

Oracle[®] Project Analysis Collection Pack Implementation Guide

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Enabling the Information Age

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Preface

Welcome to Release 11 of the *Oracle Project Analysis Collection Pack Implementation Guide*.

This implementation guide includes the information you need to work with Oracle Project Analysis Collection Pack effectively. It contains detailed information about the following:

- Overview and reference information
- System requirements
- Description of standard implementation steps
- Description of customizations that you can perform, including sample view changes
- Specific types of analysis that you can perform using Oracle Project Analysis Collection Pack
- Oracle Project Analysis Collection Pack functions and features
- Sample reports

This preface explains how this implementation guide is organized and introduces other sources of information that can help you.

About This Implementation Guide

This guide is the primary source of information about Oracle Project Analysis Collection Pack. It contains overviews as well as task and reference information. This guide includes the following chapters:

- Chapter 1 provides a brief introduction to Oracle Project Analysis Collection Pack.
- Chapter 2 describes the server requirements you need to fulfill to use Oracle Project Analysis Collection Pack.
- Chapter 3 describes the standard architecture of Oracle Project Analysis Collection Pack and provides a list of all of the standard dimensions, hierarchy levels, and measures that Oracle Project Analysis Collection Pack predefines.
- Chapter 4 walks you through the factors you must consider in your decision to implement and customize, if necessary, Oracle Project Analysis Collection Pack.
- Chapter 5 provides detailed information about customizing dimensions, hierarchy levels, measures, and fact tables and modifying the collection processes.
- Chapter 6 describes how to generate and install the data warehouse.
- Chapter 7 tells you how to run the collection process to populate your data warehouse and use tools to query, analyze, and generate reports based on your project information.
- Appendix A provides sample view changes that you can use to modify collection views to disable a standard measure or to create a new measure.
- Appendix B includes a list of sample reports that you can generate using the standard dimensions, hierarchy levels, and measures predefined by Oracle Project Analysis Collection Pack.

This implementation guide is available online

All Oracle Applications user's guides are available online in Adobe Acrobat format. Most other Oracle Applications documentation, such as this implementation guide, is available in Adobe Acrobat format.

The paper and online versions of this manual have identical content; use whichever format is most convenient.

You can order an Oracle Applications Documentation Library CD containing Adobe Acrobat versions of each manual in the Oracle

Applications documentation set. Using this CD, you can search for information, read it on–screen, and print individual pages, sections, or entire books. When you print from Adobe Acrobat, the resulting printouts look just like pages from an Oracle Applications hardcopy manual.

Note: The Oracle Applications Documentation Library CD does not include documentation for Oracle Applications Data Warehouse, Oracle Express Analyzer, and Oracle Sales Analyzer. You must order these reference materials separately.

Assumptions

This guide assumes you have a working knowledge of the principles and customary practices of your business area. It also assumes you are familiar with Oracle Projects and Oracle Applications Data Warehouse. If you have never used Oracle Projects and Oracle Applications Data Warehouse, we suggest you attend one or more of the Oracle Projects and Oracle Applications Data Warehouse training classes available through Oracle Education. (See Other Information Sources for more information about Oracle Projects, Oracle Applications Data Warehouse, and Oracle training.)

This guide also assumes that you are familiar with the Oracle Applications graphical user interface. To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle provides powerful tools you can use to create, store, change, retrieve and maintain information in an Oracle database. But if you use Oracle tools like SQL*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications forms, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications forms to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. But, if you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

Consequently, we STRONGLY RECOMMEND that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications tables, unless we tell you to do so in our manuals.

Other Information Sources

You can choose from many sources of information, including documentation, training, and support services, to increase your knowledge and understanding of Oracle Project Analysis Collection Pack, Oracle Projects, and Oracle Applications Data Warehouse.

Most Oracle Applications documentation is available in Adobe Acrobat format on the *Oracle Applications Documentation Library* CD. We supply this CD with every software shipment.

If this manual refers you to other Oracle Applications documentation, use only the Release 11 versions of those manuals unless we specify otherwise.

Oracle Applications User's Guide

This guide explains how to navigate, enter data, query, run reports, and introduces other basic features of the graphical user interface (GUI) available with this release of Oracle Project Analysis Collection Pack (and any other Oracle Applications product). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent requests.

You can also access this user's guide online by choosing "Getting Started with Oracle Applications" from any Oracle Applications help file.

Related User's Guides

You may want to consult other reference materials when you set up and use Oracle Project Analysis Collection Pack to integrate Oracle Projects with Oracle Applications Data Warehouse.

Oracle Projects User's Guide

This user's guide provides you with all the information you need to use your Oracle Projects application with a function- and task-oriented organization.

Oracle Applications Data Warehouse User's Guide

Use this user's guide to understand and learn how to use Oracle Applications Data Warehouse (OADW). This manual provides step-by-step guidance on topics from setting up the warehouse, to modeling your business data, and using the OADW in the most efficient way possible.

Oracle Applications Data Warehouse Reference Manual

This guide provides detailed descriptions of each of the windows provided by Oracle Applications Data Warehouse.

Oracle Applications Developer's Guide

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards*. It also provides information to help you build your

custom Developer/2000 forms so that they integrate with Oracle Applications.

Oracle Applications User Interface Standards

This manual contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications products and how to apply this UI to the design of an application built by using Oracle Forms 4.5.

Oracle Applications Demonstration User's Guide

This manual documents the functional storyline and product flows for Global Computers, a fictional manufacturer of personal computer products and services. As well as including product overviews, the book contains detailed discussions and examples, across each of the major product flows. Tables, illustrations, and charts summarize key flows and data elements.

Installation and System Administration

Oracle Applications Installation Manual

This manual and the accompanying release notes provide information you need to successfully install Oracle Financials, Oracle Public Sector Financials, Oracle Manufacturing, or Oracle Human Resources in your specific hardware and operating system software environment.

Oracle Applications Data Warehouse Installation Manual

This manual provides step-by-step instructions to install Oracle Applications Data Warehouse.

Oracle Applications Upgrade Manual

This manual explains how to prepare your Oracle Applications products for an upgrade. It also contains information on finishing the upgrade procedure for each product. Refer to this manual and the *Oracle Applications Installation Manual* when you plan to upgrade your products.

Oracle Applications System Administrator's Guide

This manual provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage processing.

Oracle Projects Applications Technical Reference Manual

The *Oracle Projects Applications Technical Reference Manual* contains database diagrams and a detailed description of Oracle Projects and related applications database tables, forms, reports, and programs. This information helps you convert data from your existing applications, integrate Oracle Projects with non-Oracle applications, and write custom reports for Oracle Projects.

You can order a technical reference manual for any product you have licensed. Technical reference manuals are available in paper format only.

Other Information

Training

Oracle Education offers a complete set of training courses to help you and your staff master Oracle Applications. We can help you develop a training plan that provides thorough training for both your project team and your end users. We will work with you to organize courses appropriate to your job or area of responsibility.

Training professionals can show you how to plan your training throughout the implementation process so that the right amount of information is delivered to key people when they need it the most. You can attend courses at any one of our many Educational Centers, or you can arrange for our trainers to teach at your facility. In addition, we can tailor standard courses or develop custom courses to meet your needs.

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Project Analysis Collection Pack working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your

business area, managing an Oracle server, and your hardware and software environment.

About Oracle

Oracle develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as a complete family of financial, manufacturing, and human resource applications.

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Oracle offers its products, along with related consulting, education, and support services, in over 140 countries around the world. Oracle Corporation is the world's leading supplier of software for information management, and is the world's second largest software company.

Thank You

Thank you for using Oracle Project Analysis Collection Pack and this implementation guide.

We value your comments and feedback. At the end of this manual is a Reader's Comment Form you can use to explain what you like or dislike about Oracle Project Analysis Collection Pack or this implementation guide. Mail your comments to the following address or call us directly at (650) 506-7000.

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CHAPTER

1

Introduction

This chapter provides a general introduction to the business applications of Oracle Project Analysis Collection Pack. It provides several examples of the query, analysis, and reporting capabilities of Oracle Project Analysis Collection Pack.

Overview of Oracle Project Analysis Collection Pack



Warning: Oracle Project Analysis Collection Pack enables you to integrate Oracle Projects and Oracle Applications Data Warehouse (OADW). This application is not included in, but is additional to, the Oracle Projects product. You cannot use any of the features described in this manual unless you have purchased and are a licensed user of Oracle Project Analysis Collection Pack.

Oracle Project Analysis Collection Pack enables you to collect corporate-wide project information in a central repository and analyze the data using standard or user-defined parameters (dimensions, hierarchy levels, and measures). This tool is a business solution that allows high-level corporate managers to view data across their enterprise in a wide variety of ways.

For example, you can use some of the standard parameters to analyze cost, revenue, and budget data across:

- Projects
- Time periods
- Organizations

Alternately, you can freely disable parameters or create your own to fit the analysis and reporting needs of your company. Oracle Project Analysis Collection Pack offers flexible and extensible analysis capabilities limited only by the information that your company records.

Operational Project Performance

Oracle Projects remains the tool for collecting project information as well as for monitoring actual transactions. The project status inquiry (PSI) feature in Oracle Projects enables you to track project status in terms of actual and budgeted amounts and commitments at any WBS level. However, you can perform PSI queries on only one project at a time for four time periods:

- Period-to-date
- Prior period
- Year-to-date
- Inception-to-date

By contrast, Oracle Project Analysis Collection Pack enables you to analyze project information across projects and organizations. For example, you can use Oracle Project Analysis Collection Pack to analyze project information by financial year, financial quarter, GL period, or PA period. Depending on your analysis tool, you can represent your analysis results graphically to create easy-to-read presentations.

Analyze project information across dimensions that represent the metrics for success in your company. Once you identify patterns in projects or organizations that lead to success or failure, you can modify your business practices to optimize your company's performance.

Flexible Configuration

You can use Oracle Project Analysis Collection Pack to provide multidimensional analysis capabilities in several ways:

- Integrate information in the interface tables provided by Oracle Projects with Oracle Applications Data Warehouse (OADW). OADW automates the design, implementation, and ongoing administration of an enterprise-wide data warehouse or a line-of-business, subject-oriented data mart.

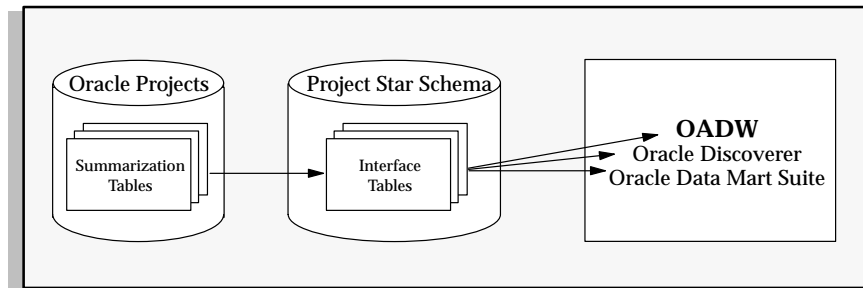


Attention: This guide discusses only this implementation option.

- Access project data warehouse information directly from the star schema tables using OLAP tools, such as Oracle Relation Access Administrator, Oracle Relation Access Manager, Oracle Sales Analyzer, and Oracle Express Analyzer
- Build a custom data warehouse by extracting project information from interface tables into flat files and uploading the information into the data warehouse. You can then analyze the information using OLAP tools, such as Oracle Express Objects and Oracle Express Analyzer.

Figure 1 – 1

Information flow in Oracle Project Analysis Collection Pack



OADW integration enables you to perform the following types of analysis:

If your company does not require the online analysis of project information, you do not need to integrate with OADW. The core Oracle Projects product provides a project status inquiry feature that allows you to track and report on actual costs and budgeted amounts at the project level. For more information about this tracking capability, see: *Project Status Inquiry (Oracle Projects User's Guide)*.

Oracle Projects predefines the following standard dimensions, which serve as categories by which you can analyze your project data:

- Project
- Resource
- Project organization
- Expenditure organization
- Service type
- Time
- Budget type
- Expenditure type
- Operating unit (for multiple organization support)

Oracle Projects also predefines levels, which serve as subcategories for these dimensions, and hierarchies, which store the relationships between each dimension and its levels. If the standard dimensions, levels, and hierarchies do not suit your business needs, you can create new dimensions, levels, and hierarchies.

You can disable standard Oracle Projects dimensions that do not suit your company's business requirements. For detailed information about

customizing your data warehouse data and metadata, see: Customizing Your Integration: page 5 – 2.

See Also

Oracle Applications Data Warehouse User's Guide

Oracle Projects User's Guide

Data Warehouse Uses

The following list provides just a few examples of applications for your data warehouse solution:

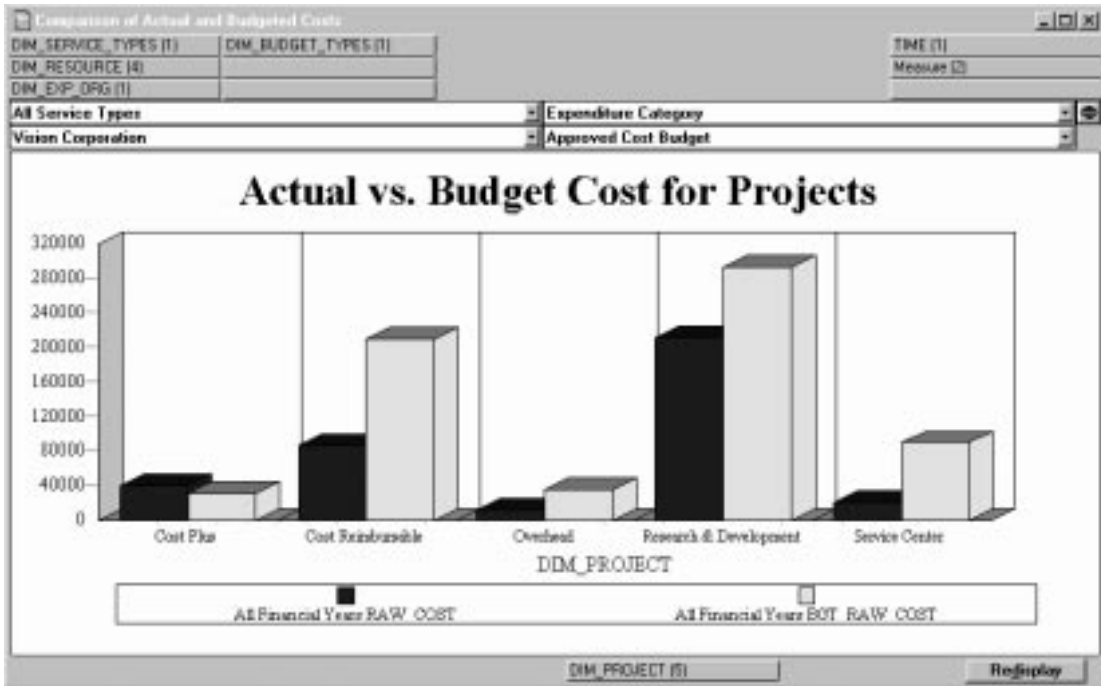
- Business analysis
- Product line analysis
- Service type analysis
- Project classification analysis
- Organization and budget type analysis

Business Analysis

You can analyze project performance and other details across various dimensions, such as projects and organizations. In addition, you can create variance reports to compare actual costs to budgeted amounts, as illustrated in the following figure.

Figure 1 – 2

Use Oracle Sales Analyzer to compare the variance between actual costs and budgeted raw costs for selected projects



Product Line Analysis

Monitor profitability and identify trends using project classes and categories to distinguish your different product lines.

Service Type Analysis

You can compare cost, revenue, and budget data by type of activity or work across all projects and organizations in your enterprise using the Service Type dimension.

For example, you can establish standard service types to identify broad categories of work, such as Field, Work, R&D, or Estimating. Then, by assigning these service types to your projects' tasks, you can compare budgeted costs with commitments and actual costs for these categories across organizations or across project types. With this type of analysis, you can identify which types of activities consume resources and which activities generate revenue.

Project Classification Analysis

You can look across the enterprise at all projects by project classification and time period to determine which lines of business are more profitable than others or whether the profitability of certain kinds of projects reflects seasonal variations.

Organization and Budget Type Analysis

You can analyze cost, revenue, and budget data across all projects by organization and by budget type to compare both original and current budgets to actual costs to determine whether some organizations in your enterprise are better than others at estimating costs at completion.

Benefits of Multiple Dimensions

With multidimensional analysis capabilities, you can generate a variety of reports to view the information that is most important to your company. For example, you can perform the types of analysis listed below:

- **Top/Bottom Ranking.** Identify your 10 best and 10 worst projects in terms of margin.
- **Exception.** Display job grades for each consultant who has generated monthly revenues of less than \$10,000.
- **Trend.** Identify how business has changed over the past 52 weeks in a particular industry sector.

You can also combine different types of analysis in a single report. For example, you can search for values based on exception criteria and then generate a report that ranks the results.

The following figures illustrate how the Ranking and Exception Setup window of Oracle Sales Analyzer enables the quick and easy creation of ranking reports.

Ranking and Exception Setup

Type

- Ranking
- Exception
- Ranking then Exception
- Exception then Ranking

Layout

Page:	Across:
DIM_SERVICE	TIME
DIM_RESOUR	Measure
DIM_EXP_ORG	
Down:	
DIM_PROJECTS	

Ranking

DIM_PROJECTS where
 RAW_COST

is among the
 top 5 DIM_PROJECTS

and/or the
 bottom DIM_PROJECTS

out of 5 DIM_PROJECTS

TIME: All Financial Years

Exception

DIM_PROJECTS where

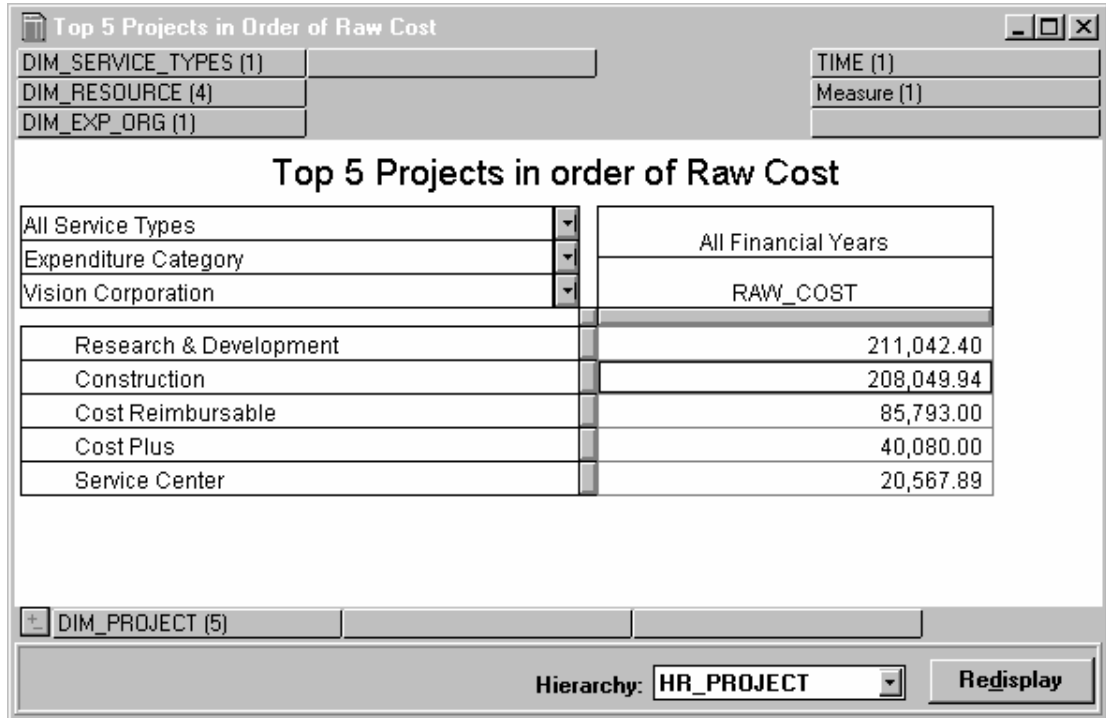
is
 between excluding

the values and

You can use your analysis tool to search for projects based on their actual raw costs and rank the top five results, as illustrated above.

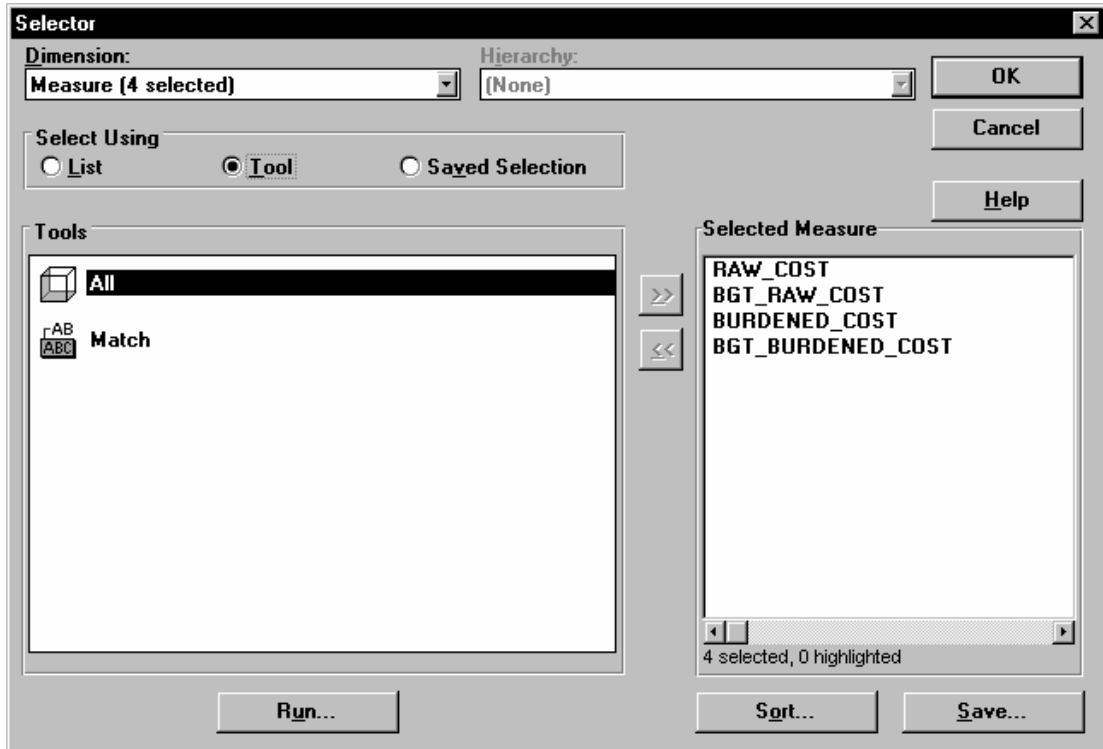
Figure 1 - 4

The resulting ranking report



The resulting report displays, in descending order, the projects that have incurred the five highest actual raw cost amounts.

In addition, you can easily modify your analysis by changing one or more dimensions in your query. You can analyze your project information by selecting any of the standard dimensions available in a list of values (as illustrated in the following figure), or you can create your own.



Other Applications and Benefits

Oracle Project Analysis Collection Pack also enables you to:

- Download information from the central repository to your laptop for disconnected analysis
- Empower executives with the project and resource data they need to make informed decisions faster
- Quickly generate quotes for customers based on historical project information
- Profitability analysis on resources across projects
- Rank the top or bottom projects across all organizations in your company in terms of how actual costs and commitments compare to budgeted costs
- Analyze groups of projects (class categories and codes) over time

- Compare costs for each project organization by expenditure organization
- Extend historical profitability figures into the future to estimate future revenue for budget planning and analysis

CHAPTER

2

System Requirements

This chapter describes the requirements that you need to fulfill to install and implement Oracle Project Analysis Collection Pack, regardless of whether you customize your implementation of the product.

System Requirements

You must fulfill the following server requirements to integrate Oracle Projects with OADW:

- Server requirements
 - Oracle Applications Release 11 or higher
 - Oracle Applications Data Warehouse Release 1.1 or higher

Note: You must install the OADW software before you install Oracle Project Analysis Collection Pack.

For detailed steps on installing Oracle Project Analysis Collection Pack, see: *Installing the Oracle Project Analysis Collection Pack Oracle Applications Data Warehouse Installation Manual*.

Profile Options

After you install Oracle Project Analysis Collection Pack, you must set your Oracle Projects profile options to reflect how you will implement your integration with OADW. For more information about Oracle Projects profile options, see: Appendix B: Profile Options (*Oracle Projects User's Guide*).

PA: ADW Installed

Indicates whether Oracle Project Analysis Collection Pack is installed. This profile is automatically set to *Yes* when you install Oracle Project Analysis Collection Pack. Oracle Projects does not use this profile option; Oracle Applications Data Warehouse uses it only for integration with Oracle Projects.

Available values are listed below:

Yes	Oracle Project Analysis Collection Pack is installed, and related functionality will be available.
No	Only the core Oracle Projects product (either Oracle Project Billing or Oracle Project Costing) is installed. Oracle Project Analysis Collection Pack is not installed, and related functions will not be available.
(No value)	Equivalent to No

This profile option is visible to the System Administrator at the application level for Oracle Projects. You cannot update this profile option.

The internal name for this profile option is PA_ADW_INSTALLED.

PA: Collection Pack Licensed

Indicates whether you have purchased and are a licensed user of Oracle Project Analysis Collection Pack.

Available values are listed below:

- | | |
|-------------------|---|
| Yes | Oracle Project Analysis Collection Pack has been purchased and licensed. Entitles the user to related features and support. You must enable this profile option to use any features of Oracle Project Analysis Collection Pack. |
| No | Default value is No, meaning that user does not have access to Oracle Project Analysis Collection Pack features or support. |
| (No value) | Equivalent to No |

This profile option is visible to the System Administrator at the application level for Oracle Projects. You cannot update this profile option.

The internal name for this profile option is PA_ADW_LICENSED.

PA: ADW Collect Top Tasks (for future use)

Indicates whether the collection program collects dimension and fact table information at the top task level. By default, this profile option is set to No.

Note: You cannot currently collect task-level information if you integrate Oracle Projects with Oracle Applications Data Warehouse. If you set this option to Yes, the Collection Pack will collect information at the top task level, but you cannot analyze this information using OADW. You can, however, analyze task-level information using the Collection Pack with other tools.



Attention: You should set this profile before you start collecting information for the interface tables. If you change this profile option after you have run the collection process, then you must reload the interface tables using the Refresh Dimension and Fact Tables process.

This profile option is visible to the System Administrator and updatable at the application level for Oracle Projects.

The internal name for this profile option is PA_ADW_COLLECT_TOP_TASKS.

CHAPTER

3

Standard Architecture

This chapter describes the standard architecture of Oracle Project Analysis Collection Pack. This chapter provides lists and descriptions of all the standard dimensions, dimension hierarchies, and measures that Oracle Project Analysis Collection Pack predefines as well as collection processes and views.

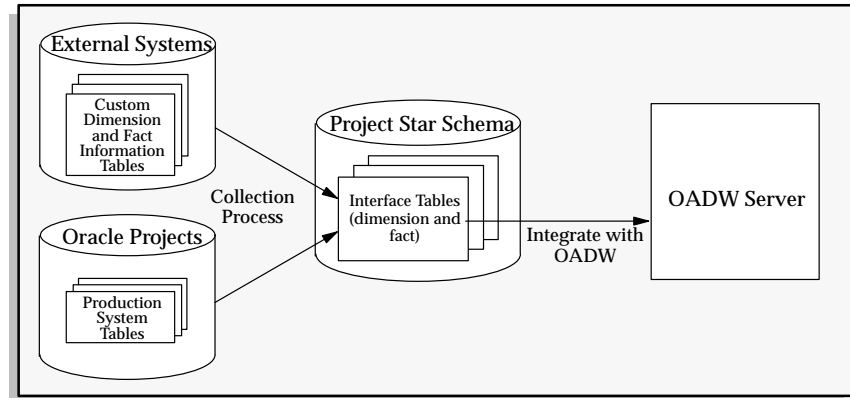
Oracle Project Analysis Collection Pack Architecture

Oracle Project Analysis Collection Pack provides the flexibility to disable standard dimensions for integration with OADW to suit your company's business requirements.

The following figure illustrates the information flow for Oracle Project Analysis Collection Pack:

Figure 3 - 1

Information flow from Oracle Projects to OADW



The integration starts with the Oracle Projects summarization tables. After you run the Update Project Summary Amounts process to populate the summarization tables, you submit the Collect Dimension and Fact Tables process to load information from summarization tables into the project star schema interface tables. These interface tables are the source tables for integration with OADW and act as a temporary holding place for information to be integrated with OADW. You can modify the collection process to load data from other Oracle Projects tables into the project star schema interface tables.

Note: The project star schema interface tables are different from the OADW interface tables.

After you populate the project star schema interface tables, you load the information into OADW tables using the OADW collection process. From the OADW tables, you can access and analyze your data using a variety of client applications. After you transfer the information to the OADW tables, you can purge the project star schema interface tables.

See Also

Collect Dimension and Fact Tables (*Oracle Projects User's Guide*)

Refresh Dimension and Fact Tables (*Oracle Projects User's Guide*)

Generate Collection Views (*Oracle Projects User's Guide*)

Oracle Applications Data Warehouse User's Guide

Oracle Express Analyzer User's Guide

Oracle Sales Analyzer User's Guide

Standard Dimensions, Hierarchy Levels, and Measures

Refer to the lists of standard dimensions, dimension hierarchies, and measures in this section to determine whether you need to customize your integration with OADW. For more information about revising the metadata and data predefined by Oracle Project Analysis Collection Pack, see: Customizing Your Integration: page 5 – 2.



Attention: Oracle Project Analysis Collection Pack predefines the dimension, hierarchy level, and measure related metadata for Oracle Projects in the OADW repository.

Dimensions

Oracle Project Analysis Collection Pack predefines the following standard dimensions, all of which are enabled by default. If you do not plan to use all the dimensions to analyze your project data, you can disable any dimension below that is marked with an asterisk (*).

- Project
- Resource
- Project organization*
- Expenditure organization*
- Service type*
- Time
- Budget type

- Expenditure type*
- Operating unit (for multi-organization support)*

You can define up to five additional dimensions in each standard fact table to store actuals, commitments, and budgeted costs.

Dimension Hierarchy Levels

Oracle Project Analysis Collection Pack predefines one hierarchy for each of the dimensions listed above. The standard hierarchy levels for each dimension are listed below:

- Project

All project types (none specified)

Project type

Project

- Resource

Resource list

Resource group

Resource member (lowest-level resource)

Note: Before you can analyze information using a particular resource list, you must first assign it to the project and run the Update Project Summary Amounts process for each project you want to include in your analysis. This process summarizes information for all resource lists assigned to a project.

- Project organization

Business group

Project organization

- Expenditure organization

Business group

Expenditure organization

- Service type

All service types (none specified)

Service type

Note: By default, service type information is collected at the top task level. You can change the collection process to load service type information at different levels of the WBS. If you use this dimension to analyze task information, make sure that your data originates from the same level of the WBS. For

example, you cannot use the service type dimension to analyze top task budget amounts and lowest task actuals.

- Time

All financial years (none specified)

Financial year

Financial quarter

GL period

PA period

- Budget type

Budget type

- Expenditure type

All expenditure types (none specified)

Expenditure type

- Operating unit

Set of books

Legal entity

Operating unit

The operating unit dimension allows you to analyze information for projects of all operating units that use the same functional currency. If multiple sets of books use the same currency, you can add another level to this hierarchy, such as *All sets of books*, to analyze projects that are owned by operating units that use different sets of books. For information on adding a hierarchy level, see: *Creating Hierarchies* or *Hierarchy Levels*: page 5 – 5.

Measures

Oracle Project Analysis Collection Pack predefines the following standard measures, all of which are enabled by default. If these measures do not suit your business needs, you can modify your interface views so that the collection process loads different information into the fact interface tables.

- Actuals

- Raw cost
- Burdened cost
- Quantity
- Labor hours

- Billable/Capitalizable raw cost
- Billable/Capitalizable burdened cost
- Billable/Capitalizable quantity
- Billable/Capitalizable labor hours
- Revenue
- Commitments
 - Raw cost
 - Burdened cost
- Budgets
 - Raw cost
 - Burdened cost
 - Quantity
 - Labor hours
 - Revenue

You can define up to five additional measures in each standard fact table to store actuals and commitments.

Interface Tables

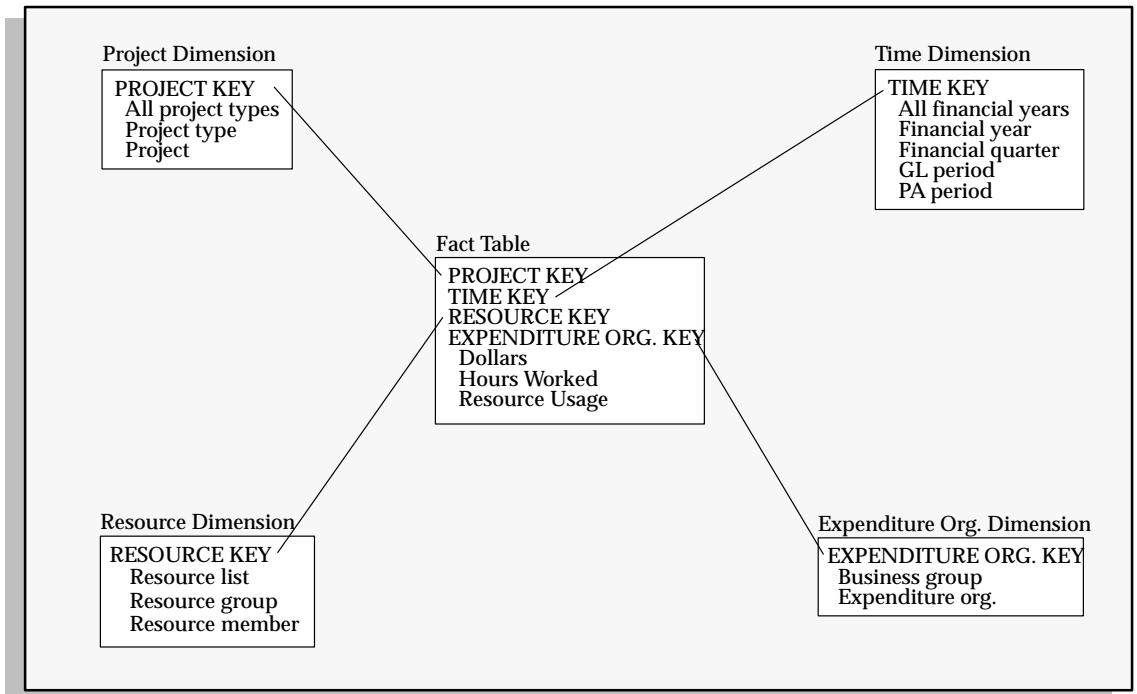
There are two types of interface tables: **fact tables** and **dimension tables**. Fact tables contain numeric information, while dimension tables store descriptive information that you can use to provide context for the fact table information.

Fact tables consist of two types of columns:

- *Keys*, which link to the descriptive information represented by dimension attributes, as described below
- *Measures*, which identify what a specific number represents.

Figure 3 – 2

Illustration of dimension tables and a fact table



Dimension tables consist of separate columns for each hierarchy level, which represent additional categories for each dimension. Most dimensions have multiple hierarchy levels at which you can capture and analyze information.

Oracle Project Analysis Collection Pack provides one interface database view for each interface table, and the data read by an interface view (via the collection program) populates its corresponding interface table.

You can use all of the standard measures, dimensions, and dimension hierarchies that Oracle Project Analysis Collection Pack predefines, or you can create your own. For more information about customizing the data warehouse, see: Customizing Your Integration: page 5 – 2.

Dimension Interface Tables

Oracle Project Analysis Collection Pack provides interface tables for each hierarchy level on standard dimensions, as illustrated in the following table:

Interface Table Name	Dimension	Level
PA_ALL_PRJ_TYPES_IT	Project	All Project Types
PA_PRJ_TYPES_IT_ALL	Project	Project Type
PA_PROJECTS_IT_ALL	Project	Project
PA_TOP_TASKS_IT*	Project	Top Task
PA_ALL_EXP_TYPES_IT	Expenditure Type	All Expenditure Types
PA_EXP_TYPES_IT	Expenditure Type	Expenditure Type
PA_RES_LISTS_IT_ALL_BG	Resource	Resource List
PA_TOP_RLMEM_IT	Resource	Resource Group
PA_LOWEST_RLMEM_IT	Resource	Resource Member (lowest-level resource)
PA_ALL_SRVC_TYPES_IT	Service Type	All Service Types
PA_SRVC_TYPES_IT	Service Type	Service Types
PA_ALL_FINANCIAL_YRS_IT	Time	All Financial Years
PA_FINANCIAL_YRS_IT	Time	Financial Year
PA_FINANCIAL_QTRS_IT	Time	Financial Quarter
PA_GL_PERIODS_IT	Time	GL Period
PA_PERIODS_IT	Time	PA Period
PA_BGT_TYPES_IT	Budget Type	Budget Type
PA_PRJ_BUSINESS_GRPES_IT	Project Organization	Business Group
PA_PRJ_ORGS_IT	Project Organization	Project Organization
PA_EXP_BUSINESS_GRPES_IT	Expenditure Organization	Business Group
PA_EXP_ORGS_IT	Expenditure Organization	Expenditure Organization
PA_SET_OF_BOOKS_IT	Operating Unit	Set Of Books
PA_LEGAL_ENTITY_IT	Operating Unit	Legal Entity
PA_OPER_UNITS_IT	Operating Unit	Operating Unit
* Not currently supported for integration with OADW		

Table 3 - 1 Standard dimension interface tables

Fact Interface Tables

Oracle Project Analysis Collection Pack provides the following standard fact interface tables:

Interface Table Name	Fact Table
PA_TSK_ACT_CMT_IT_ALL*	Task Level Actuals and Commitments
PA_PRJ_ACT_CMT_IT_ALL	Project Level Actuals and Commitments
PA_TSK_BGT_LINES_IT_ALL*	Task Level Budgets
PA_PRJ_BGT_LINES_IT_ALL	Project Level Budgets
* Not currently supported for integration with OADW	

Table 3 – 2 Standard fact interface tables

Collection Views

Oracle Project Analysis Collection Pack uses two levels of collection views: base views and second-level views.

To preserve the integrity of the base views in case of a database upgrade, you cannot modify these views. These base views read information directly from the Oracle Projects summarization tables. The second-level views read information from these base views and contain 10 columns that you can customize after disabling unnecessary dimensions to bring additional data into your data warehouse. Collection programs are based upon these second-level views.

Dimension Table Collection Views

Oracle Project Analysis Collection Pack provides the following base and second-level collection views for dimension tables:

Second-Level View Name	Base View	Dimension	Level
PA_ADW_PRJ_TYPES_V	PA_ADW_PRJ_TYPES_B_V	Project	All Project Types/Project Type
PA_ADW_PROJECTS_V	PA_ADW_PROJECTS_B_V	Project	Project
PA_ADW_TOP_TASKS_V*	PA_ADW_TOP_TASKS_B_V*	Project	Top Task
PA_ADW_EXP_TYPES_V	PA_ADW_EXP_TYPES_B_V	Expenditure Type	All levels
PA_ADW_RES_LISTS_V	PA_ADW_RES_LISTS_B_V	Resource	Resource List
PA_ADW_TOP_RLMEM_V	PA_ADW_TOP_RLMEM_B_V	Resource	Resource Group
PA_ADW_LOWEST_RLMEM_V	PA_ADW_LOWEST_RLMEM_B_V	Resource	Resource Member (lowest-level resource)

Table 3 – 3 Standard dimension table collection views

Second-Level View Name	Base View	Dimension	Level
PA_ADW_SRVC_TYPES_V	PA_ADW_SRVC_TYPES_B_V	Service Type	All levels
PA_ADW_PERIODS_V	PA_ADW_PERIODS_B_V	Time	All levels
PA_ADW_ORGS_V	PA_ADW_ORGS_B_V	Project Organization/ Expenditure Organization	All levels
PA_ADW_OPER_UNITS_V	PA_ADW_OPER_UNITS_B_V	Operating Unit	All levels
PA_ADW_BGT_TYPES_V	PA_ADW_BGT_TYPES_B_V	Budget Type	Budget Type
* Not currently supported for integration with OADW			

Table 3 - 3 Standard dimension table collection views

Fact Table Collection Views

Oracle Project Analysis Collection Pack also provides the following base and second-level collection views for fact tables:

Second-Level View Name	Base View	Related Measure
PA_ADW_ACT_CMT_V	PA_ADW_ACT_CMT_B_V	Actuals and Commitments
PA_ADW_R_ACT_CMT_V	PA_ADW_R_ACT_CMT_B_V	Actuals and Commitments
PA_ADW_R_ST_ACT_CMT_V	PA_ADW_R_ST_ACT_CMT_B_V	Actuals and Commitments
PA_ADW_BGT_LINES_V	PA_ADW_BGT_LINES_B_V	Budget Amounts
PA_ADW_R_BGT_LINES_V	PA_ADW_R_BGT_LINES_B_V	Budget Amounts

Table 3 - 4 Standard fact table collection views

Collecting Dimension and Fact Tables

You submit the PRC: Collect Dimension and Fact Tables process from the Submit Request window to load information into either dimension or fact interface tables. See: *Collect Dimension and Fact Tables (Oracle Projects User's Guide)*.

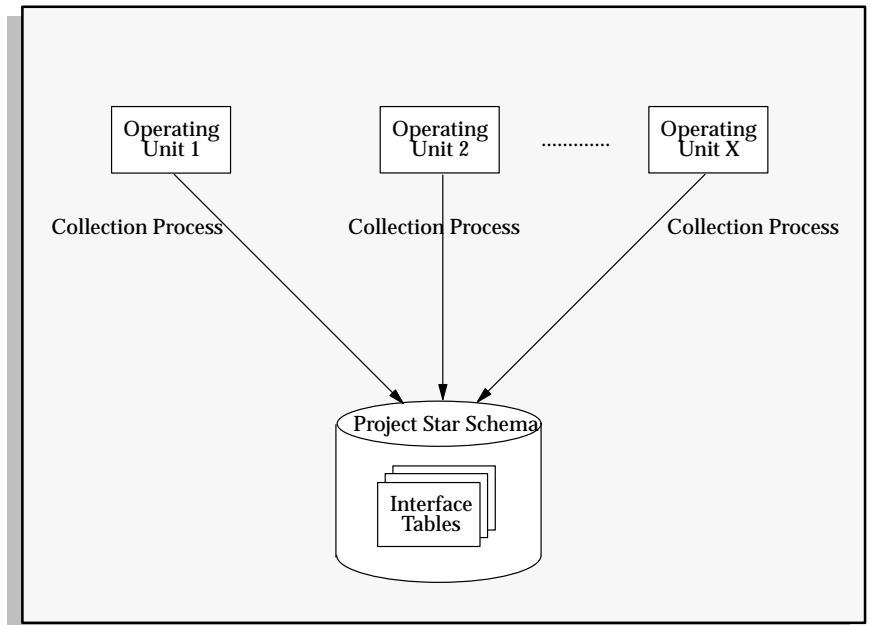
The collection program populates separate interface tables to store information about actual transactions and budgets. This PL/SQL-based process selects data from the Oracle Projects summarization tables based on the dimensions that your company uses. The collection program maintains the interface tables. The collection program is modular, which means that a separate program loads each interface table. In addition, you can customize the process to collect information from custom dimension and fact tables.

Update information in the interface tables as often as required by your company's business needs. The collection program provided by Oracle Projects performs incremental uploads of information, which means that the process updates only the information that has changed since the last upload. This strategy minimizes the length of your upload process.

The collection program retrieves project information based on the operating unit of the user submitting the request. If you want to collect project information for multiple operating units, you must run the collection process separately for each operating unit.

Figure 3 - 3

By default, each operating unit must run its own collection process



Attention: Before you load project information into the interface tables, you must run the Update Project Summary Amounts process for all projects you want to analyze.

Database Triggers

Oracle Projects tables contain database triggers that indicate which rows of information that the collection process reads. If the `ADW_NOTIFY_FLAG` parameter of a source table row equals 'Y', then the collection program copies the row into the appropriate interface

table. You must add triggers to or modify them in related source tables if you create or delete measures, respectively. If you create new fact tables, you can use database triggers in the related source tables to identify the changed rows for the collection process. The following table provides names of the triggers and affected Oracle Projects tables:

Table Name	Trigger Name
PA_TASKS	PA_ADW_TASKS_T1
PA_TASKS	PA_ADW_TASKS_T2
PA_PROJECTS_ALL	PA_ADW_PROJECTS_T1
PA_PROJECT_TYPES_ALL	PA_ADW_PROJECT_TYPES_T1
PA_EXPENDITURE_TYPES	PA_ADW_EXPENDITURE_TYPES_T1
PA_PROJECT_CLASSES	PA_ADW_PROJECT_CLASSES_T1
PA_CLASS_CATEGORIES	PA_ADW_CLASS_CATEGORIES_T1
PA_CLASS_CODE	PA_ADW_CLASS_CODES_T1
PA_RESOURCE_LIST_MEMBERS	PA_ADW_RESOURCES_T1
PA_RESOURCES	PA_ADW_RESOURCES_T2
PA_RESOURCE_LIST_ALL_BG	PA_ADW_RESOURCE_LISTS_T1
PA_BUDGET_TYPES	PA_ADW_BUDGET_TYPES_T1
PA_TXN_ACCUM	PA_ADW_TXN_ACCUM_T1
PA_RESOURCE_ACCUM_DETAILS	PA_ADW_RES_ACCUM_DET_T1

Table 3 – 5 Trigger names and related Oracle Projects tables

CHAPTER

4

Implementation Considerations

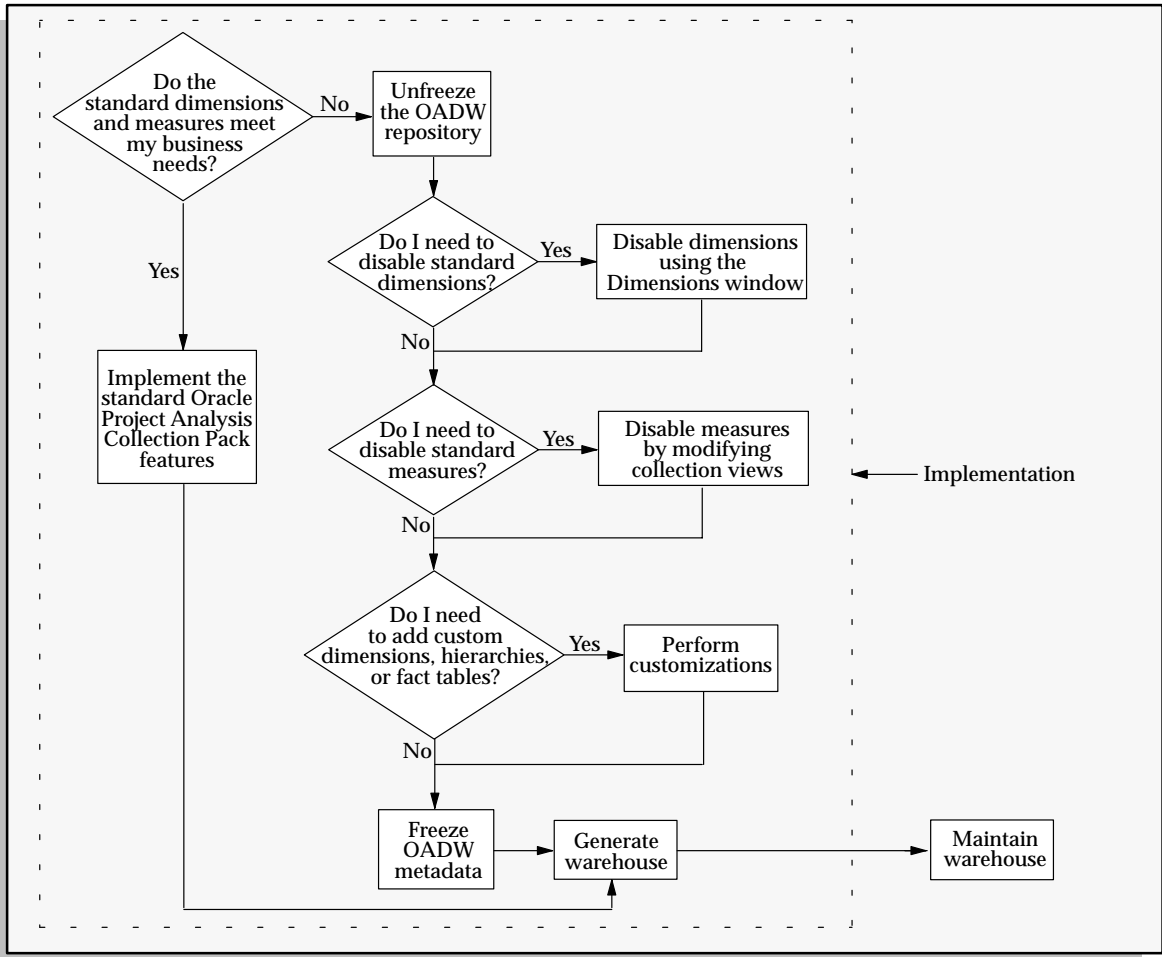
This chapter describes the factors that you need to consider in your decision to implement Oracle Project Analysis Collection Pack and whether you need to customize the standard configuration.

Implementing Oracle Project Analysis Collection Pack

You must consider many factors when deciding whether to integrate Oracle Projects with OADW and how to implement the integration. The flow chart below illustrates the questions you should ask yourself during this decision-making process. The rest of this section provides a detailed discussion of each decision point represented in the flow chart and the consequences of your decisions.

Figure 4 - 1

Flow chart illustrating implementation decisions and warehouse creation/maintenance



Do the standard dimensions and measures fulfill my business needs?

To answer this question, you must identify the goal or goals of your analysis. For example, you may want to compare actuals, budgets, and commitments or perform product line analysis. For each goal, you must decide what formula best represents the end result you want to achieve. You include both descriptive and numeric variables in your formula.

Compare the descriptive and numeric variables you identified with the list of standard dimensions and measures. Depending on the type of reporting and analysis your company performs, you may need to customize your data warehouse integration by adding or deleting dimensions and measures. For a list of the standard dimensions and measures provided by Oracle Projects, see: Standard Dimensions, Hierarchy Levels, and Measures: page 3 – 3.

Do I need to disable standard dimensions?

As previously mentioned, the standard dimensions delivered with Oracle Projects may not completely meet your reporting and analysis needs. If you need only a subset of the standard dimensions, you can disable one or more dimensions using the Dimensions window. See: Disabling Standard Dimensions: page 5 – 3.

Note: Disabling unnecessary dimensions reduces the size of your data warehouse and speeds the collection process.

Do I need to disable standard measures?

As previously mentioned, the standard measures delivered with Oracle Projects may not completely meet your reporting and analysis needs. If you need only a subset of the standard measures, you can modify your interface views to read only the numeric information you need. See: Disabling Standard Measures: page 5 – 4.

Note: Disabling unnecessary measures reduces the size of your data warehouse and speeds the collection process.

Do I need to add custom dimensions, hierarchs, or fact tables?

If you need to report or analyze your corporate information by a category that is not represented by a standard dimension or hierarchy level, you must create a new dimension or hierarchy level to capture this additional information.



Attention: Creating new dimensions after you have set up and used your data warehouse is labor-intensive and time-consuming. Carefully assess your company's current and future needs and try to identify all the customizations that you will need *before* you start to use your data warehouse.

For detailed information about creating a new dimension, see: *Creating Dimensions*: page 5 – 4. For detailed information about creating a new hierarchy level, see: *Creating Hierarchies or Hierarchy Levels*: page 5 – 5.

If your data warehouse does not include all the numeric information that you need to analyze, you can modify your interface views to capture additional information. For more information about adding measures and fact tables, see: *Creating Measures*: page 5 – 5 and *Creating Fact Tables*: page 5 – 6.

CHAPTER

5

Customizations

This chapter describes the steps you perform to customize your implementation of Oracle Project Analysis Collection Pack. This includes disabling standard dimensions, hierarchy levels, and measures; creating new dimensions, hierarchy levels, measures, and fact tables; and modifying the collection processes.

Customizing Your Integration

You may require only a subset of the standard dimensions, hierarchy levels, and measures provided by Oracle Project Analysis Collection Pack, or you may require additional dimensions, hierarchy levels, and measures. If this is the case, you can customize your integration with OADW by altering the 10 customizable columns for each standard dimension table and each standard fact table. In addition, you can create new dimensions and measures or disable existing ones if the information predefined by Oracle Project Analysis Collection Pack does not suit your business needs. Alternately, you can create new fact tables that you can analyze in conjunction with your customized dimension tables.



Warning: Plan and execute all of your customizations before you load information into the interface tables and generate your data warehouse. If you perform customizations after you implement and use the data warehouse, you must regenerate the data warehouse, which can be very time-consuming.

You can perform the following customizations to Oracle Project Analysis Collection Pack:

- Disabling standard metadata
 - dimensions
 - measures
 - hierarchies
- Creating new metadata
 - dimensions
 - measures
 - hierarchies
 - fact tables
 - building hierarchies of class categories



Attention: You perform some customization steps in your Oracle Projects environment and others in OADW, as noted on the following pages.

Disabling Standard Metadata

Disable standard metadata that your company does not need for analysis or reporting purposes. Disabling unnecessary metadata improves the performance of the collection processes and reduces the size requirements for your data warehouse.

Disabling Standard Dimensions

You can disable some of the Oracle Projects standard dimensions by using the Oracle Projects Dimensions window. When you use this window to disable a dimension, the metadata about the dimension is automatically deleted from the OADW repository database. You must regenerate the collection views after disabling any standard dimension. For more information regarding this window, see: *Implementing Oracle Project Analysis Collection Pack for Oracle Projects Integration (Oracle Projects User's Guide)*.

► **To enable or disable a standard dimension using the Dimensions window:**



Attention: You must disable dimensions before freezing the data warehouse metadata in the OADW repository and before customizing your collection views. If you subsequently enable or disable a dimension after you have generated the OADW runtime warehouse, you must regenerate the runtime warehouse to collect data based on the new set of dimensions.

1. From the Navigator window, choose Setup > Collection Pack > Dimensions.
2. Check the Enable check box next to the dimension you want to enable, or uncheck it if you want to disable the dimension.
3. Save your changes.
4. Choose Regenerate Views to regenerate the collection views based on the new set of dimensions.

The view generation process recreates the database views and creates a view definition file in the concurrent manager's log directory. After the generation process has executed successfully, you can use the concurrent request log file to extract the script to customize the view definition file. You must apply the customized view definitions after the view generation process executes successfully.

Disabling a dimension replaces the column representing the dimension with -1 or UNKNOWN, depending on the datatype of the column.



Attention: If you ran either collection process before enabling or disabling standard dimensions, you must submit the PRC: Refresh Dimension and Fact Tables process after you regenerate your views to update information based on your changes.

Disabling Standard Measures

You disable a measure by modifying each collection view that contains the measure and modifying database triggers in the related source tables. For sample view changes that you can use to disable a measure, see: *Modifying Collection Views to Disable or Create a Measure: page A - 2.*

Note: Collection views reside in the Oracle Projects production database.

In addition, you must delete the metadata information related to the deleted measure from the OADW repository using OADW windows. For more information about these windows, see: *Defining the OADW Metadata (Oracle Applications Data Warehouse User's Guide).*

Disabling Hierarchies or Hierarchy Levels

You disable hierarchies and hierarchy levels by deleting the related OADW metadata using OADW windows. For more information about these windows, see: *Using the Hierarchy Editor (Oracle Applications Data Warehouse User's Guide).*

Creating New Metadata

If the standard metadata provided by Oracle Project Analysis Collection Pack does not fulfill your company's reporting and analysis requirements, you can create customized metadata to populate your data warehouse with the additional information you need.

Creating Dimensions

You must define a new interface table for any new dimension and related hierarchy levels that you create. You can use an architecture

similar to the architecture used to collect standard dimensions and hierarchy levels. Perform the following steps to create new dimensions:

1. Write a collection procedure to retrieve information from the desired source table (from Oracle Projects or an external system) and load it into the interface table
2. Add the procedure to the custom collection package PA_ADW_CUSTOM_COLLECT so that the collection process will load information related to the new dimension along with the standard dimension and fact tables. This package contains two files:
 - PAADWCCS.pls
 - PAADWCCB.pls

To include the new dimension in an existing fact table, you must change the collection views for the fact table.

You use OADW windows to create new dimension related metadata in the OADW repository. For more information about the windows provided by OADW, see: *Defining Dimensions (Oracle Applications Data Warehouse User's Guide)*.

Creating Measures

You create new measures by changing the related fact table collection views and adding database triggers to the new source tables. For sample view changes that you can use to create a measure, see: *Modifying Collection Views to Disable or Create a Measure: page A – 2.*

Note: Collection views reside in the Oracle Projects production database.

After changing the views, use OADW windows to add metadata related to the new measure in the OADW repository. For more information about the windows provided by OADW, see: *Creating Cube Attributes (Oracle Applications Data Warehouse User's Guide)*.

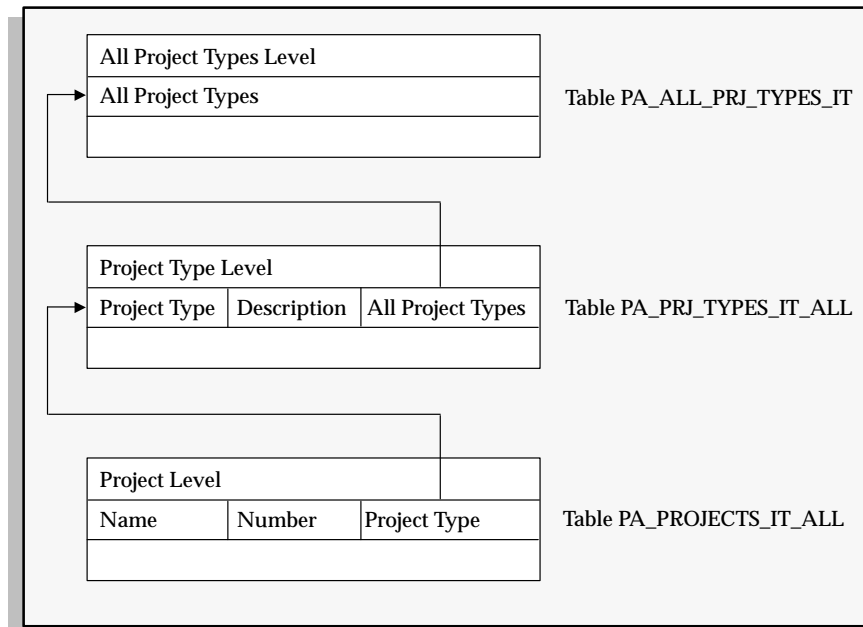
Creating Hierarchies or Hierarchy Levels

You can create new hierarchies based on standard hierarchies. You populate the level information either in the standard dimension table, if you are adding new hierarchies on the standard dimensions, or create new level tables similar to the standard level tables. An example of the standard hierarchies on the project dimension is given below. After the

level information is populated, then you create OADW metadata in the OADW repository database using OADW forms for the new hierarchies.

Figure 5 - 1

Example of building a hierarchy upon the projects dimension



Creating Fact Tables

To analyze additional information, you must build one or more new fact tables, similar to the fact tables for Actuals and Budgets for standard measures. Perform the following steps to create new fact tables:

1. Define a collection procedure similar to the procedure used to collect standard fact tables. You can use database triggers in the source table to identify the changed rows.
2. Add the procedure to the custom collection package PA_ADW_CUSTOM_COLLECT so that the collection process will load information into the new fact table when the standard dimension and fact tables are collected. This package contains two files:
 - PAADWCCS.pls
 - PAADWCCB.pls

- Use OADW windows to define the OADW repository metadata necessary for the custom fact tables. For more information about the windows provided by OADW, see: *Defining Cubes (Oracle Applications Data Warehouse User's Guide)*.

Building Hierarchies on Class Categories

Oracle Project Analysis Collection Pack does not support the class category hierarchy as a standard hierarchy, since you can categorize a project for multiple class codes within a class category. The following table provides hierarchy level and interface table information for class category and class code information related to each project:

Interface Table Name	Collection View	Level
PA_PRJ_CLASSES_IT	PA_ADW_PRJ_CLASSES_V	Project Class Code
PA_CLASS_CATGS_IT	PA_ADW_CLASS_CATGS_V	Class Category
PA_CLASS_CODES_IT	PA_ADW_CLASS_CODES_V	Class Code

Table 5 - 1 Interface table and collection views for class code and category levels

Perform the following steps to create a hierarchy for a given class category. You must perform these steps separately for each class category for which you want to define hierarchy levels.

- Use the Oracle Projects Class Code setup windows to identify the class codes for which you want to build hierarchies for analysis.
- Use the Project dimension to create new levels and hierarchies in OADW.

Create a project class level for each class within a given class category for the project dimension. You can use this level to analyze information for each class code within a class category.

Create one project class level for the project dimension. You can use this level to analyze information across all class codes within a class category.

Create separate hierarchies for each class with the class level as the root level. Create a project class level and project level below the root level.

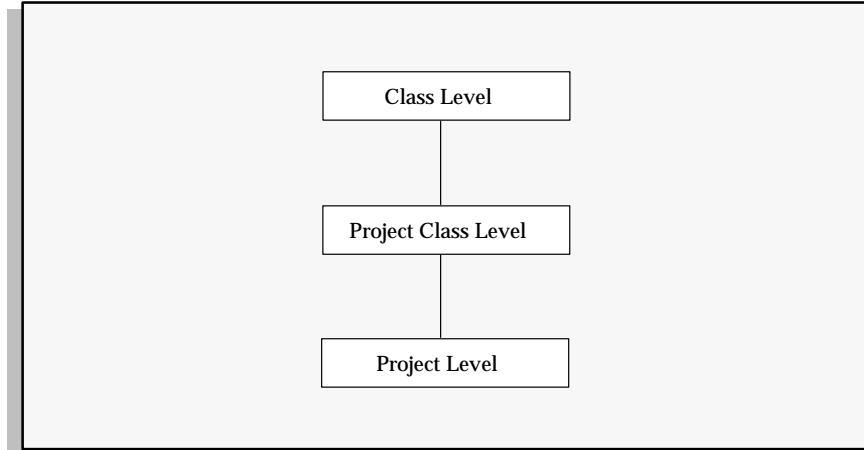
- Create an OADW interface table for each project class level.
- Create an OADW interface table for the class level.
- Customize the collection process for the PA_PRJ_CLASSES_IT table to include the Segment1 column from the PA_PROJECTS_ALL tables and the class_code and class_category columns from the

PA_PROJECT_CLASSES table into the USER_COL1 column. You can use the USER_COL1 column as a description for the project class level.

6. Define the collection for each of the new interface tables. Use PA_CLASS_CATEGS_IT as the source table for the class level table, and the PA_PRJ_CLASSES_IT source table for the project class level. Specify the WHERE clause for the class_code and class_category columns.

Figure 5 – 2

Example of building a hierarchy upon the class category



CHAPTER

6

Generating and Installing Your Data Warehouse

This chapter describes how to generate and install the data warehouse based on the information you load into the Oracle Project Analysis Collection Pack interface tables.

Generating and Installing Your Data Warehouse

After you have performed your customizations, such as creating new or disabling existing dimensions, hierarchy levels, and measures, you are ready to generate and install your data warehouse.

For detailed instructions on generating and installing your data warehouse, see: *Generating and Installing the OADW Warehouse (Oracle Applications Data Warehouse User's Guide)*. This manual provides complete instructions on performing the following steps:

1. **Freezing OADW metadata.** As a prerequisite to generating and installing the OADW warehouse, you must freeze your metadata definitions. As part of this process, OADW revalidates the metadata to verify that the definitions are correct and gives you a final opportunity to correct errors.
2. **Generating the installation script.** During the generation process, you generate OADW warehouse internal metadata, create installation scripts for each installed module and the OADW warehouse, and optionally create custom collection scripts.
3. **Installing the warehouse.** During the installation process, you run the installation scripts and create the OADW warehouse.

CHAPTER

7

Collecting Data and Maintaining the Data Warehouse

This chapter describes how to run the collection process to populate your data warehouse and use end-user tools, such as Oracle Express Analyzer and Oracle Sales Analyzer, to analyze and generate reports based on your project-related information.

Overview of Collecting Data and Maintaining Your Warehouse

After you generate and install your warehouse, you must perform maintenance steps as your company continues to collect project information or as your company's reporting and analysis needs change. These steps are identified in the diagram below.


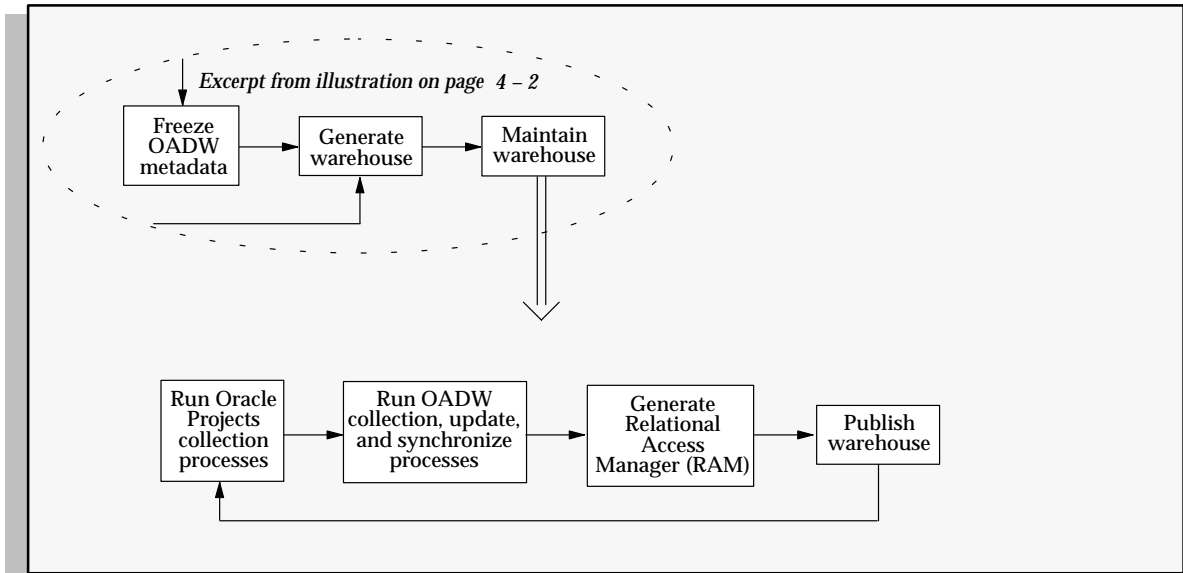
 **Attention:** If you want to collect information based on new dimensions, hierarchy levels, or measures, you must perform your customizations and regenerate your data warehouse.

Figure 7 – 1 Data warehouse maintenance steps



To update your warehouse to include the latest data from project activity, you must perform the steps described in this section.

Step 1 Run the Update Project Summary Amounts process in Oracle Projects

You can run this process as many times as you want for one or more projects.

Step 2 **Run the Collect Dimension and Fact Tables process in Oracle Projects**

This process collects information from the Oracle Projects production summarization tables and loads it into dimension and fact interface tables. The process selects data based on the dimensions and measures that you define when you implement Oracle Project Analysis Collection Pack. This collection process is incremental, which means it loads only information that changed since the last collection process was run.

This process collects dimension and fact table information from the operating unit of the employee submitting the process. To collect and analyze information from multiple operating units, you must run the collection process separately for each operating unit.

Step 3 **Run the OADW collection, update, and synchronize processes**

For detailed information about these OADW process, see: *Administering the OADW Warehouse (Oracle Applications Data Warehouse User's Guide)*.

Step 4 **Generate Express/RAM (Relation Access Manager)**

Perform this step to prepare your information to be accessed by Oracle Express Analyzer or Oracle Sales Analyzer. For detailed information about this build process, refer to the Express/RAM user manual and *Administering the OADW Warehouse (Oracle Applications Data Warehouse User's Guide)*. For detailed information about using the Analyzer tools, refer to the manuals entitled *Oracle Express Analyzer User's Guide* and *Oracle Sales Analyzer User's Guide*.

See Also

Processes (Oracle Projects User's Guide)

APPENDIX

A

Modifying Fact Collection Views

This appendix provides sample view changes that you can use to modify the collection views to disable a standard measure or to create a new measure.

Modifying Collection Views to Disable or Create a Measure

You must modify the related collection views to disable a standard measure or to create a new measure. This appendix provides sample view changes that you would use to disable the measure `ACTUAL_LABOR_HOURS` and add the measure `ACCUME_BURDENED_COST - ACCUME_RAW_COST`. Modify the sample view changes as necessary to satisfy your company's analysis and reporting requirements.

Note: You must add triggers to or modify them in the related source tables if you create or delete measures, respectively.

Disabling a Standard Measure

To disable a measure, you must modify the related fact table collection views. For example, to disable the measure `ACTUAL_LABOR_HOURS`, you would make the following changes to the collection views listed below.

- `PA_ADW_ACT_CMT_V`
- `PA_ADW_R_ACT_CMT_V`
- `PA_ADW_R_ST_ACT_CMT_V`

Note: In addition to modifying the related collection views, use OADW windows to delete the related metadata from the OADW repository. For more information about the windows provided by OADW, refer to the *Oracle Applications Data Warehouse User's Guide*.

```
CREATE OR REPLACE VIEW PA_ADW_ACT_CMT_V
(
  PROJECT_ID,
  TOP_TASK_ID,
  TASK_ID,
  PA_PERIOD_KEY,
  EXPENSE_ORGANIZATION_ID,
  OWNER_ORGANIZATION_ID,
  RESOURCE_LIST_MEMBER_ID,
  SERVICE_TYPE_CODE,
  EXPENDITURE_TYPE,
  USER_COL1,
  USER_COL2,
  USER_COL3,
```

```

USER_COL4 ,
USER_COL5 ,
USER_COL6 ,
USER_COL7 ,
USER_COL8 ,
USER_COL9 ,
USER_COL10 ,
ACCUME_REVENUE ,
ACCUME_RAW_COST ,
ACCUME_BURDENED_COST ,
ACCUME_QUANTITY ,
ACCUME_LABOR_HOURS ,
ACCUME_BILLABLE_RAW_COST ,
ACCUME_BILLABLE_BURDENED_COST ,
ACCUME_BILLABLE_QUANTITY ,
ACCUME_BILLABLE_LABOR_HOURS ,
ACCUME_CMT_RAW_COST ,
ACCUME_CMT_BURDENED_COST ,
ACCUME_CMT_QUANTITY ,
UNIT_OF_MEASURE ,
RES_ADW_NOTIFY_FLAG ,
TXN_ADW_NOTIFY_FLAG
) AS
SELECT
PROJECT_ID ,
TOP_TASK_ID ,
TASK_ID ,
PA_PERIOD_KEY ,
EXPENSE_ORGANIZATION_ID ,
OWNER_ORGANIZATION_ID ,
RESOURCE_LIST_MEMBER_ID ,
SERVICE_TYPE_CODE ,
EXPENDITURE_TYPE ,
USER_COL1 ,
USER_COL2 ,
USER_COL3 ,
USER_COL4 ,
USER_COL5 ,
USER_COL6 ,
USER_COL7 ,
USER_COL8 ,
USER_COL9 ,
USER_COL10 ,
ACCUME_REVENUE ,

```

```

ACCUME_RAW_COST,
ACCUME_BURDENED_COST,
ACCUME_QUANTITY,
NULL, /* Disabled Measure ACCUME_LABOR_HOURS, */
ACCUME_BILLABLE_RAW_COST,
ACCUME_BILLABLE_BURDENED_COST,
ACCUME_BILLABLE_QUANTITY,
ACCUME_BILLABLE_LABOR_HOURS,
ACCUME_CMT_RAW_COST,
ACCUME_CMT_BURDENED_COST,
ACCUME_CMT_QUANTITY,
UNIT_OF_MEASURE,
RES_ADW_NOTIFY_FLAG,
TXN_ADW_NOTIFY_FLAG
FROM
  PA_ADW_ACT_CMT_B_V;
CREATE OR REPLACE VIEW PA_ADW_R_ACT_CMT_V
(
  PROJECT_ID,
  TOP_TASK_ID,
  TASK_ID,
  PA_PERIOD_KEY,
  EXPENSE_ORGANIZATION_ID,
  OWNER_ORGANIZATION_ID,
  RESOURCE_LIST_MEMBER_ID,
  SERVICE_TYPE_CODE,
  EXPENDITURE_TYPE,
  USER_COL1,
  USER_COL2,
  USER_COL3,
  USER_COL4,
  USER_COL5,
  USER_COL6,
  USER_COL7,
  USER_COL8,
  USER_COL9,
  USER_COL10,
  ACCUME_REVENUE,
  ACCUME_RAW_COST,
  ACCUME_BURDENED_COST,
  ACCUME_QUANTITY,
  ACCUME_LABOR_HOURS,
  ACCUME_BILLABLE_RAW_COST,
  ACCUME_BILLABLE_BURDENED_COST,

```

```

ACCUME_BILLABLE_QUANTITY,
ACCUME_BILLABLE_LABOR_HOURS,
ACCUME_CMT_RAW_COST,
ACCUME_CMT_BURDENED_COST,
ACCUME_CMT_QUANTITY,
UNIT_OF_MEASURE,
RES_ADW_NOTIFY_FLAG,
TXN_ADW_NOTIFY_FLAG,
TSK_ADW_NOTIFY_FLAG
) AS
SELECT
PROJECT_ID,
TOP_TASK_ID,
TASK_ID,
PA_PERIOD_KEY,
EXPENSE_ORGANIZATION_ID,
OWNER_ORGANIZATION_ID,
RESOURCE_LIST_MEMBER_ID,
SERVICE_TYPE_CODE,
EXPENDITURE_TYPE,
USER_COL1,
USER_COL2,
USER_COL3,
USER_COL4,
USER_COL5,
USER_COL6,
USER_COL7,
USER_COL8,
USER_COL9,
USER_COL10,
ACCUME_REVENUE,
ACCUME_RAW_COST,
ACCUME_BURDENED_COST,
ACCUME_QUANTITY,
NULL, /* Disabled Measure ACCUME_LABOR_HOURS, */
ACCUME_BILLABLE_RAW_COST,
ACCUME_BILLABLE_BURDENED_COST,
ACCUME_BILLABLE_QUANTITY,
ACCUME_BILLABLE_LABOR_HOURS,
ACCUME_CMT_RAW_COST,
ACCUME_CMT_BURDENED_COST,
ACCUME_CMT_QUANTITY,
UNIT_OF_MEASURE,
RES_ADW_NOTIFY_FLAG,

```

```

        TXN_ADW_NOTIFY_FLAG,
        TSK_ADW_NOTIFY_FLAG
FROM
    PA_ADW_R_ACT_CMT_B_V;
CREATE OR REPLACE VIEW PA_ADW_R_ST_ACT_CMT_V
(
    PROJECT_ID,
    TOP_TASK_ID,
    TASK_ID,
    PA_PERIOD_KEY,
    EXPENSE_ORGANIZATION_ID,
    OWNER_ORGANIZATION_ID,
    RESOURCE_LIST_MEMBER_ID,
    SERVICE_TYPE_CODE,
    EXPENDITURE_TYPE,
    USER_COL1,
    USER_COL2,
    USER_COL3,
    USER_COL4,
    USER_COL5,
    USER_COL6,
    USER_COL7,
    USER_COL8,
    USER_COL9,
    USER_COL10,
    ACCUME_REVENUE,
    ACCUME_RAW_COST,
    ACCUME_BURDENED_COST,
    ACCUME_QUANTITY,
    ACCUME_LABOR_HOURS,
    ACCUME_BILLABLE_RAW_COST,
    ACCUME_BILLABLE_BURDENED_COST,
    ACCUME_BILLABLE_QUANTITY,
    ACCUME_BILLABLE_LABOR_HOURS,
    ACCUME_CMT_RAW_COST,
    ACCUME_CMT_BURDENED_COST,
    ACCUME_CMT_QUANTITY,
    UNIT_OF_MEASURE,
    RES_ADW_NOTIFY_FLAG,
    TXN_ADW_NOTIFY_FLAG,
    TSK_ADW_NOTIFY_FLAG
) AS
SELECT
    PROJECT_ID,

```

```

TOP_TASK_ID,
TASK_ID,
PA_PERIOD_KEY,
EXPENSE_ORGANIZATION_ID,
OWNER_ORGANIZATION_ID,
RESOURCE_LIST_MEMBER_ID,
SERVICE_TYPE_CODE,
EXPENDITURE_TYPE,
USER_COL1,
USER_COL2,
USER_COL3,
USER_COL4,
USER_COL5,
USER_COL6,
USER_COL7,
USER_COL8,
USER_COL9,
USER_COL10,
ACCUME_REVENUE,
ACCUME_RAW_COST,
ACCUME_BURDENED_COST,
ACCUME_QUANTITY,
ACCUME_LABOR_HOURS,
NULL, /* Disabled Measure ACCUME_LABOR_HOURS, */
ACCUME_BILLABLE_RAW_COST,
ACCUME_BILLABLE_BURDENED_COST,
ACCUME_BILLABLE_QUANTITY,
ACCUME_BILLABLE_LABOR_HOURS,
ACCUME_CMT_RAW_COST,
ACCUME_CMT_BURDENED_COST,
ACCUME_CMT_QUANTITY,
UNIT_OF_MEASURE,
RES_ADW_NOTIFY_FLAG,
TXN_ADW_NOTIFY_FLAG,
TSK_ADW_NOTIFY_FLAG
FROM
PA_ADW_R_ST_ACT_CMT_B_V;

```

Creating a Measure

To create a measure, you must modify the related fact table collection views. For example, to create the measure

ACCUME_BURDENED_COST-ACCUME_RAW_COST, you would make the following changes to the collection views listed below.

- PA_ADW_ACT_CMT_V
- PA_ADW_R_ACT_CMT_V
- PA_ADW_R_ST_ACT_CMT_V

Note: In addition to modifying the related collection views, use OADW windows to add related metadata to the OADW repository. For more information about the windows provided by OADW, refer to the *Oracle Applications Data Warehouse User's Guide*.

```
CREATE OR REPLACE VIEW PA_ADW_ACT_CMT_V
(
  PROJECT_ID,
  TOP_TASK_ID,
  TASK_ID,
  PA_PERIOD_KEY,
  EXPENSE_ORGANIZATION_ID,
  OWNER_ORGANIZATION_ID,
  RESOURCE_LIST_MEMBER_ID,
  SERVICE_TYPE_CODE,
  EXPENDITURE_TYPE,
  USER_COL1,
  USER_COL2,
  USER_COL3,
  USER_COL4,
  USER_COL5,
  USER_COL6,
  USER_COL7,
  USER_COL8,
  USER_COL9,
  USER_COL10,
  ACCUME_REVENUE,
  ACCUME_RAW_COST,
  ACCUME_BURDENED_COST,
  ACCUME_QUANTITY,
  ACCUME_LABOR_HOURS,
  ACCUME_BILLABLE_RAW_COST,
  ACCUME_BILLABLE_BURDENED_COST,
  ACCUME_BILLABLE_QUANTITY,
  ACCUME_BILLABLE_LABOR_HOURS,
  ACCUME_CMT_RAW_COST,
  ACCUME_CMT_BURDENED_COST,
```

```

        ACCUME_CMT_QUANTITY ,
        UNIT_OF_MEASURE ,
        RES_ADW_NOTIFY_FLAG ,
        TXN_ADW_NOTIFY_FLAG
    ) AS
SELECT
    PROJECT_ID ,
    TOP_TASK_ID ,
    TASK_ID ,
    PA_PERIOD_KEY ,
    EXPENSE_ORGANIZATION_ID ,
    OWNER_ORGANIZATION_ID ,
    RESOURCE_LIST_MEMBER_ID ,
    SERVICE_TYPE_CODE ,
    EXPENDITURE_TYPE ,
    USER_COL1 ,
    USER_COL2 ,
    USER_COL3 ,
    USER_COL4 ,
    USER_COL5 ,
    ACCUME_BURDENED_COST - ACCUME_RAW_COST, /* New measure
USER_COL6 , */
    USER_COL7 ,
    USER_COL8 ,
    USER_COL9 ,
    USER_COL10 ,
    ACCUME_REVENUE ,
    ACCUME_RAW_COST ,
    ACCUME_BURDENED_COST ,
    ACCUME_QUANTITY ,
    ACCUME_LABOR_HOURS ,
    ACCUME_BILLABLE_RAW_COST ,
    ACCUME_BILLABLE_BURDENED_COST ,
    ACCUME_BILLABLE_QUANTITY ,
    ACCUME_BILLABLE_LABOR_HOURS ,
    ACCUME_CMT_RAW_COST ,
    ACCUME_CMT_BURDENED_COST ,
    ACCUME_CMT_QUANTITY ,
    UNIT_OF_MEASURE ,
    RES_ADW_NOTIFY_FLAG ,
    TXN_ADW_NOTIFY_FLAG
FROM
    PA_ADW_ACT_CMT_B_V ;

```

```

CREATE OR REPLACE VIEW PA_ADW_R_ACT_CMT_V
(
    PROJECT_ID,
    TOP_TASK_ID,
    TASK_ID,
    PA_PERIOD_KEY,
    EXPENSE_ORGANIZATION_ID,
    OWNER_ORGANIZATION_ID,
    RESOURCE_LIST_MEMBER_ID,
    SERVICE_TYPE_CODE,
    EXPENDITURE_TYPE,
    USER_COL1,
    USER_COL2,
    USER_COL3,
    USER_COL4,
    USER_COL5,
    USER_COL6,
    USER_COL7,
    USER_COL8,
    USER_COL9,
    USER_COL10,
    ACCUME_REVENUE,
    ACCUME_RAW_COST,
    ACCUME_BURDENED_COST,
    ACCUME_QUANTITY,
    ACCUME_LABOR_HOURS,
    ACCUME_BILLABLE_RAW_COST,
    ACCUME_BILLABLE_BURDENED_COST,
    ACCUME_BILLABLE_QUANTITY,
    ACCUME_BILLABLE_LABOR_HOURS,
    ACCUME_CMT_RAW_COST,
    ACCUME_CMT_BURDENED_COST,
    ACCUME_CMT_QUANTITY,
    UNIT_OF_MEASURE,
    RES_ADW_NOTIFY_FLAG,
    TXN_ADW_NOTIFY_FLAG,
    TSK_ADW_NOTIFY_FLAG
) AS
SELECT
    PROJECT_ID,
    TOP_TASK_ID,
    TASK_ID,
    PA_PERIOD_KEY,
    EXPENSE_ORGANIZATION_ID,

```

```

OWNER_ORGANIZATION_ID,
RESOURCE_LIST_MEMBER_ID,
SERVICE_TYPE_CODE,
EXPENDITURE_TYPE,
USER_COL1,
USER_COL2,
USER_COL3,
USER_COL4,
USER_COL5,
ACCUME_BURDENED_COST - ACCUME_RAW_COST, /* New measure
USER_COL6, */
USER_COL7,
USER_COL8,
USER_COL9,
USER_COL10,
ACCUME_REVENUE,
ACCUME_RAW_COST,
ACCUME_BURDENED_COST,
ACCUME_QUANTITY,
ACCUME_LABOR_HOURS,
ACCUME_BILLABLE_RAW_COST,
ACCUME_BILLABLE_BURDENED_COST,
ACCUME_BILLABLE_QUANTITY,
ACCUME_BILLABLE_LABOR_HOURS,
ACCUME_CMT_RAW_COST,
ACCUME_CMT_BURDENED_COST,
ACCUME_CMT_QUANTITY,
UNIT_OF_MEASURE,
RES_ADW_NOTIFY_FLAG,
TXN_ADW_NOTIFY_FLAG,
TSK_ADW_NOTIFY_FLAG
FROM
PA_ADW_R_ACT_CMT_B_V;
CREATE OR REPLACE VIEW PA_ADW_R_ST_ACT_CMT_V
(
PROJECT_ID,
TOP_TASK_ID,
TASK_ID,
PA_PERIOD_KEY,
EXPENSE_ORGANIZATION_ID,
OWNER_ORGANIZATION_ID,
RESOURCE_LIST_MEMBER_ID,
SERVICE_TYPE_CODE,
EXPENDITURE_TYPE,

```

```

USER_COL1 ,
USER_COL2 ,
USER_COL3 ,
USER_COL4 ,
USER_COL5 ,
USER_COL6 ,
USER_COL7 ,
USER_COL8 ,
USER_COL9 ,
USER_COL10 ,
ACCUME_REVENUE ,
ACCUME_RAW_COST ,
ACCUME_BURDENED_COST ,
ACCUME_QUANTITY ,
ACCUME_LABOR_HOURS ,
ACCUME_BILLABLE_RAW_COST ,
ACCUME_BILLABLE_BURDENED_COST ,
ACCUME_BILLABLE_QUANTITY ,
ACCUME_BILLABLE_LABOR_HOURS ,
ACCUME_CMT_RAW_COST ,
ACCUME_CMT_BURDENED_COST ,
ACCUME_CMT_QUANTITY ,
UNIT_OF_MEASURE ,
RES_ADW_NOTIFY_FLAG ,
TXN_ADW_NOTIFY_FLAG ,
TSK_ADW_NOTIFY_FLAG
) AS
SELECT
PROJECT_ID ,
TOP_TASK_ID ,
TASK_ID ,
PA_PERIOD_KEY ,
EXPENSE_ORGANIZATION_ID ,
OWNER_ORGANIZATION_ID ,
RESOURCE_LIST_MEMBER_ID ,
SERVICE_TYPE_CODE ,
EXPENDITURE_TYPE ,
USER_COL1 ,
USER_COL2 ,
USER_COL3 ,
USER_COL4 ,
USER_COL5 ,
ACCUME_BURDENED_COST - ACCUME_RAW_COST , /* New measure
USER_COL6 , */

```

```
USER_COL7 ,
USER_COL8 ,
USER_COL9 ,
USER_COL10 ,
ACCUME_REVENUE ,
ACCUME_RAW_COST ,
ACCUME_BURDENED_COST ,
ACCUME_QUANTITY ,
ACCUME_LABOR_HOURS ,
ACCUME_LABOR_HOURS ,
ACCUME_BILLABLE_RAW_COST ,
ACCUME_BILLABLE_BURDENED_COST ,
ACCUME_BILLABLE_QUANTITY ,
ACCUME_BILLABLE_LABOR_HOURS ,
ACCUME_CMT_RAW_COST ,
ACCUME_CMT_BURDENED_COST ,
ACCUME_CMT_QUANTITY ,
UNIT_OF_MEASURE ,
RES_ADW_NOTIFY_FLAG ,
TXN_ADW_NOTIFY_FLAG ,
TSK_ADW_NOTIFY_FLAG
FROM
PA_ADW_R_ST_ACT_CMT_B_V ;
```


B

Sample Reports

This appendix provides a listing of reports that you can create using the standard dimensions, hierarchy levels, and measures predefined by Oracle Project Analysis Collection Pack. You can generate these reports using such tools as Oracle Sales Analyzer and Oracle Express Analyzer. You can also present some of the reports in this chapter as graphs.

Report Listing

The following list includes reports that you can generate using the standard dimensions, hierarchy levels, and measures provided by Oracle Project Analysis Collection Pack. This chapter also provides sample reports, which are included for illustrative purposes only. You may generate a completely different set of reports, depending on your company's reporting and analysis requirements.

- Project Organization View: page B- 3
- Project View by Activity (Service Type): page B- 4
- Project Organization View by Activity (Service Type): page B- 5
- Top 3 Projects with Best Budgeted Cost to Actual Cost Variances: page B- 6
- Bottom 2 Projects with Lowest Revenue: page B- 7
- Top 2 Projects with Highest Revenue: page B- 8
- Margin View: page B- 9

Project Organization View

This report provides the actual raw cost amounts, budgeted raw cost amounts, and variances for project organizations within Vision Corporation. This report displays information for all financial years and for 1997 based on the approved cost budget.

	Vision Services (USA)						
	All Financial Years				1997		
	Actual Raw Cost	Budgeted Raw Cost	Budgeted Cost – Actual Cost	Actual Raw Cost	Budgeted Raw Cost	Budgeted Cost – Actual Cost	
Vision Corporation	577,733.23	659,276.96	81,543.73	547,969.69	658,986.64	111,016.95	
Consulting–East	296,835.40	502,200.00	205,364.60	296,835.40	502,200.00	205,364.60	
Consulting–West	40,080.00	31,077.00	(9,003.00)	40,080.00	31,077.00	(9,003.00)	
Executive Office	220,249.94	36,000.02	(184,249.92)	190,486.40	35,709.70	(154,776.70)	
Information Services	20,567.89	89,999.94	69,432.05	20,567.89	89,999.94	69,432.05	

Project View by Activity (Service Type)

This report provides the total cumulative actual raw cost amounts, budgeted raw cost amounts, and variances for projects of Vision Services (U.S. operations). This report displays information for training activities based on the approved cost budget.

Vision Services (USA)			
Training			
	Actual Raw Cost	Budgeted Raw Cost	Budgeted Cost – Actual Cost
All Project Types	125,873.00	240,677.00	114,804.00
Cost Plus	125,873.00	240,677.00	114,804.00
Project Mars	40,080.00	31,077.00	(9,003.00)
Project Venus	85,793.00	209,600.00	123,807.00

Project Organization View by Activity (Service Type)

This report provides the total cumulative actual raw cost amounts, budgeted raw cost amounts, and variances for project organizations within Vision Services (U.S. operations). This report displays information for training activities based on the approved cost budget

Vision Services (USA)			
Training			
	Actual Raw Cost	Budgeted Raw Cost	Budgeted Cost – Actual Cost
Vision Corporation	125,873.00	240,677.00	114,804.00
Consulting–East	85,793.00	209,600.00	123,807.00
Consulting–West	40,080.00	31,077.00	(9,003.00)

Top 3 Projects with Best Budgeted Cost to Actual Cost Variances

This report identifies the three best performing projects owned by Vision Services (U.S. operations) in terms of the total cumulative variance between budgeted raw costs and actual raw costs based on the approved cost budget.

	Vision Services (USA)
	All Financial Years
	Budgeted Cost – Actual Cost
Project Venus	123,807.00
Project Atlanta	81,557.60
Project San Francisco	69,432.05

Bottom 2 Projects with Lowest Revenue

This report identifies the two worst performing projects owned by Vision Services (U.S. operations) in terms of total cumulative revenue.

	Vision Services (USA)
	All Financial Years
	Revenue
Project Seattle	22,593.03
Project Los Angeles	16,840.15

Top 2 Projects with Highest Revenue

This report identifies the two best performing projects owned by Vision Services (U.S. operations) in terms of total cumulative revenue.

	Vision Services (USA)
	All Financial Years
	Revenue
Project Venus	104,442.80
Project Mars	76,082.75

Margin View

This report provides the actual raw cost amounts versus revenue amounts for project types owned by Vision Services (U.S. operations). This report displays information for all financial years to date and for 1997.

	Vision Services (USA)					
	All Financial Years			1997		
	Actual Raw Cost	Revenue	Revenue vs. Cost	Actual Raw Cost	Revenue	Revenue vs. Cost
All Project Types	577,733.23	180,525.55	(397,207.68)	547,969.69	180,525.55	(367,444.14)
Construction	208,049.94	0.00	(208,049.94)	184,686.40	0.00	(184,686.40)
Project Chicago	208,049.94	0.00	(208,049.94)	184,686.40	0.00	(184,686.40)
Cost Plus	125,873.00	180,525.55	54,652.55	125,873.00	180,525.55	54,652.55
Project Mars	40,080.00	76,082.75	36,002.75	40,080.00	76,082.75	36,002.75
Project Venus	85,793.00	104,442.80	18,649.80	85,793.00	104,442.80	18,649.80
Overhead	12,200.00	0.00	(12,200.00)	5,800.00	0.00	(5,800.00)
Project New York	12,200.00	0.00	(12,200.00)	5,800.00	0.00	(5,800.00)
R & D	211,042.40	0.00	(211,042.40)	211,042.40	0.00	(211,042.40)
Project Atlanta	211,042.40	0.00	(211,042.40)	211,042.40	0.00	(211,042.40)
Service Center	20,567.89	0.00	(20,567.89)	20,567.89	0.00	(20,567.89)
Project San Francisco	20,567.89	0.00	(20,567.89)	20,567.89	0.00	(20,567.89)

Glossary

activity type See *service type*.

ad hoc Concerned with or formed for a particular purpose. For example, ad hoc tax codes or an ad hoc database query.

baseline budget The authorized budget for a project or task which is used for performance reporting and revenue calculation.

business group The highest level of organization and the largest grouping of employees across which a company can report. A business group can correspond to an entire company, or to a specific division within the company. Each installation of Oracle Projects uses one business group with one hierarchy.

class category An implementation-defined category for classifying projects. For example, if you want to know the market sector to which a project belongs, you can define a class category with a name such as *Market Sector*. Each class category has a set of values (class codes) that can be chosen for a project. See *class code*.

class code An implementation-defined value within a class category that can be used to classify a project. See *class category*.

collection Method to gather data from source system.

collection definition Used to generate the collection program for each source, defines objects and attributes to collect, events to cause collection, and filters on objects collected.

collection mapping Defines the relationship from source tables and columns to interface tables and columns.

collection package Populates OADW interface cubes from source data. Collection packages may be generated by OADW through maps defined in the OADW Repository metadata, or may be hard-coded programs that you develop.

cube Logical unit of storage in the Data Warehouse, manifested as tables in the database, has measures, keys, and foreign keys. Cube properties are dimensions, measures, and attributes. Dimensions are the equivalents of keys to a table, and measures and attributes are the equivalents of columns to a table.

cube mapping Used to specify how a logical cube is physically stored in tables.

data warehouse A copy of transaction data specifically structured for query and analysis. A data warehouse collects data from core operational applications, summarizes, compiles, or translates the

collected data, and makes the data available from a central store.

denormalize Allows redundancy in a table so that the table can remain flat.

derived measures Measures collected from the sources are used to derive other measures. An example is discount, which is derived from the difference between list price and selling price.

dimension One of the edges of a multidimensional cube, an independent entity in the model that serves as an entry point or as a mechanism for slicing additive measures.

dimension value cube Physically, the set of values for a dimension and the parentage information for hierarchies is stored in the dimension value cube.

drilldown A software feature that allows you to view the details of an item in the current window via a window in a different application.

expenditure category An implementation-defined grouping of expenditure types by type of cost. For example, an expenditure category with a name such as *Labor* refers to the cost of labor.

expenditure organization For timecards and expense reports, the organization to which the incurring employee is assigned, unless overridden by organization overrides. For usage, supplier invoices, and purchasing commitments, the incurring organization entered on the expenditure.

expenditure type An implementation-defined classification of cost that you assign to each expenditure item. Expenditure types are grouped into cost groups (expenditure categories) and revenue groups (revenue categories).

filter Conditions and parameters used to selectively collect data from the source. OADW will pre-define some filters for each Oracle application.

foreign key A field in a relational database table whose values are drawn from the values of a primary key in another table.

GL Date The end date of the GL Period in which costs or revenue are transferred to Oracle General Ledger. This date is determined from the open or future GL Period on or after the PA Date of a cost distribution line or revenue. For invoices, the GL Date is the date within the GL Period on which an invoice is transferred to Oracle Receivables, and is based on the invoice date.

hierarchy Rules to navigate or roll up data between levels of a dimension, represents a logical view into the data.

installed module An application which identifies the location information, database schema, and database link. An installed module is a source application, a Designer/2000 repository, the OADW Repository, or the OADW Warehouse. All installed modules reside in a particular database system. Installed modules should be accessible by both the OADW

Repository and OADW Warehouse through a database link.

interface table Point of entry of all source data into OADW. Interface tables can be fed from multiple sources including Oracle Applications, legacy data, and user-defined data. Interface tables feed OADW data cubes, and may be purged after data has been moved.

legal entity An organization that represents a legal company for which you prepare fiscal or tax reports. You assign tax identifiers and other relevant information to this entity.

measure Equivalent to all non-key elements of a cube.

measure type Named measures defined by data type, length, and decimal places.

metadata Data about data, maintained to support the operations or use of the data warehouse. Types of metadata are source system metadata, collection metadata, analysis metadata, security metadata, and reporting metadata.

normalize The process of removing redundancy in data by separating the data into multiple tables.

OADW repository Stores the metadata, logical warehouse design, level cubes, and dimension value cubes.

OADW warehouse Stores data cubes and dimension value cubes.

OLAP On line analytical processing. OLAP is a loosely defined set of principles that

provide a dimensional framework for decision support.

OLTP On line transaction processing. The original description for all the activities and systems associated with entering data reliably into a database.

operating unit An organization that partitions data for subledger products (AP, AR, PA, PO, OE). It is roughly equivalent to a single pre-Multi-Org installation.

organization Internal organizations are divisions, groups, cost centers or other organizational units in a company. External organizations can include the contractors your company employs. Organizations can be used to demonstrate ownership or management of functions such as projects and tasks, non-labor resources, and bill rate schedules.

organization hierarchy An organizational hierarchy illustrates the relationships between your organizations. A hierarchy determines which organizations are subordinate to other organizations. The topmost organization of an organization hierarchy is generally the business group.

organization structure See *organization hierarchy*.

PA Date The end date of the PA Period in which costs are distributed, revenue is created, or an invoice is generated. This date is determined from the open or future PA Period on or after the latest date of expenditure item dates and event completion dates included in a cost distribution line, revenue, or an invoice.

PA Period See *Project Accounting Period*.

PA Period Type The Period Type as specified in the PA implementation options for Oracle Projects to copy project accounting periods. Oracle Projects uses the periods in the PA Period Type to populate each Operating Unit's PA periods. PA periods are mapped to GL periods which are used when generating accounting transactions. PA periods drive the project summary for Project Status Inquiry. You define your accounting periods in the Operating Unit's Set of Books Calendar.

primary key A field in the table that is unique for each record in the table.

process responsibility type An implementation-defined name to which a group of reports and processes are assigned. This group of reports and processes is then assigned to an Oracle Projects responsibility. A process responsibility type gives a user access to Oracle Projects reports and programs appropriate to that user's job. For example, the process responsibility type Data Entry could be a set of reports used by data entry clerks. See *responsibility*.

project A unit of work that can be broken down into one or more tasks. A project is the unit of work for which you specify revenue and billing methods, invoice formats, a managing organization and project manager, and bill rate schedules. You can charge costs to a project, and you can generate and maintain revenue, invoice, unbilled receivable, and unearned revenue information for a project.

Project Accounting Period An implementation-defined period against which project performance may be measured. Also referred to as *PA Periods*. You define project accounting periods to track project accounting data on a periodic basis by assigning a start date, end date, and closing status to each period. Typically, you define project accounting periods on a weekly basis, and your general ledger periods on a monthly basis.

project operating unit The operating unit within which the project is created.

project/task organization The Organization that owns the project or task. This can be any organization in the LOV (list of values) for the project setup. The Project/Task Organization LOV contains organizations of the Project/Task Organization Type in the Organization Hierarchy and Version below the Start Organization. You specify your Start Organization and Version in the Implementation Options window.

project type An implementation-defined template that consists of essential project attributes such as whether a project is direct or indirect, a project's default revenue distribution rule and bill rate schedules, and whether a project burdens costs. For example, you can define a project type with a name such as *Time and Materials* for all projects that are based on time and materials contracts.

Project/Task Organization The Organization that owns the project or task.

report An organized display of Oracle Applications information. A report can be viewed online or sent to a printer. The content of information in a report can range from a summary to a complete listing of values.

reporting metadata Data relating to reporting, such as report definitions.

resource A user-defined group of employees, organizations, jobs, suppliers, expenditure categories, revenue categories, expenditure types, or event types for purposes of defining budgets or summarizing actuals.

responsibility A level of authority in an application. Each responsibility lets you access a specific set of Oracle Applications windows, menus, reports, and data to fulfill your role in an organization. Several users can share the same responsibility, and a single user can have multiple responsibilities.

responsibility type See *process responsibility type*.

revenue In Oracle Projects, the amounts recognized as income or expected billing to be received for work on a project.

rollup cube Computes rollups beyond the first level across all hierarchies of all dimensions of the cube.

rollup transform Specifies how rollups are computed to summarize the source data into a parent hierarchy level, can be intra-cube or inter-cube.

row One occurrence of the information displayed in the fields of a block. A block may show only one row of information at a time, or it may display several rows of information at once, depending on its layout. The term "row" is synonymous with the term "record".

service type An implementation-defined classification of the type of work performed on a task.

set of books A financial reporting entity that uses a particular chart of accounts, functional currency and accounting calendar. You must define at least one set of books for each business location.

short name A unique identifier that is used as the root name for all related objects created in OADW. For example, the dimension short name CUST is the root name for related objects such as cubes and interface tables and must be unique. Short names are not translated, cannot include blank spaces, can contain only alphanumeric characters (a-z and 0-9), the dollar sign (\$), the pound sign (#), and the underscore character (_), and are limited to a maximum of 17-22 characters depending on the object type.

simple mapping Mapping one cube to one table, cube keys and measures are mapped to table columns.

slice and dice The standard description of the ability to access a data warehouse through any of its dimensions equally.

star schema A specific organization of a database in which a central fact table has multiple joins connecting it to other dimension tables, each with a single join

connected to the central fact table. Also called a "star join schema".

subtask A hierarchical unit of work. Subtasks are any tasks that you create under a parent task. Child subtasks constitute the lowest level of your work breakdown structure; where Oracle Projects looks when processing task charges and for determining task revenue accrual amounts. See *task*.

summarization Processing a project's cost, revenue, commitment, and budget information to be displayed in the Project, Task, and Resource Project Status windows. You must distribute costs for any expenditure items, accrue and release any revenue, create any commitments, and baseline a budget for your project before you can view summary project amounts. Formerly known as **accumulation**.

task A subdivision of project work. Each project can have a set of top level tasks and a hierarchy of subtasks below each top level task. See also *work breakdown structure*, *subtask*.

task organization The organization that is assigned to manage the work on a task.

task service type See *service type*.

unit of measure A unit of measure records quantities or amounts of an expenditure item. For example, if you specify the unit *Miles* when you define an expenditure type for personal car use, Oracle Projects calculates the cost of using a personal car by mileage.

window A box around a set of related information on your screen. Many windows can appear on your screen simultaneously and can overlap or appear adjacent to each other. Windows can also appear embedded in other windows. You can move a window to a different location on your screen.

work breakdown structure (WBS) The breakdown of project work into tasks. These tasks can be broken down further into subtasks, or hierarchical units of work.

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