None:** No file is produced.
  - **CSV:** Produces a comma delimited file.
  - **Fixed:** Produces a fixed width file.

# Cut Series Overlap Reporter

The Cut Series Overlap Reporter lists the start time, stop time, and total number of recorded intervals for each cut in the database or control file, plus the start time of any cut in the same series (customer ID and channel) with intervals that overlap another cut.

To run the Cut Series Gap Reporter select **Load Research > Reporting > Cut Series Overlap Reporter**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 18** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Cut Series Overlap Reporter program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The Control File contains a list of cuts to be included in the report. The file contains one request per line. Each request has the following format:

```
customer-id, channel number
```

If you want to process the entire contents of the database, you can leave this section blank and choose “Select All” under Report Settings. For more information about creating the Control Settings for this program see **Chapter 18** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The primary database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Cut Series Overlap Reporter:

- **Report Title:** The title for the report that the program produces.
- **Select:** Specifies whether or not to process the control file. The following options are available:
  - **All:** Indicates that you want every cut in the database that falls within the specified start- and stop-times to be reported. Control settings will be ignored.
  - **Key:** Only the records whose keys appear in the control file and whose start- and stop-times fall within the specified reporting period are reported.
- **Start Time and Stop Time:** The optional reporting period for the selected cuts. If not provided, all cuts are eligible to be reported.
- **Source:** Identifies the report format you want the cuts reported in. For example, specify “CLDB” if you wish to execute the CLDB Summary Reporting Program and have the data reported in the CLDB format. Specify “ELDB” if you wish to execute the ELDB Summary Reporting Program and have the data reported in the ELDB format, etc.



- **Report Statistics?:** Specifies whether entire period type statistics (“-ENTR-”) should be processed for gaps. This option applies only when Source is “ELDB” or “SLDB.”
- **Tolerance:** Specifies the number of overlapping intervals to tolerate. Overlaps will only be reported if the number of overlapping intervals exceeds the tolerance amount.
- **Print Options:** Specifies if output should be limited. Select “Gaps Only” to report the cut series with one or more gaps. Select “All” if you want all tested cut series in the report.
- **User-Supplied Title:** Defines an additional title line in the reports.
- **Output File Format:** Specifies the format for an output file. The following options are available:
  - **None:** No file is produced.
  - **CSV:** Produces a comma delimited file.
  - **Fixed:** Produces a fixed width file.



# Chapter 9

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## Editing Programs

This chapter describes how users edit interval data using the Oracle Utilities Load Analysis editing programs, including:

- **Load Data Editor (CLDB)**
- **Load Data Editor (ELDB)**
- **Copy Cuts**
- **Move Cuts**
- **Delete Cuts**

## Load Data Editor (CLDB)

The Load Data Editor (CLDB) program is used to correct and re-validate data in the CLDB that failed validation tests.

Use the Load Data Editor to modify cuts stored in the CLDB. You can change descriptive fields and interval data values, set storage flags, or synthesize new cuts from existing ones. You will create the edits using a powerful “edit command language.” Oracle Utilities Load Analysis gives you the option of “scanning” or checking your edits before actually applying them to the data. Once you have made your edits, the Editor automatically invokes the Validation Program to revalidate the edited cuts.

For each newly edited cut, the editor automatically creates three records (unless you specify otherwise):

- **Inactive record:** The original unedited version
- **Active record:** The latest edited version
- **Edit trail:** A list of all modifications made to the data record.

In this way, you always have a copy of the original version.

To run the Load Data Editor (CLDB) program select **Load Research > Editing > Load Data Editor (CLDB)**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 9** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Load Data Editor (CLDB) program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contain the edit commands used for modifying the cuts in the CLDB.

**Note:** The Validation Program automatically outputs an “Edit Key File” for cuts that failed validation and require editing. You can use this file as the skeleton for your Control setting. A sample of an Edit Key File is as follows.

```
KEY A1234,2,08/11/98-12:45:00
KEY G1950,1,07/13/98-07:21:00
KEY C1957,3,01/16/98-17:30:00
```

For more information about creating the Control Settings for this program see “Create the Editor Control File containing your Edit Commands” in **Chapter 9** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data that will be edited.
- **AXDB:** The database used to validate the data after it is edited.

## Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Execute:** Specifies the mode of execution. The following modes are available:
  - **On:** The correctly constructed edit commands are executed and the data is saved to the database. Incorrect commands are ignored.
  - **Off:** The edit commands are scanned for errors. No edits are applied to the data in the database.
- **Graph Output:** Produces a graphics file.
- **Merge Options:** Specifies how cuts are merged. The following options are available:
  - **No:** Program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Yes:** Program will merge cuts when using the AVErage, INSert, NEW, or OVErwrite commands regardless of validation status.
  - **Exclude:** The program merges all cuts when using the AVErage, INSert, NEW, or OVErwrite commands, but excludes all invalid data.
- **Print Options:** Specifies the print mode for the report. The following modes are available:
  - **Full:** Logs are printed with full separations between entries.
  - **Economize:** Logs are printed without the dotted lines that separates entries.

## Load Data Editor (ELDB)

The Load Data Editor (ELDB) program is used to change a cut's descriptive information and interval data values, and to synthesize new cuts from existing ones. For example, you may need to modify customer load data in the ELDB before applying the analysis programs to it. If you were performing an analysis for forecasting purposes, you would probably replace any outages in a customer's record with estimated values. (Although the outages reflect actual customer usage, they are likely to be abnormal events that are not appropriate to include in forecasts of future use.)

To run the Load Data Editor (ELDB) program select **Load Research > Editing > Load Data Editor (ELDB)**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 6** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Load Data Editor (ELDB) program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contain the edit commands used for modifying the cuts in the ELDB. These commands enable you to change a cut's key, modify descriptive fields or interval data, or create new cuts from existing ones. For more information about creating the Control Settings for this program see **Chapter 6** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data that will be edited.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Execute:** Specifies the mode of execution. The following modes are available:
  - **On:** The correctly constructed edit commands are executed and the data is saved to the database. Incorrect commands are ignored.
  - **Off:** The edit commands are scanned for errors. No edits are applied to the data in the database.
- **Graph Output:** Produces a graphics file.
- **Merge Options:** Specifies how cuts are merged. The following options are available:
  - **No:** Program rejects invalid cuts and return an error message indicating the cuts cannot be merged.
  - **Yes:** Program merges cuts regardless of the validation status.
- **Print Options:** Specifies the print mode for the report. The following modes are available:
  - **Full:** Logs are printed with full separations between entries.

- **Economize:** Logs are printed without the dotted lines that separates entries.

## Copy Cuts

The Copy Cuts program is used to copy interval data cuts from one database to another.

To run the Copy Cuts program select **Load Research > Editing > Copy Cuts**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide* for more information about the Copy Cuts program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** is a list of the cuts that you want to copy. The cuts may be interval data records or statistics records. For more information about creating the Control Settings for this program see **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **From Database:** The source of the data that will be copied.
- **To Database:** The destination for the copied data.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Output Keys File (Opt.):** The name of the output file produced when **Produce List of Keys Not Found** is selected. The default file name is KEYSLIST.DAT.
- **Copy All:** Copies all cuts from one database to another without the need of a control settings file.
- **Produce List of Keys Not Found:** Produces an output file of any keys from the control settings that the program could not find in the database.
- **Replace Existing:** If a cut with the same key already exists in the target database, the program replaces the existing cut with the new one.
- **Report:** Specifies the content of the execution log. The following options are available:
  - **All:** The execution log lists the status of all keys listed in the control settings.
  - **Exceptions:** The execution log lists the cuts that failed.



---

## Move Cuts

The Move Cuts program is used to move interval data cuts from one database to another. The original cuts are deleted.

To run the Move Cuts program select **Load Research > Editing > Move Cuts**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide* for more information about the Move Cuts program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** is a list of the cuts that you want to move. The cuts may be interval data records or statistics records. For more information about creating the Control Settings for this program see **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide*

### Databases

The following database types are available for this program:

- **From Database:** The source of the data that will be moved.
- **To Database:** The destination for the data.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Output Keys File (Opt.):** The name of the output file produced when **Produce List of Keys Not Found** is selected. The default file name is KEYSLIST.DAT.
- **Produce List of Keys Not Found:** Produces an output file of any keys from the control settings that the program could not find in the database.
- **Replace Existing:** If a cut with the same key already exists in the target database, the program replaces the existing cut with the new one.
- **Report:** Specifies the content of the execution log. The following options are available:
  - **All:** The execution log lists the status of all keys listed in the control settings.
  - **Exceptions:** The execution log lists the cuts that failed.

## Delete Cuts

The Delete Cuts program is used to delete interval data cuts from a database.

To run the Move Cuts program select **Load Research > Editing > Delete Cuts**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide* for more information about the Delete Cuts program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** is a list of the cuts that you want to delete. The cuts may be interval data records or statistics records. For more information about creating the Control Settings for this program see **Chapter 5** in the *Oracle Utilities Load Analysis User's Guide*

### Databases

The following database types are available for this program:

- **Interval Database:** The source where the data is deleted.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Output Keys File (Opt.):** The name of the output file produced when **Produce List of Keys Not Found** is selected. The default file name is KEYSLIST.DAT.
- **Produce List of Keys Not Found:** Produces an output file of any keys from the control settings that the program could not find in the database.
- **Report:** Specifies the content of the execution log. The following options are available:
  - **All:** The execution log lists the status of all keys listed in the control settings.
  - **Exceptions:** The execution log lists the cuts that failed.

# Chapter 10

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## Extract Data Programs

This chapter describes how users work with the Oracle Utilities Load Analysis extract data programs to output data from the application, including:

- **Direct Output**
- **Load Data Extraction**
- **Statistics Extraction**

## Direct Output

The Direct Output program is used to output load data and/or statistics from a database in a format that is compatible with most computer languages, including Java, VBS, C, and C++. The data is thus available for use with user-written or other application programs.

To run the Direct Output program, select **Load Research > Extract Data > Direct Output**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 15** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Direct Output program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contains the keys of load data records and/or statistics that you want to output, along with some optional parameters. Each request has the following format:

```
customer-id, channel [,start-time]
```

**customer-id, channel (required):** Enter the Oracle Utilities Load Analysis customer-id, channel for load data records, or the statistic-id, stratum for statistics.

**start-time (optional):** Supply the cut's start-time (mm/dd/yy-hh:mm:ss) if you want to output interval data for the recording period of the cut. If you want instead to output interval data for a cut series (merged cuts) over a different date range, omit the start-time here and specify the date range in the Report Settings.

If you do not supply a date range, you must supply a start-time for every customer-id, channel record specified.

For more information about creating the Control Settings for this program see **Chapter 15** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** An interval database that contains the data used for the report.
- **Interval Database 2:** An interval database that contains the data used for the report.
- **Interval Database 3:** An interval database that contains the data used for the report.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Output Filename (Opt.):** The name for the output file.
- **Source:** The database from which the data will be written. CLDB BOTH indicates that data should be read from both the CLDB and ALDB. ELDB BOTH causes data to be read from both the ELDB and the SLDB. If the same key occurs on the CLDB and ALDB, the cut will be read from the CLDB. Similarly, if the same key occurs on the ELDB and SLDB, the cut will be read from the ELDB. The "2" parameter allows you to specify two separate ALDBs or SLDBs from which the data will be written.

- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
- **Start Time and Stop Time:** The date range of the cuts that will be used for output.
- **Merge Options:** Specifies how the invalid cuts are handled. The following options are available:
  - **Yes:** The program merges all cuts found within the specified date range regardless of validation status.
  - **No:** (Default) The program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Exclude:** The program merges all cuts found within the specified date range, but excludes all invalid data.
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **24Hour Adjust:** Specifies if an adjustment should be made if a cut includes a daylight savings time boundary. Setting the 24Hour Adjust to “YES” causes the data that crosses a daylight savings time boundary to be adjusted as follows.

If a cut crosses the spring boundary, then an extra hour of missing data with value zero and status code “9” is inserted after the interval ending at the applicable hour on the day of the Spring DST change. If a cut crosses the fall boundary, then similar intervals from the two fall hours on the last full DST day are averaged together. If 24Hradj is set to “NO”, then no adjustment is made to the data, and it is reported as stored (on a local basis). For example, if the date range spans all the hours within the spring DST month and 24Hradj is set to “NO”, a total of 719 hours will be written on output. Similarly, if the date range spanned the fall DST month, 745 hours would be written.

Daylight Saving Time definitions are defaulted to Rules observed in the United States where DST is properly observed. Otherwise, these rules may be overridden in the LSCALENDAR.CFG XML file (See the *Energy Information Platform Installation and Configuration Guide*).

- **New Start Date and New Stop Date:** Establishes new start and stop dates for the output data. The new date range that will replace the header records in the output cuts.
  - **Note:** The new start/stop date range must be the same duration as the regular date range
- **Quality:** The least acceptable status code for the output data. Any data that has a status code below this value will be replaced with a value of “0” and a status code of “9” (missing).
- The **Output Format Options** sections specifies the types of output produced by the program. The options are:
  - **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to graph the reported cuts.
  - **INP Format:** Specifies that the data will be output in the Direct Input standard format.
  - **LSE Format:** Specifies that the data will be output in the Enhanced format.
  - **CSV Format:** Specifies that the data will be output in the comma-separated values format.
  - **Daily Format:** Specifies that the data will be output in the daily format. The following settings are available for this format:
    - **Include Header Record:** Outputs the data with a header record.

- **Data Format Specification:** Specifies number of characters and level of precision for the output data. The default specification is **7.3**, which means that the data have a size of seven digits, and it will be rounded to three decimal places.
- **Sendout Day:** The starting time for each output record. For example, a value of 9 specifies that each record will have a start time of 09:00:00 and a stop time of 08:59:59.
- **Date Format:** Specifies the format of the date for the output date fields.
- **XML Format:** Specifies that the data will be output in the “compact” XML format.

## Load Data Extraction

The Load Data Extraction program copies load data from the ALDB and/or CLDB into the ELDB to be used with the Oracle Utilities Load Analysis programs. You can extract data for any subset of customers over any calendar period that exists in the CLDB and/or ALDB. The program automatically combines duplicate or conflicting data according to a prescribed set of rules, creating a single record at a uniform frequency and unit of measure for each customer.

To run the Load Extraction program, select **Load Research > Extract Data > Load Data Extraction**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 5** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Load Data Extraction program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contain a list of the customers for extraction, identifying each customer by customer-id and channel-number. For more information about creating the Control Settings for this program see **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** An interval database that contains the data used for the report.
- **Interval Database 2:** An additional interval database that contains the data used for the report.
- **Interval Database 3:** An additional interval database that contains the data used for the report.
- **To Database:** The ELDB database that is the destination for the output data.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Keys List Output Filename (Opt.):** The name of the file that lists the missing keys.
- **Source:** The database or databases from which the data will be written.
- **Start Time and Stop Time:** The date range of the cuts that will be used for extraction.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
- **Drop Threshold:** The threshold for dropping cuts that are incomplete. Cuts that are less than x% complete will be dropped. The value must be a non-negative integer between 0 and 100, inclusive. The percent symbol (%) is optional. The default is "0", meaning no cuts will be dropped.
- **Report Options:** Specifies which cuts will be written to the log. The options are:

- **All:** All cuts are written to the log.
- **Incomplete:** Only incomplete cuts will be written to the log.
- **CSV Output:** Creates a new output file that contains the report in comma-separated format.
- **Trial Mode:** Performs a trial extraction. A report is generated, but no cuts are written to the database.
- **Print Options:** Specifies the print mode for the extraction logs. The options are:
  - **Full:** Logs are printed with full separations between entries.
  - **Economize:** Logs are printed without the dotted lines that separates entries.



## Statistics Extraction

The Statistics Extraction program extracts specified cuts or statistics over multiple analysis periods. The statistics are extracted into a CSV file that can be imported into a spreadsheet or reporting tool.

To run the Load Extraction program, select **Load Research > Extract Data > Statistics Extraction**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Load Data Extraction program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contains the keys of load data records and/or statistics that you want to output, along with optional parameters. Each request has the following format:

```
statistic-id stratum [label]      [period]                [CLAss]
                                [totalize-method]      [time-of-use]
                                [PKDate]
```

**Statistic ID:** Specifies the name of the statistic to extract data from. This is the Recorder ID or Customer ID of the requested cut in the tableset.

**Stratum:** Specifies the stratum of the statistic to extract. This may also be a channel number.

The combination of Customer ID and Channel or Statistic ID and Stratum will be used as a defaulted row header. The two fields will be separated by a comma.

**Label (optional):** Specifies a label to use in place of the ID, channel-stratum for each row header. The label must be enclosed in single, straight quotes.

**Period (optional):** For statistics that contain values for different periods, this option specifies which period type to extract. This value will override the default period established in the Report Settings file just for the request containing the command. Valid period types are as follows:

- **ENT:** Entire Period
- **TOUn:** Time of use Period n
- **PEAn:** Supplied Peak Period n

**Totalize-method (optional):** For interval data cuts or time-series based statistics (for example, entire-period, or average day), use this option to specify the totalizing method to use. This value will override the default method established in the environment file. Valid totalizing methods are as follows:

- **SUM:** Sum of interval values
- **AVG:** Average of interval values
- **MAX:** Maximum interval value
- **MIN:** Minimum interval value

The calculations for these will include zeros and will treat missing values as zeros.

**PKDate (optional):** For statistics that contain peak dates, specify “PKD” or “PKDATE” to extract the peak date-time from the statistic instead of its usage value. Peak dates can be extracted from the following statistics:

| Peak Date Type | Statistic-Key | Statistic Description                          |
|----------------|---------------|--|
| Group Peak     | -MXEN-        | Day of class peak statistic for entire period. |
| Group Minimum  | -MNEN-        | Day of class minimum for entire period.        |
| TOU Peak       | -MXTnn-       | Day of class peak statistic for TOU period nn. |
| TOU Minimum    | -MNTnn-       | Day of class minimum for TOU period nn.        |
| Supplied Peak  | -MXPnn-       | Day of supplied peak nn statistic.             |

Examples:

```
LODE-MXEN-CMEN, 0, 'GROUP PEAK', PKDATE
LODE-MXP01-CMEN, 0, 'SYSTEM PEAK', PKDATE
```

**Class (optional):** Specifies whether or not to raise the statistic to the Class level. If specified, the statistic will be raised to the class level by multiplying its value by the population. If expansion to the class level is not possible due to the request not being a valid statistic with a valid value in its “population” field, the program will ignore the request and treat the request as “Not Applicable”.

**time-of-use (optional):** For interval data, use this option to specify a time of use period to use. This value will override any default schedule established in the environment file. Valid time-of-use formats are as follow:

```
SCH schedule#-period#
SEA schedule#-period#
```

Specify SCH to apply a time-of-use schedule for this record, or SEA to apply time-of-use by season instead. Replace "schedule#" with the proper schedule number and "period#" with the proper period number. For example, to extract the maximum ON PEAK interval for TOU period 1 for customer N1723, 1, where ON PEAK is designated as period 1:

```
N1723, 1 MAX SCH 1-1
```

For more information about creating the Control Settings for this program see **Chapter 16** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** An interval database that contains the data used for the report.

## Report Settings

The following report settings are available for running the Statistics Extraction program:

- **Report Title:** The title for the report that the program produces.
- **Output Filename (Opt.):** The name for the output file.
- **Title:** A title that is inserted on the first row of the output file.
- **Start Time:** The start time of the statistics or cuts to extract.
- **Label:** An override label to use in place of the supplied date.
- **Row Type:** The totalization method for this row. The options are **Total** or **Average**.

- 
- **Row Label:** The label for the row summary.
  - **Column Type:** The totalization method for this column. The options are **Total** or **Average**.
  - **Column Label:** The label for the row label.
  - **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
  - **Class:** Specifies that the statistics should be raised to the class (population) level, if possible.
  - **Totalize Method:** The default totalization method for the time-series (interval data) cut requests. The options are:
    - **Sum:** Sum of interval values. This is the default value.
    - **Average:** Average of interval values.
    - **Maximum:** Maximum interval value.
    - **Minimum:** Minimum interval value.
  - **Period Type:** The default period to extract for time-of-use (non-interval data) statistics. The options are:
    - **Entire Period**
    - **Time of use n**
    - **Supplied Peak n**
  - **Zeros?:** Specifies that data that cannot be extracted will be represented by a zero value instead of a blank value.
  - **Decimal Places:** Specifies the number of decimal values to format the output values.
  - **Delimiter:** Specifies the character value to use as a field delimiter. The default delimiter is a comma.



# Chapter 11

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## Analysis Programs

This chapter describes how users work with the Oracle Utilities Load Analysis programs to analyze interval data in the database, including:

- **Billed Energy**
- **100% Sample Analysis**
- **Standard Load Analysis**
- **Ratio Analysis**
- **Aggregate Load Analysis**
- **Domains Analysis MPU**
- **Domains Analysis Ratio**
- **Individual Customer Analysis**
- **Coincident Peak Analysis**
- **Load Data Transformation**
- **Day Type Analysis**

# Billed Energy

It is frequently necessary to analyze customer energy use on a billing cycle basis - for ratio expansions, for a company energy sale study, or for other tasks. However, accurate values for individual customer use for monthly billing cycles may not be readily available. The information may be too difficult to extract from “Billing,” or it simply may not exist for all customers in an analysis. The Billed Energy program is used to compute customer energy usage on a billing cycle basis using interval demand data in the Oracle Utilities Load Analysis database.

To run the Billed Energy program, select **Load Research > Analysis > Billed Energy**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Billed Energy analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** contain a list of keys identifying the customers to be processed. For more information about creating the Control Settings for this program, see **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Billed Energy program:

- **Report Title:** The title for the report that the program produces.
- **Output Filename (Opt.):** An optional name for the output file.
- **Start Time and Stop Time:** Specifies the start-time and stop-time for cuts that are to be written to the database by the program. This command is required if the output format is MPU, 100%, or Domains MPU, or if Block accumulation is to be performed.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
- **Max. Billing Cycle Length:** The maximum allowable time span of a billing cycle in days. The program automatically checks each entry in your Cycle File. If the time span of the start- and stop-dates is greater than the length value, it is flagged as an error. The maximum allowable value is 400; the default is 40.
- **Prorate:** Specifies if energy proration is performed. If set to **YES**, then the total energy of all good intervals is multiplied by the ratio of the total number of intervals divided by the number of good intervals. This is a simple linear estimate of total energy to account for missing intervals. The default value is **NO**, which means the value for billed energy is the sum of the good intervals only
- **Replace:** Specifies if a cut written to the database should replace an existing cut that has the same key.

- **Quality:** A status code that establishes the quality for acceptable data. Any interval with a code worse than the specified status code value is treated as missing data.
- **Output Format:** The analysis type in which the control setting records will be entered, and for which records will be written to the output file. The following options are available:
  - **Ratio:** Ratio Analysis (format also used for Coincident Peak Analysis)
  - **MPU:** Mean-per-Unit (Standard) Analysis
  - **100%:** 100% Sample Analysis
- **Calculate Billed Energy:** Indicates if billed energy is calculated for the cuts. This parameter is meaningful only for the Ratio Analysis Type.
- **Billing Cycles:** The billing cycles and their start and stop dates used for calculating billed energy. Each cycle is described by a single record made up of three parameters: a cycle number, the start date, and the stop date. Within the file cycles must be provided in sequential order beginning with 1. Any number up to a maximum of 99 cycles may be specified.

The following records are an example of billing cycles:

```
1 05/01/00 05/20/00
2 05/02/00 05/21/00
3 05/03/00 05/22/00
```

See **Chapter 12** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Billing Cycles file.

# 100% Sample Analysis

The 100% Sample Analysis program is used to compute load statistics for 100% sampled populations such as large industrials. It allows a variable population and may optionally perform a stratified analysis (for fixed strata only).

To run the 100% Sample Analysis program, select **Load Research > Analysis > 100% Sample Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 8** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the 100% Sample Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** consist of a list of keys identifying the customers to be analyzed and, if using fixed strata analysis, the strata to which each customer should be assigned.

The control settings must be constructed of a series of control records, using the format specified below, with one record for each sample point. You may input blank spaces or commas between elements in the command record, with the exception that blanks are not allowed before or after an operator if combining channels.

```
customer-id, chan1[+chan2]... [+chanx] [stratum number]
```

- **customer-id:** (Required) Enter the Oracle Utilities Load Analysis customer-id
- **chan1, chan2...chanx:** (Required) Enter the channel-number or a combination of channels for that customer-id. A combination consists of two or more channels added or subtracted to represent the total customer load (e.g., 1+2-7 is the sum of channels 1 and 2 minus channel 7, a co-generation unit. Do not add blanks before or after an operator. The data is combined strictly for the analysis; no new records are created.

**Note:** At least one channel-number is required per record.

- **stratum-number:** Enter the stratum number to which the customer is assigned. This parameter is required if you enter more than one STRata command in the Environment File; otherwise it is optional and ignored if present.

For more information about creating the Control Settings for this program, see **Chapter 8** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the 100% Sample Analysis program:

- **Report Title:** The title for the report that the program produces.
- **Individual Customer Statistics File (Opt.):** The name of the Individual Customer Statistics File.



- **Keys List File (Opt.):** The name of the file that lists missing keys.
- **Start Time and Stop Time:** The date range of the analysis period. Both times may be specified in the form “mm/dd/yy” or “mm/dd/yy-hh:mm:ss”. You can select any date range for which data exists in the Extracted Load Database, with the following limitations: The analysis period must be a multiple of 24 hours. The date range cannot exceed one year for 900-second data.
- **Analysis Key:** An identifier prefixed to the name of each of the statistics produced by the analysis run. This identifier becomes the prefix in the statistics name. You can use up to 40 characters. A combination of characters (A - Z) and digits (0 - 9) may be used, but special characters (anything that is not a letter or number) are not allowed. The identifier must start with an alphabetic character.
- **Aggregation:** Establish the number of seconds-per-interval for the analysis data. 300, 900, 1800, 3600, and 86400 are permitted values. 3600 is the default. Where possible, Oracle Utilities Load Analysis will sum each customer's load data to the specified level.
  - **Note:** If 86400 is selected, the Time of Use, Season and Rolling should not be used
- **Group Title:** A title to appear at the top of each analysis report produced at the end of the program run.
- The **Strata** section defines the strata for a stratified analysis. Click **Add** to add additional strata.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Stratum numbers must appear in ascending order, but need not be consecutive.
- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program, such as a system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks.
  - **Peak Date:** The date and time of the peak.
- **Minimum:** Specifies how the daily maximum, minimum, and average demands report will process zero-values. The values are:
  - **Do Not Include Zero Values:** Zero values are considered missing.
  - **Include Zero Values:** Zero values are shown as minimums.
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.
- **User Specified Days:** A list of days (“mm/dd/yy”, one line per day) that are averaged together when computing User-Specified Days statistics. If not provided, the system configured default User Specified Days will be used.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to produce graphs of the output statistics.
- **Report:** Specifies which groups of statistics will be reported. The values are:
  - **Complete:** All statistics are calculated and reported.

- **Preliminary:** Produces all Analysis Environment and Individual Customer Statistics reports. This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis.
- **No Individual Strata Reports:** Produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports.
- **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.
  - **No Individual Strata Reports:** No statistical records are written to the ELDB for individual strata.

## Standard Load Analysis

The Standard Load Analysis program uses the mean per unit (MPU) method to analyze customer demand over a specified time period.

To run the Standard Load Analysis program, select **Load Research > Analysis > Standard Load Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Standard Load Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** consist of a list of keys identifying the customers to be analyzed, and — if you are performing a fixed strata analysis — the stratum to which each customer should be assigned.

The control settings must be constructed of a series of control records, using the format specified below, with one record for each sample point. You may input blank spaces or commas between elements in the command record, with the exception that blanks are not allowed before or after an operator if combining channels.

```
customer-id, chan1[+chan2]... [+chanx] [stratum number]
```

- **customer-id:** (Required) Enter the Oracle Utilities Load Analysis customer-id
- **chan1, chan2...chanx:** (Required) Enter the channel-number or a combination of channels for that customer-id. A combination consists of two or more channels added or subtracted to represent the total customer load (e.g., 1+2-7 is the sum of channels 1 and 2 minus channel 7, a co-generation unit. Do not add blanks before or after an operator. The data is combined strictly for the analysis; no new records are created. Note: At least one channel-number is required per record.
- **stratum-number:** Enter the stratum number to which the customer is assigned. This parameter is required if you enter more than one STRata command in the Environment File; otherwise it is optional and ignored if present.

For more information about creating the Control Settings for this program, see **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

### Report Settings

The following report settings are available for running the Standard Load Analysis program:

- **Report Title:** The title for the report that the program produces.
- **Individual Customer Statistics File (Opt.):** The name of the Individual Customer Statistics File.

- **Keys List File (Opt.):** The name of the file that lists missing keys.
- **Start Time and Stop Time:** The date range of the analysis period. Both times may be specified in the form “mm/dd/yy” or “mm/dd/yy-hh:mm:ss”. You can select any date range for which data exists in the Extracted Load Database, with the following limitations:
  - The analysis period must be a multiple of 24 hours.
  - The date range cannot exceed one year for 900-second data.
- **Analysis Key:** An identifier prefixed to the name of each of the statistics produced by the analysis run. This identifier becomes the prefix in the statistics name.
- **Aggregation:** Establish the number of seconds-per-interval for the analysis data; 300, 900, 1800, 3600, and 86400 are permitted values. 3600 is the default. Where possible, Oracle Utilities Load Analysis will sum each customer's load data to the specified level.
- **Alpha:** The significance level for t-statistics used in the computation of relative precision. The significance level may be either 5% or 10%. The default is 10%.
- **Stratum Assignment:** The method used to assign customers to strata. The methods are:
  - **Fixed:** For a pre-stratified or non-stratified analysis. If pre-stratified, the program assigns customers to strata according to the stratum-numbers in the Analysis Control File.
  - **Float LF:** For a post-stratified analysis, customers will be assigned to strata based on load factor and the provided strata boundaries (see below).
  - **Float KW:** For a post-stratified analysis, customers will be assigned to strata based on non-coincident demand and the provided strata boundaries (see below).
  - **Float KWH:** For a post-stratified analysis, customers will be assigned to strata based on energy and the provided strata boundaries (see below).
- **Group Title:** A title that appears at the top of each analysis report produced at the end of the program run.
- **Total Population:** The total population for the analysis. If supplied, this value overrides the value for strata population. The strata populations are calculated using the following formula.  $Strata\ Population = Total\ Population * Strata\ weight$ . If strata weights are omitted, the system will equally allocate the total population supplied across the strata.
- The **Strata** section defines the strata for a stratified analysis. Click **Add** to add additional strata.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Within the file, stratum numbers must appear in ascending order, but need not be consecutive.
  - **Stratum Upper Boundary:** The upper boundary for the stratum.
    - **For a post-stratified analysis:** If you are performing FLOATING stratum assignment, you must define the upper boundary of the stratum. The value must be a positive floating point number. Boundaries for each stratum must appear in ascending order. You can Specify “INF” (infinity) as the boundary for the last stratum or set a value large enough that none of your customers will likely exceed.
    - **For a pre-stratified or non-stratified analysis:** If you are performing FIXED stratum assignment, you can omit this field. Stratum boundaries will be ignored.
  - **Stratum Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis. If you input “0” or omit the parameter, Oracle Utilities Load Analysis will assume that the population equals the stratum sample size (100% sampling).
  - **Stratum Weight:** Optional weighting factor for the stratum. Your input must be a floating point number between zero and one. If you input zero (0.0) or do not supply a

weight, Oracle Utilities Load Analysis will assign a weight based on the stratum population.

**Note:** The strata boundaries, population, and weight typically come from the original sample design criteria.

- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program — such as system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks. You can input up to 25 peaks for a Standard Load Analysis, or up to 23 for a Ratio. Input one peak per line. The default is no peaks.
  - **Peak Date:** The date and time of the peak.
- **Minimum:** Specifies how the daily maximum, minimum, and average demands report will process zero-values. The options are:
  - **Do Not Include Zero Values:** Zero values are considered missing.
  - **Include Zero Values:** Zero values are shown as minimums.
- **Drop Threshold:** The threshold for dropping customers due to missing or excluded data. If a customer is missing x% or more of the total expected intervals in the analysis period (due to missing data or data excluded by the Quality Command), the program drops the customer from the analysis.
- **Prorate:** Use this to specify whether or not total energy values for each customer should be adjusted to compensate for missing data. Application of the Prorate affects any calculations based on energy, including floating stratification assignments, load factors, etc. However, it does not fill in missing demand values. If Prorate is set to “YES”, each customer's total energy value will be multiplied by the ratio of expected intervals to actual intervals within each Time-of-Use period. If Prorate is set to “NO”, Oracle Utilities Load Analysis will make no adjustments for missing or excluded data. NO is the default.
- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing. The default is '8' (only missing intervals are excluded).
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.
- **User Specified Days:** A list of days (“mm/dd/yy”, one line per day) that are averaged together when computing User-Specified Days statistics. If not provided, the system configured default User Specified Days will be used.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to produce graphs of the output statistic is tics.
- **Report:** Specifies which groups of statistics will be reported. The values are:
  - **Complete:** All statistics are calculated and reported.
  - **Preliminary:** Produces all Analysis Environment and Individual Customer Statistics reports. This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis.
  - **No Individual Strata Reports:** Produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports.

- **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.
  - **No Individual Strata Reports:** No statistical records are written to the ELDB for individual strata.

## Ratio Analysis

The Ratio Analysis program uses the ratio expansion method to analyze customer demand over a specified time period.

To run the Ratio Analysis program, select **Load Research > Analysis > Ratio Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Ratio Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** consist of a list of keys identifying the customers to be analyzed, and — if you are performing a fixed strata analysis — the stratum to which each customer should be assigned.

The control settings must be constructed of a series of control records, using the format specified below, with one record for each sample point. You may input blank spaces or commas between elements in the command record, with the exception that blanks are not allowed before or after an operator if combining channels.

```
customer-id, chan1[+chan2]... [+chanx] [stratum number] [billed energy]
```

- **customer-id:** (Required) Enter the Oracle Utilities Load Analysis customer-id
- **chan1, chan2...chanx:** (Required) Enter the channel-number or a combination of channels for that customer-id. A combination consists of two or more channels added or subtracted to represent the total customer load (e.g., 1+2-7 is the sum of channels 1 and 2 minus channel 7, a co-generation unit. Do not add blanks before or after an operator. The data is combined strictly for the analysis; no new records are created. Note: At least one channel-number is required per record.
- **stratum-number:** Enter the stratum number to which the customer is assigned. This parameter is required if you enter more than one STRata command in the Environment File; otherwise it is optional and ignored if present.
- **billed-energy:** The amount of energy for which the customer was billed corresponding to the analysis period. Enter the value as a positive floating point number. This energy should come from "Billing," or be calculated before analysis using Oracle Utilities Load Analysis's Billed Energy Program, and should represent a billing cycle. If you cannot provide accurate billed energy values for each and every customer, you can have Oracle Utilities Load Analysis calculate the values from the interval data. Simply omit all billed-energy values, but be sure to specify NO for BILLING (see below) in the Report Settings.

For more information about creating the Control Settings for this program, see **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Ratio Analysis program:

- **Report Title:** The title for the report that the program produces.
- **Individual Customer Statistics File (Opt.):** The name of the Individual Customer Statistics File.
- **Keys List File (Opt.):** The name of the file that lists missing keys.
- **Start Time and Stop Time:** The date range of the analysis period. Both times may be specified in the form “mm/dd/yy” or “mm/dd/yy-hh:mm:ss”. You can select any date range for which data exists in the Extracted Load Database, with the following limitations: The analysis period must be a multiple of 24 hours. The date range cannot exceed one year for 900-second data.
- **Analysis Key:** An identifier prefixed to the name of each of the statistics produced by the analysis run. This identifier becomes the prefix in the statistics name.
- **Aggregation:** Establish the number of seconds-per-interval for the analysis data; 300, 900, 1800, 3600, and 86400 are permitted values. 3600 is the default. Where possible, Oracle Utilities Load Analysis will sum each customer's load data to the specified level.
- **Alpha:** The significance level for t-statistics used in the computation of relative precision. The significance level may be either 5% or 10%. The default is 10%. The percent sign (%) is optional.
- **Stratum Assignment:** The method used to assign customers to strata. The values are:
  - **Fixed:** For a pre-stratified or non-stratified analysis. If pre-stratified, the program assigns customers to strata according to the stratum-numbers in the Analysis Control File.
  - **Float LF:** For a post-stratified analysis, customers will be assigned to strata based on load factor, and the provided strata boundaries (see below).
  - **Float KW:** For a post-stratified analysis, customers will be assigned to strata based on non-coincident demand, and the provided strata boundaries (see below).
  - **Float KWH:** For a post-stratified analysis, customers will be assigned to strata based on energy, and the provided strata boundaries (see below).
- **Billing:** Specifies the energy values for individual sample customers that Oracle Utilities Load Analysis will use to compute the ratio denominator of the ratio estimate. If you specify **Yes**, the program will use the billed-energy values you supplied in the control settings. If you specify **No**, the Ratio Analysis Program will automatically calculate energy values for each customer-id for the analysis period specified in the Date Command from interval data in the ELDB.
- **Group Title:** A title to appear at the top of each analysis report produced at the end of the program run.
- **Combined Bill Energy:** For Stratified Combined Ratio Analysis only. Supply the actual total billed energy for the entire population (instead of using the stratum-billed-energy to allocate the population billed energy across individual strata). Input the value as a positive floating point number. When you supply this command, the program automatically performs Combined Ratio Expansion, and reporting is restricted to the corresponding combined reports.
- **Total Population:** The total population for the analysis. If supplied, this value overrides the value for strata population. The strata populations are calculated using the following formula.  $Strata\ Population = Total\ Population * Strata\ weight$ . If strata weights are omitted, the system will equally allocate the total population supplied across the strata.
- The **Strata** section defines the strata for a stratified analysis. Click **Add** to add additional strata.



- **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Within the file, stratum numbers must appear in ascending order, but need not be consecutive.
- **Stratum Billed Energy:** Defines the total billed energy value for the population to be used in the ratio expansion.

**Note:** If you can supply accurate billed energy for each stratum, the program will perform Separate Ratio Estimation-producing demand estimates for each stratum, as well as the class total. Typically, however, only the total billed energy for the entire population is available. In that case, you can perform Combined Ratio Estimation, which produces demand estimates for just the class, as explained below.

- **For Stratified Separate Ratio Estimation:** Input the actual total billed energy for the stratum population as a positive floating point number. Stratum-billed-energy is required for separate ratio estimation even if you set the Billing Option to NO.
- **For Stratified Combined Ratio Estimation:** You can omit this field. The value will not be used in the calculations. You will need to provide value for Combined Billed Energy to specify the total billed energy for the population.
- **For Non-Stratified Ratio Estimation:** You must provide the actual total billed energy for the population as a positive floating point number. This is required even if the Billing Option is set to NO.
- **Stratum Upper Boundary:** The upper boundary for the stratum.
  - **For a Post-Stratified Analysis:** If you are performing FLOATING stratum assignment, you must define the upper boundary of the stratum. The value must be a positive floating point number. Boundaries for each stratum must appear in ascending order. You can Specify “INF” (infinity) as the boundary for the last stratum or set a value large enough that none of your customers will likely exceed.
  - **For a Pre-Stratified or Non-Stratified Analysis:** If you are performing FIXED stratum assignment, you can omit this field. Stratum boundaries will be ignored.
- **Stratum Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis. If you input “0” or omit the parameter, Oracle Utilities Load Analysis will assume that the population equals the stratum sample size (100% sampling).
- **Stratum Weight:** Optional weighting factor for the stratum. Your input must be a floating point number between zero and one. If you input zero (0.0) or do not supply a weight, Oracle Utilities Load Analysis will assign a weight based on the stratum population.

**Note:** The strata boundaries, population, and weight typically come from the original sample design criteria

- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program — such as system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks. You can input up to 25 peaks for a Standard Load Analysis, or up to 23 for a Ratio. Input one peak per line. The default is no peaks.
  - **Peak Date:** The date and time of the peak.
- **Minimum:** Specifies how the daily maximum, minimum, and average demands report will process zero-values. The values are:
  - **Do Not Include Zero Values:** Zero values are considered missing.
  - **Include Zero Values:** Zero values are shown as minimums.

- **Drop Threshold:** The threshold for dropping customers due to missing or excluded data. If a customer is missing x% or more of the total expected intervals in the analysis period (due to missing data or data excluded by the Quality Command), the program drops the customer from the analysis.
- **Prorate:** Use this to specify whether or not total energy values for each customer should be adjusted to compensate for missing data. Application of the Prorate affects any calculations based on energy, including floating stratification assignments, load factors, etc. However, it does not fill in missing demand values. If Prorate is set to “YES”, each customer's total energy value will be multiplied by the ratio of expected intervals to actual intervals within each Time-of-Use period. If Prorate is set to “NO”, Oracle Utilities Load Analysis will make no adjustments for missing or excluded data. NO is the default.
- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing. The default is '8' (only missing intervals are excluded).
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.
- **User Specified Days:** A list of days that are averaged together when computing User-Specified Days statistics. A list of days (“mm/dd/yy”, one line per day) that are averaged together when computing User-Specified Days statistics. If not provided, the system configured default User Specified Days will be used.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to produce graphs of the output statistics.
- **Report:** Specifies which groups of statistics will be reported. The options are:
  - **Complete:** All statistics are calculated and reported.
  - **Preliminary:** Produces all Analysis Environment and Individual Customer Statistics reports. This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis.
  - **No Individual Strata Reports:** Produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports.
  - **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.
  - **No Individual Strata Reports:** No statistical records are written to the ELDB for individual strata.

# Aggregate Load Analysis

The Aggregate Load Analysis program enables you to combine individual rate class statistics into estimates for major customer classes and to combine the major class statistics into a set of estimates for the total system load. Other uses for the program include jurisdiction combinations, cross-study strata combinations, and expansion adjustments based on external weighting factors.

To run the Aggregate Load Analysis program, select **Load Research > Analysis > Aggregate Load Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 9** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Aggregate Load Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** identify the groups of strata or class statistics that you want to combine using aggregate analysis. For more information about creating the Control Settings for this program, see **Chapter 9** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

You create the Aggregate Load Analysis control settings by assembling blocks of data — each block identifying a group of strata or class statistics that you wish to combine using Aggregate Analysis.

One control settings file can contain any number of blocks. Create each block according to the format defined below. Input one command and its parameters per line. Only the first three letters of each command keyword are required. You can use blanks and/or a comma to separate parameters. You must input the commands in the order shown.

```
KEY output-key
GROUp title
GROUp title
COMBine component-key1 [,type] [,strata1 | ,0 [,weight1 | ,0.0
[,factor1 | ,1.0] ] ]
COMBine component-key2 [,type] [,strata2 | ,0 [,weight2 | ,0.0
[,factor2 | ,1.0] ] ]
COMBine component-keyN [,type] [,strataN | ,0 [,weightN | ,0.0
[,factorN | ,1.0] ] ]
100%-component-key N+1 [,factorN+1 | 1.0]
END
```

- **Key:** This code will become the prefix in the statistics name that Oracle Utilities Load Analysis will assign to the new ELDB statistics.

You can use up to 40 characters. A combination of characters (A - Z) and digits (0 - 9) may be used, but special characters (anything that is not a letter or number) are not allowed. This command must appear at the beginning of each analysis block.

- **Group:** Use the Group Command to designate a title that will appear at the top of each analysis report for the block. The maximum length allowed is 76 characters per title. If you supply two Group commands, the titles will appear on two successive title lines in the sequence given. If you omit the command, no group title will appear.

- **Combine:** Input one Combine Command for each set of class or strata statistics you want included in a group analysis.

**Note:** The Combine Command applies to statistics from a previous Standard, Ratio, or Aggregate Load Analysis run. Statistics from a 100% Sample Analysis run are not accepted by this command (use 100% instead). Each block must contain at least two Combine and/or 100% commands in any combination (e.g., two of either type or one of each), and all commands in the block must be for compatible statistics. (That is, the statistics to be combined must all have been created over the same date range and using the same Time-Of-Use and Holiday File.) Up to 99 Combine and/or 100% commands may be specified in a block. For a Combine Command, you must supply the following parameters:

**component-key:** Input the statistics name prefix for the statistics group to be aggregated.

**Note:** A component key is usually a 4-character prefix (e.g., ‘STAR’) and the parameter “strata” (supplied later in the command) is usually ‘0’ (zero); this type of component/strata combination indicates that sample-level statistics are to be used as input. However, if strata-level statistics from Standard Load or Ratio Analysis are desired as input, the “component-key” and “strata” parameters may appear as follows:

If less than 10 strata were used in the Standard Load Analysis or Ratio Analysis run, “component-key” must be specified as a 4- to 6-character code and “strata” must be an integer between 1 and 9, inclusive, e.g., ‘STAR, 2’. If 10 or more strata were used in the Standard Load Analysis or Ratio Analysis run, the “component-key” must be specified as a 7- to 9-character code and “strata” must be 0 (zero); e.g., ‘STAR-02,0’.

**type:** Indicate the statistics’ type (determined by the analysis methodology used to produce them). Select from these four options:

RATio — non-stratified ratio

COMbined – stratified combined ratio

SEParate — stratified separate ratio

STAndard — standard mean-per-unit or aggregate.

Any one of these four types can be specified. However, for Aggregate Analysis to work properly, the two or more analyses combined must be compatible. That is, they should all be stratified analyses with the same number of strata, or all non-stratified analyses. If type is omitted, the type option defaults to “STANDARD”.

**strata:** Input a “0”, unless you are combining strata-level statistics from a Standard Load or Ratio Analysis. In that case, enter the appropriate number. (**Note:** If there are 10 or more strata, the strata-number automatically will be included in the prefix, and you should input a “0” for this parameter.)

**weight:** An optional weighting factor specified as a *non-negative floating point number less than 1.0*; the default value of 0.0 directs the program to compute the weights based on relative component population values stored with the load statistics in the ELDB.

**factor:** An optional adjustment factor specified as a positive floating point number. The default value is 1.0 (no adjustment).

- **100%:** The 100% Command specifies a single component code prefix for ELDB statistics from a previous 100% Sample Analysis run. Statistics from Standard, Ratio, or Aggregate Analysis runs may not be specified in this command. The parameter “100%-component-key” is a 4- to 6-character prefix (e.g., “STA100”).

The parameter “factor” is an optional adjustment factor specified as a positive floating point number; the default value is 1.0 (no adjustment). Between two and ninety-nine 100% and/or COMBINE Commands must appear in an analysis block.

- **End:** The End Command completes an analysis block, and is required.

The following sample control settings contains three analysis blocks. Each block illustrates how different types of statistics can be aggregated together. The first block (TOTL) combines sample-level statistics from an individual Standard Load Analysis run on a residential all-electric heating class (RAEH) and a Combined Ratio Analysis run on a residential hot-water heating class (RHWH). The second block recombines strata-level statistics from three strata in the all-electric heating class, using ratio expansion adjustments. The third block combines strata 1, 2, and 15 from an industrial class (INDL); strata 1, 2, and 3 from a commercial class (CMCL); two large general service groups that are 100% sampled; and the combined residential class from the first analysis block (TOTL).

```
KEY    TOTL /* COMBINE RAEH AND RHWH
GRO    TOTAL RESIDENTIAL RATE/* AND STORE WITH PREFIX TOTAL
COM    RAEH STA
COM    RHWH COM
END
```

```
KEY    TEST/* COMBINE RAEH CHANNELS
GRO    RATIO EXPANSION EXAMPLE/* 1, 2 AND 3 AND STORE
COM    RAEH, 1, 0.0, 1.21/* WITH PREFIX TEST
COM    RAEH, 2, 0.0, 0.85
COM    RAEH, 3, 0.0, 1.17
END
```

```
KEY    XMPL
GRO    TOTAL SYSTEM INCLUDING 100% SAMPLED CLASSES
COM    INDL-01, 0
COM    INDL-02, 0/* COMBINE INDL CHANNELS
COM    INDL-15, 0/* 1, 2 AND 15, CMCL
COM    CMCL, 1/* CHANNELS 1, 2 AND 3,
COM    CMCL, 2/* AND LGS1 and LGS2 100% STATISTICS
COM    CMCL, 3
100%   LGS1, 1.0
100%   LGS2, 1.0
COMTOTL, 0
END
```

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Aggregate Load Analysis program:

- **Report Title:** The title for the report that the program produces.
- **Analysis Period Start Date:** Specifies the start of the analysis period.
- **Alpha:** The significance level for t-statistics used in the computation of relative precision. The significance level may be either 5% or 10%. The default is 10%.
- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program — such as system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks. You can input up to 25 peaks.

- **Peak Date:** The date and time of the peak.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.
- **Report:** Specifies which groups of statistics will be reported. The options are:
  - **Complete:** All statistics are calculated and reported.
  - **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.

# Domains Analysis MPU

The Domains Analysis MPU program uses mean per unit calculations to compute load statistics for one or more subpopulations, or domains, within an analysis group.

To run the Domains Analysis MPU program, select **Load Research > Analysis > Domains Analysis MPU**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Domains Analysis MPU program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** list the keys identifying the customers to be analyzed, along with their strata and domain assignments. For more information about creating the Control Settings for this program, see **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

Control settings have the following format:

```
customer-id chan1 [{+}chan2 [{+}chan3...[{+}chann ] ] ] strata-number
[domain]
```

- **customer-id:** (Required) The Oracle Utilities Load Analysis customer-id.
- **chan1,chan2...chanX:** (Required) The channel-number, or a combination of channels, for that customer-id. A combination consists of two or more channels added or subtracted to represent the total customer load (e.g., 1+2-7 is the sum of channels 1 and 2 minus channel 7, a co-generation unit). Do not add blanks before or after an operator. The data is combined strictly for the analysis; no new records are created.

**Note:** At least one channel-number is required per record.

- **strata-number:** (Required) The number identifying the stratum to which the customer belongs.

**Note:** The Domains programs perform only fixed stratification, not floating. If performing non-stratified analysis, all customers should be assigned to strata 1.

- **domain-number:** The number identifying the domain to which the customer belongs. The value may be a numeric (1 to 9) or alpha (A to Z). If you do not specify a domain, the customer will be assigned to domain 0. Customers in domain 0 are included in calculating the total sample size, but are not included in any domain calculations.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Domains Analysis MPU program:

- **Report Title:** The title for the report that the program produces.

- **Individual Customer Statistics File (Opt.):** The name of the Individual Customer Statistics File.
- **Keys List File (Opt.):** The name of the optional file that lists missing keys.
- The **Domain** section defines the number of domains for the analysis. Click **Add** to add additional domains.
  - **Domain Number:** An identifier for the domain. This value must be either an integer from 1 to 9 or a single letter of the alphabet from A to Y. Domain Z is reserved for optional class totals.
  - **Title:** A title for the domain.
- The **Population** section defines the domain populations for each stratum. Click **Add** to add additional domain populations.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Stratum numbers must appear in ascending order, but need not be consecutive.
  - **Domain Number:** Specifies the identifier for the domain that you originally defined in the **Domain** section.
  - **Domain Population in Stratum:** Defines the population for the specified domain and stratum for the time period of the analysis.
- **Class:** Specifies that an additional set of reports and statistics are created for the entire class of customers being analyzed.
- **Start Time and Stop Time:** The date range of the analysis period. Both times may be specified in the form “mm/dd/yy” or “mm/dd/yy-hh:mm:ss”. You can select any date range for which data exists in the Extracted Load Database, with the following limitations:
  - The analysis period must be a multiple of 24 hours.
  - The date range cannot exceed one year for 900-second data.
- **Analysis Key:** An identifier prefixed to the name of each of the statistics produced by the analysis run. This identifier becomes the prefix in the statistics name. You can use up to 38 characters. A combination of characters (A - Z) and digits (0 - 9) may be used, but special characters (anything that is not a letter or number) are not allowed.
- **Aggregation:** Establish the number of seconds-per-interval for the analysis data; 300, 900, 1800, 3600, and 86400 are permitted values. 3600 is the default. Where possible, Oracle Utilities Load Analysis will sum each customer's load data to the specified level.
- **Alpha:** The significance level for t-statistics used in the computation of relative precision. The significance level may be either 5% or 10%. The default is 10%.
- **Stratum Assignment:** Domains Analysis requires that the stratum assignments be pre-stratified (fixed). This means that the program will assign customers to strata according to the stratum numbers supplied in the Control Settings.
- **Group Title:** A title that appears at the top of each analysis report produced at the end of the program run.
- **Total Population:** The total population for the analysis. If supplied, this value overrides the value for strata population. The strata populations are calculated using the following formula.  $Strata\ Population = Total\ Population * Strata\ weight$ . If strata weights are omitted, the system will equally allocate the total population supplied across the strata.



- The **Strata** section defines the strata for a stratified analysis. Click **Add** to add additional strata.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Within the file, stratum numbers must appear in ascending order, but need not be consecutive.
  - **Stratum Upper Boundary:** The upper boundary for the stratum. Since Domains Analysis requires FIXED, or pre-stratified stratum assignments, you can insert any value here as a placeholder. Stratum boundaries will be ignored.
  - **Stratum Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis. If you input “0” or omit the parameter, Oracle Utilities Load Analysis will assume that the population equals the stratum sample size (100% sampling).
  - **Stratum Weight:** Optional weighting factor for the stratum. Your input must be a floating point number between zero and one. If you input zero (0.0) or do not supply a weight, Oracle Utilities Load Analysis will assign a weight based on the stratum population.
 

**Note:** The strata boundaries, population, and weight typically come from the original sample design criteria.
- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program — such as system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks. You can input up to 25 peaks. The default is no peaks.
  - **Peak Date:** The date and time of the peak.
- **Minimum:** Specifies how the daily maximum, minimum, and average demands report will process zero-values. The options are:
  - **Do Not Include Zero Values:** Zero values are considered missing.
  - **Include Zero Values:** Zero values are shown as minimums.
- **Drop Threshold:** The threshold for dropping customers due to missing or excluded data. If a customer is missing x% or more of the total expected intervals in the analysis period (due to missing data or data excluded by the Quality Command), the program drops the customer from the analysis.
- **Prorate:** Use this to specify whether or not total energy values for each customer should be adjusted to compensate for missing data. Application of the Prorate affects any calculations based on energy, including floating stratification assignments, load factors, etc. However, it does not fill in missing demand values. If Prorate is set to “Yes”, each customer's total energy value will be multiplied by the ratio of expected intervals to actual intervals within each Time-of-Use period. If Prorate is set to “No”, Oracle Utilities Load Analysis will make no adjustments for missing or excluded data. No is the default.
- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing. The default is “8” (only missing intervals are excluded).
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.

- **User Specified Days:** A list of days (“mm/dd/yy”, one line per day) that are averaged together when computing User-Specified Days statistics. If not provided, the system configured default User Specified Days will be used.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to produce graphs of the output statistics.
- **Report:** Specifies which groups of statistics will be reported. The values are:
  - **Complete:** All statistics are calculated and reported.
  - **Preliminary:** Produces all Analysis Environment and Individual Customer Statistics reports. This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis.
  - **No Individual Strata Reports:** Produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports.
  - **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.
  - **No Individual Strata Reports:** No statistical records are written to the ELDB for individual strata.

## Domains Analysis Ratio

The Domains Analysis Ratio program uses the combined estimate technique to compute load statistics for one or more subpopulations, or domains, within an analysis group.

To run the Domains Analysis Ratio program, select **Load Research > Analysis > Domains Analysis Ratio**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Domains Analysis Ratio program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** list the keys identifying the customers to be analyzed, along with their strata and domain assignments. For more information about creating the Control Settings for this program, see **Chapter 11** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

Control settings have the following format:

```
customer-id chan1 [{±}chan2 [{±}chan3...[{±}chann ] ] ] stratum-number
[domain] [customer-billed-energy]
```

- **customer-id** (*required*) — enter the Oracle Utilities Load Analysis customer-id.
- **chan1,chan2...chanX** (*required*) — enter the channel-number, or a combination of channels, for that customer-id. A combination consists of two or more channels added or subtracted to represent the total customer load (e.g., 1+2-7 is the sum of channels 1 and 2 minus channel 7, a co-generation unit). Do not add blanks before or after an operator. The data is combined strictly for the analysis; no new records are created. **Note:** *At least one channel-number is required per record.*
- **strata-number** (*required*) — enter the number identifying the stratum to which the customer belongs. **Note:** The Domains programs perform only fixed stratification, not floating. If performing non-stratified analysis, all customers should be assigned to strata 1.
- **domain-number** — enter the number identifying the domain to which the customer belongs. The value may be a numeric (1 to 9) or alpha (A to Z). If you do not specify a domain, the customer will be assigned to domain 0. Customers in domain 0 are included in calculating the total sample size, but are not included in any domain calculations.
- **billed-energy** — enter the actual billed energy for the customer, for the billing cycle corresponding to the analysis period. Enter the value as a positive floating point number. This number should come from “books and records”, or you can use the Billed Energy Program to calculate it.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Domains Analysis Ratio program:

- **Report Title:** The title for the report that the program produces.
- **Individual Customer Statistics File (Opt.):** The name of the optional Individual Customer Statistics File.
- **Keys List File (Opt.):** The name of the optional file that lists missing keys.
- The **Domain** section defines the number of domains for the analysis. Click **Add** to add additional domains.
  - **Domain Number:** An identifier for the domain. This must be either an integer from 1 to 9 or a single letter of the alphabet from A to Y. Domain Z is reserved for optional class totals.
  - **Title:** A title for the domain.
- The **Population** section defines the domain populations for the each stratum. Click **Add** to add additional domains.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Stratum numbers must appear in ascending order, but need not be consecutive.
  - **Domain Number:** Specifies the identifier for the domain that you originally defined in the **Domain** section.
  - **Domain Population in Stratum:** Defines the population of the specified domain and stratum for the time period of the analysis.
- The **Domain Billed Energy** section defines the populations for the analysis. Click **Add** to add additional domains.
  - **Domain Number:** Specifies the identifier for a domain that you originally defined in the **Domain** section.
  - **Billed Energy:** Specifies the actual (estimated or computed) billed energy for a particular domain.
  - **Domain Population (opt.):** Specifies the population of the entire domain, across all strata.
- **Class:** Specifies that an additional set of reports and statistics are created for the entire class of customers being analyzed.
- **Start Time** and **Stop Time:** The date range of the analysis period. Both times may be specified in the form “mm/dd/yy” or “mm/dd/yy-hh:mm:ss”. You can select any date range for which data exists in the Extracted Load Database, with the following limitations: The analysis period must be a multiple of 24 hours. The date range cannot exceed one year for 900-second data.
- **Analysis Key:** An identifier prefixed to the name of each of the statistics produced by the analysis run. This identifier becomes the prefix in the statistics name. You can use up to 38 characters. A combination of characters (A - Z) and digits (0 - 9) may be used, but special characters (anything that is not a letter or number) are not allowed.
- **Aggregation:** Establish the number of seconds-per-interval for the analysis data; 300, 900, 1800, 3600, and 86400 are permitted values. 3600 is the default. Where possible, Oracle Utilities Load Analysis will sum each customer's load data to the specified level.
- **Alpha:** The significance level for t-statistics used in the computation of relative precision. The significance level may be either 5% or 10%. The default is 10%. The percent sign (%) is optional.

- **Stratum Assignment:** Domains Analysis requires that the stratum assignments be pre-stratified (fixed). This means that the program will assign customers to strata according to the stratum numbers supplied in the control settings.
- **Billing:** Specifies the energy values for individual sample customers that Oracle Utilities Load Analysis will use to compute the ratio denominator of the ratio estimate. If you specify **Yes**, the program will use the billed-energy values you supplied in the control settings. If you specify **No**, the Ratio Analysis Program will automatically calculate energy values for each customer-id for the analysis period specified in the Date Command from interval data in the ELDB.
- **Group Title:** A title to appear at the top of each analysis report produced at the end of the program run.
- **Combined Bill Energy:** For Stratified Combined Ratio Analysis only. Supply the actual total billed energy for the entire population (instead of using the stratum-billed-energy to allocate the population billed energy across individual strata). Input the value as a positive floating point number. When you supply this command, the program automatically performs Combined Ratio Expansion, and reporting is restricted to the corresponding combined reports.
- **Total Population:** The total population for the analysis. If supplied, this value overrides the value for strata population. The strata populations are calculated using the following formula.  $Strata\ Population = Total\ Population * Strata\ weight$ . If strata weights are omitted, the system will equally allocate the total population supplied across the strata.
- The **Strata** section defines the strata for a stratified analysis. Click **Add** to add additional strata.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Within the file, stratum numbers must appear in ascending order, but need not be consecutive.
  - **Stratum Billed Energy:** Defines the total billed energy value for the population to be used in the ratio expansion.

**Note:** If you can supply accurate billed energy for each stratum, the program will perform Separate Ratio Estimation-producing demand estimates for each stratum, as well as the class total. Typically, however, only the total billed energy for the entire population is available. In that case, you can perform Combined Ratio Estimation, which produces demand estimates for just the class, as explained below.

  - **For Stratified Separate Ratio Estimation:** Input the actual total billed energy for the stratum population as a positive floating point number. Stratum-billed-energy is required for separate ratio estimation even if you set the Billing Option to NO.
  - **For Stratified Combined Ratio Estimation:** You can omit this field. The value will not be used in the calculations. You will need to provide value for Combined Billed Energy to specify the total billed energy for the population.
  - **For Non-Stratified Ratio Estimation:** You must provide the actual total billed energy for the population as a positive floating point number. This is required even if the Billing Option is set to NO.
- **Stratum Upper Boundary:** The upper boundary for the stratum. Because Domains Analysis requires FIXED, or pre-stratified, stratum assignments, you can insert any value as a placeholder. Stratum boundaries will be ignored.
- **Stratum Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis. If you input "0" or omit the parameter, Oracle Utilities Load Analysis will assume that the population equals the stratum sample size (100% sampling).

- **Stratum Weight:** Optional weighting factor for the stratum. Your input must be a floating point number between zero and one. If you input zero (0.0) or do not supply a weight, Oracle Utilities Load Analysis will assign a weight based on the stratum population.
  - **Note:** The strata boundaries, population, and weight typically come from the original sample design criteria
- The **Supplied Peaks** section specifies the date and time of peaks of interest that are not automatically computed by the program — such as system peak. The program will compute statistics for the entire day in which each supplied peak falls. Click **Add** to add additional supplied peaks. You can input up to 25 peaks. The default is no peaks.
  - **Peak Date:** The date and time of the peak.
- **Minimum:** Specifies how the daily maximum, minimum, and average demands report will process zero-values. The values are:
  - **Do Not Include Zero Values:** Zero values are considered missing.
  - **Include Zero Values:** Zero values are shown as minimums.
- **Drop Threshold:** The threshold for dropping customers due to missing or excluded data. If a customer is missing x% or more of the total expected intervals in the analysis period (due to missing data or data excluded by the Quality Command), the program drops the customer from the analysis.
- **Prorate:** Use this to specify whether or not total energy values for each customer should be adjusted to compensate for missing data. Application of the Prorate affects any calculations based on energy, including floating stratification assignments, load factors, etc. However, it does not fill in missing demand values. If Prorate is set to “YES”, each customer's total energy value will be multiplied by the ratio of expected intervals to actual intervals within each Time-of-Use period. If Prorate is set to “NO”, Oracle Utilities Load Analysis will make no adjustments for missing or excluded data. NO is the default.
- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing. The default is '8' (only missing intervals are excluded).
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Specifies the time-of-use schedule used for the report.
- **Season Schedule:** Specifies the season schedule used for the report.
- **User Specified Days:** A list of days that are averaged together when computing User-Specified Days statistics. A list of days (“mm/dd/yy”, one line per day) that are averaged together when computing User-Specified Days statistics. If not provided, the system configured default User Specified Days will be used.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to produce graphs of the output statistics.
- **Report:** Specifies which groups of statistics will be reported. The options are:
  - **Complete:** All statistics are calculated and reported.
  - **Preliminary:** Produces all Analysis Environment and Individual Customer Statistics reports. This option enables you to preview the analysis results on a customer basis before incurring the overhead associated with a complete analysis.

- **No Individual Strata Reports:** Produces all report types, but does not report the information on individual strata usually included in the Sample Evaluation reports.
- **No Evaluation Reports:** Suppresses the printing of all components of the Sample Evaluation reports. Because these reports tend to be very lengthy, this option can substantially reduce the size of the hard copy output.
- **Write:** Specifies which statistics are written back to the ELDB. The values are:
  - **Complete:** All statistical records produced by the analysis are written back to the ELDB.
  - **None:** No statistical records are written back to the ELDB.
  - **No Individual Strata Reports:** No statistical records are written to the ELDB for individual strata.

## Individual Customer Analysis

The Individual Customer Analysis program is used to generate, report, and save statistics for individual customers — including Entire Period, Time-Of-Use (TOU), and Average Day-type statistics. Because it is an efficient tool for analyzing individual customer load patterns, Individual Customer Analysis is useful for rate comparisons, customer service, and load management applications.

- The program produces two basic types of statistics for each customer analyzed:
- **Time-Of-Use and Entire Period Statistics:** Individual Customer Analysis produces summary statistics for specified periods. These statistics include: total energy (actual and prorated), maximum and minimum demand, and load factor.
- **Average Day:** The program also produces 24-hour, interval-by-interval demand profiles of “average days.”

To run the Individual Customer Analysis program, select **Load Research > Analysis > Individual Customer Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Individual Customer Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** are used to identify the customers you want to analyze, and to set two optional parameters (start-time and TOU Schedule). For more information about creating the Control Settings for this program, see **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

### Report Settings

The following report settings are available for running the Load Data Reporter program:

- **Report Title:** The title for the report that the program produces.
- **Time of Use Statistics Output File:** The name for the TOU Statistics output file.
- **Average Day Statistics Output File:** The name for the Average Day Statistics output file.
- **Start Time and Stop Time:** The date range of the analysis period. You can analyze non-contiguous periods for which data exists in the ELDB or CLDB by specifying up to 25 different date ranges. Click Add to add additional date ranges.
- **Monthly Reporting:** Specifies what monthly reports, if any, are produced. The following options are available:



- **Monthly:** Produces separate reports for each calendar month included within the specified date range. The period covered by the first report will therefore begin at the specified start-time and extend through the end of that month. Each subsequent report will cover an entire month, with the possible exception of the last report, which will end with the specified stop-time. Only applies to a single date range. If more than one date range is specified, any specifications of Monthly will result in an error.
- **Monthly Summary:** Produce a Monthly Summary Report for each time-of-use period within the operative date range for each customer. The Monthly Summary Report will only be produced if the Time-Of-Use Statistics File is produced. It is therefore necessary to select Write “Complete” or “Time of Use Statistics” to produce the Monthly Summary Report.
- **24H:** Use this optional command to specify whether or not data should be reported in 24-hour adjusted format. If a cut crosses the spring boundary, then an extra hour of missing data with value zero and status code “9” is inserted during the spring DST hour. If a cut crosses the fall boundary, then the two fall DST hours are averaged together.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.
- **Group Title:** A title that appears at the top of each analysis report produced at the end of the program run.
- The **Supplied Peaks** section specifies the date and time of peaks of interest. The program will compute statistics for the entire day in which each supplied peak falls. You can input up to 25 peaks, one peak per line. The default is no peaks.
- Click **Add** to add additional supplied peaks.
  - **Peak Date:** The date and time of the peak.
- **Paginate:** Specifies if a new page is created for each customer report.
- **Merge Options:** Specifies how the invalid cuts are handled. The options are:
  - **Yes:** The program merges all cuts found within the specified date range regardless of validation status.
  - **No:** (Default) The program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Exclude:** The program merges all cuts found within the specified date range, but excludes all invalid data.
- **Prorate:** Specifies if total energy values for each customer should be adjusted to compensate for missing data. Application of the Prorate affects any calculations based on energy, including load factors. However, it does not fill in missing demand values.
 

If you specify Prorate “YES”, the customer's total energy value will be multiplied by the ratio of expected intervals to actual intervals within each time-of-use period. If you specify Prorate “NO”, the program will make no adjustments for missing or excluded data. No is the default.
- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing.
- **Rolling Aggregation:** Specifies the interval length you want to average (the result is called the “rolling interval”). This command smooths out demand and reports averages of intervals and often used for billing purposes.
  - **Rolling Quality:** Specifies the worst acceptable status code involved in the averaging.
- **TOU Schedule:** Select a TOU schedule from the for the time-of-use calculations, or select “Demand” to apply the Demand Periods (see Demand Periods below). The default is none, a single time-of-use period equal to the entire analysis period. Remember, this setting will be

applied to all customers in the analysis; however, you can use the TOU Schedule parameter in the Control Setting to override it for specific customers.

**Note:** Each customer must have at least one non-missing interval in each TOU period or demand period to be analyzed.

- **Season Schedule:** Specifies the season schedule used for the report. Use this if you want to apply different Time-of-Use schedules over different portions (seasons) of the analysis period. Specify the Season Schedule, contained in your system default Season File that you want used. The default, none, suppresses season processing.

If both the Season and Time of Use Schedule is specified, the program will use the Season schedule and disregard the Time of Use schedule.

- **Average Day Type Statistics Report:** Specifies if the Average Day-Type Statistics Report is produced for each customer analyzed.
- **Time of Use Type Statistics Report:** Specifies if the Time of Use Statistics Report is produced for each customer analyzed.
- **Write:** Specifies which statistics are written back to the output files. The values are:
  - **Complete:** All statistical records produced by the analysis are written.
  - **Average Day Statistics:** The Average Day Statistics are written.
  - **Time of Use Statistics:** The Time of Use Statistics are written.
  - **None:** No statistical records are written.
- **Demand Periods:** Designates blocks of time as special periods of interest — such as demand-free, curtailment, interruption, or control periods. This is required if “Demand” is specified for Time of Use Schedule.

See **Step 5: Modify the Demand Period File (TGY37E.DEM) if Necessary** of **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Demand Periods.

- **Billing Cycles:** The billing cycles and their start and stop dates used for calculating billed energy. If you are specifying billing cycles in your Control Setting, the Individual Customer Analysis Program will also require the Billing Cycles as input. Each cycle is described by a single record made up of three parameters: a cycle number, the start date, and the stop date. Within the file cycles must be provided in sequential order beginning with 1. Any number up to a maximum of 99 cycles may be specified.

The following records are an example of billing cycles:

```
1 05/01/00 05/20/00
2 05/02/00 05/21/00
3 05/03/00 05/22/00
```

See **Chapter 19** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Billing Cycles file.

## Coincident Peak Analysis

The Coincident Peak Analysis program is used to calculate the estimate of the mean and corresponding sampling error of up to twelve periods of coincident peak demands for a customer class. The estimates may be calculated with either of two techniques: mean-per-unit or combined ratio estimation. Both are sophisticated analysis techniques that yield results at the class and average customer levels. (See the beginning of **Chapter 7** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for a discussion of the differences between the mean-per-unit and combined ratio expansion methodologies.) You can even request that the program perform both types of analysis in a single run.

To run the Coincident Peak Analysis program, select **Load Research > Analysis > Coincident Peak Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Coincident Peak Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contain a list of keys identifying the customers to be analyzed, along with additional values that depend upon the type of analysis to be performed (mean-per-unit, combined ratio, or both).

Control File Record Format for Mean-Per-Unit Analysis:

```
customer-id chan1 [{}chan2 [{}chan3...[{}chann ] ] ] [stratum-
number]
```

Control File Record Format For Combined Ratio Analysis, or Both:

```
customer-id chan1 [{}chan2 [{}chan3...[{}chann ] ] ] [stratum-
number] [customer-billed-energy] [periodnumber]
```

- **customer-id:** Enter the Oracle Utilities Load Analysis customer-id. Required.
- **chan1, chan2...chanx:** Enter the channel-number or a combination of channels for that customer-id. At least one channel-number per record is required. A combination consists of two or more channels added or subtracted to represent the total customer load. For example, 1+2-7 might be used to represent the sum of channels 1 and 2 minus channel 7, a co-generation unit. Do not add blanks before or after an operator. Note: The data is combined strictly for the analysis; no new records are created. When deciding whether or not to combine channel-numbers, it is important to remember that each record represents one sample point in the analysis. If you are analyzing end-uses, it would be appropriate to keep channel-numbers separate. If you are analyzing total premise loads, you would typically combine the channel-numbers for a large customer into a single record. (Note: If you want to combine multiple customer-ids into a single sample point, you must use the Load Data Transformation Program, before analysis.)

- **strata-number:** Enter the stratum number to which the customer belongs. Required for either type of analysis.
- **customer-billed-energy:** (for Ratio Analysis) Enter the amount of energy for which the customer was billed for the analysis sub-period. (The particular analysis sub-period is identified with the next parameter in the command, as described below.) The billed-energy value should come from “billing.” Enter it as a positive floating point number. If you cannot provide accurate billed energy values for the customers in the analysis, you can have the program calculate the values from the interval data. To do this, you must provide two pieces of information in the Report Setting: 1) select the NO for Billing option; and 2) identify the date range of each analysis sub-period using “breakpoints” (explained later in this chapter). Also, be sure to provide a zero or other value in the Control Setting record as a place-holder (it will not be used in the calculations). Alternatively, if you are missing just a few values, you can direct the program to drop customers for just specific sub-periods. That is, if a customer has an unacceptable or missing billed-energy value for a particular sub-period, you may insert a negative integer for billed-energy in the Control File to indicate the situation. Doing this will cause the customer's data contribution to be dropped from the analysis for that sub-period only. If you are performing a Ratio Analysis, all Control Setting records must include a billed-energy value (even if it is just a place-holder) and an associated period number. If the program finds any missing values, they will be considered a fatal error and the program will terminate processing.
- **period-number:** (Required for Ratio Analysis) A positive integer that identifies a sub-period in the analysis. The customer billed-energy value you supplied in the previous parameter in the record must belong to this sub-period. If you do not supply a period number for each record in a Ratio Analysis, the program will abort processing.

To obtain a better understanding of the organization of a typical Control Setting, consider the following two examples. The first example is for Stratified, Mean-Per-Unit Analysis) is for a stratified mean-per-unit analysis consisting of three strata for two periods.

```
A001 1+2-3+41
A002 1+2+3 1
A003 1 2
A004 1-2-3 2
A005 1-3 3
A006 1+2 3
```

The Control File contains six customers, five of which have combined channels. There are two customers for each of the three strata. Note the absence of billed energy values and period numbers. These could be included without harm, but need not be because the analysis is mean-per-unit.

The second example is for a stratified combined ratio analysis consisting of three strata for two periods.

```
A001 1+2-3+41250.0 1
A001 1+2-3+41300.0 2
A002 1+2+31 150.0 1
A002 1+2+31 175.0 2
A003 1 2 195.0 1
A003 1 2 210.0 2
A004 1-2-32 230.0 1
A004 1-2-32 250.0 2
A005 1-33 330.0 1
A005 1-33 350.0 2
A006 1+23 305.0 1
A006 1+23 315.0 2
```

In this Control File, billed energy values and period numbers must be included or the analysis will terminate.

For more information about creating the Control Settings for this program, see **Chapter 10** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains data used for the program.
- **Interval Database 2:** A second database that contains data used for the program.

## Report Settings

The following report settings are available for running the Coincident Peak Analysis program:

- **Report Title:** The title for the report that the program produces.
- **Start Time and Stop Time:** The date range of the analysis period. The date range can cover any period of time from two days up to a year. Note that all peak-times specified for analysis must fall between these two dates.
- **Source:** Specifies the database from which the data for the analysis is obtained. The source of the data can be the ELDB, ALDB, or Both.
- **Group Title:** A title to appear at the top of each analysis report produced at the end of the program run.
- **Period Title:** An additional title for the analysis reports which appears below the group title.
- **Billing:** For Ratio Analysis only. Specifies which set of customer energy values to apply in the calculation of ratios used in the estimation. If you specify **Yes**, the energy used in the denominators of the ratio estimates are taken from the energy values you supplied in the Control Settings. Enter **No** to have the program automatically calculate the energy values for use in the denominators of the ratio estimates.
- **Drop Threshold:** The threshold for dropping a customer's contribution to a sub-period peak. If a customer is missing *d*% or more of the expected intervals in a given sub-period (due to missing data or data excluded by the Quality Command), the program will drop the customer from that sub-period's peak calculation.

**Note:** The value entered here is used as the drop criterion for all sub-periods within the analysis period, unless explicitly overridden by a drop value in the corresponding Peak.

The value for “*d*” must be a non-negative integer between 0 and 100, inclusive. The percent sign (%) is optional. The default is “100%”.

- The **Breakpoint** defines the sub-periods into which the analysis period is broken, so that the program can calculate customer billed energy from the interval data in each sub-period. (Required only if you are performing Ratio Analysis and want the program to calculate customer billed energy; e.g., you are not providing customer billed energy values in the Control Setting.)

The supplied breakpoints divide the analysis period into (n+1) sub-periods corresponding to the (n) dates entered here, and the beginning and ending dates of the total analysis date range specified in the Date Command. The breakpoints represent the first day of a new sub-period within the analysis period. Therefore, the first sub-period begins on the start-date of the Date Range and ends on the day before the nearest breakpoint date. The second sub-period starts on the breakpoint date and covers the days until the day before the next closest breakpoint date. This process continues until all breakpoints are exhausted. Breakpoints can be given in any order. They must all fall between the date range specified and no sub-period can have more than one peak fall within it. If either of these conditions is not met, the program will write an error message and will terminate processing. However, not all sub-periods need have a peak within their bounds. Any number of breakpoints can be entered as long as the above

two conditions are met. Only those sub-periods that include a peak value are included in the analysis.

Click **Add** to add additional breakpoints.

- **Breakpoint:** The start date for the sub-period.
- The **Peak** section specifies the date and time of externally determined coincident peaks for the customer class under analysis. One Peak must be supplied for each individual coincident peak period in the analysis. Up to 12 peaks may be specified. The peaks need not be supplied in chronological order. However, they must all fall within the date range specified, and no more than one peak may fall within a sub-period. (The sub-periods are defined using the Breakpoint.) Click **Add** to add additional peaks.
  - **Peak Date/Time:** The date and time of the peak.
  - **Population Billed Energy:** (Required for Ratio Analysis.) The sum of the billed-energy for the class population for the sub-period in which the peak occurred.
  - **Drop Threshold:** (Optional) The percentage of data missing or data excluded for quality reasons, above which a customer's data contribution to that sub-period peak is dropped. For example, if you specify 50%, and a customer has missing values for 60% of the intervals expected over a given sub-period, the program would drop the customer from that sub-period's peak calculation. The number entered must be a non-negative integer between zero (0) and one hundred (100), inclusive. The value entered must be immediately followed by a percent sign (%). Failure to include the percent sign will be treated as an error.
  - **Peak Weight:** (Optional) The weighting to be given to each peak. The number entered must be a non-negative real number between 0 and 1. If you do not supply a weight value for a peak, the peak's weight will default to 1 divided by the number of peaks. The value entered must be immediately followed by a pound symbol (#).
- The **Strata** section provides information about each stratum for each peak period. If you are performing a Non-Stratified Analysis, you will supply just one Strata. If you are performing a Stratified Analysis, you must provide "h" Strata for each peak period (where h is the total number of strata). That is, the total number of Strata definitions for a stratified analysis equals the product of the number of strata and the number of peak periods. Up to 99 strata may be defined. Click **Add** to add additional strata.
  - **Stratum Number:** A number that identifies the stratum. It must be a positive integer from 1 to 99. Stratum numbers must appear in ascending order, but need not be consecutive.
  - **Peak Period Number:** The period in which the stratum population and optional weight should be applied. This enables you to vary the stratum population and weight by period to match the actual period population of the stratum. Select "All" if the stratum population, weight, and boundary applies to all periods (values do not differ from period to period).
  - **Stratum Upper Boundary:** The upper boundary for the stratum. The stratum boundary of a non-stratified analysis or the last stratum boundary of a stratified analysis must be specified as INF, or INFINITY (the default). **Note:** The boundary of a stratum can vary from period to period.
  - **Stratum Population:** The size of the stratum population, or the entire population if performing a non-stratified analysis. Enter the value as a non-negative integer. If you enter "0" or omit the parameter, the program will assume that the population equals the stratum sample size (100% sampling). **Note:** The population for a stratum can vary from period to period.
  - **Stratum Weight:** A weighting factor for the stratum. The weight must be a floating point number between zero and one. If you input zero (0.0) or do not supply a weight,

the program will assign a weight based on the stratum population. Note: The weight assigned to a stratum can vary from period to period. Note: The strata boundaries, population, and weight typically come from the original sample design.

- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing.
- **Report:** Specifies which groups of statistics will be reported. The options are:
  - **Complete:** All statistics are calculated and reported.
  - **No Individual Strata Reports:** Suppresses production of the individual strata reports in the Strata Statistics Matrix Report. Under this option, the reports that are printed include the Variance/Covariance Matrix Report and the Coincident Peak Report.
  - **No Variance/Covariance Reports:** Suppresses the printing of both the Strata and Variance/Covariance Matrix reports. This option should be used when only the Coincident Peak Report is needed.
- **Output Format:** Specifies the type of analysis to be performed. The options are:
  - **Ratio:** A combined ratio report.
  - **MPU:** A mean-per-unit report.
  - **Both:** A ratio and mean-per-unit report.

# Load Data Transformation

The Load Data Transformation program is used to calculate new data from existing data in the Interval Database. For example, you can quickly apply loss factors, compute KVA, or combine multiple channels of data into a single record. The program also allows you to manipulate existing data; for instance, you can select data by TOU period or prepare cuts for graphing.

The types of transformations you can perform fall into two categories:

- **Arithmetic operations:** You can add, subtract, multiply, or divide cut data by other cut data or by a supplied constant. This is useful for combining channels of data or applying loss factors.
- **Transformation functions:** You can apply any of a series of Transformation functions to a cut. There are a variety of functions for different tasks - such as sorting, masking, and rescaling data. These functions are very useful if you need to graph a demand duration curve, expand sample statistics to the class level, or disaggregate electric usage into time-of-use periods.

To run the Load Data Transformation program, select **Load Research > Analysis > Load Data Transformation**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Using the Transformation Commands in Chapter 14** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Load Data Transformation program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** contain transformation commands and functions that are used to manipulate the interval data. For more information about creating the Control Settings for this program, see **Chapter 14** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.
- **Target Database (Opt.):** The database that is the destination for the transformed data.

## Report Settings

The following report settings are available for running the Load Data Transformation program:

- **Report Title:** The title for the report that the program produces.
- **Start Time and Stop Time:** a required command that establishes the date range spanned by the cuts to be transformed.
- **Note:** If a start-time is specified for a cut key in the Control Setting, then only intervals from that cut that fall within the date range will be used. This option is used to exclude other cuts from consideration even if they overlap the date range.
- **Aggregation:** Specifies that the cuts will be aggregated to a defined SPI. The options for this field are **none, 300, 900, 1800, 3600, 86400**.



- **Quality:** The least acceptable status code for the data. Any interval that has a status code below this value will be treated as missing.
- **Merge Options:** Specifies how the invalid cuts are handled. The options are:
  - **Yes:** The program merges all cuts found within the specified date range regardless of validation status.
  - **No:** Default. The program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Exclude:** The program merges all cuts found within the specified date range, but excludes all invalid data.
- **Stop:** Specifies if the program stops processing when it encounters a command block containing an error, or when it cannot find a requested input cut.
- **UOM:** sets the default unit of measure (UOM) code to any cuts written back to the database that have not had their UOM code's set by either an existing cut or by calling the UOM function.
- **Trial Mode:** Perform transformations in a "trial" mode to ensure that there are no errors and no changes to the database. Combine this option with XML and/or Graph Output to produce output files of the results without writing anything to the database.
- **Graph Output:** Produces the SYSGRAPH.HTM file, which can be used to graph the reported cuts.
- **XML Format:** Creates an output file of all cuts written to the database in XML format.

## Day Type Analysis

The Day Type Analysis program produces 24-hour average hourly load profiles for up to 48 day types in a year. Up to four day types can be requested for a period of up to 12 months: Weekday, Weekend Day, Peak Day, and Near Peak Day. The Day Type Analysis Program produces a report and an output file in a format for compatibility with non-Oracle Utilities Load Analysis modeling programs.

To run the Day Type Analysis program, select **Load Research > Analysis > Day Type Analysis**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 18** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* for more information about the Day Type Analysis program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

### Control Settings

The **Control Settings** contains the keys (customer ID and channel) of the Oracle Utilities Load Analysis end-use cuts or statistic records that are to be extracted from the database over the date range. For more information about creating the Control Settings for this program, see **Chapter 18** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide*.

The format for each control record is shown below. Analysis of statistic records is restricted to Mean- or Total-type statistics written by the Oracle Utilities Analysis programs for Entire Period only. The middle portion of the customer ID of all such records is -ENTR-, and the channel is always 0. The last part of the customer ID may be MEAN, RMEN, CMEN, SMEN, TOTL, or CTOT, depending on which Analysis program created the statistic. You can include any number of records in a Control File.

```
customer-id, channel [,optional 88-character title]
```

Following the channel, the user may specify an optional 88-character title. This title is printed in report titles and the Daytype Output File (TGY761.DAT) in the "EE" record for the particular end-use. If no such title is entered, the default is made up of the customer ID, channel, number of months or seasons analyzed, and abbreviations of the day types created:

```
"EE" "CUSTOMER_A ,1,12 MTH,WD,WN,P,NP"
```

### Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.
- **Interval Database 2:** The database that contains the data used for the program.
- **Interval Database 3:** The database that contains the data used for the program.

### Report Settings

The following report settings are available for running the Load Data Transformation program:

- **Report Title:** The title for the report that the program produces.
- **Start Time and Stop Time:** A required command that establishes the date range for which data will be extracted. Only full days of data are used (00:00:00 for Start Time, 23:59:59 for

Stop time). The date range may not include more than 12 months of data or portions thereof. If any portion of a month is within the date range, output records will be written for that month in the case of a month that is only partially within the date range. For example, if date range is 03/18/99 to 09/17/99, records will be written for the month of March using data from days 18 – 31, and for the month of September, using data from days 1 – 17.

- **Source:** The type of database that is the source of the data.
- **Quality:** The least acceptable status code for the output data. Any data that has a status code below this value will be replaced with a value of “0” and a status code of “9” (missing).
- **Merge Options:** Specifies how the invalid cuts are handled. The following options are available:
  - **Yes:** The program merges all cuts found within the specified date range regardless of validation status.
  - **No:** (Default) The program rejects invalid cuts and returns an error message indicating the cuts cannot be merged.
  - **Exclude:** The program merges all cuts found within the specified date range, but excludes all invalid data.
- **Title 1:** Specifies an optional title at the top of the report.
- **Title 2:** Specifies an optional title at the top of the report.
- **Season Schedule:** Specifies the season schedule used for the report. If a season schedule is used, daytypes are created for each season rather than by month.
- **Peak Days:** Specifies the days designated as peak and or near peak days in the following format:

mm/dd/yy [P|NP]

Where:

**mm/dd/yy:** The date to be designated as a peak, or near peak day.

**[P|NP]:** Specify P or NP to designate the date as a peak or near-peak day respectively. You can optionally use the keywords, “PEAK” and “NEARPEAK” instead of abbreviations. If not specified, the date is designated as a Peak day.

Example Peak Days list:

|          |    |
|----------|----|
| 01/18/82 | P  |
| 01/19/82 | NP |
| 02/18/82 | P  |
| 02/19/82 | NP |



# Chapter 12

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## Query Programs

This chapter describes how users work with the Oracle Utilities Load Analysis query program to create lists of cut keys or edit blocks in the database, including:

- **Key Generator**

# Key Generator

The Key Generator enable you to create lists of cut keys or edit blocks in the database that match user-defined criteria. For example, you can request a list of cut keys, statistics identifiers, or edit blocks on the basis of any field or fields that exist in the standard Oracle Utilities Load Analysis Load Data Records or Statistics Records. You can request all cuts that have a forced merge field or a particular start-date, or you can request all statistics from a particular class load study.

To run the Key Generator program, select **Load Research > Query > Key Generator**.

See **Running Oracle Utilities Load Analysis Load Research Programs** on page 3-2 for more information about running load research programs.

See **Chapter 13** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* and **Chapter 15** in the *Oracle Utilities Load Analysis Load Data Management User's Guide* for more information about the Key Generator program. See **Chapter 13: Oracle Utilities Load Analysis PDF Documentation** for links to the Oracle Utilities Load Analysis documentation.

This section describes the settings and parameters used for running this program, including:

- **Control Settings**
- **Databases**
- **Report Settings**

## Control Settings

The **Control Settings** contain the statements used to specify the criteria for the output list or report. For more information about creating the Control Settings for this program, see **Chapter 13** in the *Oracle Utilities Load Analysis Load Data Analysis User's Guide* and **Chapter 15** in the *Oracle Utilities Load Analysis Load Data Management User's Guide*.

## Databases

The following database types are available for this program:

- **Interval Database:** The database that contains the data used for the program.

## Report Settings

The following report settings are available for running the Key Generator program:

- **Report Title:** The title for the report that the program produces.
- **Report Print Options:** Specifies the print mode for the report. The following modes are available:
  - **Full:** Records from the Key Generator output will be printed to both the Report and Output data file. Use this option if your query does not result in a large number of output records.
  - **Economize:** Records from the Key Generator output will only be printed to the Output data file. Use this option if you are performing against a large database and expect to return a large number of records.
- **Output Date Format:** Specifies if the year is output in a four digit format or a two digit format.
- **Output Time Format:** Specifies if the time is output in a standard format (mm/dd/yy-hh:mm:ss) or in the ISO8601 format (MM/DD/YYYYThh:mm:ss).
- **Edit Trails Only:** Specifies that the program searches information located within the Edit trails of edited cuts. Using this command may affect performance, as the program must retrieve twice the number of records from the database as compared to active cut records.

- **Input Keys:** Enables you to limit the records read and tested by the program. You may supply full keys, or you may omit the start time and supply only CUSTID and CHANNEL. You can use the keys output file generated by an input program for this field. The presence of Input Keys will instruct the program to only query against the specified keys.





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