Oracle® Process Manufacturing

Cost Management User's Guide Release 11*i* Part No. A77485-10

November 2004



Oracle Process Manufacturing Cost Management User's Guide, Release 11i

Part No. A77485-10

Copyright © 1999, 2004 Oracle. All rights reserved.

Primary Authors: Sudha Seshadri

Contributors: Rajesh Seshadri, Uday Moogala, Sukarna Chinchod, Gina Walsh

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Contents

Send Us Your Comments		xi	
Pr	Preface xi		
1	Overview		
	OPM Cost Development Area	1-2	
	Cost Monitoring and Simulations	1-2	
	Defining Costs	1-3	
	Establishing Standard Costing and Actual Costing		
	Standard Costing	1-5	
	Actual Costing		
	Calculating Activity-Based Costing	1-7	
	Allocating General Ledger Expense	1-7	
	Assigning Value to Inventory Transactions	1-9	
	Manufacturing Costs Over Time	1-10	
	Revaluing Inventory Cost	1-12	
	Valuing Inventory in Production	1-14	
	Calculating Purchase Price Variance on Purchase Orders	1-15	
	Freezing Costs for the General Ledger	1-16	
	Valuing Inventory for Sales Orders	1-17	

2 Costing Setup

Defining Cost Methods	2-2
Standard Costing	2-2
Actual Costing	2-3
Entering Cost Method Codes Procedure	2-5
Cost Method Codes Field Reference	2-5
Defining Cost Calendars	2-8
Defining Cost Calendar Procedure	. 2-8
Cost Calendar Field Reference	2-8
Flexibility in Restricting Cost Updates	2-10
Cost Calendar - Additional Menu Features	2-11
Defining Cost Component Classes	2-12
Cost Component Class Manipulation Examples	2-12
Defining Cost Component Classes Procedure	2-12
Cost Component Classes Field Reference	2-13
Indirect Component Processing for Standard Costing	2-15
Indirect Component Processing for Standard Costing Procedure	2-15
Defining Cost Analysis Codes	2-16
Defining Cost Analysis Code Procedure	2-16
Cost Analysis Code Field Reference	2-17
Defining Component Groups	2-18
Defining Component Group Procedure	2-18
Component Groups Field Reference	2-18
Defining Costing Warehouse Associations	2-19
Defining Costing Warehouse Association Procedure	2-19
Costing Warehouse Association Field Reference	2-19
Defining General Ledger Fiscal Policy	2-21
Defining Percentage Burden Codes	2-22
Defining Percentage Burden Codes Procedure	2-22
Percentage Burden Codes Field Reference	2-22
Defining Burden Priorities	2-24
Defining Burden Priorities Procedure	2-24
Burden Priorities Field Reference	2-24

	Defining Burden Percentage	2-26
	Defining Burden Percentage Procedure	2-26
	Burden Percentage Field Reference	2-26
	Defining Source and Target Percentage Burden Components (Associations)	2-28
	Defining Source and Target Percentage Burden Components Procedure	2-28
	Source and Target Percentage Burden Components Field Reference	2-29
	Copying Burden Percentage	2-30
	Copying Percentage Burden Procedure	2-30
	Copy Percentage Burdens Field Reference	2-30
	Defining Acquisition Cost Codes	2-33
3	Standard Costing Setup	
	Defining Standard Item Costs	3-2
	Cost Detail Window - Format	3-2
	Defining Standard Costs for New Items or Ingredients	3-3
	Cost Detail Window Prerequisites	3-3
	Defining Cost Details Procedure	3-3
	Cost Details Field Reference	3-4
	Cost Details Window Menu Features	3-7
	Defining Resource Costs	3-8
	Defining Resource Cost Procedure	3-8
	Resource Costs Field Reference	3-8
	Selecting Resource Cost	3-10
	Selecting Resource Cost Procedure	3-10
	Resource Cost Field Reference	3-10
	Getting Resource Cost List	3-11
	Getting Resource Cost List Procedure	3-11
	Resource Cost List Field Reference	
	Defining Cost Burdens	3-13
	Defining Cost Burdens Procedure	3-14
	Cost Burdens Details Field Reference	
	Defining Rollup Source Warehouses	
	Defining Rollup Source Warehouse Procedure	
	Rollup Source Warehouse Field Reference	3-18

	Defining Rollup Target Warehouses	3-20
	Defining Rollup Target Warehouse Procedure	3-20
	Rollup Target Warehouse Field Reference	3-20
4	Standard Cost Calculations	
	Standard Cost Rollup Prerequisites	4-2
	Calculating Standard Costs	4-3
	Calculating Standard Cost Rollup Procedure	4-6
	Start Cost Rollup Field Reference	4-6
	Cost Rollup Error Messages	4-8
	Cost Rollup window - Additional Menu Features	4-9
	Viewing Standard Costs	4-10
	Viewing Item Costs	4-11
	Viewing Item Costs Procedure	4-11
	Item Cost Selection Field Reference	4-11
	Item Cost List Field Reference	4-12
	Viewing Cost Burdens	4-13
	Viewing Cost Burdens Procedure	4-13
	Cost Burdens Field Reference	4-13
	Viewing Formula Costs	4-15
	Viewing Formula Costs Procedure	4-15
	Formula Detail Field Reference	4-15
	Viewing Routing Costs	4-17
	Prerequisites	4-17
	Viewing Routing Costs Procedure	4-17
	Routing Detail Field Reference	4-18
5	Actual Costing Setup	
	Accrued General Ledger Cost Allocations	5-2
	Defining Adjustment Reason Codes	5-3
	Defining Actual Costs Adjustment Codes Procedure	5-3
	Actual Cost Adjustment Codes Field Reference	5-3
	Defining Allocation Codes	5-4
	Defining Allocation Codes Procedure	5-4
	Define Allocation Codes window Field Reference	5-4

	Defining Allocation Definitions	. 5-5
	Defining Allocation Definition Procedure	. 5-5
	Allocation Definition Field Reference	. 5-5
	Defining Expense Allocation Accounts	. 5-9
	Defining Allocation Accounts Procedure	. 5-9
	Expenses to Allocate Field Reference	. 5-9
	Using Material Component Classes/Analysis Codes	5-11
	Using Material Component Classes/Analysis Codes Procedure	5-11
	Item/Item Cost Class Specific Material Cost Component and	
	Analysis Code Field Reference	5-11
6	Actual Cost Calculations	
	Actual Cost Prerequisites	. 6-2
	Processing Cost Allocations	. 6-3
	Processing Cost Allocation Procedure	. 6-3
	Cost Allocation Processing Field Reference	. 6-3
	Cost Allocation Processing - Additional Menu Features	. 6-5
	Calculate Actual Costs	. 6-6
	Actual Cost Process Changes for Oracle Purchasing for Process Inventory	. 6-6
	Actual Cost Process Changes for Process Execution	. 6-6
	Raw Material Costs	
	Costing Modifications for Inventory Transfer	6-10
	Inventory Transfer of Products	6-13
	Actual Cost Support for Inventory Movements	6-18
	Production Batch Costs	6-19
	Burden Cost Details	6-19
	GL Expense Allocation Costs	6-20
	GL Expense Allocation Calculation	6-20
	Product Costs	6-22
	Viewing Actual Cost Processing Status	
	Viewing Actual Cost Processing Status Procedure	6-26
	Start Actual Cost Process Field Reference	
	Actual Cost Process Field Reference	
	Actual Cost Error Messages	
	Actual Cost Process - Additional Menu Features	6-29

	Using Actual Cost Adjustments	6-31
	Using Actual Cost Adjustments Procedure	6-31
	Actual Cost Adjustment Field Reference	6-31
	Actual Cost Adjustments - Additional Menu Features	6-33
	Zero Activity/Quantity Adjustments in Actual Costing	6-33
	Maintaining Invoice Prices	6-37
	Maintaining Invoice Price Procedure	6-37
	Invoice Price Maintenance Field Reference	6-37
	Viewing Actual Costs	6-40
	Viewing Item Cost List	6-41
	Viewing Item Cost List Procedure	6-41
	Item Cost Selection Field Reference	6-41
	Item Cost List Field Reference	6-42
	Viewing Burden Cost Details	6-43
	Viewing Burden Cost Details Procedure	6-43
	Burden Cost Details Field Reference	6-43
	Viewing Routing Costs	6-45
	Prerequisites	6-45
	Viewing Routing Costs Procedure	6-45
	Routing Detail Field Reference	6-45
	Viewing Actual Cost Transactions	6-47
	Viewing Actual Cost Calculations Procedure	6-47
	Actual Cost Transactions View Field Reference	6-48
7	Lot Costing	
	Frequently Asked Questions	. 7-2
	Understanding Lot Costing	7-11
	Setting Up Lot Cost Items	7-12
	Defining Lot Cost Burdens	7-13
	Running the Lot Actual Cost Process	7-15
	Viewing Lot Costs	7-17
	Lot Cost Details Window Menu Features	7-18
	Using Lot Cost Adjustments	7-19
	OPM Item Lot Cost Detail Report	7-21

	OPM Lot Cost History Report	7-23
	Lot Costing Examples	7-25
8	Freezing Cost for General Ledger	
	Updating Costs	8-2
	Updating Costs Procedure	8-2
	Start Cost Update Field Reference	8-3
	Cost Update Error Messages Field Reference	8-4
	Cost Update Window - Additional Menu Features	8-5
	Adding or Modifying Expense Allocation Costing Data	8-6
	Adding or Modifying GL Cost Data Procedure	8-6
	Cost Allocation GL Account Maintenance Field Reference	8-6
9	Non Iterative Cost Processing	
	Copying Costs	9-2
	Copying Item Costs Procedure	9-2
	Copy Item Costs Field Reference	9-2
	Copying Costs Examples	9-5
	Copying Resource Costs	9-8
	Copying Resource Costs Procedure	9-8
	Copy Resource Costs Field Reference	9-9
10	Period-End Cost Processing	
	Standard Cost Period-End Processing	10-2
	Run Cost Rollup	10-3
	Run Preliminary Update/Freeze Costs for General Ledger	10-3
	Close Inventory Calendar Period	10-3
	Run Final Cost Update	10-4
	Actual Cost Period-End Processing	10-5
	Close Inventory Calendar Period	10-6
	Calculate Actual Costs	10-6
	Run Preliminary Update/Freeze Costs for General Ledger	10-7
	Run Final Cost Update	10-7

11 Cost Management Reports

	Item Cost Detail Report	. 11-2
	Submitting the Report	. 11-2
	Selected Report Parameters	. 11-2
	Actual Cost Adjustments Report	. 11-4
	Submitting the Report	. 11-4
	Selected Report Parameters	. 11-4
	GL Expense Allocation Definition Report	. 11-6
	Submitting the Report	. 11-6
	Selected Report Parameters	. 11-6
	GL Expense Allocation Detail Report	. 11-7
	Submitting the Report	. 11-7
	Selected Report Parameters	. 11-7
	Cost Warehouse Association Report	. 11-8
	Submitting the Report	. 11-8
	Selected Report Parameters	. 11-8
	GL Item Cost Detail Report	. 11-9
	Submitting the Report	. 11-9
	Selected Report Parameters	. 11-9
	Costed Receiving Report	11-11
	Inventory Valuation Report	11-11
	Batch Yield Variance Report	11-11
	Material Usage and Substitution Variance Report	11-11
Α	Navigation Path	
	Cost Management Navigator Paths	A-2
	Setting Cost Management Profile Options	
В	Acquisition Costs	
	Support Acquisition Cost in Oracle Purchasing for Process Inventory	B-2
	Required Setup	B-2
	Actual Cost Process Changes	B-5
	Subledger Update Changes	B-6
	Examples	B-6

Glossary

Index

Send Us Your Comments

Oracle Process Manufacturing Cost Management User's Guide, Release 11*i* Part No. A77485-10

Oracle welcomes your comments and suggestions on the quality and usefulness of this document. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most?

If you find any errors or have any other suggestions for improvement, please indicate the document title and part number, and the chapter, section, and page number (if available). You can send comments to us in the following ways:

- Electronic mail: appsdoc_us@oracle.com
- FAX: (650) 506-7200 Attn: Oracle Applications Documentation Manager
- Postal service:

Oracle Corporation Oracle Applications Documentation Manager 500 Oracle Parkway Redwood Shores, CA 94065 USA

If you would like a reply, please give your name, address, telephone number, and (optionally) electronic mail address.

If you have problems with the software, please contact your local Oracle Support Services.

Preface

Welcome to the Oracle Process Manufacturing Cost Management User's Guide, Release 11*i*.

This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Oracle Receivables and Oracle Process Manufacturing.
 - If you have never used Oracle Process Manufacturing, Oracle suggests you attend one or more of the Oracle Applications training classes available through Oracle University.
- Oracle Self-Service Web Applications.
 - To learn more about Oracle Self-Service Web Applications, read the *Oracle Self-Service Web Applications Implementation Manual*.
- The Oracle Applications graphical user interface.
 - To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

See Other Information Sources for more information about Oracle Applications product information.

How To Use This Guide

The Oracle Process Manufacturing Cost Management User's Guide contains the information you need to understand and use Oracle Process Manufacturing Cost Management application. This guide contains the following:

- Chapter 1, describes an overview of Cost Management.
- Chapter 2, describes procedures and values that you must define before using the Costing application.
- Chapter 3, describes how to define the standard component costs for production items.
- Chpater 4, describes how to rollup the standard costs of components into product costs whenever standard item cost components have been changed.
- Chapter 5, describes how to define adjustment reasons, allocation codes, and expense allocation accounts.
- Chapter 6, describes the procedures for generating actual costs and making adjustments to the costs that OPM calculates.
- Chapter 7, describes how to update (book) item component costs in preparation for export to the proper general ledger accounts.
- Chapter 8, describes how to set up and run lot costing.
- Chapter 9, describes the processing that you will perform on a noniterative basis.
- Chapter 10, provides an outline for period-end processing of standard component costs and actual component costs.
- Chapter 11, describes the available costing reports.
- Appendix A, describes how to navigate to each window and the profile options to set.
- Appendix B, describes the Acquisition Cost functionality available from Oracle Purchasing for process users.
- A Glossary provides definitions of terms that are used in this guide.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at http://www.oracle.com/accessibility/

Accessibility of Code Examples in Documentation

JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

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 Process Manufacturing.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those guides.

Online Documentation

All Oracle Applications documentation is available online (HTML or PDF).

- PDF Documentation- See the Online Documentation CD for current PDF documentation for your product with each release. This Documentation CD is also available on Oracle MetaLink and is updated frequently.
- Online Help You can refer to Oracle Applications Help for current HTML online help for your product. Oracle provides patchable online help, which you can apply to your system for updated implementation and end user documentation. No system downtime is required to apply online help.
- Release Content Document See the Release Content Document for descriptions of new features available by release. The Release Content Document is available on Oracle MetaLink.
- **About document -** Refer to the About document for information about your release, including feature updates, installation information, and new documentation or documentation patches that you can download. The About document is available on Oracle *MetaLink*.

Related Guides

Oracle Process Manufacturing shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other guides when you set up and use Oracle Process Manufacturing.

You can read the guides online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them from the Oracle Store at http://oraclestore.oracle.com.

Guides Related to All Products

Oracle Applications User's Guide

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

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

Guides Related to This Product

Accounting Setup User's Guide

The OPM Accounting Setup application is where users set up global accounting attributes about the way financial data will be collected by OPM. These attributes include such things as account keys, financial calendars, and account segments. Since OPM is closely integrated with Oracle General Ledger (GL), much of the attributes are defined in the Oracle GL instead of OPM, and therefore, the windows are display only within OPM. The *Oracle Process Manufacturing Accounting Setup User's Guide* describes how to setup and use this application.

Cost Management User's Guide

The OPM Cost Management application is used by cost accountants to capture and review the manufacturing costs incurred in their process manufacturing businesses. The *Oracle Process Manufacturing Cost Management User's Guide* describes how to setup and use this application.

Manufacturing Accounting Controller User's Guide

The Manufacturing Accounting Controller application is where users define the impact of manufacturing events on financials. For example, event RCPT (Inventory Receipts) results in a debit to inventory, a credit to accrued accounts payable, a debit or a credit to purchase price variance, etc. These impacts are predefined in the Manufacturing Accounting Controller application so users may begin using OPM to collect financial data out-of-the-box, however, they may also be adjusted per your business needs. The *Oracle Process Manufacturing Manufacturing Accounting Controller User's Guide* describes how to setup and use this application.

Oracle Financials Integration User's Guide

Since OPM is closely integrated with Oracle General Ledger, financial data that is collected about the manufacturing processes must be transferred to the Oracle Financials applications. The OPM Oracle Financials Integration application is where users define how that data is transferred. For example, users define whether data is transferred real time or batched and transferred at intervals. The *Oracle Process Manufacturing Oracle Financials Integration User's Guide* describes how to setup and use this application.

Inventory Management User's Guide

The OPM Inventory Management application is where data about the items purchased for, consumed during, and created as a result of the manufacturing process are tracked. The *Oracle Process Manufacturing Inventory Management User's Guide* includes information to help you effectively work with the Oracle Process Manufacturing Inventory application.

Physical Inventory User's Guide

Performing physical inventory count is the most accurate way to get an accounting of all material quantities purchased, manufactured, and sold, and update your onhand quantities accordingly. The OPM Physical Inventory application automates and enables the physical inventory process. The *Oracle Process Manufacturing Physical Inventory User's Guide* describes how to setup and use this application.

Order Fulfillment User's Guide

The OPM Order Fulfillment application automates sales order entry to reduce order cycle time. Order Fulfillment enables order entry personnel to inform customers of scheduled delivery dates and pricing. The *Oracle Process Manufacturing Order Fulfillment User's Guide* describes how to setup and use this application.

Purchase Management User's Guide

OPM Purchase Management and Oracle Purchasing combine to provide an integrated solution for Process Manufacturing. Purchase orders are entered in Oracle Purchasing and received in OPM. Then, the receipts entered in OPM are sent to Oracle Purchasing. The *Oracle Process Manufacturing Purchase Management User's Guide* describes how to setup and use this integrated solution.

Using Oracle Order Management with Process Inventory Guide

Oracle Process Manufacturing and Oracle Order Management combine to provide an integrated solution for process manufacturers. The manufacturing process is tracked and handled within Oracle Process Manufacturing, while sales orders are taken and tracked in Oracle Order Management. Process attributes, such as dual UOM and lot control, are enabled depending on the inventory organization for the item on the sales order. Order Management accepts orders entered through Oracle Customer Relationship Management (CRM). Within CRM, orders can originate from TeleSales, Sales Online, and iStore, and are booked in Order Management, making the CRM suite of products available to Process customers, through Order Management. The Oracle Order Management User's Guide and Using Oracle Order Management with Process Inventory Guide describes how to setup and use this integrated solution.

Process Execution User's Guide

The OPM Process Execution application lets you track firm planned orders and production batches from incoming materials through finished goods. Seamlessly integrated to the Product Development application, Process Execution lets you convert firm planned orders to single or multiple production batches, allocate ingredients, record actual ingredient usage, and then complete and close production batches. Production inquiries and preformatted reports help you optimize inventory costs while maintaining a high level of customer satisfaction with on-time delivery of high quality products. The *OPM Process Execution User's Guide* presents overviews of the tasks and responsibilities for the Production Supervisor and the Production Operator. It provides prerequisite setup in other applications, and details the windows, features, and functionality of the OPM Process Execution application.

Using Oracle Advanced Planning and Scheduling with Oracle Process Manufacturing

Oracle Process Manufacturing and Oracle Advanced Planning and Scheduling (APS) combine to provide an integrated solution for process manufacturers that can help increase planning efficiency. The integration provides for constraint-based planning, performance management, materials management by exception, mixed mode manufacturing that enables you to choose the best method to produce each of your products, and combine all of these methods within the same plant/company. The *Oracle Process Manufacturing Integration with Advanced Planning and Scheduling User's Guide* describes how to setup and use this application.

MPS/MRP and Forecasting User's Guide

The Oracle Process Manufacturing Material Requirements Planning (MRP) application provides long-term "views" of material demands and projected supply actions to satisfy those demands. The Master Production Scheduling (MPS) application lets you shorten that view to a much narrower and immediate time horizon, and see the immediate effects of demand and supply actions. The *Oracle Process Manufacturing MPS/MRP and Forecasting User's Guide* describes how to setup and use this application.

Capacity Planning User's Guide

The OPM Capacity Planning User's Guide describes the setup required to use OPM with the Oracle Applications Advanced Supply Chain Planning solutions. In addition, Resource setup, used by the OPM Production Execution and New Product Development applications, is also described.

Using Oracle Process Manufacturing with Oracle Manufacturing Scheduling

Oracle Process Manufacturing integrates with Oracle Manufacturing Scheduling to manage and utilize resources and materials. Through the Process Manufacturing application, you set up manufacturing, inventory, procurement and sales order data. Through the Manufacturing Scheduling application, you can optimize the schedule based on resource and component constraints and user predefined priorities. Using different optimization objectives, you can tailor Manufacturing Scheduling to meet your needs.

Using Oracle Manufacturing Scheduling helps you improve productivity and efficiency on your shop floor. By optimally scheduling shop floor jobs, and being able to quickly react to unplanned constraints, you can lower manufacturing costs, increase resource utilization and efficiency, and increase customer satisfaction through improved on-time delivery. The *Using Oracle Process Manufacturing with Oracle Manufacturing Scheduling User's Guide* describes how to setup and use this integrated solution.

Product Development User's Guide

The Oracle Process Manufacturing Product Development application provides features to manage formula and laboratory work within the process manufacturing operation. It lets you manage multiple laboratory organizations and support varying product lines throughout the organization. You can characterize and simulate the technical properties of ingredients and their effects on formulas. You can optimize formulations before beginning expensive laboratory test batches. Product Development coordinates each development function and enables a rapid, enterprise-wide implementation of new products in your plants. The *Oracle Process Manufacturing Product Development User's Guide* describes how to setup and use this application.

Quality Management User's Guide

The Oracle Process Manufacturing Quality Management application provides features to test material sampled from inventory, production, or receipts from external suppliers. The application lets you enter specifications and control their use throughout the enterprise. Customized workflows and electronic record keeping automate plans for sampling, testing, and result processing. You can compare specifications to assist in regrading items, and match customer specifications. Aggregate test results and print statistical assessments on quality certificates. Several preformatted reports and inquiries help manage quality testing and reporting. The *Oracle Process Manufacturing Quality Management User's Guide* describes how to set up and use this application.

Implementation Guide

The Oracle Process Manufacturing Implementation Guide offers information on setup. That is, those tasks you must complete following the initial installation of the Oracle Process Manufacturing software. Any tasks that must be completed in order to use the system out-of-the-box are included in this manual.

System Administration User's Guide

Much of the System Administration duties are performed at the Oracle Applications level, and are therefore described in the *Oracle Applications System Administrator's Guide*. The *Oracle Process Manufacturing System Administration User's Guide* provides information on the few tasks that are specific to OPM. It offers information on performing OPM file purge and archive, and maintaining such things as responsibilities, units of measure, and organizations.

API User's Guides

Public Application Programming Interfaces (APIs) are available for use with different areas of the Oracle Process Manufacturing application. APIs make it possible to pass information into and out of the application, bypassing the user interface. Use of these APIs is documented in individual manuals such as the Oracle Process Manufacturing Inventory API User's Guide, Oracle Process Manufacturing Product Development Formula API User's Guide, Oracle Process Manufacturing Product Development Recipe API User's Guide, Oracle Process Manufacturing Quality Management API User's Guide, and the Oracle Process Manufacturing Cost Management API User's Guide. Additional API User's Guides are periodically added as additional public APIs are made available.

Installation and System Administration

Oracle Applications Concepts

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11*i*. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

Installing Oracle Applications

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications and the Oracle technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user guides and implementation guides.

Upgrading Oracle Applications

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be either at Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

"About" Document

For information about implementation and user documentation, instructions for applying patches, new and changed setup steps, and descriptions of software updates, refer to the "About" document for your product. "About" documents are available on Oracle *MetaLink* for most products starting with Release 11.5.8.

Maintaining Oracle Applications

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

Oracle Applications System Administrator's Guide

This guide 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 concurrent processing.

Oracle Alert User's Guide

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

Oracle Applications Developer's Guide

This guide contains the coding standards followed by the Oracle Applications development staff and describes the Oracle Application Object Library components that are needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards for Forms-Based Products*. This manual also provides information to help you build your custom Oracle Forms Developer forms so that the forms integrate with Oracle Applications.

Oracle Applications User Interface Standards for Forms-Based Products

This guide 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.

Other Implementation Documentation

Oracle Applications Product Update Notes

Use this guide as a reference for upgrading an installation of Oracle Applications. It provides a history of the changes to individual Oracle Applications products between Release 11.0 and Release 11*i*. It includes new features, enhancements, and changes made to database objects, profile options, and seed data for this interval.

Oracle Workflow Administrator's Guide

This guide explains how to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes, as well as how to monitor the progress of runtime workflow processes.

Oracle Workflow Developer's Guide

This guide explains how to define new workflow business processes and customize existing Oracle Applications-embedded workflow processes. It also describes how to define and customize business events and event subscriptions.

Oracle Workflow User's Guide

This guide describes how Oracle Applications users can view and respond to workflow notifications and monitor the progress of their workflow processes.

Oracle Workflow API Reference

This guide describes the APIs provided for developers and administrators to access Oracle Workflow.

Oracle Applications Flexfields Guide

This guide provides flexfields planning, setup and reference information for the Oracle Process Manufacturing implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This guide also provides information on creating custom reports on flexfields data.

Oracle eTechnical Reference Manuals

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on Oracle *Metalink*

Oracle Applications Message Manual

This manual describes all Oracle Applications messages. This manual is available in HTML format on the documentation CD-ROM for Release 11*i*.

Training and Support

Training

Oracle offers a complete set of training courses to help you and your staff master Oracle Process Manufacturing and reach full productivity quickly. These courses are organized into functional learning paths, so you take only those courses appropriate to your job or area of responsibility.

You have a choice of educational environments. You can attend courses offered by Oracle University at any one of our many education centers, you can arrange for our trainers to teach at your facility, or you can use Oracle Learning Network (OLN), Oracle University's online education utility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Process Manufacturing 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.

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.

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 such as 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 Oracle Applications can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, 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 to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. 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.

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 Oracle Applications, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers and personal digital assistants, allowing organizations to integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

Oracle is the world's leading supplier of software for information management, and the world's second largest software company. Oracle offers its database, tools, and applications products, along with related consulting, education, and support services, in over 145 countries around the world.

Your Feedback

Thank you for using Oracle Process Manufacturing and this user guide.

Oracle values your comments and feedback. In this guide is a reader's comment form that you can use to explain what you like or dislike about Oracle Process Manufacturing or this user guide. Mail your comments to the following address or call us directly at (650) 506-7000.

Oracle Applications Documentation Manager Oracle Corporation 500 Oracle Parkway Redwood Shores, CA 94065 U.S.A.

Or, send electronic mail to appsdoc_us@oracle.com.

Overview

This topic provides an overview of Cost Management.

The following topics are covered:

- OPM Cost Development Area
- **Defining Costs**
- Establishing Standard Costing and Actual Costing
- Calculating Activity-Based Costing
- Allocating General Ledger Expense
- Assigning Value to Inventory Transactions
- Manufacturing Costs Over Time
- **Revaluing Inventory Cost**
- Valuing Inventory in Production
- Calculating Purchase Price Variance on Purchase Orders
- Freezing Costs for the General Ledger
- Valuing Inventory for Sales Orders

OPM Cost Development Area

OPM Cost Management was designed for use in the process manufacturing environment. It provides the tools necessary to do the following:

- Value the cost of goods sold on shipments
- Calculate inventory valuations in WIP
- Assign values to inventory transactions
- Calculate purchase price variance (PPV) in WIP
- Revalue inventory for appreciation

Cost Management provides capabilities to do the following:

- Cost Monitoring and Simulations
- Develop and Maintain Multiple Cost Models
 - Standard Costs
 - Average Actual Costs
 - Composite Costs
- Freezing Costs for the General Ledger

Cost Monitoring and Simulations

OPM Cost Management provides the following simulations, allowing you to establish "what if" scenarios.

- Cost Methods/Elements
- Cost Formulas/Routings
 - Indicate the affect a change in a formula or production routing will have on your costs
- Prices/Labor Rates/Burdens
 - Indicate what impact new labor rates, raw material prices, and burdens will have on your standard costs
- Cost Rollups
 - Determine the proposed cost of a new product
- Weighted Average Costing

Defining Costs

OPM Cost Management allows you to define costs by:

Item

Define costs for individual items

Warehouse

- Develop and maintain different costs by warehouse
- Inventory in the warehouse that has a financial owner
- Costing warehouse association eliminates the need for duplicate data

Cost Calendar/Period

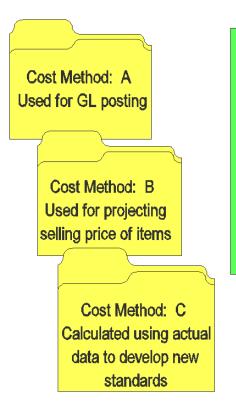
Define costs for each period in the cost calendar

Multiple Cost Methods

- Helps in monitoring and analysing costs
- Multiple cost "files" hold item costs (only one will be used to build journal entries for the General Ledger)
 - Standard
 - Target or Budget
 - Current Average
 - Rolling Average
 - **Pricing Simulation**
 - "Composite" for General Ledger

The following diagram illustrates using multiple cost methods, where cost method A is used for general ledger posting, cost method B is being used to project the selling price for items, and cost method C is calculated using actual data to develop new cost standards.

Figure 1-1 Multiple Cost Methods



Company uses current data with actual costing to create next year's "standard" cost. Then uses this new "standard" cost for all G/L postings.

Cost Component

Maps costs to the general ledger by component class

Analysis Code

Maps costs to the general ledger based on analysis codes (for example, Value Added, Non-Value Added)

Establishing Standard Costing and Actual Costing

OPM calculates the standard costs of items based on formula cost "rollups" (the static costs you define for each component used during production, such as raw material and resource costs). OPM also calculates average actual costs based on production data.

Actual cost are calculated using actual process transaction costs (for example, invoiced cost of raw materials or actual costs of production resources).

Standard Costing

When you select this costing calculation, you define for OPM the cost of ingredients in each specific warehouse during a specific period of time. The cost information remains static during each defined time period.

Standard costing enables you to define the costs for items, formulas, formula ingredients, and resources used during the production process. OPM calculates the cost of an item based on different:

- Ingredients stored at different locations
- Formula versions
- Facilities where overhead and associated costs vary

Actual Costing

This is a more dynamic method of calculating production costs, in which OPM will capture the actual costs from business transactions throughout OPM. The actual data considered includes the following:

- Purchasing receipts
- Price changes on receipts
- Invoices paid
- Batch ingredient consumption
- Resource usage data
- Direct/indirect expense allocations
- Prior inventory balances
- Cost burdens

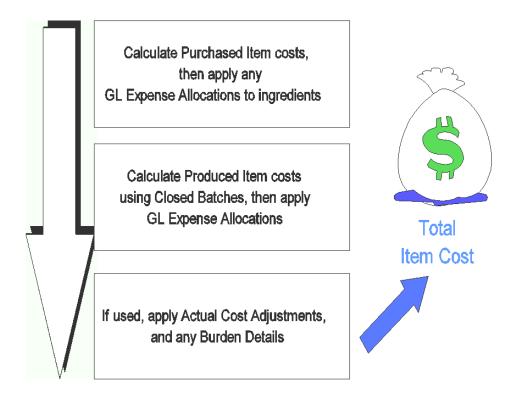
- Cost adjustments
- General ledger expense allocations

Through the integration with Oracle Accounts Payable, you can obtain the actual invoiced costs of purchased raw material and use it in the calculation.

OPM calculates the following actual costs:

- Weighted average actual cost of purchased raw materials, intermediate goods, and finished goods
- Actual purchased raw material unit cost
- Actual resource usage (data obtained from the Process Operations Control [POC] application for each operation in batch production)

Figure 1–2 Actual Costing Engine



Calculating Activity-Based Costing

Activity-based costing (ABC) expands the view for cost calculations to include all costs incurred by operations. This calculation method assumes that your company is in business solely to manufacture and deliver product. Consequently, expenses from all cost centers have an impact on the cost of items produced.

Allocating General Ledger Expense

This is a method by which you can distribute the indirect expenses of manufacturing (such as administrative and general expenses) to item costs. By using designated general ledger account balances and selected allocation criteria, indirect costs can be calculated dynamically or based on percentages that you define.

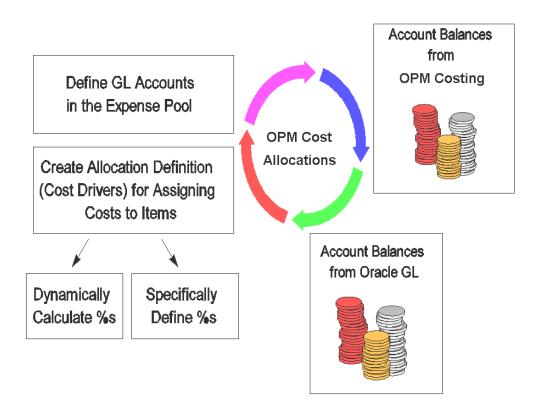
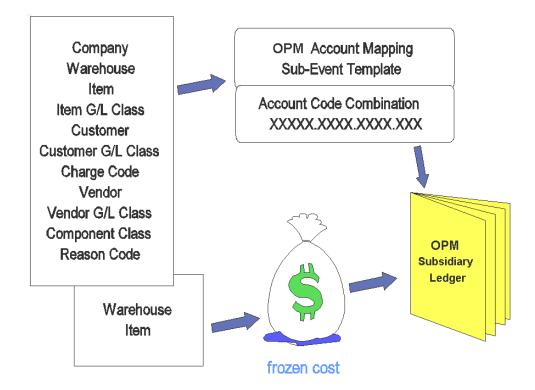


Figure 1–3 General Ledger Expense Allocations

Assigning Value to Inventory Transactions

Transactions in OPM are mapped to the general ledger accounts you define in the Manufacturing Accounting Controller (MAC) application. Costs of warehouse items are "frozen" for update to the subsidiary ledger.

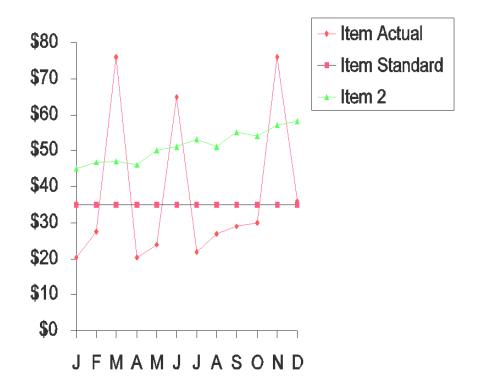
Figure 1-4 Assign Value to Inventory Transactions



Manufacturing Costs Over Time

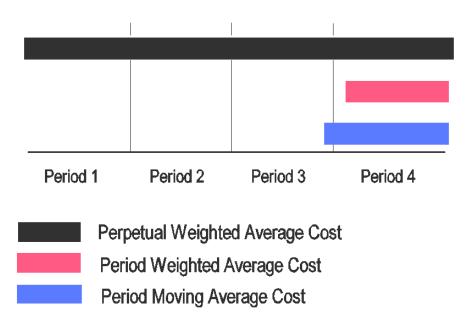
OPM Cost Management provides options for "smoothing" manufacturing costs over the time spans that you designate.

Figure 1–5 Costs Over a 12-Month Period



Time Options

Figure 1–6 Three Options for Spreading Costs



Revaluing Inventory Cost

OPM gives you the capability to revalue your inventory based on a different cost value (cost method) within the same period. You can also revalue inventory from one period to the next.

Figure 1-7 Revaled Costs in the Same Period

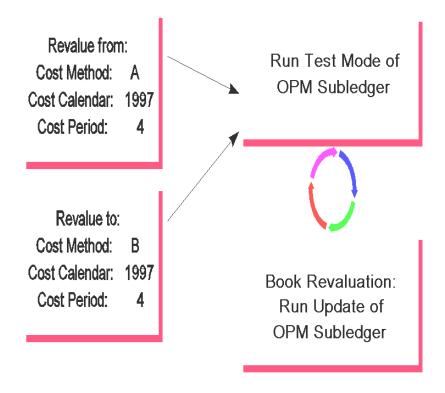
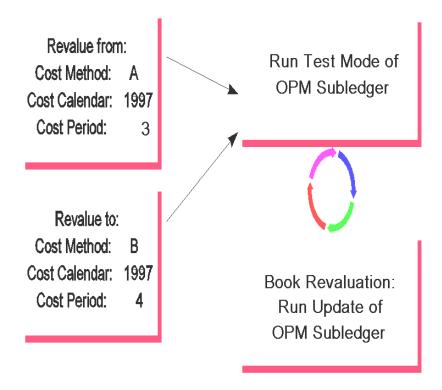


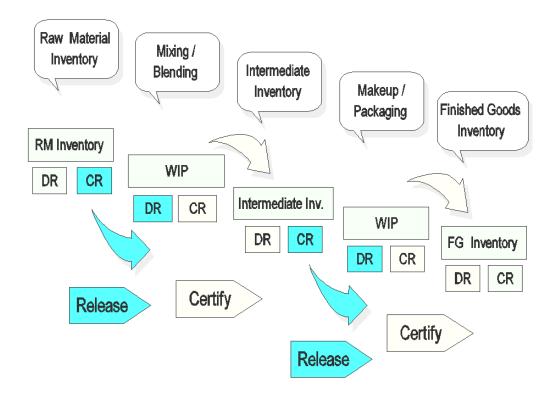
Figure 1–8 Revalue Costs Between Periods



Valuing Inventory in Production

OPM Cost management calculates the cost of inventory during each stage of production.

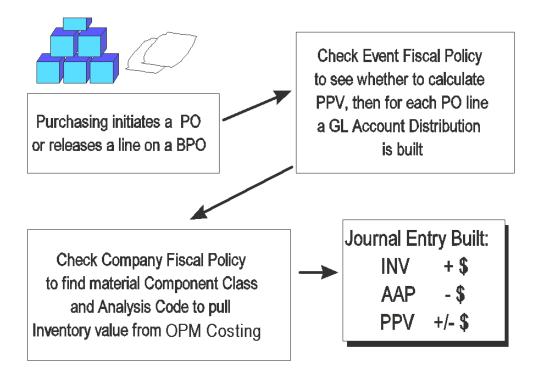
Figure 1-9 Inventory Moves Through Production Process



Calculating Purchase Price Variance on Purchase Orders

If you flag OPM to calculate purchase price variance (PPV) on purchase orders, OPM will calculate the variance and perform a general ledger account distribution for it.

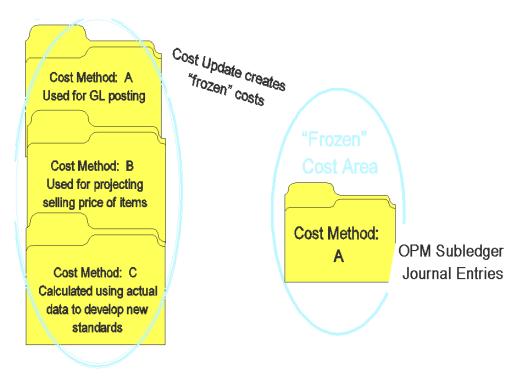
Figure 1–10 Optionally Calculate PPV on Purchase Orders



Freezing Costs for the General Ledger

Using a cost update process, costs for a period are "frozen" prior to creation of subledger journal entries.

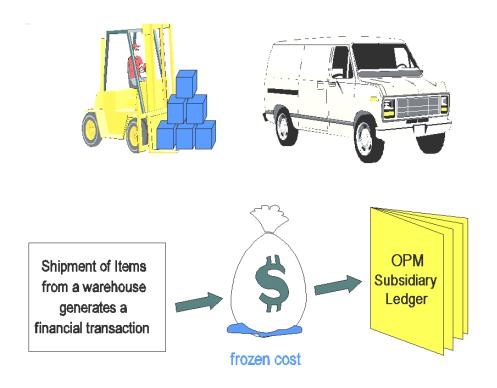
Figure 1-11 Freezing Period Costs



Valuing Inventory for Sales Orders

Costs of items shipped are also "frozen" prior to update of the transactions to the OPM subsidiary ledger.

Figure 1–12 Freezing Shipment Transaction Costs



Costing Setup

This topic includes procedures and values that you must define before using the Costing application. These basic setups are required regardless of whether you want to use the standard or actual cost method. These setups include the cost calendar and costing periods, cost analysis codes, cost method codes, and cost component classes.

The following topics are covered:

- **Defining Cost Methods**
- **Defining Cost Calendars**
- **Defining Cost Component Classes**
- Defining Cost Analysis Codes
- Defining Component Groups
- **Defining Costing Warehouse Associations**
- Defining General Ledger Fiscal Policy
- Defining Percentage Burdens
- **Defining Burden Priorities**
- Defining Burden Percentage
- Defining Source and Target Percentage Burden Components
- Copying Burden Percentage
- Defining Acquisition Cost Codes

A detailed description on setting up and calculating standard and actual costs are provided in their topic discussions.

Defining Cost Methods

The cost method defines which of the 16 supported calculations will be used to develop item costs. OPM supports both Actual and Standard costing calculation types for items. Define a cost method as one of the following:

- Standard
- Actual Cost

Cost method codes identify specific groups of cost data according to their purpose. You can define unlimited number of cost methods in OPM. The cost method is the identifier used to differentiate the standard or actual (or general ledger) cost developed, versus simulated costs developed for Sales or marketing purposes.

Includes fields to specify if the actual cost method is a lot actual cost method and if so, from which date the transactions must be included for the lot cost calculation and an alternate cost method to use for costs of items that are not identified as being costed by a lot. Refer to "Setting Up Lot Cost Items" for more details.

Standard Costing

If you select this costing method, OPM calculates total product costs based on the cost component values that you specify for each item. This includes product raw materials, burdens, and other costs associated with formulas in a specific warehouse, during a specific time period. Calculations are based on these component cost values, regardless of the real costs (that is, actual transaction costs) of the item(s).

Standard Cost Data

OPM uses the following data to calculate standard costs:

- Cost Rollups
- Cost Effectivities
- Formulas
- Routings
- Cost Burdens
- Cost Adjustments

Actual Costing

OPM captures all cost component values from actual business transactions (none of the standard component costs of the formula are referenced in actual cost calculations). These transactions occur throughout OPM, as well as other financial software used with OPM (such as Oracle Accounts Payables).

Cost calculations occur according to the criteria you have established for the cost method cost calendar, and the cost periods within the calendar (these criteria are discussed later). You can select one or more raw material cost calculation types to produce a variety of actual costing calculations, which are then stored based on their cost methods.

Later, you will specify the calculation types for the cost method on the Cost Method window. This indicates to OPM that cost calculations for a specified item in a specific warehouse, during a specific cost calendar period, will be performed using actual transaction costs.

Actual Costing Transactions

Purchase Order Receipts

The raw material estimate price upon receipt is captured. This can be adjusted to a final price at a later time through synchronization with an accounts payable application (such as Oracle Accounts Payable); the actual invoiced cost of the purchased material is used in the calculation.

Accounts Payable (with accounting software such as Oracle Financials)

Through synchronization with accounts payable software, OPM captures the actual, final prices paid for raw materials.

Production Batch

OPM captures the actual component cost values for a finished product based on actual material usage and batch yield.

Process Operation Control

Resource costs (based on actual resource count and usage) are captured from the Process Operations Control (POC) application.

General Ledger Expense Allocations

Expenses accrued from General Ledger may be allocated to specific items as added component costs. The synchronization with financials software (such as Oracle Financials) allows automatic expense distributions. As an alternative, you may enter expense allocations manually into OPM.

Burden

You can assign and apply burden costs to either raw materials or finished goods. The burden cost calculation for actual cost rollups is identical to that used for standard cost rollups.

Cost Adjustments

Allow you to fine tune the final component cost for an item, based on individual business situations.

Options for Smoothing

You can use three different time frames to develop average actual costs:

- Current period data only
- Current period data average with the ending inventory valuation from the last period
- Current period data averaged with actual cost data from the beginning of the cost calendar

For example, assume you have a steady level of production for 10 straight periods in a cost calendar. If production skyrockets in the 11th period, then production costs for that period skyrocket as well.

OPM uses one of the following methods to figure product cost so that those costs are redistributed and leveled, over a greater period of time:

- Period Moving Average Cost (PMAC)
- Period Weighted Average Cost (PWAC)
- Perpetual Average Cost (PPAC).

Note: With actual costing, items for which there are no transactions in a calendar period will have cost components moved from the previous period to the current period. This insures that all cost items have an actual cost within the period processed.

The raw material calculation and product calculation types can be different. For example, raw materials can be calculated based on Period Weighted Average Cost (PWAC) and products based on Period Moving Average Cost (PMAC).

Entering Cost Method Codes Procedure

To enter a cost method code:

- Navigate to the **Cost Method Codes** window.
- Complete the fields as described.
- Save the window.

Cost Method Codes Field Reference

The fields on this window are:

Cost Method

Represents a code that identifies this costing method. For example, enter STND for standard costing. Required.

Description

Enter a brief description of the cost method. For example, enter Standard Costing for the standard cost method. Required.

Cost Type

Indicate the cost method type you are defining:

- Standard Cost
- **Actual Cost**

The OPM Cost Management application supports two types of cost method types, Standard Cost and Actual Cost. The Financial Standard, Current Standard, and Budget cost method types (supported prior to release 11i) have been combined into the current Standard Cost type.

For Actual Cost Methods, you can establish a variety of actual cost calculations based on the raw material calculation type you associate with the cost method and the production calculation type. There are 15 different possible combinations in OPM (note the discussion for the Raw Material Calculation Type field). With the lot cost support an Actual Cost method can be defined as a Lot Cost method.

Updates to the general ledger are made using the cost method defined on the Fiscal Policy window regardless of the cost type. The description for the cost type you specified displays automatically.

Usage

Indicates if the cost method is for general or Lab use. The general usage method is set by default. If you set the usage to general use, the cost rollup considers only the production and costing recipes. If you set the usage to lab use, the lab recipes are used over the production or costing recipes. The usage field is valid only for the standard cost type. If you are using the actual cost type, then this field is disabled.

Lot Actual Cost

Click the **Lot Actual Cost** to indicate that the lot actual cost method is used for lot cost calculation purposes. If Lot Actual Cost is selected then the Raw Material Calculation type and Product Calculation type fields are not applicable and they are disabled.

Raw Material Calculation Type

You can only access this field if you are defining the Actual Costing method in the Cost Type field. Indicate the type of raw material cost calculations that will occur for this actual costing method. The valid options are listed as follows:

- Period moving average cost (PMAC)
- Period weighted average cost (PWAC)
- Perpetual weighted average (PPAC)
- Last transaction (LSTT)
- Last invoice (LSTI)

The type descriptions (shown in parentheses) are abbreviations for these calculation types. The lookup displays both the calculation type and the abbreviation. Required.

Product Calculation Type

You can only access this field if you are defining the Actual Costing method in the Cost Type field. If you want OPM to derive actual costs for product components, indicate the type of calculations it should perform. The valid options are listed.

- Period moving average cost (PMAC)
- Period weighted average cost (PWAC)
- Perpetual weighted average (PPAC)

The type descriptions (shown in parentheses) are industry standard abbreviations for these calculation types; the lookup displays both the calculation type and the abbreviation.

Lot Actual Cost Type

Start Date

Only available for Lot Cost Methods. Enter a start date. The start date is used to collect all transactions that happened after the specified date for lot cost calculation purposes.

If this field is left blank, then the Lot Actual Cost process uses all transactions in the system for the OPM Company for which the Lot Actual Cost process is run. The process then selects a large number of transactions and could result in performance problem as large number of records are being inserted into the lot cost tables. It is recommended that you set this field depending on how long lots are typically held for consumption in inventory. It could be a few inventory periods from the current period. For example, if the current period is January 2004, then you can specify September 1st, 2003, to ensure all transactions from the prior three inventory periods are considered. If some of the lot costed items have lots dating further back, then specify appropriate value.

Alternate Cost Method

If the cost method is an Actual Cost method, then the check box is enabled.

If the lot cost checkbox is enabled, then the Raw Material Calculation Type and Product Calculation Type are disabled and the Start Date and Alternate Cost Method fields are enabled.

Both Standard and Actual cost methods are allowed but not Lot Actual Cost methods.

Defining Cost Calendars

You maintain costs by defining the costing calendars. Each cost calendar can support multiple cost methods, each with a different calculation basis. A cost calendar can span multiple years (this is useful when using perpetual period actual cost calculations). For each costing calendar, you can define an unlimited number of costing periods. Each period is assigned a period status to indicate the level to which cost update activity is permitted.

- Open all activity is allowed.
- Frozen no updates can be made for existing items (however, new item costs can be calculated and their costs updated).
- Closed periods may never be reopened for costing activity.

The costing calendar is completely separate from the fiscal calendar and the periods therein.

The Cost Calendar window supports multiple languages (MLS enabled). When you invoke this window, the Globe icon is enabled. If you have multiple language installation, you can click this icon. A list of supported languages and the corresponding calendar and description entries in that language is displayed.

Defining Cost Calendar Procedure

To define cost calendar:

- Navigate to the **Cost Calendars** window.
- Complete the fields as described.
- **3.** Save the window.

Cost Calendar Field Reference

The fields on this window are:

Calendar

Enter the name of the cost calendar (for example, enter 1997). Cost calendars can extend over multiple years (in the same manner as general ledger calendars) as long as the same cost method is used. Required.

Description

Enter a brief description of the cost calendar. For example, enter Fiscal Year 1997.

Company

Specify the company for which costing data for the cost calendar will eventually be updated. The default is the company linked to the User on the User Codes window (Apps System Administration application).

Cost Method

Enter the cost method code to be used as a default for this cost calendar. The cost method default is used as a typing aid to speed data entry on OPM Costing forms. Required.

Fiscal Indicator

Indicate if this calendar represents a fiscal year (this field is for your reference only). Select one of the following:

- Yes fiscal year
- No not a fiscal year (default)

Note: If the financials package used with Cost Management is set to ORAFIN (Oracle Financials), this field is automatically set to 0 and protected from edit.

Start Date

Enter the date on which this calendar becomes effective. Required.

Cost Calendar Details Panel

Period

Enter a code to identify the period which can be any code you wish. However, if the cost calendar represents a 12-period fiscal year, you might want to enter 1 to represent January, 2 to represent February, and so on, or enter 0198, 0298, and so on. Required.

Description

Enter a brief description of this calendar period. For example, if this is the first period of a fiscal calendar, enter **January**. Required.

End Date

Enter the last date of this calendar period. The start date is calculated from the end date of the previous period, or the January 1 of the Fiscal Year for the first period.

Period Status

This display field indicates the status of each period in the cost calendar. Valid calendar statuses are Open, Frozen, and Closed.

Flexibility in Restricting Cost Updates

Transactions (regardless of cost method) can be made to Open calendar periods. OPM gives you the capability to Freeze existing costs from further modifications (such as cost rollups, actual cost processing, and cost updates) in a specific calendar period. However, new item cost transactions may be added. You can also Close a period, which prevents any further costing changes to be made within the specified period.

Open Periods

The status of each new period you define defaults to Open, which means that all daily transactions can be updated to the period. Each period remains open until the Final Cost Update (see *Cost Update*) is run successfully.

Frozen Periods

When you do not anticipate further changes to transactions, you can automatically Freeze the period by running the Final Cost Update. In a frozen calendar period, no further modifications (such as cost rollups, actual cost processing, and cost updates) can be made to existing, updated costs.

However, newly-created component cost details can be entered, (selectively) rolled up, then updated and included without affecting those costs already frozen.

Note: You cannot delete the frozen cost periods.

Closed Periods

You should consider closing a costing period only when you are sure that there are no more cost changes to be made. Select Close from the Action menu to close a costing period.

Closing a period prevents any modifications to be made to the costs within the period, effectively locking them from further changes. This means that no new item costs may be entered, no rollups may be performed, and no cost updates may be performed for the period.

Cost Calendar - Additional Menu Features

Actions Menu

Close Period - Select this option when you are sure that there are no more cost changes to be made. Select Close Period from the Actions menu to close a costing period and assign it Closed status.

Defining Cost Component Classes

Cost component classes are buckets used to define the elements of cost detail you want to view. Costs from several ingredients, routings, or burdens can be summarized into component classes.

The Cost Component Classes window supports multiple languages (MLS enabled). When you invoke this window, the Globe icon is enabled. If you have multiple language installation, you can click this icon. A list of supported languages and the corresponding component class and description entries in that language is displayed.

Cost Component Class Manipulation Examples

In a particular formula, you have two ingredients: one is a dry raw material (assigned component class code MATL1) and the other is a solution (assigned component class MATL2). When you break down the formula for costing, the cost detail will show MATL1 and MATL2 as the cost components, each with its respective cost.

You can assign several materials to the same component class. For example, you can assign all dry raw materials to component class MATL1 and all solutions to class MATL2. However, if a formula contains more than one material with the same component class, the costs for each material will appear summed under the same component class on the cost detail.

For example, a formula containing two raw materials (class MATL1) appear as having only one raw material on the cost detail. The costs for both raw materials are summed up in the total for component class MATL1.

Defining Cost Component Classes Procedure

To define cost component classes:

- Navigate to the **Cost Component** window.
- Complete the fields as described.
- **3.** Save the window.

Cost Component Classes Field Reference

The fields on this window are:

Component Class

Enter the code to identifies the component class. For example, MATL1 for raw materials, or MATL2 for solutions. Required

Description

Enter a description for the component class. For example, enter Raw Materials or Solutions. Required.

Primary Component Class

You have the option of building component class association hierarchies for reference and reporting purposes. This field indicates the primary cost component class with which the component class you are defining now is associated. The default is the class code you specified in the Component Class field; you may override it, as necessary.

Component Group

This is an optional entry that allows you to further classify the component classes for analysis and reporting purposes.

Usage

This field indicates if this cost component classification is being entered for use as a material detail, burden detail, or resource detail from routings. Select one of the following values (Required):

- Cost Detail
- Burden Detail
- FM Route
- Allocation Detail
- Standard Cost Adjustment

If the Usage indicator is set to Cost Detail, you cannot change it after material cost details have been defined. The same holds true for the other four indicators. You cannot change the Usage indicator for burden, resource cost, GL expense allocations, or standard cost adjustments component classes after burden and resource details (respectively) have been defined.

Sort Sequence

Enter the sort sequence for the component class. It indicates the order in which you want to view the component classes when displayed on forms and reports. "1" is the first, or top, line "2" indicates the second line, and so on. A zero ("0") allows the application to determine the sort order. Required.

Product Cost Calculation

This indicator allows you to flag those component costs which should not be included in the cost rollup process. Certain identifiable costs (for example, transfer costs) are for specific ingredient items, and are not required to be rolled up into the products. The valid values are:

- Include in Product Cost Calculation
- **Exclude From Product Cost Calculation**

Select Exclude From Product Cost Calculation if this is a non-product cost component class. The default, Include in Product Cost Calculation, applies if this is a component class for which costs will be rolled up into the product costs.

Component Cost

This indicator gives you the flexibility to identify which component costs are not to be updated to the General Ledger using the GL Cost Update process. The valid values are:

- Will be updated to GL area (default)
- Will not be updated to GL area

Purchase Price Variance

The valid values are:

- Include in Purchase Price Variance Calculation
- Exclude from Purchase Price Variance Calculation

Select the Include in Purchase Price Variance Calculation option (default), if the cost for this component class should be used in calculating the inventory valuation to be used for purchase price variance (PPV). Select the other option, if the component class should not be used in PPV calculations.

Indirect Component Processing for Standard Costing

When standard costs are used, you can update adjustments or indirect components of standard product costs separately without defining formula routings and/or burden details. You can identify the standard indirect cost component, update non-direct materials and resources within production batches, and reconcile "batch close" variance at the close of a production batch.

Indirect Component Processing for Standard Costing Procedure

To process indirect component for standard costing:

- Navigate to the **Component Classes** window.
- Complete the fields as described in the Component Classes Fields topic. Choose Standard Cost Adjustment for the **Usage** field.
- **3.** After completing the Cost Component Classes window, open the Cost Details window by selecting **Cost Details** from the Inquiries menu.
- **4.** Complete the Cost Details window. Enter the unit cost reflecting the revision or adjustment indicated on the Cost Component Classes window. See: Cost Details.
- When you add a new cost, it is recommended that you perform a cost rollup and cost update to calculate the revised unit cost and process the GL financial cost, respectively. See: Cost Rollup and Cost Update.

Note: Standard cost users must not copy standard cost adjustments to actual cost adjustments. The actual cost process will exclude this component from the calculated cost.

Cost components established with a usage indicator equal to standard cost adjustment are processed the same as existing material components. They will not be excluded or deleted from standard cost calculations.

Defining Cost Analysis Codes

Cost components (such as Materials, Packaging, and Labor) may be subdivided by analysis code to provide an additional level of detail. For example, you can define value added or non-value added analysis codes for each cost component. Note the example shown:

Item: ABC Warehouse: A

Cost Calendar/Period: June, 2001

Component	Analysis	Value
Material	VAL	\$18.765948788
Labor	VAL	\$22.150682432
Indirect Expense	NVAL	\$13.502400000
Packaging	VAL	\$ 5.765980654
Total Item Cost	n/a	\$60.185011874

VAL = Value Added Analysis Code

NVAL = Non-Value Added Analysis Code

Defining Cost Analysis Code Procedure

To define cost analysis code:

- Navigate to **Cost Analysis Code** window.
- Complete the fields as described.
- **3.** Save the window.

Cost Analysis Code Field Reference

The fields on this window are:

Code

Enter the code to identify this cost analysis method. For example, VAL for Value Added, or NVAL for Non-value Added. Required.

Description

Enter a description for the analysis code. For example, enter Value Added or Non-value Added. Required.

Defining Component Groups

Component groups allow you to collect specific material and/or resource component costs for category groupings (examples would be material costs and resource costs). Grouped costs may be displayed or reported for analysis; these groupings are optional.

Defining Component Group Procedure

To define component group:

- Navigate to **Component Group** window.
- Complete the fields as described.
- **3.** Save the window.

Component Groups Field Reference

The fields on this window are:

Component Group

Specify the component group into which material and/or resource costs will be collected for reporting purposes. Required.

Description

Enter a brief description of the component group you are adding. Required.

Defining Costing Warehouse Associations

OPM maintains separate item costs for each warehouse. Each warehouse from which an item is issued can have a separate costing warehouse record associated with it. However, you may have a situation in which multiple inventory warehouses issue the item but the item costs in all of those warehouses are the same.

OPM lets you associate a single costing warehouse with multiple inventory warehouses through costing warehouse associations. Each association is assigned a date effectivity rage which dictates when the association is valid. OPM uses these associations to determine the warehouse to which actual cost calculations will be updated.

You can establish warehouse associations for standard or actual costing. For standard costing the association identifies the target (destination) warehouse. Note that warehouse associations are not mandatory; costing warehouse costs will only be effective for items in those inventory warehouses linked to it.

Note: The start and end dates should be a complete Costing Period for which the association needs to be effective. For example, the start date has to be at least a day earlier than the cost period start date and the end effective date a day later than the cost period end date.

Defining Costing Warehouse Association Procedure

To define costing warehouse:

- Navigate to the **Costing Warehouse Association** window.
- Complete the fields as described.
- Save the window.

Costing Warehouse Association Field Reference

The fields on this window are:

Cost Warehouse

Specify the valid warehouse code that will be the costing warehouse. You define warehouses on the Warehouses window. The warehouse description from the Warehouses window displays automatically. Required.

Organization

The code for the organization linked to this inventory warehouse displays automatically. You cannot edit this field.

Company

The company linked to the Organization. You cannot edit this field.

Associated Warehouses

Inventory Warehouse

On each of the entry lines provided, specify the inventory warehouse that you are linking to this costing warehouse. You can link an inventory warehouse to only one costing warehouse. Required.

Description

The warehouse description from the Warehouses window displays automatically. You cannot edit this field.

Organization

The code for the organization linked to this inventory warehouse displays automatically. You cannot edit this field.

Start Date

The cost/inventory warehouse association will be effective only during the date range that you specify. Indicate the opening date in the effectivity range here. Required

End Date

The cost/inventory warehouse association will be effective only during the date range that you specify. Indicate the closing date in the effectivity range here. Required.

Note: The start and end dates must totally enclose a costing period for the association to be effective. For example, the start date has to be at least a day earlier than the cost period start date and the end effective date a day later than the cost period end date.

Defining General Ledger Fiscal Policy

On the Fiscal Policy window you specify company-wide parameters and default values for ledgers, base currency, accounting periods, and other information pertaining to general ledger account updates. Since production costs are updated to these accounts, specific fields on this window have an impact on how costs will book to the general ledger.

To define a fiscal policy, select **Fiscal Policies** from the Manufacturing Controller in the General Ledger Responsibility.

See: Fiscal Policies, Oracle Process Manufacturing Manufacturing Accounting Controller User's Guide.

Defining Percentage Burden Codes

This window helps you maintain percentage burden codes, descriptions, usage levels, basis level, and optional descriptive flexfield information. The percentage burden code contributes to the cost of an item.

The usage level (listed below) specifies at what level cost is affected by the percentage burden code:

- Applied to Ingredient but added to Product (that is, Consumption)
- Applied to Item and added to itself (that is, Direct/Production)

Hereafter, the "Applied to Item and added to itself" usage is referred to as Direct/Production and the "Applied to Ingredient but added to Product" usage is referred to as Consumption.

The basis level lets you specify if the percentage burden should be applied to this level item cost or to the total item cost.

Based on the selected Basis option, the Cost Rollup process applies percentage burden rules either to this level cost components or to all cost components of the item cost.

If you have already set up percentage burden codes, then select the basis value for these code. If you do not select the basis value, then the Cost Rollup process considers Total Cost as the default value and applies percentage burdens to the total item cost.

Defining Percentage Burden Codes Procedure

To define percentage burden codes:

- Navigate to the **Percentage Burden Codes** window.
- Complete the fields as described.
- **3.** Save the window.

Percentage Burden Codes Field Reference

The fields on this window are:

Code

Enter a unique code that identifies a percentage burden. For example, SHR. Required.

Organization

Enter a description for the code. For example, enter Shrinkage for the percentage burden code SHR. Required.

Usage

The usage field lets you specify at what level cost is affected by the percentage burden code. The percentage can either be applied to an ingredient but added to the product or applied to an item and added to itself. Required.

The two usage options are:

- Applied to Ingredient but added to Product (that is, Consumption)
- Applied to Item and added to itself (that is, Direct/Production)

These options allow you to add percentage burden cost to an item when it is either produced or consumed. For example, if Item A has associated burden costs when it is produced, then a percentage burden code with the usage indicator "Applied to Item and added to itself" should be defined. The percentage burden incurred on producing Item A is determined by applying burden percentage to component costs of Item A and added to the cost of Item A. Similarly, if Item A has a type of percentage burden cost which is incurred during consumption, then define a separate percentage burden code with usage indicator "Applied to Ingredient but added to Product". In such a case, any product which uses Item A as an ingredient will have percentage burden costs added to its cost.

Basis

The basis field lets you specify if the percentage burden should be applied to this level item cost or to the total item cost.

- This Level Cost Applies percentage burden rules to this level cost components of the item cost.
- Total Cost Applies percentage burden rules to all the cost components including this level and the lower level of the item cost.

[]

The double brackets ([]) identify a descriptive flexfield that you can use to add data fields to this window without programming.

Defining Burden Priorities

The usage of percentage burden code is categorized by attaching it to one or more of the following entities in the required order:

- Organization
- Warehouse
- Item
- Item GL Class
- Item Cost Class
- **GL** Business Class
- GL Product Line

For each entity, you can assign different burden priorities for a given company code and a percentage burden code. You can assign numerical sequential values for the given burden entities. Only the priority entities that have values assigned impact the specific burden percentage definition. The remaining entities do not appear on the Burden Percentage window and will not impact the cost rollup and how percentage burden cost is calculated for the percentage burden code.

Defining Burden Priorities Procedure

To define burden priorities:

- Navigate to the **Burden Priorities** window.
- Complete the fields as described.
- Save the window.

Burden Priorities Field Reference

The fields on this window are:

Company

Enter the company for which you are defining burden priorities. Required.

Burden Code

Enter the burden code for which you are defining burden priorities. For example, enter SHR for the Shrinkage. Required.

Priorities

Burden Entities

After the burden code is entered, the attributes associated with the indicated burden code are displayed. Starting with the number 1 (1=highest priority), enter a priority number next to each field to be used for defining and retrieving costing burden percentages. If a field does not have a number, it will not be used for burden percentage definition and retrieval. None of the fields are mandatory but at least one field is required in order for the record to be saved. Do not use the same priority for two fields. Required.

Following is a list of all attributes:

- Organization
- Warehouse
- Item
- Item GL Class
- Item Cost Class
- **GL** Business Class
- **GL** Product Line

Defining Burden Percentage

You can define the actual burden percentage value for a given burden code. The burden percentage is defined for a given calendar, period, cost method, and burden code. The burden entities defined on the Burden Priorities window is used to define burden percentages.

This window displays the GL Business Class and GL Product Line fields, if you had selected them as one of the priorities in the Burden Priorities window.

Defining Burden Percentage Procedure

To define burden percentage:

- Navigate to the **Burden Percentage** window.
- Complete the fields as described.
- Save the window.

Burden Percentage Field Reference

The fields on this window are:

Calendar

Enter the name of the cost calendar (for example, enter 1997) for which burden percentage is being defined. Required.

Company

Displays the company for which burden percentage value is being defined.

Period

Enter the cost period for which the burden percentage is being defined. Required.

Cost Method

Enter Standard as the cost method code to be used. Only the Standard Cost Method type is supported. Required.

Burden Code

Enter or select a burden code for which percentage will be specified. The system then looks for all the entities that have selection priorities assigned to them for the specified burden code and company for the given calendar and displays them. You can choose any values for these priorities for which you are defining the burden percentage. Required.

Note: Depending on the specified Burden Code, the system retrieves and displays all the entities that have selection priorities assigned to them on the Burden Priorities window.

Percentage

Enter the percentage value associated with this burden code and entities to be applied to items component costs. The cost components that the percentages are applied to are specified in the Source and Target Percentage Burden Component window. When cost rollup is run, all the items specified for rollup belonging to the specified burden selection entities will have the specified burden percentage value applied to their costs. For example, if you specify 4% burden value for the burden code SHR, with Organization ORG1 and Warehouse WH1. When the cost rollup process is run, all the items belonging to the ORG1 organization and the WH1 warehouse will have 4% burden cost added to their costs.

Defining Source and Target Percentage Burden Components (Associations)

You define the source component class costs and analysis codes for which percentage burdens will be applied. For each source cost component and analysis code, the percentage burden is applied and the result is stored in the target component class and analysis code.

In the source component class field, you can select component classes with the usage types Cost Detail, FM Route, Burden Detail, or Standard Cost Adjustment. In the target component class field, you can only select component classes with the usage type of Burden Detail.

The source cost component class, analysis code, and burden code must be a unique combination. You can map this unique combination to any target cost component class and analysis code. This flexibility allows the same source cost component class and analysis code to be mapped to different target cost component class and analysis code for different burden codes. And similarly, different source cost component class and analysis code can be mapped to the same target cost component class and analysis code for different burden codes.

When the cost rollup process is run, the system looks for any percentage burden record defined for any of the ingredient items. If a burden percentage is defined, then the system applies the burden percentage to the cost of the source cost component class, and analysis code combination of the ingredient item and then posts the amount under the target cost component class and analysis code combination.

Defining Source and Target Percentage Burden Components Procedure

To define source and target percentage burden components:

- Navigate to the **Source and Target Percentage Burden Components** window.
- Complete the fields as described.
- Save the window.

Source and Target Percentage Burden Components Field Reference

The fields on this window are:

Burden Source

Component Class

Enter the component class code that identifies the cost component to be applied to the percentage burden. In the source component class field, you can select component classes with the usage types Cost Detail, FM Route, Burden Detail, or Standard Cost Adjustment. Required

Analysis Code

Enter the code that identifies the cost analysis code to be applied to the percentage burden.

Burden Code

Enter or select a burden code to be used where percentage will be applied to the specified cost component.

Burden Target

Component Class

Enter the code that identifies the cost component to store the result of the percentage burden as it is applied to the source cost component. In the target component class field, you can only select component classes with the usage type Burden Detail. Required

Analysis Code

Enter the code that identifies the cost analysis code to store the result of the percentage burden as it is applied to the source analysis code.

Copying Burden Percentage

You can copy percentage burden values from one calendar period to another. It eliminates the need for defining burden percentages manually for each calendar and period.

You can define burden percentages once for one calendar and period and then use the copy burden percentage window to copy that data over to another calendar, to one or all periods.

You can leave the target period blank, in which case:

- If the target calendar code is the same as the source calendar code, then the burden percentage is copied to all the subsequent periods of target calendar.
- If the target calendar code is different from the source calendar code, then the burden percentage is copied to all the periods of the target calendar.

You can limit the number of records to be copied to target calendar and periods by selecting the range of burden codes.

Copying Percentage Burden Procedure

To define burden percentage:

- Navigate to the **Copy Percentage Burdens** window.
- Complete the fields as described.
- Save the window.

Copy Percentage Burdens Field Reference

The fields on this window are:

Calendar From

Enter the cost calendar from where you are copying the percentage burden data. Cost calendars are set up using the Cost Calendar window.

Calendar To

Enter the cost calendar to where you are copying the percentage burden data. Cost calendars are set up using the Cost Calendar window.

Period From

Enter the cost calendar period from which you are copying the percentage burden data. You can copy percentage burdens from one period to another or to all periods in the same or different calendars.

Note: You can copy percentage burdens from a frozen or closed period to an open one. However, you cannot copy burdens to a frozen or closed period from an open one.

Cost calendars periods are set up using the Cost Calendar window.

Period To

Enter the cost calendar period to which you are copying the percentage burden data. To copy percentage burden data to all periods, leave this field blank.

Note: You can copy percentage burdens from a frozen or closed period to an open one. However, you cannot copy burdens to a frozen or closed period from an open one.

Cost calendars periods are set up using the Cost Calendar window.

All Periods

Click All Periods box to copy percentage burden data to all subsequent open or frozen periods in a given calendar. If this box is checked, then the target period (Period To) is blanked out.

Cost Method

Enter Standard as the cost method code to be used. Only the Standard Cost Method type is supported. Required.

Selection Range

Burden Code

Enter or select a burden code for which percentage will be specified. Required.

Existing Percentage

The Existing Costs field contains following options:

- **Remove Before Copy:** Select Remove Before Copy option to remove existing percentage burdens in target periods before the copy process. The current burden will be copied based on the other criteria you have entered, but the original percentage burden will be deleted.
- **Replace During Copy:** Select Replace During Copy option to overwrite current percentage burden cost during the copy process. The resulting percentage burdens will be different from the one that was replaced. While doing so, if system finds matching record at target calendar, period then the record will be updated with the source information else new record will be inserted.

Defining Acquisition Cost Codes

You enter acquisition codes and default cost component classes, analysis codes, inventory, or expense cost indicators on the Acquisition Cost Codes window.

The Purchase Acquisition Costs window is also available from the OPM Purchase Management responsibility. If you are using Oracle Purchasing for Process Inventory, then set up acquisition cost codes in the OPM Cost Management responsibility.

Acquisition Cost Codes Procedure

To define acquisition cost codes:

- Navigate to the **Purchase Acquisition Costs** window.
- Complete the fields as described.
- Save the window.

Acquisition Cost Codes Field Reference

The fields on this window are:

Cost Code

Enter the code for the type of acquisition cost you are entering.

Description

Enter the cost description for the cost code.

Component Class

Enter the component class for this code.

Analysis Code

Enter the cost analysis code associated with this code. Analysis codes are used to group cost categories.

Acquisition Cost Indicator

- Select Inventory to charge the acquisition costs to an inventory account.
- Select Expense to charge the acquisition costs to an expense account.

Note: See "Acquisition Costs" for more details.

Standard Costing Setup

This topic describes how to define the standard component costs for production items. These costs include raw materials, burden, and other costs associated with production. Once defined, you can propagate those costs for use by other organizations within your company and determine the appropriate costs to use for accounting.

The following topics are covered:

- **Defining Standard Item Costs**
- Defining Resource Costs
- **Defining Cost Burdens**
- Defining Rollup Source Warehouses
- Defining Rollup Target Warehouses

Individual component costs must be rolled-up to reflect the total standard cost of the item that was produced. This procedure is detailed in the Standard Cost Rollup discussion.

Defining Standard Item Costs

Use the Cost Detail window to inquire on the cost of producing a product, formula item or ingredient, or to define costs for new items or ingredients. The derived cost is based on the following cost factors:

- Item
- Warehouse
- Effective calendar/period
- Cost method

By varying these cost factors, you can derive the most cost-effective method to produce a product. The derived cost is per unit of the item being costed. For example, if you are costing the item Blue Paint, which has an inventory unit of measure as gallons, the derived cost is that to produce one gallon of blue paint. You define the primary unit of measure for an item on the Items window. If you use OPM Product Development, you can optionally include the costs associated with formula operations and routings in the derived cost.

The total cost to produce the item is shown at the top right of the cost details window. A breakdown of costs is shown in the tables located in the middle of the cost details window. Costs are broken into two levels. All costs carried over from previous levels of production are shown as Lower Level costs. All costs added at the current level of production are shown as This Level costs. A total cost for each level is shown at the top of each breakdown.

Each cost is associated with the component class assigned to the item, ingredient, or resource used. If more than one item with the same component class and analysis code is used at the same level in the production process, the cost for each of those items is summed and listed under on the same line.

Cost Detail Window - Format

The Cost Detail window is divided into two sections, This Level and Lower Level. This Level refers to costs incurred directly for the item, rather than costs incurred at a previous formula (or intermediate) level. Purchased raw materials will only have cost details in This Level.

Produced items can have cost details in both levels. The Lower Level summarizes costs from all intermediates regardless of the number of levels.

Defining Standard Costs for New Items or Ingredients

In order to derive the cost of a product, formula item, or ingredient, the cost of each of its constituents must be defined and rolled up into the product. For example, if the product Blue Paint has two constituents (blue dye and paint solution) before you can derive the cost of blue paint, you must first define a cost for each of the constituents, and then roll up the constituent costs into the product (blue paint).

To perform cost rollup, complete the Cost Detail window for each constituent and define the appropriate formula and effectivity. Then select Cost Rollup to perform a cost rollup.

Once this is done, if you select Cost Detail for the product (blue paint) using the same cost factors, you will see the constituent costs summed into the total cost for the product.

Cost Detail Window Prerequisites

The following information is required on the Cost Detail window, and must be set up prior to using this window. The application where each field is set up is shown in parentheses:

- Method Code (Costing)
- Cost Calendar/Period (Costing)
- Warehouse (Inventory)
- Item (Inventory)

In order to associate a cost with constituents to be rolled up into the product, the following must be set up and associated with each constituent prior to performing cost detail:

- Component Class (Costing)
- Analysis Code (Costing)

Defining Cost Details Procedure

To define cost details:

- Navigate to the **Cost Details** window.
- Complete the fields as described in the Cost Details Fields topic.
- **3.** Save the window.

Cost Details Field Reference

The fields on this window are:

Item

Enter the item code for the formula item, ingredient, or raw material for which you are entering or inquiring on costs.

Warehouse

Enter a valid warehouse code. The derived cost will only apply to items associated with this warehouse.

Calendar

Enter a valid calendar code. The derived costs will only apply to items associated with this calendar.

When a calendar is entered, the calendar's company is compared with the specified warehouse's company. A warning displays if they are different.

Period

Enter a valid period code within this calendar. The derived costs will only apply to items associated with this calendar/period combination.

Note: You cannot make changes to cost details in a period that has been frozen through a successful final cost update process. Also, you cannot add new costs to a period that has been closed using the Close Period option on the Cost Calendar window. However, you can inquire on both standard and actual cost methods on this window.

Cost Method

Enter a valid cost method code. You cannot enter cost for actual cost method.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Total Cost

The item's total cost as determined from the CDA area.

Base Currency Code

This field displays the currency in which the resource cost is calculated.

This Level

This Level Cost

This field displays the sum of this level cost.

Component Class Code

This field serves two purposes:

If you are displaying costs for a formula item, ingredient, or product, this field displays the component class associated with the cost shown on this line.

If you are defining the standard cost of an item, enter the cost component class associated with this item. For example, if you are defining the cost for the raw material water, enter the cost component class for raw materials.

Description

This field displays the description of the Component Class Code.

Analysis Code

This field serves two purposes:

If you are displaying costs for a formula item, ingredient, or product, this field displays the analysis code associated with the cost shown on this line.

If you are defining the standard cost of an item, enter the analysis code associated with the cost component for this item. The analysis code describes cost categories such as Value Added or Direct.

Note: If only one analysis code is set up for your organization, this field will default to that code.

Component Cost

This field serves two purposes:

If you are displaying costs for a formula item, ingredient, or product, this field displays the cost for the component class shown on this line.

If you are defining the standard cost of an item, enter the cost per unit. Note that the unit of measure for this item is already displayed to the right of this field. The unit of measure is retrieved from the item record.

Lower Level

Lower Level Cost

This field displays the sum of lower level cost.

Component Class Code

This field serves two purposes:

If you are displaying costs for a formula item, ingredient, or product, this field displays the component class associated with the cost shown on this line.

If you are defining the standard cost of an item, enter the cost component class associated with this item. For example, if you are defining the cost for the raw material water, enter the cost component class for raw materials.

Description

This field displays the description of the Component Class Code.

Analysis Code

This field serves two purposes:

If you are displaying costs for a formula item, ingredient, or product, this field displays the analysis code associated with the cost shown on this line.

If you are defining the standard cost of an item, enter the analysis code associated with the cost component for this item. The analysis code describes cost categories such as Value Added or Direct.

Note: If only one analysis code is set up for your organization, this field will default to that code.

Component Cost

If you are displaying costs for a formula item, ingredient, or product, this field displays the lower level costs for the component class shown on this line. If more than one constituent with this component class is used at this level in the production process, this field reflects the sum of the costs for those constituents.

Cost Details Window Menu Features

Actions Menu

- **Item Cost List** Use this window to display item costs for a particular cost calendar, period, and cost method. You can display costs for all, one, or a range of items or item classes for a particular calendar, period, and cost method.
- **Actual Transaction View -** View transactions in a costing period used to calculate actual costs. You can also view actual cost transactions from the previous period.
- **Burden Details** The Cost Burdens window displays burden cost details for an item to calculate component costs during the cost calculation. The window displays the burden costs that have been included for the item shown on the Cost Details window.
- **Formula Details** Use the Formula Costs window to display the formula ingredient cost for each item displayed on the Cost Details window. The Cost Details window displays the costs for each cost component class. The sum of the ingredient components in a formula should be equal to the product component cost on the Cost Details window.
- **Routing Details** Use this window to display the cost of resources used in operations and routings in the production of items or intermediate items. If you use operations and routings in your formulas, the cost rollup process will roll up the cost of the resources used in the operations and routings into the end-product cost, which can then be viewed using this window.

Defining Resource Costs

To reflect resource costs incurred during production in the product cost, set up production routings and define the amount or number of resources used. Optionally, you can set up burdens to define the amount of resources other than the production or ingredients used in the product; you can then include burden costs in the cost of producing the product.

In either case, you must first define nominal usage costs associated with the resources. You will define resource costs on an organization and calendar/period basis. The cost component class assigned to the resource, and the currency associated with the organization, are displayed on this window. Prior to defining resource costs, you need to define the resource code identifying the resource.

Defining Resource Cost Procedure

To define resource cost:

- Navigate to the **Resource Cost** window.
- Complete the fields as described.
- **3.** Save the window.

Resource Costs Field Reference

The fields on this window are:

Organization

Enter the code for the organization for which this resource cost is effective. The organization's company is validated against the cost calendar's company. A warning displays if they are different.

Resource

Enter the code identifying the resource for which you are defining costs.

Calendar

Enter the cost calendar for which this resource cost will be effective.

Period

Specify the cost calendar period for which this resource cost will be effective.

Component Class

If you are displaying costs for a formula item, ingredient, or product, this field displays the component class associated with the cost shown on this line. This field is display only.

Base Currency

This field displays the currency in which the resource cost is calculated. This field is display only

Cost Details

Cost Method

Specify each cost method for this resource.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Description

This field displays the description of the Cost Method.

Nominal Cost

Enter the nominal cost for this resource, that is, the cost of using this resource for one unit of measure. For example, if you are defining the resource cost for a mixing machine, and its usage is measured in hours, enter the cost to run the mixer for one hour.

Unit of Measure

Specify the unit of measure in which usage of this resource is measured. This field defaults to the unit of measure initially defined for this resource, but may be changed. You define the unit of measure for the resource on the Resources window.

Status

This display field is updated by the Cost Rollup and Actual Cost, and indicates if this resource cost has been rolled up for use as the accounting cost for this resource. See the Standard Cost Calculations and Actual Cost discussions for more information on cost roll ups and actual cost calculations respectively.

Selecting Resource Cost

The Resource Cost Selection allows you to select the criteria for populating for the Resource Cost List window.

Selecting Resource Cost Procedure

To select a resource cost

- **1.** Navigate to the **Resource Costs** window.
- 2. Choose Resource Cost List from the Actions menu. The Resource Cost Selection window is displayed.
- **3.** Complete one or any combination of fields as described.
- 4. Choose **OK**.

Resource Cost Field Reference

The fields on this window are:

Calendar

Enter all or part of a valid cost calendar code for which the resource cost will be effective.

Period

Enter all or part of a valid cost calendar period code.

Cost Method

Specify each cost method for this resource, along with the appropriate unit cost.

Selection Range

From Organization

Enter the code for the from organization for which this resource cost will be effective.

To Organization

Enter the code for the to organization for which this resource cost will be effective.

From Resource

Enter the code identifying the from resource for which you are defining costs.

To Resource

Enter the code identifying the to resource for which you are defining costs.

Getting Resource Cost List

The Resource Cost List produces a list of all resource costs, by organization. This can aid you in determining if one or more resource costs must be modified.

Getting Resource Cost List Procedure

To obtain a list of resource cost:

- Navigate to the **Resource Costs** window.
- 2. Choose Resource Cost List from the Actions menu. The Resource Cost Selection window is displayed.
- **3.** Complete one or any combination of fields as described.
- **4.** Choose **OK**.

Resource Cost List Field Reference

The fields on this window are:

Organization

Displays the selected organization code.

Resource

Displays the selected resource.

Description

Displays the description of the resource.

Cost

Displays the cost of the resource.

Unit Of Measure

Displays the initial unit of measure for the resource.

Defining Cost Burdens

Use the Cost Burdens window to set up and maintain standard resource burdens. A burden is a cost associated with a resource other than the resource usage assigned in the routing. You defined the resource cost for MIXER1 as \$2.50 per hour, which represents overhead, maintenance, and depreciation.

Assume you need a laborer to clean MIXER1 after each use. To account for the cost of cleanup, instead of adding another component cost to each item that uses MIXER1, you can assign a burden to the items being produced by that laborer on MIXER1. The burden assignment would be the time it takes the laborer to clean MIXER1 multiplied by the cost per hour for the laborer. In addition, you can add other costs into the burden (for such things as cleaning agents).

To reflect burdens in the cost of a product, formula item, or ingredient, first create the burden using this window. In order to assign burdens to resources, you must first set up a resource to be used as the burden. As in the example above, this would be the MIXER1 resource. You must then define a cost for that resource. Then, when assigning burdens, you will assign the amount of that resource needed to perform the burden. As in the example above, you may need to use 25 hours of MIXER1 for cleanup.

The following fields are required on the Burden Details window and must be set up prior to defining burdens. The application where each field is set up is shown in parentheses:

- Item (OPM Inventory)
- Warehouse (OPM Inventory)
- Calendar/Period (Financials)
- Cost Method (OPM Financials)
- Organization (OPM System Administration)
- Resource (OPM Process Planning)
- Cost Component Class (OPM Financials)
- Cost Analysis Code (OPM Financials)

Defining Cost Burdens Procedure

To define cost burdens:

- Navigate to the **Cost Burdens** window.
- Complete the fields as described.
- **3.** Save the window.

Cost Burdens Details Field Reference

The fields on this window are:

Note: You cannot add new cost burden information for a period that has been closed or for which the costs have been updated; you can only inquire on burden information in those situations.

Organizations

Enter a valid organization code. The burden will only apply to this item when associated with this organization. This field defaults to the organization code associated with your operator code but may be changed.

Item

Enter the item code for the product or intermediary to which this burden will be assigned. For example, if the product Blue Paint uses MIXER1 as a resource, and you are assigning a burden for cleanup of MIXER1 to the process for making Blue Paint, enter the item code for Blue Paint.

Warehouse

Enter a valid warehouse code. The burden only applies to the item when associated with this warehouse.

The warehouse is validated against the given organization. A warning displays if the warehouse does not belong to the given organization.

Calendar

Enter a valid calendar code. The burden will only apply to this item when associated with this calendar.

When a calendar is entered, the calendar's company is compared with the specified warehouse's company. A warning displays if they are different.

Period

Enter a valid period code within this calendar. The burden will only apply to this item when associated with this calendar/period.

Note: Burden details in a closed period can only be viewed and cannot be edited.

Cost Method

The cost method for the specified calendar displays. You define calendars on the Cost Calendar window.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Burden Details

Resource

Enter the code for the resource burden. For example, if the product Blue Paint uses MIXER1 as a resource, and you are assigning a burden for cleanup after each use of MIXER1, enter the code for MIXER1.

Component Class Code

The cost component class established for this resource will be the default here, but can be modified. For example, if you are assigning a burden for cleanup after each use of MIXER1, enter the component class for the MIXER1 used during the cleanup process.

However, only component classes defined as burden usage will be allowed.

Analysis Code

The analysis code under which this burden will appear in cost details.

Note: If only one analysis code is set up for your organization, this field will default to that code.

Resource Usage

Enter the amount of the resource used for this burden. For example, if it takes one laborer.25 hours to cleanup MIXER1 after each use, enter .25.

Item Quantity

Enter the amount of the item yielded in this production process (the item entered in the **Item** field) during that 25 hours of resource usage.

UOM

Enter the amount of the Unit of Measure in which this item is yielded. This field defaults to the UOM defined for this item.

Note: The following fields, displayed at the bottom of the Cost Burdens window, are for entering data for the highlighted line. To enter data into these fields, navigate as usual from the UOM field.

Resource Count

Enter the number of this resource used in the production of the item. For example, if it takes one laborer to cleanup MIXER1 after each use, enter 1 (laborer). This number will be multiplied by the Resource Usage number to determine the total resource usage.

Burden Unit of Measure

Enter the unit of measure in which this burden is measured (for example, hours).

Base Currency Code

This field displays the currency in which the resource cost is calculated. This field is for display only.

Defining Rollup Source Warehouses

Use this window to define where the cost rollup obtains the raw material costs for an item. Define the percent of costs for each warehouse to be used when calculating the final cost of end products. Define the costs by item or item cost class. Depending on variables such as overhead or geographic location, you may associate different costs with the same resource stored in different warehouses. This is a required setup for the cost rollup.

For example, you may have a warehouse within 50 miles of the distributor of one of your raw materials. Due to shipping costs, the cost of the raw material in that warehouse will be significantly less than in another warehouse located 2,000 miles away from the distributor.

When calculating costs using the Cost Rollup window, you may want to use an average of the cost, taking into consideration the item costs from different warehouses. You can indicate the percent of the actual cost calculated from each warehouse to arrive at a final cost used to produce the end product.

For example, if you normally pull a particular item from a single warehouse, you indicate that 100% of the cost for the item should be costed from that warehouse. If however, half of the time you draw the items from one warehouse, and the other half of the time you draw from a different warehouse, you can indicate to use 50% of the cost defined from each warehouse.

Note: The cost rollup requires a default record by organization, calendar, and period. This record would show blanks in the Cost Class and Item fields and it applies to all items for which specific source warehouses have not been defined.

Defining Rollup Source Warehouse Procedure

To define rollup source warehouse:

- Navigate to the **Rollup Source Warehouses** window.
- Complete the fields as described.
- Save the window.

Rollup Source Warehouse Field Reference

The fields on this window are:

Organization

Enter the organization for which you are defining source warehouse cost allocations.

Calendar

Enter the cost calendar for which you are defining source warehouse cost allocations. The organization's company is validated against the cost calendar's company. Similar validations are performed when organization and calendar are entered in the Copy Warehouse window. A warning displays if the organization's company is different from the cost calendar's company.

Period

Enter the period for which you are defining source warehouse cost allocations.

Item Cost Class

If you are defining source warehouse cost allocations for all items assigned to a particular item cost class, enter the item cost class. Otherwise, leave this field blank and complete the Item field to define source warehouse cost allocations by item. Item cost classes are associated with items on the Items window in Inventory.

Item

If you are defining source warehouse cost allocations for one item, enter the item code.

Details

Warehouse

Enter the code for the warehouse from which you are sourcing raw material costs. The warehouse is validated against the given organization. A warning displays if the warehouse does not belong to the given organization.

Description

The warehouse description displays automatically, as well as the organization to which the warehouse is linked.

Organization

The organization linked to the operator is the default. If the source warehouse is for another organization, you may override this with another valid organization.

Allocation %

Enter the percent cost allocation to be used from this warehouse. For example, if you always pull this particular resource from this warehouse, enter 100%. The raw material cost in this warehouse will be used in standard cost calculations. The allocation percentage must add up to 100, otherwise you will not be able to save the record.

Defining Rollup Target Warehouses

Define the warehouses in which you normally stock end-products and from which you normally fill orders for those products; thereby, defining the costs to be used to calculate the product costs. You then use this window to define the target warehouses where the standard cost rollup (for the standard cost method) will store the results of the cost calculations.

For example, you may have an end-product warehouse within 50 miles of your source warehouse (raw materials and ingredients storage). Due to shipping costs, the cost of the end-products stored in this end-product warehouse will be significantly less than in another warehouse located 2,000 miles away from the source warehouse.

Defining Rollup Target Warehouse Procedure

To define rollup target warehouse:

- Navigate to the **Rollup Target Warehouses** window.
- Complete the fields as described.
- **3.** Save the window.

Rollup Target Warehouse Field Reference

The fields on this window are:

Organization

Enter the organization for which you are defining source warehouse cost allocations.

Calendar

Enter the cost calendar for which you are defining target warehouses. The organization's company is validated against the cost calendar's company. Similar validations are performed when organization and calendar are entered in the Copy Warehouse window. A warning displays if the organization's company is different from the cost calendar's company.

Period

Enter the cost calendar period for which you are defining target warehouses.

Details

Item Cost Class

Enter the item cost class for which you want to define this target warehouse. Otherwise, leave this field blank to indicate all item cost classes.

You can define the target warehouse for either the entire item cost class, or a specific item. The cost calculation process requires that a default record be defined. You create the default by leaving the Class and Item fields blank.

Item

Enter the item for which you are defining the target warehouse.

Warehouse

Enter the target warehouse for this item/item cost class. The warehouse is validated against the given organization. A warning displays if the warehouse does not belong to the given organization.

Standard Cost Calculations

This topic explains how to roll up the standard costs of components into product costs whenever standard item cost components have been changed. Rollups are also required if new items, formulas, or products have been added and set up for costing (See: Standard Cost Setup discussions).

The following topics are covered:

- Standard Cost Rollup Prerequisites
- Calculating Standard Costs
- Viewing Standard Costs
- Viewing Item Costs
- Viewing Cost Burdens
- Viewing Formula Costs
- Viewing Routing Costs

Standard Cost Rollup Prerequisites

To include resource usage costs in the derived cost, the following must be set up prior to performing cost rollups:

- Resource (OPM Process Planning)
- Resource Cost (OPM Financials)

To use resource burdens when deriving costs, burden assignments must be set up prior to performing cost rollup. To derive costs from formula operations and routings, the following must have been set up prior to running the cost rollup:

- **Formulas**
- Formula operations
- Formula routings
- Formula effectivity for costing or production

Calculating Standard Costs

To generate a standard cost for a product ingredient, you must perform a cost rollup. The rollup incorporates formula details, routing details, and burden details for each item selected. Also, whenever you add a new product, you must perform a cost rollup. If a calendar period is frozen, then the rollup of items whose costs are frozen are skipped and an appropriate message is logged.

The standard cost rollup runs as a concurrent process; you can initiate the rollup, then continue with other OPM functions while it runs. Note that a rollup cannot be performed for a calendar period that has been closed.

When the Cost Rollup process is run, if there are no valid effectivity (also referred to as Validity Rules) for a product, then the lower level costs are deleted. A profile option, GMF:Delete Ingredient Cost When No Effectivity, is added that allows you to specify whether to delete the ingredient costs. If the profile value is set to Yes, then the Cost Rollup process deletes the ingredient costs if no valid effectivity is found for a product. If the profile value is set to No, then the Cost Rollup process does not delete the ingredient costs.

Note: After OPM is implemented and standard costs for all component items are defined, perform an initial rollup for all items. A rollup reference number is assigned to the rollup during the process. Make a note of this reference number for future inquires.

The Cost Rollup process applies the Source Warehouse allocation rules (percentage of total allocation) when rolling up ingredient burden costs, so that the product's lower level cost is allocated with the correct percentage.

The Cost Rollup process considers burdens regardless of its target warehouse rules. Burdens are applied to upper level ingredient costs if they are defined for the organization, item, warehouse, calendar, period, and cost method.

Cost Rollup Changes for New Product Development

The subsequent paragraphs describe the Cost Rollup changes for New Product Development.

Using Recipes in the Cost Rollup Process

In the OPM Product Development, effectivities are entered as recipe validity rules with the appropriate recipe use data. The recipe use data is equivalent of the formula use data. The Cost Rollup process considers the recipe use data for costing and production unless the cost method is of Lab Type. Recipes, validity rules, formulas, routings, and operations all have a new status attribute. The Cost Rollup process selects status that fall within the following categories: Approved for Lab Use (only for Lab Type), Approved for General Use, and Frozen. The Cost Rollup process determines whether to use a lab recipe based on the specified cost method for which the cost rollup is run. This takes precendence over the other recipes. Refer to the Oracle Process Manufacturing New Product Development User's Guide for details on formulas and recipes. Refer to the Oracle Process Manufacturing Cost Management *User's Guide* for details on defining cost method codes.

Using Lab Recipes in the Cost Rollup Process

A Usage field is added to the Cost Method Codes window to indicate if the cost method is for lab use. The default value is general use which when selected considers only the production and costing recipes. If the usage field is set to Lab use, then the Cost Rollup process uses the lab recipes along with the product or costing recipes and lab use takes precedence over other recipes. This field is enabled only for the Standard Cost type.

Using Process Loss, Activity Factors, and Charges in Cost Calculation

With the product development functionality you can set up routings with an associated process loss, an activity (operation line) with a multiplicative factor to identify repetitions in a given activity, and charges for a resource. Charges are setup indirectly by specifying resource minimum and maximum capacity. The subsequent paragraphs describe the changes made to the Cost Rollup process to consider the process loss, activity factors, and charges in the cost calculation.

Process Loss

The Cost Rollup process now considers the process losses defined. A process loss is a percentage established at the recipe level that is used to calculate the actual ingredient consumptions, this determines the material and resource unit costs. Refer to the Oracle Process Manufacturing New Product Development User's Guide for more details on process loss overrides.

All linearly scaled ingredients are increased by:

Ingredient Quantity / 1 - (Process Loss / 100)

Activity Factors and Charges

The activity factor indicates the number of times an activity is performed. The factors are applied to resource usage when calculating resource costs.

Charges are determined by capacity and relates to the number of times a routing step or an activity needs to be performed. This is specific to a recipe. The OPM Product Development application includes a new resource scaling type, Fixed by Charge. This scaling type determines if the resource cost is fixed by the number of charges. The Cost Rollup process considers the new scaling type and computes the costs accordingly. Refer to the Oracle Process Manufacturing New Product Development *User's Guide* for details on the Fixed by Charge scaling type.

The Actual Cost process considers both activity factors and charges when calculating costs.

Even though the fixed quantity scale type existed for resources, the Cost Rollup process did not use this scale type to calculate costs. Whereas, now the fixed quantity scale type is used as a valid scale type in the cost calculations.

In the following resource cost calculations, the value specified within the square brackets is the scale factor for each resource scale type.

Fixed Quantity

The resource cost using the Fixed quantity scaling type is calculated as:

Resource Unit cost = (1/Product Yield Qty) x [1] x Resource Count x Resource Usage x Nominal Cost x Activity Factor

Linear Scaling

The resource cost using the Linear Scaling type is calculated as:

Resource Unit Cost = (1 / Product Yield Qty) x [(Standard Qty / Routing Qty) x (Step Quantity / Process Quantity)] x Resource Count x Resource Usage x Nominal Cost x Activity Factor

Fixed By Charge

The resource cost using the Fixed by Charge scaling type is calculated as:

Resource Unit cost = (1/Product Yield Qty) x [Number of Charges] x Resource Count x Resource Usage x Nominal Cost x Activity Factor

Resource Cost Calculation

The OPM Product Development application provides the flexibility to override the operation throughput, process quantity, and resource usage at the recipe level. The Cost Rollup process supports these overrides. The Resource Usage is calculated based on the total output rather than the product itself. Refer to the *Oracle Process Manufacturing Process Execution User's Guide* for more details on the resource usage.

Validity Rule Override

You can now override the planned process loss at the validity rule level. The planned process loss value is taken from the validity rule, if available. Otherwise, it is calculated from the recipe along with the theoretical loss table for the validity rule standard quantity. The Cost Rollup process considers the planned process loss override and uses them cost calculation.

Calculating Standard Cost Rollup Procedure

To calculate the standard cost rollup:

- Navigate to the **Cost Rollup** window.
- Select **Start** from the Cost Rollup window **Actions** menu. The Start Cost Rollup window displays. You can begin the rollup for a specified calendar, period, and cost method.
- 3. On the Start Cost Rollup window, specify the criteria by which OPM selects the costs to process.
- **4.** Complete the fields as described.
- Click **Accept** to begin the rollup process.

Start Cost Rollup Field Reference

The fields on this window are:

Selection Criteria

Calendar

Enter the code for the calendar for which the cost rollup will be processed. Costs will be rolled up for the company and the cost method linked to this calendar. Required.

Company

The company linked to the calendar you specified displays. You cannot edit this field. Transactions for all organizations linked to this company will be selected and included in the cost rollup process.

Period

Specify the period for which costs will be rolled up; this period defines the start and end dates for selecting all transactions. This period in the cost calendar must be either open or frozen (a closed period cannot be entered). Required.

Period Status

The status of the calendar period (either Open, Closed, or Frozen) displays. You cannot edit this field.

Cost Method

The cost method linked to the cost calendar displays. Only standard cost methods are allowed.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Single Level

Check this option, if a single level rollup is to be performed for the item to be entered.

Organization (From and To)

You can specify a range of organizations to run the cost rollup process. For running the cost rollup for a single organization, enter the same value in the From and To fields. To run the cost rollup for all organization, leave the organization From and To fields blank. For open ended range, if you specify From organization and leave the To field blank, then the cost rollup considers organizations starting from the specified From value and beyond. Similarly, if you specify to organization and leave the From field blank, then the cost rollup considers organizations up to the To value.

Item Cost Class

You can specify a range of cost classes by entering the opening and closing ends of the cost class number range under the From and To headings, respectively. For a single item or item cost class, enter the same value in the from and to fields.

Item

You can include component costs for a range of items by entering the opening and closing ends of the item number range under the From and To headings, respectively. For a single item or item cost class, enter the same value in the from and to fields.

Start Cost Rollup Fields

Start Date

Specify the date and time that the cost rollup process will start. Click Now to start the process immediately.

To start the rollup at a particular date, click the Specific Date radio button. Enter the date you want the cost rollup to run.

Rollup Reference Number

OPM assigns a unique identifier number for each individual cost rollup process. You cannot edit this field.

Cost Rollup Error Messages

Cost Rollup Reference Number

OPM assigns a unique identifier number for each individual cost rollup process. You cannot edit this field.

Line

Displays the line number of the error message.

Error Message

Displays the text of the error message.

Cost Rollup window - Additional Menu Features

Actions Menu

Start - Displays the Start Cost Rollup dialog box, which allows you to begin the rollup for a specified calendar, period, and cost method.

Process Status - Use this option to review the status of a cost rollup that is in progress. You can also review figures from previous processes, each of which is identified by the reference number. The reference number lookup is available to help you in selecting previous rollups for query.

Abort/Reset - Use this option to abort the cost rollup process that is running currently. For situations where a process was terminated unintentionally (such as a power failure), this option also resets the internal controls and settings required to start the rollup process again.

An Aborted Reason field is provided to capture appropriate text.

View Error Messages - Use this option to review any errors generated during a cost rollup processing run. The Cost Rollup Error Messages window is shown. Each generated error is listed on an individual, OPM-generated line. The error itself is explained under the **Error Comment** heading.

Note: The first message line is not an error, but a summary of the parameters or options selected to start this rollup.

Viewing Standard Costs

The Viewing Standard Costs discussion describes how to view standard costs once they have been calculated. You can view standard costs for items, formula ingredients, cost burdens, and routings.

You access all of these view cost options from the Cost Details window. Complete the Cost Details window in order to display cost details. Once the Cost Details window is complete, follow these procedures to display item, ingredient, burden, or routing costs.

Viewing Item Costs

Use this window to display item costs for a particular cost calendar, period, and cost method. You can display costs for all, one, or a range of items or item classes for a particular calendar, period, and cost method.

Viewing Item Costs Procedure

To display item costs:

- Navigate to the **Cost Detail** window.
- 2. Select Item Cost List from the Actions menu. The Item Cost Selection window displays.
- 3. On the Start Cost Rollup window, specify the criteria by which OPM selects the costs for processing.
- **4.** Complete the fields as described in the Fields topic.
- **5.** Click **Accept**. The Item Cost List window displays.
- When finished viewing item costs, select **Close** from the **File** menu to redisplay the Cost Details window.

Item Cost Selection Field Reference

The fields on this window are:

Calendar

Enter the cost calendar for which you want to display item costs. Required.

Period

Enter the cost calendar period for which you want to display item costs. Required.

Cost Method

Enter the cost method code for which you want to display item costs.

Selection Range

Item (From, To)

To display costs for a range of items, enter the first item and the last item in the range (alpha-numerically).

Item Cost Class (From, To)

To display item costs for a range of item cost classes, enter the first item and last item cost class in the range (alpha-numerically).

At this point, select **Accept** at the bottom of the window. The Item Cost List window displays.

Item Cost List Field Reference

The fields on this window are:

Item

This field displays the item for which costs (on this line) are shown.

Unit of Measure

This field displays the unit of measure for which costs are shown. The cost shown is for one unit of this item.

Warehouse

This field displays the warehouse, in which this item is stored, for which costs are shown.

Cost

This field displays the nominal cost for this item, in this warehouse.

Description

This field displays the description of this item.

Viewing Cost Burdens

The Cost Burdens window displays burden cost details for an item that are used by OPM to calculate component costs during the cost calculation. The window displays the burden costs that have been set up for the item shown on the Cost Details window.

The cost displayed shows the contribution that burdens make to the total unit cost. These figures are entered on the Burden Detail window.

Viewing Cost Burdens Procedure

To view the cost burden:

- Navigate to the **Cost Detail** window.
- Query and retrieve the Cost Details of the product.
- 3. Select Burden Details from the Actions menu. The Burden Details window displays with information related to the item being displayed in the Cost Details window.

Cost Burdens Field Reference

The fields on this window are:

Item

This field displays the item for which cost burdens are being displayed. The Item is retrieved from the Cost Details window.

Warehouse

This field displays the warehouse associated with this item, for which burden costs apply.

Burden Details

Organization

This field displays the organization associated with this item, for which costs are displayed.

Resource

This field displays the resource assigned as a burden for the production of this item.

Component Class Code

This field displays the component class associated with this resource, and used for the burden cost calculation. Component classes are associated with burdens on the Burden Details window.

Analysis Code

This field displays the analysis code associated with this resource and used for the burden cost calculation. Component classes are associated with burdens on the Burden Details window.

Burden Cost

This field displays the calculated burden cost. The cost equals the resource cost multiplied by the quantity of the resource used for this burden, divided by the item quantity. These figures are entered on the Burden Details window.

For example, if you specified LABOR at \$5.00 per hour as the burden resource, and the burden quantity is.25 hours, this field equals .25 multiplied by 5.00, or \$1.25.

Viewing Formula Costs

Use the Formula Costs window to display the formula ingredient cost for each item displayed on the Cost Details window. The Cost Details window displays the costs for each cost component class. The sum of the ingredient components in a formula should be equal to the product component cost on the Cost Details window.

If more than one item with the same cost component class is used at the same level of production for the item, the cost for each of those items is summed and shown as one line on the Cost Details window. The Formula Detail window breaks the items down and shows each of them individually.

The item cost component class and analysis code used to cost the item are displayed for each item included in the formula. In addition, the component cost associated with each item is also displayed. The component cost equals the nominal cost of the item multiplied by the amount of the item used in the production of the product divided by the yield of the product specified in the formula.

Viewing Formula Costs Procedure

To view the formula cost:

- Navigate to the **Cost Details** window.
- **2.** Query and retrieve the Cost Details of the product.
- Click **Accept**. The Cost Details window displays. The Display Cost Burdens window displays with the calculated formula costs shown.

Formula Detail Field Reference

The fields on this window are:

Organization

This field displays the organization associated with this formula item and for which costs are shown.

Item

This field displays the formula item and for which costs are shown.

Formula

This field displays the formula name used to produce this formula item.

Version

This field displays the formula version.

Formula Details

Component Class Code

This field displays the component class associated with this formula, used to calculate the formula ingredient costs.

Analysis Code

This field displays the cost analysis code associated with this formula, used to calculate the formula ingredient costs.

Item

This field displays the ingredient for which costs are shown.

Component Cost

This field displays the formula item (ingredient) for which the costing details on this line are displayed.

The item cost component class and analysis code used to cost this item are displayed. In addition, the component cost associated with the item is also displayed. The component cost equals the nominal cost of the item multiplied by the amount of the item used as ingredient quantity in the formula divided by the yield of the product in the formula with other things calculated appropriately.

UOM

The UOM field displays the preliminary Unit of Measure for the item.

Viewing Routing Costs

For standard cost methods, use this window to display the cost of resources used in operations and routings in the production of items or intermediate items. If you use operations and routings in your formulas, the cost rollup process will roll up the cost of the resources used in the operations and routings into the end-product cost, which can then be viewed using this window.

For each resource, the component class, analysis code, and the component cost from the resource is listed. For standard costing, the resources listed are those defined in the routing steps for the routing assigned to the formula effectivity record.

Prerequisites

To include operation and routing costs in your product costs, routes must be assigned to the product. To do this, you need to set up operations, include the operations in routings, create a formula effectivity record for the product, and include the routing in the formula effectivity record. If you use standard costing, you must run a cost rollup first in order to insure that the most recent resource costs will be displayed.

Note: Formula operations, routings, and effectivities are explained in the *OPM Formula Management User's Guide*.

Viewing Routing Costs Procedure

To view the routing cost:

- Navigate to the **Cost Detail** window.
- Query and retrieve the Cost Details of the product.
- Select **Routing Costs** from the Cost Detail window **Actions** menu. The Routing Details window displays.

Routing Detail Field Reference

The fields on this window are:

Resource

Displays the resource used for this routing.

Component Class Code

Displays the cost component class used to cost this resource. The corresponding component class description displays automatically.

Analysis Code

Displays the cost analysis code used to cost this resource.

Component Cost

Displays the cost associated with this resource (cost to produce one unit of this product). For example, if this routing is assigned to the production of Blue Paint, and the unit of measure for Blue Paint is gallons, the cost shown is that to produce one gallon of Blue Paint.

Component Class Description

Displays the description associated with the Component Class Code.

Organization

Displays the organization associated with the highlighted routing line for which costs are shown.

Routing Number

Displays the routing code associated with the highlighted routing line for which costs are shown.

Version

Displays the routing version associated with the highlighted routing line for which costs are shown.

Actual Costing Setup

This topic explains defining adjustment reasons, allocation codes, and expense allocation accounts. Since the costs are based on real transactions, there is minimal cost setup required in order to generate actual cost calculations. However, you must define adjustment reasons in the event actual costs generated by OPM must be adjusted at a later time.

The following topics are covered:

- **Actual Costing Setups Overview**
- Defining Adjustment Reason Codes
- **Defining Allocation Codes**
- Defining Allocation Definitions
- Defining Expense Allocation Accounts
- Using Material Component Classes/Analysis Codes

OPM captures the actual costs from all the business transactions (such as production batch receipts and raw material purchase order invoices). It then calculates the actual costs of production using these actual cost components. Audit trails of the transactions from which actual costs are derived are provided.

Accrued General Ledger Cost Allocations

Accrued indirect costs (such as material overhead) maintained in general ledger accrual accounts may be pooled to be included in actual cost calculations. These accrued costs are captured through interfaces with the financial general ledger software (such as Oracle General Ledger). You must define the parameters by which these pooled accrued costs will be allocated (automatically) to designated cost component classes.

Actual Costing Setup Chronology

- Define Adjustment Reason Codes
- Define Allocation Codes
- Define Expense Allocation Accounts
- Define Allocation Definitions

Defining Adjustment Reason Codes

If a situation arises in which you have to make adjustments to the actual costs calculated by OPM, you can use the Actual Costs Adjustments window to enter the necessary component cost changes for new cost calculations. However, you will have to specify a valid reason code that justifies the reason for that cost change. You define those reasons on the Actual Costs Adjustment Codes window.

Defining Actual Costs Adjustment Codes Procedure

To define adjustment codes:

- Navigate to the **Actual Cost Adjustment Code** window.
- Complete the fields as described.
- **3.** Save the window.

Actual Cost Adjustment Codes Field Reference

The fields on this window are:

Code

Specify the code that identifies the reason for making an adjustment to actual cost calculations for a raw material or a product. Required.

Description

Enter a brief description of the reason that this type of cost adjustment would be made (for example, "Supplier Price Increase"). Required.

Defining Allocation Codes

On this window you create the allocation codes that are used to define the indirect expenses from the general ledger accrued expense accounts. Later, you will define the parameters to allocate those expenses to the appropriate cost component classes.

Since allocations can be processed in multiple steps, we recommend that you adopt a naming convention to simplify processing of ranges of allocation codes.

Defining Allocation Codes Procedure

To define allocation codes:

- Navigate to the **Allocation Codes** window.
- Complete the fields as described.
- **3.** Save the window.

Define Allocation Codes window Field Reference

The fields on this window are:

Company

Specify the company for which you are defining expense allocations. The corresponding company description displays automatically. Required.

Allocation Code Details

Allocation Code

Enter a code that defines this expense allocation. Required.

Description

Enter a brief description of the expense allocation you are defining. Required.

Note: After you have defined expense allocations, you must define the general ledger accounts to which overhead expenses will post when those expense allocations are used. See the *Define Expense* Allocation Accounts discussion for details.

Defining Allocation Definitions

On this window you specify two sets of information:

- The item, component class, and related information required to identify where the allocation results will be placed.
- The account keys that maintain the basis information (for example, the quantity of production and machine usage) associated with each item only if the basis account is setup for the allocation code.

The Allocation Results section at the bottom of the window is linked to a specific item line, and indicates where the resulting allocated expenses are placed.

This functionality requires Oracle General Ledger to be fully installed. If you are using OPM not integrated with Oracle Financials, and GL is not fully installed, then a warning message displays and the data you enter may not be used.

When you enter item code and tab out of the field, the cost component class, analysis code, and warehouse fields in the Allocation Result region are defaulted from the previous record. This functionality enables smoother data entry without you having to go to these fields in the Allocation Result region to enter the values. If you want to change the default value, enter them manually.

Defining Allocation Definition Procedure

To define allocation definitions:

- Navigate to the **Allocation Definition** window.
- Complete the fields as described.
- Save the window.

Allocation Definition Field Reference

The fields on this window are:

Company

Specify the company for which you are entering allocation definitions. The corresponding company name displays automatically.

Allocation Code

Specify the allocation code (for the company you stated) for which you are entering allocation definitions. The corresponding allocation description displays automatically. Required.

Allocation Method

Indicate the allocation method to be used for the allocation code you specified. Select "Depends on Basis" if the allocation percentage is to be calculated based on the basis amount in the basis account. When you use this method, you define the account key, balance type, and period/year-to-date.

Select "Fixed Percentage" Amount if a fixed percentage is to be used for the calculation. If you use this method, the Account Key, Balance Type, and Period/Year-to-Date fields are bypassed; you only enter percentages by item. The allocation method applies to all lines for the allocation code. Required.

Allocation Definition Details

Basis Account Region

If you specified allocation method "Depends on Basis Amount" in the Method field, specify the account from which the basis amount will be used to determine the allocation percentage. The corresponding account description displays automatically. Required.

Line

OPM generates a sequential number for each line. You cannot edit this field.

Item

Specify the item to which expenses will be allocated. The corresponding item description displays automatically in the bottom portion of the window. Required.

Kev

Displays the account key of the basis account.

Description

Displays the description of the basis account.

Fixed%

If the fixed allocation method is used, specify the allocation for the line. If you specified allocation method "Depends on Basis Amount" in the Method field, you cannot access this field (percentages are calculated dynamically).

With the current enhancement, you can enter allocation definition details whose total percentage value does not equal 100%. If your total percentage value is less than or greater than 100, then a warning is displayed when you try to save the window. You can either save without making any changes or go back and correct the percentage values.

The Cost Allocation process flags such codes as not equal to 100 percent and ignores these codes during processing. The system displays the total percentage entered until the save. It allows you to selectively enter more records or update existing records.

Basis Account Type Region

Note: This region has Balance Type and Period to Date fields besides Line, Item, and Fixed% fields that are described above.

Balance Type

Enter the balance type for the basis account type. Required.

- Statistical
- Budget
- Actual

Year-to-date/Period-to-date

Specify the year-to-date or period-to-date indicator. Select Period-to-date if this basis amount should be used to calculate the allocation percentage. Select Year-to-date if this basis amount will be used to calculate the allocation percentage. Required.

Allocation Result

Item Description

Displays a description of the item.

Cost Component Class

This fields defaults to the previous record. To change the default value, specify the component class into which the allocated expense will fall. The component class description displays automatically. Only those component classes that were defined as "allocation detail" are available from the List of Values and only one of these can be entered here. Required.

Analysis Code

This fields defaults to the previous record. To change the default value, specify the analysis code for the allocated expense. The analysis code description displays automatically.

Warehouse

This fields defaults to the previous record. To change the default value, specify the warehouse to which the expense will be allocated. The warehouse description displays automatically. Required.

Defining Expense Allocation Accounts

On this window you specify the general ledger account keys which capture the overhead expenses to be allocated. Here you are defining the expense pool to be allocated; on the Allocation Definitions window, you will specify the products to which these expenses are allocated.

This functionality requires Oracle General Ledger to be fully installed. If you are using OPM not integrated with Oracle Financials, and GL is not fully installed, then a warning message displays and the data you enter may not be used.

When using Actual Costing, ensure that the expenses are allocated in the correct period and that batches are certified and closed in the same period.

Defining Allocation Accounts Procedure

To define allocation accounts:

- Navigate to the **Expense to Allocate** window.
- Complete the fields as described.
- Save the window.

Expenses to Allocate Field Reference

The fields on this window are:

Company

Specify the company for which expenses to allocate need to be defined. The corresponding company description displays automatically. Required.

Allocation Code

Specify the allocation code defined for the company for which expense to allocate must be defined. The allocation code description displays automatically. Required.

Expense Pool

Balance Type Region

Line

OPM automatically displays line numbers in sequence. You cannot edit this field.

From Description

Displays the description based on the accounting unit and account specified.

To Description

Displays the description based on the accounting unit and account specified.

Balance Type

Specify the account's balance type used for this expense pool. The available options

- Statistical
- Budget
- Actual

YTD/PTD Region

Note: This region has Period to Date/Year to Date field besides Line, From and To Description fields.

Period to Date/Year To Date

Specify if the expense should be year-to-date or period-to-date balance. Required.

Using Material Component Classes/Analysis Codes

You have the option to use associated costs for all material component classes/analysis codes when calculating inventory value and purchase price variance (PPV) for GL distribution in Purchasing. This insures more accurate PPV calculations if more than one material component was established for an item.

Note: Use of this option eliminates the requirement of maintaining the Material Component Class window except when Actual Costing is used (it will not have any impact on GL booking or PPV calculations).

Using Material Component Classes/Analysis Codes Procedure

To associate material component classes and analysis codes:

- Navigate to the **Material Cost Component Class** window.
- Complete the fields as described.
- Save the window.

Item/Item Cost Class Specific Material Cost Component and Analysis Code Field Reference

The fields on this window are:

Company

Specify the company for which you are defining material component classes. This field defaults to the company associated with your operator code, but may be changed. Required.

Item Cost Class

Enter a valid item cost class. If you specify a valid item cost class, the Item field is not available and your cursor is moved to the Material Component Class field. Also, the Item Cost Class may be left blank and you can specify an item instead.

Item

Specify a valid item. If you enter a valid item code, the cursor moves to the Material Component Class field.

Component Class Code

Enter a valid cost component class. It is treated as a material component class either for an item cost class or an item. You can designate any cost component class defined as Cost Detail in component definitions. Required.

Note: You may define different cost component classes for different effectivity periods. In other words, OPM now supports one material component class/analysis code per item/item cost class.

Analysis Code

Specify a valid cost analysis code. It is treated as a material analysis code in combination with the material cost component class either for an item cost class or an item. Required.

Effectivity

This section of the window displays the date range for the material component class/cost analysis code definition. Note that the dates cannot overlap. If they do, the window will allow the user to save.

Start Date

Indicate the effectivity start date for the material component class/cost analysis code definition. The effectivity start date defaults to the system date, but may be changed. Required.

End Date

Indicate the effectivity end date for the material component class/cost analysis code definition. The effectivity end date defaults to the system date, but may be changed. The effectivity end date must be greater than the effectivity start date (there can be no date overlap). Required.

Note: It is recommended that the effectivity start and end dates should span the general ledger calendar and the costing calendar. For example, the following scenario supports this suggestion:

Effectivity Calendar1/1/96-12/31/97 General Ledger Calendar4/1/96-4/30/97 **Costing Calendar**4/1/96-4/30/97

Actual Cost Calculations

This topic explains the procedures for generating actual costs and making adjustments to the costs that OPM calculates.

The following topics are covered:

- **Processing Cost Allocations**
- Calculate Actual Costs
- Viewing Actual Cost Processing Status
- Using Actual Cost Adjustments
- Maintaining Invoice Prices
- Viewing Actual Costs
- Displaying Item Cost List
- Viewing Cost Burdens
- **Viewing Routing Costs**
- Viewing Actual Cost Transactions

Actual Cost Prerequisites

The following prerequisite conditions must be met in order to produce accurate actual cost calculations:

- All Purchasing receipts must be entered, with any necessary price corrections.
- Acquisition cost entries must be completed.
- Accounts payable interface must be completed.
- Production batches for the period should be closed.
- General Ledger expense allocations must be entered or interfaced.
- All burden details must be assigned.
- All actual cost adjustments must be completed.

Processing Cost Allocations

This procedure allocates accrued expenses from the general ledger accounts to the appropriate costing allocation codes.

This functionality requires Oracle General Ledger to be fully installed. If you are using OPM not integrated with Oracle Financials, and GL is not fully installed, then a warning message displays and the data you enter may not be used.

Processing Cost Allocation Procedure

To process cost allocations:

- Navigate to **Cost Allocation Process**. The Cost Allocation Process Control window displays indicating the status of the last allocation process that was run. The following restrictions pertain to running the cost allocation process:
 - You can only run one allocation process at a time
 - You cannot run process for a closed period
 - You can only use calendar belonging to the company for which you have authorization

Note: Use the Reset option in the event of abnormal shutdown during a process (that is, for any situation in which the process did not end normally). This option resets internal parameters.

- 2. Select Start from the Cost Allocation Process Control Actions menu. The Cost **Allocation Processing** window displays.
- Complete the fields as described.
- Click **Accept** to begin the process.

Cost Allocation Processing Field Reference

The fields on this window are:

Calendar

Indicate the cost calendar for which you are allocating expense costs. Required.

Period

Indicate the cost calendar period for which you are allocating expense costs. Required.

Company

The company that you linked to this cost calendar (on the Cost Calendar window) displays automatically. You cannot edit this field.

Period Status

The status of the cost calendar period you specified displays automatically. You cannot edit this field.

General Ledger

Fiscal Year

Indicate the fiscal year (defined in the appropriate General Ledger application) from which cost expenses will be selected for processing.

Period

Indicate the fiscal year period (defined in the appropriate General Ledger application) from which cost expenses will be selected for processing.

Note: The GL Fiscal Year and Period must be valid for the cost calendar's company. Otherwise, an error displays.

Refresh Interface

Check the Refresh Interface radio button to delete previous data that were processed for the cost expense allocation parameters you have entered. Clear the radio button if no refresh needs to occur.

Range

Allocation Code

You have the option of exporting cost expenses for all allocation codes, or restricting the export to cost expenses for a range of allocation codes.

Cost Allocation Processing - Additional Menu Features

Actions Menu

- Start Displays the Cost Allocation Process Control window; also allows you to begin the cost allocation process
- Reset Use the Reset option in the event of abnormal shutdown during a process (does not abort the process, but resets internal parameters).

Calculate Actual Costs

The process of generating actual costs begins with the Actual Cost Process window.

Actual Cost Process Changes for Oracle Purchasing for Process Inventory

The following changes are included in the Actual Cost process to accommodate the Oracle Purchasing for Process Inventory enhancement:

- Selects the receipt and invoice details data from the appropriate Oracle Purchasing and AP Invoice tables. You can use both historical data and the new receipts and invoices from Oracle Purchasing and Payables simultaneously.
- PO Receipts, PO Internal Orders, and AP Invoices sources are available in the View Actual Cost Transaction window. The Actual Cost process selects the document data from the appropriate Oracle Purchasing and AP Invoice tables. See Viewing Actual Cost Transactions topic for more details.
- The invoice price synchronization and invoice price maintenance can be run for historical data. You can also run these processes for any invoices created for historical receipts (receipts for purchase orders created in the Common Purchasing) and synchronize them to be considered by actual cost. See Maintaining Invoice Prices topic for more details.
- You can still use the Inventory Transfers in Actual Cost to calculate the cost of raw material transferred between warehouses and it is the only way to perform the direct material transfers. See Costing Modifications for Inventory Transfers topic for more details.
- The Actual Cost process considers acquisition costs specified as affecting inventory and calculates the item costs appropriately.

Actual Cost Process Changes for Process Execution

In Process Execution, when a lab batch is created you can specify whether to update inventory by checking the Update Inventory box. If you do not check this box, then the work-in-process warehouse is set to null. In this case, no inventory transactions are created and the Actual Cost process ignores these batches in cost calculation. As a result, the variances are not calculated.

Recipe Process Loss

The Actual Cost process considers the process loss when determining the costs. The process loss is defined as the percentage specific to the formula and process routings (Recipe) and is applied to the product yield. The batch transactions include the process loss to determine the actual consumption and output of an item.

Activity Factors and Charges

The activity factor indicates the number of times an activity is performed. The factors are applied to resource usage when calculating resource costs.

Number of Charges is determined by capacity and relates to the number of times a routing step, an activity, or a particular resource (the level where charges are maintained depends on the user setup) needs to be performed. This is specific to a recipe. The New Product Development includes a new operation scaling type, Fixed by Charge. This scaling type determines if the resource cost is fixed by the number of charges. The Cost Rollup process considers the new scaling type and computes the costs accordingly. Refer to Oracle Process Manufacturing New Product Development *User's Guide* for details on the Fixed by Charge scaling type.

The Actual Cost process considers both activity factors and charges as they are included in the batch transaction details when calculating costs.

Enable Reopen of a Production Batch

The Actual Cost process allows you to reopen a batch to correct entries. If the batch details were used in calculating the actual cost of a product, then a warning message displays. Run the Actual Cost process again to ensure that the costs are accurate and reflect the changes. If a batch is already posted or has contributed to a frozen actual cost, then it cannot be reopened.

Raw Material Costs

As part of Oracle Purchasing for Process Inventory enhancement, Oracle Purchasing receipts and AP invoices form the source for raw material cost calculations. OPM bases raw material cost calculations on the estimated prices on raw material receipts (materials received through the Oracle Purchasing application). The Actual Cost process also considers adjustments and returns.

If a final invoice price (the amount actually paid for the raw material, pegged to the receipt) exists during the same calendar period as the material receipt, OPM uses the invoice price to calculate the raw material costs.

For Historical OPM Data

The Actual Cost also considers historical data from OPM Receipt tables. The cost of acquiring the material (for example, freight costs) can be included in the cost calculations on an optional basis.

The invoice price synchronization and invoice price maintenance can be run for historical data. You can also run these processes for any invoices created for historical receipts (receipts for purchase orders created in the Common Purchasing) and synchronize them to be considered by actual cost.

Raw Material Cost Calculation Methods

The following methods are used to calculate raw material actual costs:

Period Moving Average Cost (PMAC)

OPM calculates the average cost for the period while moving previous period's cost with last period's inventory balance and cost:

PMAC is calculated by dividing the result of -- the quantity of the prior period inventory balance multiplied by the prior period cost, plus the sum of the transaction quantity multiplied by price -- by the previous period inventory balance plus the sum of transaction quantity, as shown in the following illustration.

Where:

Prev Period Inv Balance - This is the previous period inventory balance captured from the inventory period ending balances.

Prev Period Cost - The previous period actual cost component from the cost component details table.

Trans Qty - Receipt Transaction Quantities or AP Interfaced Quantities within the costing period.

Price - Receipt estimated prices or AP invoice final prices within the costing period.

 $PMAC = \frac{(Prior\ Period\ Inv\ Balance \times Prev\ Period\ Cost) + \Sigma(Trans\ Qty \times Price)}{(Prior\ Period\ Inv\ Balance \times Prev\ Period\ Cost)}$ Prev Period Inv Balance + Σ (Trans Qty)

Period Weighted Average Cost (PWAC)

This is the strict average cost of the raw material during the period, based on the total estimated receipt (or invoiced) price for the entire inventory quantity. The period weighted average cost is a strict average cost for the period based on Period Total Quantity and Estimated or Final Prices.

PWAC is calculated by dividing -- the sum of the transaction quantity multiplied by price -- by the sum of transaction quantity, as shown in the following illustration:

$$PWAC = \frac{\Sigma(Trans\ Qty \times Price)}{\Sigma(Trans\ Qty)}$$

Where:

Trans Qty - Receipt Quantities or AP interfaced quantities within the costing period Price - Receipt estimated prices or AP invoice final prices within the costing period

Perpetual Weighted Average Cost (PPAC)

The perpetual weighted average cost method computes the average cost for the entered receipts and quantities within the defined boundaries of the cost calendar. The calendar definition may in turn be identical to a fiscal year, or may span multiple fiscal years providing the flexibility of a variety of Perpetual Weighted Average cost methods.

PPAC is calculated by dividing -- the sum of the transaction quantity multiplied by price -- by the sum of transaction quantity, as shown in the following illustration:

$$PPAC = \frac{\Sigma(Trans \ Qty \times Price)}{\Sigma(Trans \ Qty)}$$

Where:

Trans Qty - Receipt Quantities or AP interfaced quantities from the start of the costing calendar to the end of the current period.

Price - Receipt estimated prices or AP invoice final prices within the costing calendar.

Last Transaction Cost

There are two methods for determining last actual cost of a raw material:

- **LSTT** This method uses the last transaction within the costing period, regardless of whether the transaction is a receipt or an Accounts Payable invoice.
- **LSTI** This method uses the last Accounts Payable Invoice transaction within the costing period, even if there are latest receipts with estimated prices. In the absence of AP invoice transactions the latest receipt will be considered for the actual cost.

Last transaction cost adjustments will superseded any other transaction for the actual cost. For both methods, the adjustment unit cost is the actual cost.

Last Transaction (LSST) - OPM uses the last transaction in the costing period as the basis for the raw material cost (if there is no Accounts Payable invoiced cost for the period, the last receipt price is used to cost the raw material).

Last Invoice Transaction (LSTI) - OPM uses the last Accounts Payable invoice transaction in the costing period as the basis for the raw material cost, even if there are raw material receipt transactions that occur later in the period. If there are no Accounts Payable invoiced costs for the period, the last receipt price is then used to cost the raw material. Actual cost adjustments supersede any of the methods used to calculate actual cost - an adjusted cost is the actual cost.

Costing Modifications for Inventory Transfer

Note: If you are using Oracle Purchasing for Process Inventory, you can still use Inventory Transfers in Actual Cost to calculate the cost of raw material transferred between warehouses and it is the only way to perform the direct material transfers. Oracle Purchasing for Process Inventory does not support the direct Inter-Organization Transfer in Oracle Inventory.

Inventory Transfer is treated similarly as any other transaction in OPM such as Invoice or Receipts and the cost is determined as the cost at the source warehouse. OPM Actual cost process has been enhanced to recognize the intra-company raw material inventory transfers during actual cost calculations. A typical PMAC (Period Moving Average Costing) raw material cost calculation would have used the following formula to determine the cost prior to this solution:

$$C = [(Q_p * C_p + Sigma(Q_r * C_r) + Sigma(A_a) + Sigma(A_g) + Sigma(A_q))] / [(Q_p + Sigma(Q_r) + Q_a)]$$

Where:

C is the cost calculated by the Actual Cost process for the current period using the PMAC cost method

Q_p is the prior period inventory ending balance

 C_p is the prior period cost

Q_r is the quantity received in the current period

C_r is the cost of received goods

A_a is the amount for the cost adjustment (if any)

Q_a is the quantity for the cost adjustment (if any)

A_o is the amount for the GL expense allocation

 A_a is the amount for the acquisition cost

After the Inventory Transfer functionality has been implemented, the PMAC raw material cost calculation would use the following enhanced formula:

$$C = [(Q_p * C_p + Sigma(Q_r * C_r) + Sigma(\mathbf{Qx} \times \mathbf{Cx}) + Sigma(\mathbf{Qx2} * \mathbf{Cx2}) + Sigma(A_a) + Sigma(A_g) + Sigma(A_q))] / [(Q_p + Sigma(Q_r) + Sigma(\mathbf{Qx2}) + Sigma(\mathbf{Qx2}) + Q_a)]$$

Where:

C is the desired cost for the current period using the PMAC cost method

Q_v is the quantity received as a result of the transfer in the current period

C_v is the cost of transferred goods. This corresponds to the current period item cost at the source warehouse.

 Q_{x2} corresponds to transfers released in a previous period, but received in the current period.

 C_{v_2} is the cost of transferred goods. This corresponds to the **previous period item** cost at the source warehouse.

The above formula can also be represented as:

$$C = [(C_{(1)} * Q_{(1)} + Sigma(Qx * Cx) + Sigma(Qx2 * Cx2))] / [(Q_{(1)} + Sigma(Qx) + Sigma(Qx2))]$$

Where:

C is the cost calculated by the PMAC cost method including transfers

$$Q_{(1)}$$
 is the sum $(Q_p + Sigma(Q_r) + Q_a)$

 $C_{(1)}$ is the cost without the transfers, as calculated in the original formula before the Inventory Transfer was implemented

The following example illustrates how the actual cost program will process transfers and calculate actual cost.

Assume that the following is the previous period cost and previous period inventory ending balances for the item CORN:NY Warehouse

Previous period cost: \$2.05 / LB

Inventory Balance: 5000 LB

BOS Warehouse

Previous period cost: \$2.90 / LB

Inventory Balance: 2000 LB

Additionally, following are the PO Receipts for the current period:

Item	Warehouse	Receipt Date	Receipt Quantity	Price
CORN	NY	2/2/2000	500 LB	\$ 1.50
CORN	BOS	2/1/2000	1000 LB	\$ 1.75

The following describes the calculation of the item CORN including:

- PO Receipts
- Inventory transfer of 100 LB of CORN from NY to BOS warehouse

Cost at NY warehouse = (5000 LB * \$2.05 + 500 LB * \$1.50) / (5000 + 500)

11000 / 5500 = \$2.00 / LB

Since the Inventory Transfer originated from the NY warehouse, there is no impact on the raw material cost calculation of the item CORN at the NY warehouse. Though the following calculation shows how the inventory transfer affects the cost calculation of the item CORN at the BOS warehouse:

```
Cost at BOS warehouse = (2000 LB * $2.90 + 1000 LB * $1.75 + 100 LB * $2.00) /
(2000 + 1000 + 100)
```

```
7750 / 3100 = $2.50 /LB
```

This is the actual cost calculated for the item CORN at the NY and BOS warehouses. The Subledger program then uses this cost to book Inventory Transfers.

Inventory Transfer of Products

The Actual Cost process supports inventory transfers of products. The costs from the source warehouse is considered in the cost calculation to arrive at an accurate cost of the item in the destination warehouse.

- a product in source or destination warehouse and the transfer is completed within a period.
- a product in a destination warehouse and transfer is completed across periods.
- a product in a source warehouse and the transfer is canceled across periods.

The canceled transfers within a period are ignored.

In manufacturing companies, material transfer between intracompany locations is a common practice depending on production or other requirements. Material (raw material or product) is transferred to a consumption facility to produce a product or to a distribution facility to ship to a customer. For example, oranges are first received into a processing facility, and then transferred to a production facility to produce a final product. This final product, from multiple warehouses, is transferred to a distribution facility to ship to customers. To calculate the actual cost, all the costs of the item at the source locations is included in the average cost at the receiving location.

The two common types of product transfers are:

- Transfer of a product from a production warehouse to a destination warehouse
- Transfer of a product from multiple production warehouses to a distribution warehouse

To evaluate the cost of an item, the Actual Cost process looks at transfer records, which are either completed or canceled in the current period.

Product Transfer Example

Example 1: Product transfer from production warehouse to a distribution warehouse

In this example, the cost for the product PROD-A is as follows:

Production Warehouse: WHS1

Cost: \$5.00 per LB

Inventory Balance: 200 LB Distribution Warehouse: WHS2

Cost: \$6.00 per LB

Inventory Balance: 500 LB

Transfer 100 pounds of product PROD-A from the production warehouse WHS1 to distribution warehouse WHS2. The inventory transfer originates from WHS1, there is no impact on the cost in that warehouse. Cost is impacted at WHS2 as shown:

Cost at WHS2 = (Previous Balance * Previous Cost) + (Transfer Qty * Unit Cost at WHS1) / (Previous Balance + Transfer Qty)

= ((500 * \$6) + (100 * \$5)) / (500 + 100) = (3000 + 500) / 600 = \$5.8333 per LB

Example 2: Product transfer from multiple production warehouses to a distribution warehouse

In this example, the cost for the product PROD-A is as follows:

Production Warehouse: WHS1

Cost: \$5.00 per LB

Inventory Balance: 200 LB **Production Warehouse: WHS2**

Cost: \$6.00 per LB

Inventory Balance: 200 LB

Distribution Warehouse WHSE3: No cost exist.

Transfer 100 pounds of product PROD-A from production warehouses WHS1 and WHS2 to a distribution warehouse WHS3. Incoming transfers are averaged to get the cost at the destination warehouse WHS3 as shown:

Cost at WHS3 = (Transfer Qty from WHS1 * Unit Cost at WHS1) + (Transfer Qty from WHS2 * Unit Cost at WHS2) / (Previous Balance + Transfer Qty)

= ((100 * \$5) + (100 * \$6)) / (100 + 100) = (500 + 600) / 200 = \$5.5 per LB

Example 3. Raw material transfer in source and product in destination locations

This example shows the item PROD is produced from the ingredient item RAW-MATL in period 2. The items have following costs in period 1 and 2 as shown in the tables:

Period 1

Item	Warehouse Code	Item Quantity	Item Cost
PROD	WHS1	100 LB	\$10.00 per LB
RAW-MATL	WHS1	100 LB	\$10.00 per LB
n/a	WHS2	100 LB	\$5.00 per LB

Period 2 Transaction for PROD

Transaction	Warehouse 1 (WHS1)	Warehouse 2 (WHS2)
Receiving	10 LB at \$1.00	n/a
Transfer	100 LB to WHS2	100 LB from WHS1
Production	None	200 LB from 400 LB of RAW-MATL

Item	Warehouse Code	Item Cost	Onhand Quantity
PROD	WHS1	\$9.18 per LB	10 LB (received) at the cost of \$1.00
			Raw material calculation:
			(10*1 + 100*10) / (10+100)
n/a	WHS2	See next table	200 LB produced from 400 LB of raw material

The subsequent tables describe the affect of transactions on item cost in WHS1 and WHS2. The transfer is completed or canceled in the period 2.

Transfer is released and completed in period 2

Transfer Status	Release Period	Cost Warehouse	Cost (P2)	Comments
Completed	P2	WHS1	\$9.18	No impact of transfer. Cost is from receiving
n/a	P2	WHS2	\$9.73	(400*5 + 0 + 100*9.18) / (200+100)
				Production + Period 1 Balance + Transfer Cost at WHS1 in Period 2

Transfer is released in period 1 and completed in period 2

Transfer Status	Release Period	Cost Warehouse	Cost (P2)	Comments
Completed	P1	WHS1	\$9.18	No impact of transfer. Cost is from receiving
n/a	P2	WHS2	\$10.00	(400*5 + 0 + 100*10) / (200+100)
				Production + Period 1 Balance + Transfer Cost at WHS1 in Period 1

Transfer is released and canceled in period 2

Transfer Status	Release Period	Cost Warehouse	Cost (P2)	Comments
Canceled	P2	WHS1	\$9.18	If the transfer is canceled in the same period as the release, then the cost is not affected
n/a	P2	WHS2	\$10.00	(400*5) / 200
				Only production, no impact of transfer

T	•		1	1	1 .	1	
Transfer is released	ın	perioa	- 1	ana	canceled	า เท	nerioa /
Transfer to refease		perioa	-	aria	caricere		perioa =

Transfer Status	Release Period	Cost Warehouse	Cost (P2)	Comments
Canceled	P1	WHS1	\$9.96	(100*10 + 100*10 + 10*9.18) / (100+100+10)
				Transfer Cost at WHS1 in Period 1 + Period 1 balance + Period 2 cost
n/p	P2	WHS2	\$10.00	(400*5 + 0) / 200
				Production + Period 1 balance, no impact of transfer

Actual Cost Support for Inventory Movements

The Actual Cost process includes Move Immediate and Move Journal transactions in the cost calculation. The inventory moves are handled similar to inventory transfers. The cost at the source warehouse is used as the cost of the transaction in the destination warehouse for the cost calculation.

Note: The move transactions within the same company, where both source and destination warehouses belong to the same company, are considered. Inventory moves across periods are not supported.

The Actual Cost process does not consider backdated journals. Refer to the *Oracle* Process Manufacturing Inventory Management User's Guide for more details on backdating journals.

On the View Actual Cost Transactions window, the Source field includes a new option, Inventory Movement to indicate move transactions.

A new profile option, GMF: Include Inventory Movements in Actual Cost, lets you control the inclusion of inventory movements in the Actual Cost calculation process. This profile option can have a value of Yes or No. The default value is No. If the profile value is set to Yes, then the Actual Cost process includes inventory movements in the cost calculation. If the profile value is set to No, then inventory movements are not considered in the cost calculation.

Production Batch Costs

Actual ingredient usage from Production is captured for closed batches. Ingredient cost is calculated by the actual cost raw material method for your cost method.

Actual resource usage, count, and throughput are captured in the OPM Process Execution application. Resource rate or nominal cost is entered in costing.

Batch unit cost is calculated by dividing -- the sum of ingredient quantity, multiplied by the ingredient actual cost, plus the sum of resource use multiplied resource rate -- by the batch item quantity, as shown in the following illustration:

```
Batch Unit Cost = (Sum of Ingr. Otv \times Ingr. Actual Cost +
Sum of Resource Use × Resource Rate)/Batch Item Quantity
```

Period Product Unit Cost is calculated by dividing -- the sum of the period batch quantity multiplied by batch unit cost, plus the sum of allocations multiplied by the sum of adjustments -- by the sum of all period batch quantity, as shown in the following illustration:

Period Product Unit Cost = (Sum of Batch Qty x Batch Unit Cost + Sum of Allocations x Sum of Adjustments) / Sum of All Period Batch Quantity

Burden Cost Details

Actual burden cost calculations are identical to the standard cost burden calculation used during the standard cost rollup process. It is important to note that burden costs may be defined and computed for raw materials or products. Therefore, burden cost must be computed prior to computing the production costs.

Burden Unit Cost is calculated by dividing the Item Quantity into the sum of --Burden Usage, multiplied by Burden Quantity, multiplied by Resource Cost, as shown in the following illustration.

Burden Unit Cost = $\frac{\text{Burden Usage x Burden Quantity} \times \text{Resource Cost}}{\text{Resource Cost}}$ Item Quantity

GL Expense Allocation Costs

This functionality requires the Oracle General Ledger to be fully installed. If you are using OPM not integrated with Oracle Financials, and GL is not fully installed, then a warning message displays and the data you enter may not be used.

You can take an expense amount and allocate it through to multiple raw materials or products on a percentage basis. Interfaces to general ledger software (such as Oracle General Ledger) allow you to bring across defined expense allocations. Once these expenses are interfaced across to OPM, you perform any last minute adjustments to allocations prior to Actual Cost calculations.

When using Actual Costing, ensure that the expenses are allocated in the correct period and that batches are certified and closed in the same period.

Another alternative is to enter the account balances into OPM manually using Allocation Maintenance.

GL Expense Allocation Calculation

The Actual Cost calculations of GL Expense Allocations under PMAC has been modified. As a result of this change, the Raw Material and GL Expense calculations now consider the Prior Period Inventory Balance and Allocation component costs when computing averages. This method ensures that there is no mismatch between the Inventory Accounts and Inventory valuation based on unit cost. In addition, the current period transaction quantity considered for PMAC Raw Material GL Expense calculations will always be the total receipt quantity in that period and not overridden by the consumption quantity, if any.

Currently, the GL Expense calculation for any Actual Cost type, such as PMAC or PWAC, computes the expense component by considering only the current period transaction quantity. The cost calculation for PWAC, PPAC, LSTI, or LSTT cost types are not changed.

However, the cost calculation for PMAC has been modified to include the prior period inventory balance and the prior period cost as described below:

For Raw Materials, the GL Expense amount is calculated as the sum of GL expenses to be allocated and the product of prior period inventory balance and prior period cost. This is represented as:

GL Expense component cost = [(Previous Period Inventory Balance * Previous Period GL Expense Component Cost) + GL Expense Amount for Current Period] / [Previous Period Inventory Balance + Received Quantity] For Products, the Quantity is determined as sum of the previous period balance, the total quantity produced and the total quantity received, if any. The GL Expense amount is the sum of GL expenses to be allocated in the current period and the product of prior period inventory balance and prior period cost. This is represented as:

GL Expense component cost = [(Previous Period Inventory Balance * Previous Period Component Cost) + GL Expense Amount for Current Period] / [Previous Period Inventory Balance + Produced Quantity + Received Quantity (if any)

The GL Expense allocations are averaged out using Prior Period Inventory Balance for items that have no current period transactions, such as receipts or production.

Whenever there is a non-zero GL expense amount that could not be allocated because the total quantity is zero, a warning is displayed.

Example

For the purpose of this example, the products/ingredients are produced, consumed, and costed at the same warehouse.

Raw Material Cost Calculation

This example illustrates the raw material cost calculation. Consider the following values:

Prior Period Inventory Balance = 100 KG

Prior Period Cost = \$1.0 [Material] + \$0.50 [Allocation] (cost component in square brackets]

Current Period Activity = Receipts 100 KG @ \$2.00

Expenses to be allocated = \$150

In this example, the GL Expense component cost is computed as:

```
(100 * .5 + 150) / 100 + 100 = $1.00 [Allocation]
```

In the same situation, if the raw material was also consumed and the quantity was 125 KG, then the cost would still be computed as:

```
(100 * .5 + 150) / (100 + 100) = $1.00 [Allocation]
```

Product Costs

You can let OPM calculate actual costs of products, which is useful if you need to "spread" actual product costs for the period over more than one cost calendar period. For example, assume you have a steady level of production for 10 straight periods in a cost calendar. If production skyrockets in the 11th period, then production costs for that period skyrocket as well.

OPM uses one of the following methods to figure product cost so that those greater-than-usual product costs for the period are redistributed, and leveled, over a greater period of time:

- 1 Period Moving Average Cost (PMAC)
- 2 Period Weighted Average Cost (PWAC)
- 3 Perpetual Average Cost (PPAC)

Note: Raw material calculation and product calculation types can be different. For example, raw materials can be calculated based on Period Weighted Average Cost (PWAC), and products based on Period Moving Average Cost (PMAC).

Product Cost Calculation Methods

Period Moving Average Cost (PMAC)

OPM calculates the cost of the product based on closed batches in this period, and also on prior-period inventory balances and period costs.

Example 1:

When the product is produced, but **not** received or invoiced in this period, the following calculation takes place:

PMAC = [(PBAL * PCOST) + BCOST] / (PBAL + BQTY)

Where:

PBAL - Closing inventory balance for item at current warehouse in prior period (this will be same for all cost components for item).

PCOST - Component cost from previous cost period.

BCOST - Sum of component costs of all ingredients in all batches for the specific cost component, in this period.

BQTY - Total quantity produced in all batches in this period (this will be same for all cost components for item).

RCOST - Total receipt cost for this component in this period (this amount was used in raw material cost calculation for the item).

RQTY - This is the quantity used in raw material cost calculations for this item.

Example 2:

When the product is both produced and received or invoiced in this period, the following calculation takes place

PMAC = [(PBAL * PCOST) + BCOST + RCOST] / (PBAL + BQTY + RQTY)

Period Weighted Average Cost (PWAC)

Calculates cost of a product based on current-period transactions only; all closed batches in the period will be considered.

Example 1:

When the product is produced, but **not** received or invoiced in this period, the following calculation takes place:

PWAC=BCOST/BQTY

Example 2:

When the product is both produced and received or invoiced in this period, the following calculation takes place:

PWAC=(BCOST+RCOST)/(BQTY+RQTY)

Where:

BCOST - Sum of component costs of all ingredients in all batches for the specific cost component, in this period.

BQTY - Total quantity produced in all batches in this period (this will be same for all cost components for item).

RCOST - Total receipt cost for this component in this period (this amount was used in raw material cost calculation for the item).

RQTY - This is the quantity used in raw material cost calculations for this item.

Perpetual Weighted Average Cost (PPAC)

Calculates average cost of a product based on the entire calendar's transactions and batches (up to and including the previous period), and the current period.

Example 1:

When the product is produced, but **not** received or invoiced in this period, the following calculation takes place:

PPAC=PPAC_COST+BCOST/PPAC_QTY+BQTY

Example 2:

When the product is both produced and received or invoiced in this period, the following calculation takes place:

PPAC=PPAC+BCOST+RCOST/PPAC+BQTY+RQTY

Where:

PPAC_COST - Result of the transaction quantity "times" transaction component cost for calendar to prior-period transactions (this includes all the calendar to prior period receipt transaction batches and adjustments.

PPAC_QTY - Sum of transaction quantity for calendar to prior-period transactions.

BCOST - Sum of component costs of all ingredients in all batches for the specific cost component, in this period.

BQTY - Total quantity produced in all batches in this period (this will be same for all cost components for item).

RCOST - Total receipt cost for this component in this period (this amount was used in raw material cost calculation for the item).

RQTY - This is the quantity used in raw material cost calculations for this item.

Viewing Actual Cost Processing Status

Viewing Actual Cost Processing Status Procedure

To view the actual cost processing status

- Navigate to the Actual Cost Process window. The Start Actual Cost Process window is displayed.
- Complete the fields as described.
- **3.** Click **Accept** to begin the process.

Start Actual Cost Process Field Reference

The fields on this window are:

Calendar

Enter the code for the calendar for which actual costs will be processed. Costs will be processed for the company and the cost method linked to this calendar. Required.

Company

The company linked to the calendar you specified displays. You cannot edit this field.

Period

Specify the period for which actual costs will be processed; this period defines the start and end dates for selecting all transactions. This period in the cost calendar must be either open or frozen (a closed period cannot be entered). Required.

Period Status

The status of the calendar period (Open, Closed, or Frozen) displays. You cannot edit this field.

Cost Method

Specify the actual cost method for which all cost calculations will be calculated and updated. Only actual cost methods are allowed. The default is the cost method linked to the cost calendar. The cost method also defines which raw material cost calculation type and product calculation type will be used in cost calculations.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Start Date

Specify the date and time that the actual cost processing will start. To start the process immediately, click Now.

Actual Cost Reference

OPM assigns an identifier number for each individual cost process. You cannot edit this field.

Actual Cost Process Field Reference

Note: As part of Oracle Purchasing for Process Inventory enhancement, the Actual Cost Process selects the receipt and invoice details data from the appropriate Oracle Purchasing and AP Invoice tables.

The fields on this window are:

Actual Cost Reference

OPM assigns an identifier number for each individual cost process. You cannot edit this field.

Selection Criteria

Calendar

Enter the code for the calendar for which actual costs will be processed. Costs will be processed for the company and the cost method linked to this calendar. Required.

Company

The company linked to the calendar you specified displays. You cannot edit this field.

Period

Specify the period for which actual costs will be processed; this period defines the start and end dates for selecting all transactions. This period in the cost calendar must be either open or frozen (a closed period cannot be entered). Required.

Period Status

The status of the calendar period (Open, Closed, or Frozen) displays. You cannot edit this field.

Cost Method

Specify the actual cost method for which all cost calculations will be calculated and updated. The default is the cost method linked to the cost calendar. The cost method also defines which raw material cost calculation type will be updated to the actual cost account(s) in the general ledger.

Scheduling Information

Scheduled On

Displays when the Actual Cost Process has been scheduled for.

Started On

Displays the start date of the Actual Cost Process.

Started By

Displays the userID and name of the person who started the Actual Cost Process.

Ended On

Displays the end date for the Actual Cost Process.

Errors

Limit

Displays the error limit.

Found

Displays the number of errors that were found during the Actual Cost process.

Posted

Displays the number of errors that were posted.

Abort Information

Aborted By

Displays the name of the user who aborted the Actual Cost process.

Aborted On

Displays the date on which the process was aborted.

Aborted Reason

Displays the reason for aborting the subsidiary ledger update process.

Actual Cost Error Messages

Actual Cost Reference

OPM assigns an identifier number for each individual cost process. You cannot edit this field.

Line

Displays the line on which the error occurred.

Error Message

Displays the text of the error message.

Actual Cost Process - Additional Menu Features

Actions Menu

- **Start** Displays the Start Actual Cost Process window, where you specify the criteria by which OPM will select the costs to be processed.
- **Process Status** Use this option to review the status of an actual cost process that is in progress. You can also review figures from previous processes, each of which is identified by the AC Ref No. The AC Ref No lookup is available to help you in selecting previous processes for query.

- **Abort/Reset** Use this option to abort the actual cost process that is running currently. For situations where a process was terminated unintentionally (such as a power failure), this option also resets the internal controls and settings required to start the costing process again.
- **View Error Messages** Use this option to review any errors generated during an actual costing process run. The Actual Cost Error Messages window displays.

Using Actual Cost Adjustments

This option allows you to adjust the final calculated actual cost of a raw material or product based on quantity and unit cost. Actual costs are recalculated based on the adjustments that you enter for the specified item, warehouse, cost calendar, and cost period.

Note that these adjustments do not directly alter the cost of an item. Rather, they influence cost calculations by adding quantity and cost adjustments to the existing costs after other cost calculations have been completed. This approach produces a complete adjustment audit trail.

Using Actual Cost Adjustments Procedure

To use actual cost adjustments:

- Navigate to the **Actual Cost Adjustments** window.
- Complete the fields as described.
- Save the window.

Actual Cost Adjustment Field Reference

The fields on this window are:

Item

This is the item for which you are entering actual cost adjustments. This may be a raw material, coproduce, by-product, intermediate, or product. Required.

Warehouse

Make the actual cost adjustments for the item specific to a single warehouse by entering the warehouse code. Required.

Calendar

Specify the cost calendar to which the adjusted actual costs for the item will be updated. Required.

When the calendar is entered, the calendar's company is compared with the specified warehouse's company. A warning displays if they are different.

Period

Indicate the period within the cost calendar to which the adjusted actual costs for the item will be updated. Required.

Cost Method

The cost method must be an actual cost method.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Adjustment Status

One of three statuses of the costing adjustment displays automatically. The statuses are listed:

- Not Applied This is the initial status applied to the adjustments
- Applied This indicates that the adjustments have been "picked up" by the Actual Costing process and have been used in the cost calculation.
- Modified This indicates that the adjustments have been modified after they have been applied to actual costs.

Actual Cost Adjustment Details

Component Class

Specify the class code for the component being adjusted. For example, if you are adjusting the actual cost of raw materials, enter the component classification code for raw materials. You may also specify a component class that was specifically defined for actual cost adjustments.

Analysis Code

This is the cost analysis code used to further define the specific adjustment.

Adjustment Quantity

Specify the quantity of the item for which you are adjusting actual costs.

UOM

Specify the unit of measure in which the specified item's actual costs are being adjusted. This can be any unit of measure that can be converted to the item's unit of measure.

Cost Adjustment

Specify the new unit cost for the item in this warehouse, calendar, and period.

Reason Code

Enter the reason code that defines the nature of the actual cost adjustment you are making.

Description

Description of the Reason Code.

Actual Cost Adjustments - Additional Menu Features

Actions Menu

Actual Transactions View - View transactions in a costing period used to calculate actual costs; the most recent actual costing transactions display first. You can also view actual cost transactions from the previous period.

Zero Activity/Quantity Adjustments in Actual Costing

The existing OPM Actual Costing process only considers the Receipt, Invoice, Production or Consumption of items as transactions or Activities applicable for that item. You can alter the cost after it is calculated based on transaction records using the Expense Allocations and Cost Adjustments functionality. The Cost Adjustments allow you to specify an adjustment to a quantity and per unit cost amount to reflect the variations or changes that are recorded but not as a part of the actual transaction.

Currently, the OPM Actual Costing process does not consider certain transactions like inventory movements or other inventory monetary amount changes. For example, an adjustment to the Inventory where only the monetary amount is known but not an associated quantity, such as Inventory write-offs or other one-time charges. These transactions affect the cost of the items and they should be accounted for in the cost. With the existing functionality, you could use the Actual Cost Adjustments to capture these activities in OPM. But the Actual Cost Adjustments do not impact the cost of an item if:

- There is no other Activity to impact the costing calculations
- The quantity specified for the adjustment is zero

The current enhancement allows the Actual Cost process to include the following adjustments in cost calculation:

- Even if there is no other Activity for an Item
- With only the amount specified and a zero quantity. In this case the amount is considered for the entire transaction quantity of that item.

Cost Adjustments Calculation Changes

The following topics explain how the Cost Adjustments with no activity and zero quantity is calculated:

Calculating Cost Adjustments when there is no activity

OPM tries to get Cost Adjustments entered via the Actual Cost Adjustments window even if there is no activity for that Item in the current period. The Actual Cost process uses the adjustment quantity and the amount you entered along with any previous period balance (in the case of PMAC) to derive the cost. The adjustment calculation is done before costing the product so that the ingredient costs are reflected accurately in the product cost and also before any GL Expenses are allocated. The Zero Activity Cost Adjustments calculations will be performed regardless of any costing method. The following is an example of Zero Activity Cost Adjustments calculation.

Example

In this example there is no Activity in the current period except Adjustments as shown below:

Cost Component	Analysis Code	Adjustment Quantity	Cost
MATERIAL	ADJ	50	0.75

Prior Period Costing data:

Inventory Balance = 1000 units

Previous Period Unit cost

Cost Component	Analysis Code	Cost
MATERIAL	ADJ	1.25

The cost of the Item calculated as per this design would be:

PMAC Cost=[
$$(1000 * 1.25) + (50 * .75)$$
] / $(1000 + 50) = 1.2262$
PWAC Cost = $50 * .75$ / $50 = .75$

Calculating Cost Adjustments with Zero Quantity

As an extension to the Zero Activity Cost Adjustments feature, any Adjustments are also selected even if the quantity is zero. The only limitation is that the cost specified with a zero quantity is applied to the entire Item Transaction Quantity for the period concerned and not to a per unit cost. This is displayed as a message whenever you specify zero in the Adjustment Quantity field on the Actual Cost Adjustments window. The calculations are again performed before costing the products.

In either case, if any adjustment cannot be applied because of the total transaction quantity being zero, a warning message is displayed that the adjustment could not be applied. The following is an example of Zero Quantity Cost Adjustments calculation.

Example

In this example there is Activity in the current period. The Batches and PO Receipts are 500 Units, Cost is 1.10 per Unit and Adjustment is as shown below:

Cost Component	Analysis Code	Adjustment Quantity	Cost
MATERIAL	ADJ	0.0	-250.00

Prior Period Costing data:

Inventory Balance = 1000 units

Previous Period Unit cost:

Cost Component	Analysis Code	Cost
MATERIAL	ADJ	1.25

The Cost of the Item is calculated as follows:

PMAC Cost = (1000 * 1.25) + (500 * 1.10) / [1000 + 500] = 1.20, the adjustment is ignored.

PWAC Cost =
$$[(500 * 1.1) + (-250)] / 500 = 0.60$$

The cost of the Item calculated as per the design would be:

$$PMAC\ Cost = [(1000*1.25) + (500*1.10)] + (-250)] / [1000 + 500] = 1.03$$

PWAC Cost =
$$[(500 * 1.10) + (-250)] / 500 = 0.60$$

Maintaining Invoice Prices

OPM Costing obtains accounts payable invoice price data from general ledger applications (such as Oracle Financials) to use in actual cost calculations. This accounts payable data is obtained through immediate and periodic data synchronization generated throughout the Manufacturing Accounting Controller application.

In the event you must correct or otherwise modify purchase order prices that were invoiced (for example, to enter additional acquisition costs), OPM provides a Price Maintenance window for the entry of these price modifications.

If you are using Oracle Purchasing for Process Inventory, you can run the invoice price synchronization and invoice price maintenance for historical data. You can also run these processes for any invoices created for historical receipts (receipts for purchase order created in the Common Purchasing) and synchronize them to be considered by actual cost.

Maintaining Invoice Price Procedure

To maintain an invoice price:

- Navigate to the **Invoice Price Maintenance** window.
- Complete the fields as described.
- Save the window.

Invoice Price Maintenance Field Reference

The fields on this window are:

Invoice

Purchase Order

Specify the organization number, then the number of the purchase order for which you want to modify acquisition costs. Required.

Invoice

Specify the invoice for which you are modifying acquisition costs on the purchase order. At this point the following information displays from the purchase order invoice.

- Invoice line item
- Invoiced item number and description
- Invoice line quantity
- Item unit of measure
- Invoice line unit price
- Invoice line price extension

You must now specify the new price and acquisition code for the invoiced item in the fields provided on the bottom portion of the window.

Invoice Date

Enter the date of the Invoice.

Billing Currency

Displays the Billing Currency of the Invoice.

Exchange Rate

Displays the Exchange rate between Billing Currency and Base Currency.

GL Date

Displays the date the transaction was posted in the sub-ledger.

Base Currency

Displays the Base Currency of the Invoice.

Line

Displays the Invoice line.

Item

Displays the Item on the Invoice line.

Invoice Qty

Enter the desired quantity of the item on the Invoice line.

UOM

Displays the appropriate Unit of Measure of the item on the Invoice line.

Price

Displays the item unit price on this invoice line item. The invoice line extension is calculated and displayed automatically.

Extended

Displays Quantity multiplied by the Unit Price.

Description

Displays the description of the Invoice Lines Item.

Acquisition Cost

Acquisition Code

Indicate the valid acquisition code that should be associated with this invoice line item. The corresponding acquisition code description displays automatically. Required.

Description

Displays a description of the Acquisition Code.

Price

Indicate the unit acquisition price.

Extended

Displays Price x Invoice Quantity.

Viewing Actual Costs

The Viewing Actual Costs discussions describe how to view actual costs once they have been calculated. You can view for items, cost burdens, and routings.

Viewing Item Cost List

Use this window to display item costs for a particular cost calendar, period, and cost method. You can display costs a range of items or item classes for a particular calendar, period, and cost method.

Viewing Item Cost List Procedure

To display the item cost lists:

- Navigate to the **Cost Details** window.
- 2. Select Item Cost List from the Actions menu. The Item Cost Selection dialog box displays.
- **3.** Complete the fields as described in the Item Cost List Fields topic.
- **4.** Click **Accept** to display the Item Cost List.
- Select **Close** to return to the **Cost Details** window.
- Save the window.

Item Cost Selection Field Reference

The fields on this window are:

Calendar

Enter the cost calendar for which you want to display item costs. Required.

Period

Enter the cost calendar period for which you want to display item costs. Required.

Cost Method

Enter the cost method code for which you want to display item costs.

Selection Range

Item (From, To)

To display costs for a range of items, enter the first item and the last item in the range (alpha-numerically).

Item Cost Class (From, To)

To display item costs for a range of item cost classes, enter the first item and the last item cost class in the range (alpha-numerically).

Select Accept to display the Item Cost List window.

Item Cost List Field Reference

The fields on this window are:

Item

This field displays the item for which costs (on this line) are shown.

Unit of Measure

This field displays the unit of measure for which costs are shown. The cost shown is for one unit of this item.

Warehouse

This field displays the warehouse, in which this item is stored, for which costs are shown.

Cost

This field displays the nominal cost for this item, in this warehouse.

Description

This field displays the description of this item.

Viewing Burden Cost Details

The Cost Burdens window displays burden cost details for an item that are used by OPM to calculate component costs during the cost calculation. The window displays the burden costs that have been set up for the item shown on the Cost Details window.

The cost displayed shows the contribution that burdens make to the total unit cost. These figures are entered on the Burden Detail window.

Viewing Burden Cost Details Procedure

To view burden costs:

- Navigate to the **Cost Details** window.
- Retrieve the Cost Details of the product using either the View Find All option or by entering a wildcard value with Query Enter.
- 3. Select Burden Details from the Actions menu. The Display Cost Burdens window displays with the calculated burden costs.

Burden Cost Details Field Reference

The fields on this window are:

ltem

Displays the item for which cost burdens are being displayed. The Item is retrieved from the Cost Details window.

Warehouse

Displays the warehouse associated with this item, for which burden costs apply.

Organization

Displays the organization associated with this item, for which costs are displayed.

Resource

Displays the resource assigned as a burden for the production of this item.

Component Class Code

Displays the component class associated with this resource, and used for the burden cost calculation. Component classes are associated with burdens on the Burden Details window.

Analysis Code

Displays the analysis code associated with this resource and used for the burden cost calculation. Component classes are associated with burdens on the Burden Details window.

Burden Cost

Displays the calculated burden cost. The cost equals the resource cost multiplied by the quantity of the resource used for this burden, divided by the item quantity. These figures are entered on the Burden Details window.

For example, if you specified LABOR at \$5.00 per hour as the burden resource, and the burden quantity is 25 hours, this field equals 25 multiplied by 5.00, or \$1.75.

Viewing Routing Costs

For each resource, the component class, analysis code, and the component cost from the resource is listed. For actual cost methods, routing details from the closed batches used by the actual cost process are displayed here. The resources are those defined in the routing operations for the routings used in each batch from which actual costs are calculated.

Prerequisites

To include operation and routing costs in your product costs, routes must be assigned to the product. To do this, you need to set up operations, include the operations in routings, create a formula effectivity record for the product, and include the routing in the formula effectivity record. A batch must have already been run in which the routing resource was used as a component cost.

Note: Formula operations, routings, and effectivities are explained in the *OPM Formula Management User's Guide*.

Viewing Routing Costs Procedure

To view the routing costs:

- Navigate to the **Cost Details** window.
- Retrieve the Cost Details of the product using either the View Find All option or by entering a wildcard value with Query Enter.
- 3. Select **Routing Details** from the **Actions** menu. The **Routing Details** window displays with the calculated routing costs.

Routing Detail Field Reference

The fields on this window are:

Resource

This field displays the resource used for this routing.

Component Class Code

This field displays the cost component class used to cost this resource. The corresponding component class description displays automatically.

Analysis Code

This field displays the cost analysis code used to cost this resource.

Component Cost

This field displays the cost associated with this resource (cost to produce one unit of this product). For example, if this routing is assigned to the production of Blue Paint, and the unit of measure for Blue Paint is gallons, the cost shown is that to produce one gallon of Blue Paint.

Component Class Desc

Displays the description of the Component Class.

Organization

This field displays the organization associated with the highlighted routing line for which costs are shown.

Routing Number

This field displays the routing code associated with the highlighted routing line for which costs are shown.

Version

This field displays the routing version associated with the highlighted routing line for which costs are shown.

Viewing Actual Cost Transactions

OPM allows you to view the transactions in a costing period that it used to calculate actual costs; the most recent actual costing transactions display first. You can also view actual cost transactions from the previous period.

Possible sources of these transactions are as follows:

- Purchase Order Receipts
- Actual Raw Material Invoice Prices (through interface with an Accounts Payable application, such as Oracle Accounts Payable)
- **Burden Details**
- General Ledger Expense Allocations (through interface with a General Ledger application, such as Oracle General Ledger)
- **Production Batches**
- Process Operation Control (POC) Resources
- **Actual Cost Adjustments**
- PO Internal Orders
- **AP Invoices**

Note: As part of Oracle Purchasing for Process Inventory enhancement, the PO Internal Orders and AP Invoices sources are available. The Actual Cost process selects the document data from the appropriate Oracle Purchasing and AP Invoice tables.

You can also display the Actual Costs Transactions View from the Cost Details and the Cost Adjustments forms Actions menus (with key field values already filled from those forms).

Viewing Actual Cost Calculations Procedure

To view the actual cost calculations:

- Navigate to the **Cost Details** window.
- 2. Select Actual Transaction View from the Actions menu. The Find Actual Cost **Transactions** window is displayed.

3. Enter all or any part of the fields to display records based on that criteria and click **Find**. The **Actual Cost Transactions View** window is displayed with the populated information.

Actual Cost Transactions View Field Reference

The fields on this window are:

Item

Specify the item for which you want to display actual cost calculations. Required.

Warehouse

To list actual cost transactions for a specific warehouse, enter the warehouse code. Required.

Calendar

Specify the fiscal calendar for which you want to list actual cost transactions. Required.

Period

Specify the calendar period for which you want to list actual cost transactions. Required.

Cost Method

Indicate the actual cost method for which you want to list actual cost transactions.

Actual Cost Transactions

Source

This column indicates the source of the actual cost transactions which OPM uses to calculate actual costs. These sources are listed:

- PM Production Batch Details
- **Actual Burden Costs**
- PO Receipts (OPM)
- GL Expense Allocations
- Adjustments

- AP Interface (OPM)
- Inventory Transfer
- PO Receipts
- PO Internal Orders
- **AP Invoices**
- **Inventory Movements**

Organization

This is the code for the organization in which the transaction originated.

Document Number

This is the number of the document which originated the transaction.

Quantity

This is the transaction quantity at this source, in the item's unit of measure. For production batches, this is the actual yield quantity. For purchase order receipts, this is the total quantity received.

Component Class Code

The component class for the actual cost calculated for the transaction displays.

Analysis Code

The cost analysis code for the actual cost calculated for the transaction displays.

Cost Amount

The actual cost calculated for the transaction displays.

Lot Costing

This topic describes how to set up and use lot costing. It also describes the use of lot cost adjustments.

The following topics are covered:

- Frequently Asked Questions
- **Understanding Lot Costing**
- Setting Up Lot Cost Items
- Defining Lot Cost Burdens
- Running the Lot Actual Cost Process
- **Viewing Lot Costs**
- Using Lot Cost Adjustments
- OPM Item Lot Cost Detail Report
- OPM Lot Cost History Report
- Lot Costing Examples

Frequently Asked Questions

General Information

What is lot costing? Lot costing, also referred to as lot-based costing is Specific Identification type costing. Oracle Process Manufacturing lets you maintain item costs by warehouse. This method is used to record and maintain the cost of raw materials and products. In cases where items are maintained in lots with varying attributes, the need arises to record and maintain the costs of the items on a per lot basis to accurately reflect the variations among different lots. Lot costing lets you calculate and store costs at the lot level. In other words, every lot has a unique cost associated with it and that lot retains this cost until the entire lot is consumed. The lot costs are computed on a perpetual basis unlike the existing periodic actual costing.

What are the prerequisites for using lot costing? You must have Oracle9i Database or later to use OPM lot costing.

If costs are held at the lot level, then how is sublot level costing handled? With lot costing you also get the sublot level costing. A sublot is essentially a lot and a lot and sublot combination is internally identified by a unique lot ID. If an item is sublot controlled and that item is also lot costed, then each sublot of that item has a cost associated with it and hence the cost is held at the sublot level.

If a lot cost is to be held against the lot until it is consumed, then how are costs **carried over from one cost period to another?** The lot cost is identified against a lot and is calculated and stored on a perpetual basis. There is no need for a cost calendar or a cost period. Once a lot cost is calculated and stored, it is used for all consumption transactions for that lot.

Does lot costing require a cost calendar and periods? No. Lot costs are calculated and stored on a perpetual basis, a cost calendar or period is not required. Refer to the previous question and answer.

Can lot costs coexist with standard and actual costs? Yes. Lot costs can coexist with standard and actual costs.

Setup

Can standard cost be entered for an item or lot? No. Lot costs are calculated as actual costs, hence, a standard cost cannot be entered against a lot. A lot is created upon receipt or production yield, and the lot is not known earlier, you cannot create a standard cost against it. Standard costs are created using formulas and routings and these entities cannot be created for specific lots.

If there are several lot controlled items, then do they all need to be costed at the **lot level?** No. OPM lot costing allows a flexible setup. A subset of lot controlled items in your item master can be identified as costed on a lot basis. The cost of all the other items is derived using an alternate cost method that is identified on the Lot Actual Cost Method window.

What are the setups required for lot costing? Refer to "Setting Up Lot Cost Items" for more details. The setup steps required to use lot costing are:

- Set up a new cost method and identify it as a lot cost method. Identify an alternate cost method and a beginning date from which all the transactions are considered for lot cost calculation purposes.
- Identify one or more lot controlled items as costed at the lot level.
- Alternately, identify one or more item cost classes as being costed at the lot level. All lot controlled items within those classes are costed on a lot basis. Any combination of items or item cost classes can be specified.

Why should an alternate cost method be specified? Costs of only a subset of the lot controlled items can be tracked at the lot level. For other lot controlled items and nonlot controlled items, costs need not be tracked in such a detail. To retrieve cost for nonlot costed items used in cost calculations, an alternate cost method is required. This cost method is defined as the alternate cost method when setting up a lot cost method.

Can any type of available cost method be set up as the alternate cost method for a **given lot cost method?** As the Lot Cost process can be run any time it is necessary to have the costs of non-lot-costed items at the time of running the Lot Cost process. A standard cost method is suited for the alternate cost method as the standard costs are set up at the beginning of a period. An actual cost (excepting, of course, another lot actual cost method) method can also be set up as the alternate cost method. Eensure that the actual cost is available at the time of running the Lot Cost process. Since the Actual Cost process is run at the end of the costing period, wait until the period end to run the Lot Cost process too.

Processing

How often should the Lot Cost process be run? Does it run automatically after **completion of every transaction?** Run the Lot Actual Cost process as often as required. It does not run automatically after completion of every inventory transaction. It is a concurrent program and can be scheduled to run at periodic intervals.

What if the lot costs are incorrect? Can the Lot Cost process be run again for the same set of receipts and batches? The Lot Actual Cost process can be run in two modes, the preliminary or final mode. In the preliminary mode, costs are calculated the same but the inventory transactions are not marked as being lot costed. In the Final mode, the inventory transactions that are used in cost calculations are marked as lot costed. Refer to "Running Lot Actual Cost Process" for more details.

What transactions are considered during the lot cost calculation? The following transactions affect the cost of a lot and the onhand balance. If the lot cost method is used for valuation, then these transactions are valued using the purchase order price or batch lot cost or the appropriate incoming cost by the Subledger Update process.

- Purchase Order Receipts (at PO Price)
- Production Batches (at the cost of the batch)
- Incoming Inventory Transfers and Inventory Movements (at cost of the source warehouse)
- Incoming Internal Orders (at the cost of the source warehouse)

The following transactions do not affect the cost of a lot but are recognized as they affect the onhand balance. If the lot cost method is used for valuation, then these transactions are valued using the existing cost of that lot by the Subledger Update process.

- Create Immediate
- Adjust Immediate (both increase or decrease)
- Sales Order Shipments
- RMA Receipts

Can the lot actual cost be adjusted similar to Actual? Yes, use the Lot Cost Adjustment functionality to adjust the costs.

Why the Lot Actual Cost process cannot be run for a specific item or item cost **class in the final mode?** If the Lot Actual Cost process is run in the final mode for a specific item or item cost class, then the lot cost of some of the ingredients that contribute to the cost of a product item may not have been finalized. If those lot costs change, then the product cost cannot be traced back to those lot costs. The specific item or item cost class option is disabled when the Lot Actual Cost process is run in the final mode.

If both the item cost class and item are entered while submitting the Lot Actual Cost process in test mode then which criteria is used? If an item cost class and an item are both entered while submitting the process, then the item overrides the item cost class and the process runs only for the specified item.

Viewing Lot Costs

How can lot costs be viewed? After lot costs are calculated, view them using the Lot Cost Details window or the Lot Item Cost Detail report. The Lot Cost Details window is similar to the Cost Details window and includes lot and sublot fields instead of calendar and periods.

The Lot Item Cost detail report prints a detailed component level cost information. Refer to "OPM Lot Cost Detail Report" in this guide for more details.

How to determine what transactions led to the calculated lot cost? Can the View **Actual Cost Transactions window be used?** Run the Lot Cost History report to view the transactions that contributed to the lot cost. This report displays all the transactions that contributed to the lot cost as well as any consumption transactions that affected the onhand balance for this lot. Refer to "OPM Lot Cost History Report" in this guide for more details.

Due to the nature of the calculations and how costs are stored, you cannot query the lot actual costs using the View Actual Cost Transactions window. The Lot Cost History report provides all the details.

What reports are available for lot costs? The following reports are available for lot costs:

- The Item Lot Cost Detail report lists the cost details at the component level for an item or lot. Enter a range of items, lots, and sublots as parameters when submitting the report.
- The Lot Cost History report lists the history for a given item or lot. It displays all the transactions that contributed either to the cost and or affected the onhand balance.

Additional Functionality

Can burdens be set up for lot costs? Yes. Burdens are set up similar to the existing burdens for standard or actual costs except that a calendar or period is not applicable, and you enter a lot and sublot, if any. The lot on the burdens window is optional. If you do not specify value for the lot field, then the burden is applied to all the lots of the item specified.

What about Resource costs? Resource costs are retrieved using the alternate cost method identified for the lot cost method.

Can GL Expense Allocation be used with lot costs? No. The GL Expense Allocation is not supported at this time.

Can there be unlimited lot cost methods? Yes. You can have unlimited lot cost methods.

What is the purpose of having additional lot cost methods? Though there is only one actual cost averaging algorithm for lot costs there could be different burdens set up under the different lot cost methods for simulation. A different combination of items are specified as lot costed under the different cost methods. The cost methods can have the same or different alternate cost methods. All of these help in simulation and what-if scenarios.

What happens when an item is received in to the existing lot? What happens when a product lot is yielded into an existing lot? It is possible to receive an item any number of times into the same lot. Same is true for product yields. The lot cost is averaged between the new receipt or new product yield with the existing onhand balance and the existing cost. The cost is derived as below:

 $New Cost = \frac{Existing Lot Cost \times Onhand Qty + New Receipt Qty (or Yield Qty) \times New Price (or Batch Cost)}{Onhand Qty + New Receipt Qty (or Yield Qty)}$

If the lot cost changes because transaction were received or yielded into the same lot, then is the old cost information lost? No. Every time a cost of an existing lot changes, a new row is inserted into the lot costs table and this new cost becomes the current valid lot cost. The old or previous cost rows exist in the table and are used for valuing the transactions that happened before the new receipt or product yield. View the complete audit trail or history of lot cost changes using the Lot Cost Details window or the Lot Cost History report.

Does lot cost support PO Acquisition Costs? Yes. The acquisition costs are handled the same way through the Actual Cost process.

Is invoice price used in cost calculation? Can the invoice price override the PO price? No. Invoice prices are not supported in lot costs. If the invoice price is different from the PO price the variation needs to be handled through Invoice Price Variance (IPV).

Inventory is created through Create Immediate and is received into the same lot the same day. Why is the purchase order receipt picked up before the Create Immediate in the Lot Cost history report? OR

PO Receipt transactions do not have a timestamp in the OPM Inventory Transactions inquiry. Will this cause a problem in lot cost? Whenever a purchase order receipt is received into inventory, a completed inventory transaction is created in the OPM Inventory Transaction table, but the transaction date does not have the timestamp saved to the database. Regardless of when the transaction was created, the time is always saved as 00:00:00 which is,12:00 a.m. The Create Immediate transaction saves the time in the transaction date column. The Lot Cost History report picks up the receipt first and then the create immediate transaction, even though the Create Immediate happened before the receipt creation.

With Oracle Applications 11.5.10, this is not an issue as Oracle Receiving populates the timestamp for the receiving inventory transactions.

If you are using Oracle Application 11.5.9 (OPM Family Pack J or K), then use the GML: Use Creation Date as Transaction Date profile option to save the PO Receipt inventory transactions in OPM with the timestamp. If the profile is set to Yes and the purchase order receipt is created using the default date, then the time is saved along with the transaction date. If you modify the purchase order receipt date during the receipt creation, then the transaction is saved without the timestamp.

The error, Unable to convert ingredient/product/by-product quantity to Step Quantity UOM. Lot cannot be costed, displays for UOM conversions. What is the **problem?** This might happen if a batch is run with multiple steps that have step dependencies and ingredients are added at various steps and or products yielded from one or more steps. The Lot Actual Cost process uses the step dependencies and material-step associations, if any, defined in OPM Process Execution for various batch steps to arrive at the distribution of material at any given step, and hence the costs of materials and resources are used as well as materials yielded in that step. To correctly determine the various quantities and the proportions at each step, the quantities are converted to the common step quantity unit of measure. If conversions to the step quantity unit of measures are not available, then this error displays. Ensure that you have all the UOM conversions defined.

Is it necessary to use the Automatic Step Quantity Calculation option? batch has multiple steps with step dependencies and the ingredients or products have different unit of measures that belong to different unit of measure types, then enable the Automatic Step Quantity Calculation option. The Automatic Step Quantity Calculation ensures that all material lines are associated to one or more steps and conversions between the items and the various step quantity unit of measures are available.

If the Automatic Step Quantity Calculation is not enabled, then associate all material lines with one or more steps for accurate cost determination.

What happens if one or more material lines are not associated to batch steps or do not have any material-step associations at all? If one or more ingredients are not associated to step, then those ingredients are added at the first step. If one or more products or byproducts are not associated to any step, then those items are considered yielded at the last step.

If there is no material-step association, then all ingredients are added at the first step and all products or byproducts are considered yielded at the last step.

What if there are step dependencies set up? If no step dependencies are set up, then the steps are in ascending order of the step numbers.

The error, Unable to convert item to GMD: Yield Type standard UOM, displays. **What is the problem?** If there is no routing in the batch, then this error displays. When there is no routing associated with a batch, then the various items ingredients, products, or byproducts are converted to the GMD: Yield Type standard UOM to accurately determine the costs and the proportions that apply to each product. If that conversion is not available, then the error displays.

Why can the Lot Actual Cost process find the cost of the lot in the source warehouse when it is transferred through an internal order? When you transfer materials through an internal order, ensure that the receiving lots match the lots shipped in Oralce Order Management. If the receiving lot does not match the lot that was shipped, then the cost of the received lot in the source (shipping) warehouse is not available. In such cases, an error displays. Or, if the source warehouse has a cost for the received lot even though it was never transferred, then an incorrect cost is used in the cost calculations.

If lot costing is used, then can the standard or actual cost be used for inventory **valuation?** Yes, you can continue to use standard or actual cost for your inventory valuation. You can use lot costs as a simulation cost method to track accurate lot level costs and also use it for reporting and analysis purposes.

Can the lot cost method be used for inventory valuation? Yes. The Subledger Update process works transparently whether the fiscal cost method is Standard, Actual, or Lot Actual Cost method.

Do lot costs need to be frozen before they are used for valuation? No. There is no need to freeze lot costs. Once the process is run in the final mode, all the transactions until that time are used in the calculation and the cost is considered final.

Does the Cost Update process need to be run? No. There is no need to run the Cost Update process.

If the Fiscal Policy cost method is a lot actual cost method, then how will receipts be booked in the Subledger? Can the options in the Event Fiscal Policy for **Purchase Price Variance be used?** If the fiscal policy cost method is a lot actual cost method, then the INV account for purchase order receipts are booked with the PO Price. The Event Fiscal Policy flag for PPV does not have impact.

There are some custom reports that run against the existing cost details table. Will my reports work for the new lot costs also? No. The lot costs use a separate set of tables. They do not use the existing cost details table.

Understanding Lot Costing

The lot costing is released as an independent patch. If you are using OPM Family Pack K or later, you can install this patch. You must have Oracle9*i* Database or later to use OPM lot costing.

Oracle Process Manufacturing can maintain item costs by warehouse. This suffices to record and maintain the cost of raw materials and products. In cases where items are maintained in lots with varying attributes, there is a need to record and maintain the costs of the items on a per lot basis to accurately reflect the variations among different lots. Lot-based costing is the Specific Identification type costing.

The cost of a lot can vary over time. For example, the same lot can be received several times but the costs of the raw material might be different each time. In this case, the lot cost is the aggregate of the existing and new costs. The cost of a manufactured lot can also vary, depending on the costs of the ingredient lots, and also the resource costs, at the time of production.

Lot costing involves tracking the cost of a lot from its initial creation through all consumptions and replenishments.

Setting Up Lot Cost Items

Use this window for setting up items that are costed on a lot basis.

If an item has to be costed by lot or if all items that belong to an item cost class category need to be costed by lot, then enter the appropriate item or item cost class.

Only lot-controlled items are available here. If an item cost class is entered, then all items that are lot-controlled and belong to the item cost class are used for lot costing.

Prerequisites

You must have Oracle9i Database or later to use OPM lot costing.

▶ To set up lot cost items:

- Navigate to the **Lot Cost Items** window.
- Enter or select the **Company** for which you want to select items or item cost classes that are to be costed on a lot basis. Required.
- **3.** Enter the **Lot Cost Method** for which you want to select items or item cost classes that are to be costed on a lot basis. Required.

Details

- Enter Item Cost Class.
- Enter the **Item**.
- **6.** Save.

Defining Lot Cost Burdens

Use the Lot Cost Burdens window to set up and maintain standard resource burdens. A burden is a cost associated with a resource other than the resource usage assigned in the routing. Burdens are specified as resource usage per quantity processed, along with the number of such resources required.

Prerequisites

The following fields are required on the Lot Cost Burden window and must be set up prior to defining burdens. The application where each field is set up displays in parentheses:

Item (OPM Inventory)
Warehouse (OPM Inventory)
Cost Method (OPM Financials)
Organization (OPM System Administration)
Resource (OPM Process Planning)
Cost Component Class (OPM Financials)
Cost Analysis Code (OPM Financials)

To define cost burdens:

- Navigate to the **Lot Cost Burdens** window.
- **2.** Enter a valid **Organization** code. The lot cost burden only applies to this item when associated with this organization. This field defaults to the organization code associated with your operator code but can be changed.
- **3.** Displays the currency in which the resource cost is calculated in the **Base Currency** field. This field is display only.
- **4.** Enter the **Item** code for the product or intermediary to which this lot cost burden is assigned.
- **5.** Enter a valid **Warehouse** code. The burden only applies to the item when associated with this warehouse.
 - The warehouse is validated against the given organization. If the warehouse does not belong to the given organization, then a warning displays.
- **6.** Select the appropriate lot cost method.

- 7. Select the **Lot** number for which the burden cost is established. If the item is lot-controlled, then only the lot is applicable. The lot can be left blank in which case the burden is applied on all lots for the item specified.
- **8.** Select the **Sublot** number for which the burden cost is established. If the item is sublot-controlled, then only the sublot is applicable.

Burden Details

- **9.** Enter the code for the resource burden in the **Resource** field. For example, if the product Blue Paint uses MIXER1 as a resource, and you are assigning a burden for cleanup after each use of MIXER1, then enter the code for MIXER1.
- **10.** The cost component class established for the resource displays in the **Cost** Component Class field. You can modify the value. For example, if you are assigning a burden for cleanup after each use of MIXER1, then enter the burden component class associated with the cleanup process.
 - Only component classes defined as burden usage are allowed.
- **11.** Enter the **Analysis Code** under which the burden appears in cost details.
- **12.** Enter the number of this resource used in the production of the item in the **Resource Count** field. For example, if it takes one laborer to cleanup MIXER1 after each use, then enter 1 (laborer). This number is multiplied by the Resource Usage number to determine the total resource usage.
- **13**. Enter the amount of the resource used for this burden in the **Resource Usage** field. This field is used along with the amount of the item worked on to calculate the actual resource usage.
- **14.** Enter the unit of measure in which the resource is measured (for example, hours) in the **Resource UOM** field.
- **15.** Enter the amount of the item yielded or worked upon in this production process (the item entered in the **Item Qty** field) during the hours of resource usage specified. The resource usage is divided by the item quantity number to arrive at a Resource Usage Per Unit Item Quantity factor.
- **16.** Enter the amount of the unit of measure in which this item is yielded in the **Item UOM** field. It defaults to the UOM defined for this item.
- **17.** Enter the date range in which these burdens are applicable in the **Effective Date** (From and To) fields.

Running the Lot Actual Cost Process

The Lot Actual Cost process calculates and stores the lot level costs of items. The process retrieves all the transactions that are applicable and processes them in the order in which the items were replenished or consumed.

It is run for an OPM company and lot actual cost method. Additional parameters can be specified.

Prerequisites

u	Set up lot actual cost method
	Set up lot cost items
	Set up lot cost burdens (optional)

To submit the Lot Actual Cost Process:

- Navigate to the **Lot Actual Cost Process** window.
- Enter the company for which you want to run the Lot Actual Cost process.
- Enter the appropriate lot cost method.
- **4.** Specify whether the process should run in final mode (Yes) or not (No) in the **Final Run** field. The default value is No. If the mode is final, then after cost calculations, all inventory transactions used in cost calculations are marked as lot costed. You cannot change lot costs once they are processed in final mode. Set Final Run to no to run the process in the test mode and verify costs. Once costs are correct, run the Lot Actual Cost process in final mode.
- **5.** Enter the **Item Cost Class** for which you want to run the process. The process calculates lot costs for all lot controlled items that belong to this item costs class and specified as lot costed in the Lot Cost Items window. You enter this field when the process is run in test mode or for diagnostic purposes. Leave this field null when running this process in actual or final mode.
- **6.** Enter the **Item** for which you want to run the Lot Cost process. Any item that is lot controlled and specified as lot costed can be selected here. You enter this field when running the process in test mode or for diagnostic purposes. Leave this field null when running this process in actual or final mode.
- Enter the **Lot** Number. The field is applicable only when a specific item is selected. Only valid lots for this item can be selected.

- **8.** Enter the **Sublot** number. This field is applicable only when a specific Item is selected that is sublot controlled and a valid lot is entered above.
- 9. Click Ok.

Viewing Lot Costs

This window is used to inquire the lot costs of items. You can query the cost of a single item or lot or perform various other queries. The window is view only as you cannot enter a lot actual cost directly for an item.

If there are burdens attached to the item or lot, or if the item is a product and is produced from multiple ingredients, then for a given item or lot there could be multiple detail rows.

Prerequisites

Run the Lot Actual Cost Process.

▶ To view lot costs:

- Navigate to the **Lot Cost Details** window.
- **2.** Query by entering one or more values for the fields or use the Query-Find window.
- **3.** Enter the **Item** code for the formula item, ingredient, or raw material for which you are inquiring on costs.
- **4.** Enter a valid **Warehouse** code. The window displays costs for items associated with this warehouse.
- 5. Enter a valid Lot Cost Method Code. You cannot enter cost for lot actual cost method.
- **6.** Select the **Lot** number for which you want to see the costs.
- **7.** Select the **Sublot** number for the specified lot.
- **8.** Enter a date to view costs as applicable on that day in the **Cost Date** field. If a lot is received or otherwise replenished more than once in the same warehouse, then the costs before and after the receipt are both stored in the lot costs table. This cost is used for audit, and display and reporting purposes.
- **9.** Click **Final Cost** to display only the final costs.
- **10.** Displays the item's unit of measure in **Item UM** field.
- **11.** Displays the item's **Total Cost**.

Details

- **12.** Displays the **Component Class Code**. When displaying costs for a formula item, ingredient, or product, this field displays the component class associated with the cost shown on this line.
- **13.** Displays the **description** of the component class code.
- **14.** When displaying costs for a formula item, ingredient, or product, this field displays the analysis code associated with the cost shown on this line.
- **15.** If you are displaying costs for a formula item, ingredient, or product, this field displays the cost for the component class shown on this line.

Lot Cost Details Window Menu Features

Actions Menu

- **Lot Item Cost Detail Report** Use this report to list costs generated by the Lot Actual Cost process. You can verify the calculated costs. Refer to "OPM Lot Cost Detail Report" for more details on running this report.
- **Lot Costing History Report** Use this report to view the lot history to analyze how costs are calculated. A history of item and lot is maintained for costing purposes. Refer to "OPM Lot Cost History Report" for more details on running this report.

Using Lot Cost Adjustments

This option allows you to adjust the final calculated lot cost of a raw material or product based on the unit cost. Lot costs are recalculated based on the adjustments that you enter for the specified company, item, warehouse, lot, sublot, and adjustment date.

Note that these adjustments directly alter the cost of an item. This approach produces a complete adjustment audit trail.

Prerequisites

Run the Lot Actual Cost Process.

▶ To use the lot cost adjustments:

- Navigate to the **Lot Cost Adjustment** window.
- Enter or select the **Company** for which you want to enter the cost adjustment.
- Enter the **Lot Cost Method**.
- **4.** Enter the item for which you are entering lot cost adjustments in the **Item** field. This may be a raw material, byproduct, intermediate, or product.
- **5.** Enter the **Warehouse** code to make the lot cost adjustments for the item specific to a single warehouse.
- **6.** Enter the **Lot** to which the cost adjustment must be applied.
- **7.** Enter the **Sublot** to which the cost adjustment must be applied.
- **8.** Enter the **Reason Code** that defines the nature of the lot cost adjustment.
- **9.** Enter the **Adjustment Date**. Indicates the date on which the cost adjustment is applied. It is set to the system date by default. This date must be greater than the date of the last transaction processed by the Lot Actual Cost process final
- **10.** Select the **Adjustment Status**. One of two statuses of the costing adjustment displays automatically. The statuses are:
 - Not Applied This is the initial status applied to the adjustments
 - Applied This indicates that the adjustments are "picked up" by the lot costing process and used in the cost calculation.

Lot Cost Adjustment Details

- 11. Specify the class code for the component being adjusted in the Component **Class** field. For example, if you are adjusting the actual cost of raw materials, then enter the component classification code for raw materials. You may also specify a component class that was specifically defined for actual costs.
- **12.** Specify the cost analysis code used to further define the specific adjustment.
- 13. Specify the new unit cost for the item in this company, warehouse, and lot in the Cost Adjustment field.

OPM Item Lot Cost Detail Report

The OPM Item Lot Cost Detail Report lists costs generated by the lot actual cost process. You can verify the calculated costs.

Prerequisites

Run the Lot Actual Cost Process.

▶ To submit the OPM Lot Cost Details report:

- Navigate to the **OPM Lot Cost Detail Report** window.
- Enter the **Company** for which the report is to be generated.
- **3.** Select the appropriate cost method.
- **4.** To report for a range of item cost class, enter the first item class in the range in the From Item Cost Class.
- 5. To report for a range of item cost class, enter the last item class in the range in the **To Item Cost Class** field.
- **6.** To report for a range of items, enter the first item in the range in the **From Item** field.
- **7.** To report for a range of items, enter the last item in the range in the **To Item**
- To report for a range of lots, enter the first lot in the range in the **From Lot** field.
- To report for a range of lots, enter the last lot in the range in the **To Lot** field.
- **10.** To report for a range of sublots, enter the first sublot in the range in the **From** Sublot field.
- **11.** To report for a range of sublots, enter the last sublot in the range in the **To** Sublot field.
- **12.** To report for a range of warehouses, enter the first warehouse in the range in the **From Warehouse** field.
- **13.** To report for a range of warehouses, enter the last warehouse in the range in the To Warehouse field.
- **14.** If the report is to be run for a currency other than the company's base currency enter it in the **Currency** field. The report uses the company's base currency by default.

- **15.** If an alternate currency is entered above, then specify the **Exchange Rate**. The report uses a default value of 1.0.
- **16.** Click **Ok**.

OPM Lot Cost History Report

The OPM Lot Cost History Report displays the lot history to analyze how the costs are calculated. A history of item and lot is maintained for costing purposes. This history detail includes all the receipts of a lot into inventory, all consumptions of the lot, and adjustments.

Prerequisites

☐ Run the Lot Actual Cost Process.

▶ To submit the OPM Lot Cost History report:

- Navigate to the **OPM Lot Cost History Report** window.
- **2.** Enter the **Company** for which the report is to be generated.
- **3.** Select the appropriate cost method.
- **4.** To report for a range of item cost class, enter the first item class in the range in the From Item Cost Class.
- 5. To report for a range of item cost class, enter the last item class in the range in the **To Item Cost Class** field.
- **6.** To report for a range of items, enter the first item in the range in the **From Item** field.
- **7.** To report for a range of items, enter the last item in the range in the **To Item** field.
- To report for a range of lots, enter the first lot in the range in the **From Lot** field.
- To report for a range of lots, enter the last lot in the range in the **To Lot** field.
- **10.** To report for a range of sublots, enter the first sublot in the range in the **From** Sublot field.
- **11.** To report for a range of sublots, enter the last sublot in the range in the **To** Sublot field.
- **12.** To report for a range of warehouses, enter the first warehouse in the range in the From Warehouse field.
- **13.** To report for a range of warehouses, enter the last warehouse in the range in the To Warehouse field.
- **14.** To report for a range of dates, enter the first date in the range in the **From Date** field.

- **15.** To report for a range of dates, enter the last date in the range in the **To Date** field.
- **16.** If the report is run for a currency other than the company's base currency, then enter it in the **Currency** field. The report uses the company's base currency by default.
- **17.** If an alternate currency is entered above, then specify the **Exchange Rate**.
- **18.** Click **Ok**.

Lot Costing Examples

In the following examples, Whse refers to Warehouse, Qty refers to Quantity, and Trans-Date refers to Transaction date.

Example 1: A Purchase Order Receipt Created for Item A, Lot 1

This example shows a purchase order receipt created for Item A, Lot 1. The following table shows a purchase order receipt created for Item A, Lot 1, with quantity 100 at the price of \$3.00 on January 1, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L1	W1	3.00	100	01-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

Note that, if the item or item cost class specific material component cost and analysis code is not found in the Material Cost Components table, then the system defaults to the fiscal policy values.

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L1	W1	01-Jan-04	C1	N1	3.00

Example 2: A Second Purchase Order Receipt Created for Item A, Lot 1

This example shows another purchase order receipt created for Item A, Lot 1. The following table shows another purchase order receipt created for Item A, Lot 1, with quantity 100 at the price of \$4.00 on January 5, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L1	W1	4.00	100	05-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

Note that, if the item or item cost class specific material component cost and analysis code is not found in the Material Cost Components table, then the system defaults to the fiscal policy values.

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L1	W1	01-Jan-04	C1	N1	3.00
A	L1	W1	05-Jan-04	C1	N1	3.50

Example 3: Consumption of Item A, Lot 1

This example shows consumption of Item A, Lot 1. The consumption includes, inventory adjustment, OM shipments, production ingredient consumption, or inventory transfer from the warehouse.

The lot cost remains the same but the onhand is reduced appropriately. If a create immediate transaction is recorded when there is already an existing onhand, then it is processed like an adjustment.

Example 4: A Create Immediate and a Purchase Order Receipt is Created for Item A, Lot 3

This example shows a create immediate and a purchase order receipt created for Item A, Lot 4. The following table shows a create immediate transaction of quantity 100 with no price on January 1, 2004, and another transaction with a purchase order receipt created for Item A, Lot 4, with quantity 100 at the price of \$3.00 on January 3, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
CREI	A	L3	W1	None	100	01-Jan-04	No cost as the transaction does not have an associated cost
PO Receipt	A	L3	W1	3.00	100	03-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

Note that, if the item or item cost class specific material component cost and analysis code is not found in the Material Cost Components table, then the system defaults to the fiscal policy values.

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L3	W1	01-Jan-04	C1	N1	0.00
A	L3	W1	03-Jan-04	C1	N1	1.50

Example 5: A Purchase Order Receipt Created for Item A, Lot 2 with Acquisition Cost

This example shows a purchase order receipt created for Item A, Lot 2 with acquisition cost. The following table shows a purchase order receipt created for Item A, Lot 2, with quantity 100 at the price of \$4.00 on January 1, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L2	W1	4.00	100	01-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

The following table shows the details of acquisition costs:

Code	Cost Component	Analysis Code	Unit Cost	Include or Exclude
Freight	C2	N2	0.10	Include
Insurance	C3	N3	0.05	Exclude

Note that, any excluded acquisitions are not included in the item cost.

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L1	W1	01-Jan-04	C1	N1	4.00
A	L2	W1	01-Jan-04	C2	N2	0.10

In this case, the unit cost is calculated as \$4.10 by adding the component costs.

Example 6: A Second Purchase Order Receipt Created for Item A, Lot 2 with **Different Acquisition Cost**

This example shows a purchase order receipt created for Item A, Lot 2 with different acquisition cost. The following table shows a second purchase order receipt created for Item A, Lot 2, with 100 quantity at the price of \$5.00 on January 5, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L2	W1	5.00	100	05-Jan-04	Cost is the PO price and cost component class and analysis code are from the Material Cost Components table

The following table shows the details of acquisition costs:

Code	Cost Component	Analysis Code	Unit Cost	Include or Exclude
Freight	C2	N2	0.15	Include
Insurance	C4	N4	0.10	Include

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L2	W1	01-Jan-04	C1	N1	4.000
A	L2	W1	01-Jan-04	C2	N2	0.100
A	L2	W1	05-Jan-04	C1	N1	4.500
A	L2	W1	05-Jan-04	C2	N2	0.125
A	L2	W1	05-Jan-04	C4	N4	0.050

In this case, the unit cost is calculated as \$4.675 by adding the third, fourth, and fifth component cost rows.

Example 7: A Purchase Order Receipt Created for Item A, Lot 5 with Burden **Associated**

This example shows a purchase order receipt created for Item A, Lot 5 with burden associated. The following table shows a purchase order receipt created for Item A, Lot 5, with 100 quantity at the price of \$5.00 on January 5, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L5	W1	5.00	100	05-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

The following table shows burden details:

Resource	Cost Component	Analysis Code	Burden Factor	Resource Cost
Freight	C2	N2	0.10	1.00

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L5	W1	05-Jan-04	C1	N1	5.00
A	L5	W1	05-Jan-04	C2	N2	0.10

In this case, the unit cost is calculated as \$5.10 by adding the component costs.

Example 8: Another Purchase Order Receipt Created for Item A, Lot 5 with **Burden Associated**

This example shows a purchase order receipt created for Item A, Lot 5 with burden associated. The following table shows a purchase order receipt created for Item A, Lot 5, with 100 quantity at the price of \$5.00 on January 5, 2004.

Transaction	Item	Lot	Whse	Price	Qty	Trans- Date	Comments
PO Receipt	A	L5	W1	6.00	100	05-Jan-04	Cost is the PO price and cost component and analysis code are from the Material Cost Components table

The following table shows burden details:

Resource	Cost Component	Analysis Code	Burden Factor	Resource Cost
Freight	C2	N2	0.10	1.00

Lot Cost Details

The following table displays the lot cost details:

Item	Lot	Whse Code	Cost Date	Cost Component	Analysis Code	Component Cost
A	L5	W1	05-Jan-04	C1	N1	5.00
A	L5	W1	05-Jan-04	C2	N2	0.10
A	L5	W1	05-Jan-04	C1	N1	5.50
A	L5	W1	05-Jan-04	C2	N2	0.10

In this case, the unit cost is calculated as \$5.60 by adding the third and fourth component cost rows.

Example 9: Purchase Order Corrections and Returns

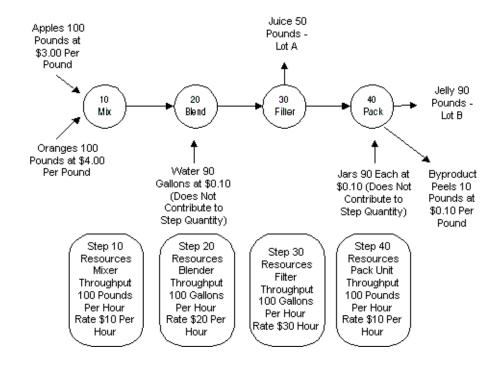
The purchase order corrections and returns work the same as the purchase order receipts except that the quantity is taken with the proper sign to maintain the balance properly.

Example 10: Batch Cost Calculation

This example shows batch cost calculation in lot costing. The following diagram illustrates that the ingredient lines of apples and oranges are associated to the step 10, water is associated to Step 20, juice to Step 30, and jelly and peels are associated to Step 40.

In this example as shown in the diagram, apples, oranges, waters, and jars are used to produce juice and jelly. The byproduct is peels.

Set up these associations in the Batch Step/Batch Item Association window. The step sequence or dependency is set up in the Batch Step Dependencies window.



Cost Calculation Logic

The step dependency and step or material association are used to decide the step sequence.

Then, the total cost of ingredients and resources used at each step is calculated. The costs are accumulated at each step in succession. Resource usages and step quantities are taken from the OPM Process Execution tables.

If a product yields at any step, then the step quantity and the yield quantity are used to arrive at the proportion of costs accumulated so far to be applied to the product yield. This is used to calculate the unit cost of the lots yielded at that step.

The rest of the accumulated cost is carried over to the next step, and so on. At the last step, any remaining accumulated costs are applied to products that are yielded at that step.

To determine accurately how much of material is processed at each step, it is recommended that you use the Calculate Step Quantity option when creating batches. If this option is not used, then enter the actual step quantities processed at each step. If the actual step quantity is not recorded properly, then the costs calculated may not be accurate.

Using the above logic, the costs are calculated as follows:

Costs accumulated at Step 10:

Equals 100 pounds of apples at \$3.00 per pound + 100 pounds of oranges at \$4.00 per pound + Mixing Cost.

Step Quantity for Step 10 = 200 pounds

Mixer usage = (200 pounds / 100 pounds per hour) = 2 hours which is 2* \$10.00 per hour = \$20

Step 10 Costs = \$300 + \$400 + \$20 = \$720.

Costs accumulated at Step 20:

When the Calculate Step Quantity option is used, OPM Process Execution uses the unit of measure conversion for apples and oranges between pound and gallon to maintain the step quantities for all steps in both mass and volume units.

\$720 from Step 10 + 90 gallons water at 0.10 per gallon + Blending Cost

Step Quantity for Step 20 = 200 pounds = 100 gallons (assume a conversion rate of 1 gallon to 2 pounds of apples and oranges)

Blending Cost = (100 gallons / 100 gallons per hour) = 1 hour which is 1* \$20.00 per hour = \$20

Step 20 Costs = \$720 + \$9 + \$20 = \$749

Costs accumulated at Step 30:

Equals \$749 from Step 20 + Filtration Cost

Step Quantity for Step 30 = 200 pounds = 100 gallons

Filtration Cost = (100 gallons / 100 gallons per hour) = 1 hour which is 1 * \$30.00 per hour = \$30

Step 30 Costs = \$749 + \$30 = \$779

50 gallons of juice, Lot A, is yielded at Step 30. The proportion of costs removed by juice is calculated as follows:

The 50 gallons of juice is in the same unit of measure as the step quantity unit of measure. No unit of measure conversion is required.

The cost of juice is calculated as:

[50 gallons / Total Step Quantity] * Total Costs accumulated

which is, 50 / 100 * \$779 = \$389.5

The unit cost of juice, Lot A, is \$389.5/50 equals \$7.79 per gallon.

The remaining cost, \$389.5, is carried over to Step 40.

Cost accumulated at Step 40:

Equals \$389.5 from Step 30 + 90 jars at \$0.10 per each + Packing costs - 10 pound peels at \$0.10 per pound

Step Quantity for Step 40 = 50 gallons = 100 pounds

Packing Cost = (100 pounds / 100 pounds per hour) = 0.1 hour which is 0.1 * \$10.00 per hour = \$10.00.

Step 40 Costs = \$389.5 + \$9 + \$10 - \$1 = \$407.5

The unit cost of jelly, Lot B, is \$407.5/90 equals \$4.528 per pound

If the Calculate Step Quantity option is not used, then the Lot Cost process performs the unit of measure conversions between various ingredients and products to calculate the step quantities. If any of the unit of measure conversion is not set up, then an error displays and the batch is not costed.

Freezing Cost for General Ledger

This topic explain how to update (book) item component costs in preparation for export to the proper general ledger accounts. The actual export to the general ledger requires an interface with general ledger software (such as Oracle General Ledger). Updated component costs are used in Costing reports. For example, booked variances between an item's standard and actual costs can be reflected in reports.

The following topics are covered:

- **Updating Costs**
- Adding or Modifying Expense Allocation Costing Data

Updating Costs

This process (which applies to both standard and actual costing) allows you to update all item component costs to the proper general ledger accounts. The general ledger will use the costs updated by this process for the cost method defined on the Fiscal Policy window.

These costs are then used in numerous reports that require component costs for an item. For example, booked variances between an item's standard and actual costs can be reflected in reports.

Through an interface with a general ledger application (such as Oracle General Ledger) you can later export these booked cost values to the proper general ledger accounts. The account mapping parameters established in the Manufacturing Accounting Controller application (MAC) determines the accounts to which the costs will be updated.

Freezing Recipe, Formulas, Routings, Operations in Final Cost Update

The Cost Update process only during the final update freezes recipes, formulas, routings, and operations. When a period status is frozen, a trigger executes that runs a concurrent process to freeze the associated recipes, formulas, routings, operations, and recipe validity rules. If the concurrent process fails to run, then only run the GMD Costing Status Update concurrent process to manually freeze the formulas, recipes, routings, and operations.

Updating Costs Procedure

To update costs:

- Navigate to the **Cost Update** window. The **Start Cost Update Process** dialog box is automatically displayed. This window allows you to begin the update for a specified calendar, period, and cost method. Specify the criteria by which OPM will select the costs to be processed.
- Complete the fields as described in the Fields topic.
- To start the process, a Cost Update reference number is generated for reference.

Start Cost Update Field Reference

The fields on this window are:

Calendar

Enter the code for the calendar for which the cost update will be processed. Costs will be updated for the company and the cost method linked to this calendar. Required.

Company

The company linked to the calendar you specified displays. You cannot edit this field. Transactions for all organizations linked to this company will be selected and included in the cost update process.

Period

Enter the cost calendar period for which the cost update is effective. Note that closed calendar periods are locked from the Cost Update process. Cost calendars periods are set up using the Cost Calendar window. Required

Period Status

The status of the calendar period (either Open, Closed, or Frozen) displays. You cannot edit this field.

Cost Method

Specify the cost method for which this update process. This should be the same cost method specified on the OPM Fiscal Policy window in the Manufacturing Accounting Controller application (a warning message displays if this is not the case).

The cost method code is used to identify different cost methods (for example, standard cost or average actual cost). Define cost methods on the Cost Method Codes window. Required.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Final Update

If you specify that the update is Final, the period is marked as frozen at the end of the process. This locks the component costs for the specified period.

You have the option of Freezing updated costs for the costing accounting period, or running the update without any changes to the period status (this means that you can run the update for the same period again). This is useful for update of component costs to the general ledger for testing purposes. You can still change component costs, then later run another cost update to replace previous costs.

When the costing period is frozen, the following situations apply:

- You cannot update the same period costs again (however, you can update new item costs)
- You can only inquire on cost component details for the current period (however, you can enter new cost details)
- Only the costs of new items may be calculated and updated.
- You can copy costs From a frozen costing period, but not To a period that is frozen.
- Burden details may be queried only.
- Resource cost details may be queried only.

Start Date

Specify the date and time that the cost rollup process will start. To start the process immediately, click Now. To start the rollup at a particular date, click the Specific Date radio button. Enter the date you want the cost rollup to run.

Cost Update Reference Number

OPM assigns a unique identifier number for each individual cost update process. You cannot edit this field.

Cost Update Error Messages Field Reference

The fields on this window are:

Cost Update Reference Number

OPM assigns a unique identifier number for each individual cost update process. You cannot edit this field.

Line

Displays the line number of the error message.

Error Message

Displays the text of the error message.

Cost Update Window - Additional Menu Features

Actions Menu

- **View Error Messages** Use this option to list any errors generated during a cost update processing run. Each generated error is listed on an individual, OPM-generated line. The error itself is explained under the Error Comment heading.
 - Note that the first message line is not an error, but a summary of the parameters or options selected to start this update.
- Start Displays the Start Cost Update dialog box, which allows you to begin the update for a specified calendar, period, and cost method.
- **Process Status** Use this option to review the status of a cost update that is in progress. You can also review figures from previous processes, each of which is identified by the CU Ref No. The CU Ref No lookup is available to help you in selecting previous updates for query.
- **Abort/Reset** Use this option to abort the cost update process that is running currently. For situations where a process was terminated unintentionally (such as a power failure), this option also resets the internal controls and settings required to start the update process again.

An **Aborted Reason** field is provided to capture appropriate text.

Adding or Modifying Expense Allocation Costing Data

Here you can modify any accrued expense costs that were allocated from the general ledger through interface with a general ledger application (such as Oracle General Ledger). You can add new expense cost allocations to the ones that already exist, and create balances for statistical accounts.

Adding or Modifying GL Cost Data Procedure

To add or modify GL cost data:

- 1. Navigate to GL Account Maintenance. The Cost Allocation General Ledger Account Maintenance window displays.
- **2.** Complete the fields as described.
- **3.** Save the window.

Cost Allocation GL Account Maintenance Field Reference

The fields on this window are:

Company

Specify the company for which you are making modifications to the expense costs allocated from the general ledger accrual accounts. Required.

Calendar

Indicate the costing calendar for which you are making modifications to the expense costs allocated from the General Ledger expense accounts. Required.

When a calendar is entered, the calendar's company is validated against the given company. A warning displays if they do not match.

Period

Specify the cost calendar period for which you are making modifications to the expense costs allocated from the general ledger accrual accounts. Required

Allocation Code

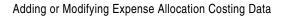
Enter the allocation code that defines the accrued indirect general ledger expenses that you are modifying. Required.

Account Key Type

Specify the expense account types for which you are modifying general ledger cost allocations. Required.

- Allocations
- Expense

Note: At this point all of the accounts that meet the criteria you have specified display in the bottom portion of the window. Modify the Amount field for each account to reflect the desired general ledger cost allocation.



Non Iterative Cost Processing

This topic describes the processing that you will perform on a noniterative basis. This includes copying item and resource costs set up for one organization, warehouse, calendar/period, and class to another period and warehouse or to all periods and warehouses. When copying items you can modify the cost by either a percentage of the original cost or a fixed amount.

The following topics are covered:

- Copying Costs
- Copying Resource Costs

Copying Costs

You can copy item or burden costs from one warehouse to all warehouses in the target organization or company and from one costing period to:

- all subsequent open and frozen costing periods in the same calendar or
- all open and frozen periods if they are different calendars

You have the option of altering component costs as they are being copied. You can alter the copied component costs by a flat amount or by a percentage.

You may set up all of your costing data for one organization and warehouse and then copy those costs to all warehouses in other organization rather then setting up the same data repeatedly. Similarly, you may wish to do this from one costing period to all open and frozen costing periods in the same or different calendars.

If costs are the same in multiple warehouses, you may select to define a costing warehouse association (as opposed to copying costs to many warehouses). If that association exists, copying costs between the warehouses is unnecessary.

Copying Item Costs Procedure

To copy item costs:

- Navigate to the **Copy Item Costs** window.
- Complete the fields as described.
- Click **OK** to start the copying process.

Copy Item Costs Field Reference

The fields on this window are:

Source/Target Parameters

Calendar From

Enter the cost calendar from which you are copying costing data. Cost calendars are set up using the Cost Calendar window.

Calendar To

Enter the cost calendar to which you are copying costing data. Cost calendars are set up using the Cost Calendar window.

Period From

You can copy item or burden costs from one period to another or to all periods in the same or different calendars. Enter the cost calendar period from which you are copying costing data.

Note: You can copy component costs from a frozen or closed period to an open one. However, you cannot copy costs to a frozen or closed period from an open one.

Cost calendars periods are set up using the Cost Calendar window.

Period To

Enter the cost calendar period to which you are copying costing data. To copy costing data to all periods, leave this field blank.

Note: You can copy component costs from a frozen or closed period to an open one. However, you cannot copy costs to a frozen or closed period from an open one.

Cost calendars periods are set up using the Cost Calendar window.

All Periods

Click All Periods box to copy item or burden costs to all subsequent open or frozen periods in a given calendar. If this box is checked, then the target period (Period To) is blanked out.

Cost Method From

Enter the cost method code from which you are copying costing data. Cost method codes are defined using the Cost Method Codes window.

Cost Method To

Enter the cost method code to which you are copying costing data. Cost method codes are defined using the Cost Method Codes window.

The Cost Method field defaults with a value based on the specified target calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Warehouse From

Enter the warehouse from which you are copying costing data.

Warehouse To

Enter the warehouse to which you are copying costing data. To copy costing data to all warehouses, leave this field blank.

If the specified to warehouse does not belong to the specified target calendar's company, then a warning displays.

All Warehouses

Click All Warehouses box to copy item or burden costs to all warehouses in the given organization. If this box is checked, then the target warehouse (Warehouse To) is blanked out.

Org/Company

This field defaults to the company code associated with the specified calendar. You can override the default value by specifying other organization. The specified company or organization must belong to the specified target calendar.

Burden Org From

Enter the organization from which you want to copy the burden cost.

Burden Org To

Enter the organization to which you want to copy the burden cost. If All Warehouse is selected, then this field is disabled. If a burden organization is entered, then it is validated against the target warehouse's organization. If the target warehouse does not belong to the given organization, then a warning displays.

Copy Costs from Lower Level at Source to This Level in Target

Copies the cost components from the Lower Level at source to This Level in target, when selected.

Selection Range

Item (From and To)

To restrict the copy to a range of items, specify the opening end and the closing end of the item number range here.

Item Cost Class (From and To)

To restrict the copy to a range of item cost classes, specify the opening end and the closing end of the cost class code range here.

Increase/Decrease

Percentage %

Indicate the percentage by which component costs should be increased or decreased as a result of the copy process. For example, if you enter 10% and the cost being copied is \$1.50, the resulting cost will be \$1.65.

Amount

Indicate the monetary amount by which component costs should be increased or decreased as a result of the copy process. For example, if you enter \$.25 and the cost being copied is \$1.50, the resulting cost will be \$1.75.

Existing Costs

The Existing Costs field contains following options:

- **Remove Before Copy:** Select Remove Before Copy option to remove current component costs as a result of the copy process. The current cost will be copied based on the other criteria you have entered, but the original component cost will be deleted.
- **Replace During Copy:** Select Replace During Copy option to overwrite current component costs during the copy process. The resulting cost will be different from the one that was replaced.

For example, assume the current period cost of a component is \$2.35, but you want to copy \$2.00 as the component cost into the next calendar period. If you select Replace During Costs for this option, \$2.00 will be copied into the next period.

Copying Costs Examples

You can increase copied costs by 10.0000%, or decrease copied costs by -5.3341%, or use a flat dollar amount and increase copied costs by \$1.00 or decrease by \$-1.50.

Example: Increase by 10%

Costs To Copy	Existing Costs	Result
MATERIAL 2.00	MATERIAL 2.35	MATERIAL 2.20
LABOR 1.50	LABOR 1.25	LABOR 1.65

Example: Increase by \$0.50

Costs To Copy	Existing Costs	Result
MATERIAL 2.00	MATERIAL 2.35	MATERIAL 2.50
LABOR 1.50	LABOR 1.25	LABOR 2.00

You have the choice of:

- Removing Existing Costs Before Copy
- Replacing Existing Costs During Copy

Remove Existing Costs Before Copy

This option removes all cost components within the given selection criteria before proceeding to copy the costs. The example below illustrates what happens when cost components already exist and a Copy Cost process is invoked with the Remove Existing Costs Before Copy option.

Example:

Costs to Copy	Existing Costs	Result
MATERIAL 2.00	MATERIAL 2.35	MATERIAL 2.00
LABOR 1.50	LABOR 1.25	LABOR 1.50
n/a	BURDEN 0.75	n/a

Replace Existing Costs During Copy

This option will replace the cost of any existing component costs during the copy and leave the other components alone. The example below illustrates what happens when cost components already exist and a Copy Cost process is executed with the Replace Existing Costs During Copy, option.

Example:

Costs to Copy	Existing Costs	Result
MATERIAL 2.00	MATERIAL 2.35	MATERIAL 2.00
LABOR 1.50	BURDEN 0.75	BURDEN 0.75
n/a	BURDEN 0.75	n/a

Notes:

- You can copy costs to an Actual Cost method.
- The Copy option prevents you from copying component costs to an already frozen or closed period. (Close cost accounting periods using the Close Period option from the Actions menu in the Cost Calendar window. After a period is frozen or closed, you cannot modify cost components.

Copying Resource Costs

Copy resource costs defined for one organization, calendar, period, cost method, and resource class to:

- all the subsequent open or frozen costing periods in the same calendar or
- all the open or frozen periods if it is a different calendar.

You may find it convenient to set up all of your resource costs for one organization and then copy those costs to other organizations rather then setting up the same or similar data repeatedly. Similarly, you may wish to do this from one period to all the periods in the same or different calendar.

Even if the actual costs for the "target" organization are different, it may still be more efficient to do the following:

- Setup the data for a source organization
- Perform the copy to the target organization
- Change resource costs for the target organization
- Perform a cost rollup for the target organization

Note: This form is used to copy resource costs. To copy item, ingredient, and product costs, use the Copy Item Costs form.

Copying Resource Costs Procedure

To copy resource costs:

- Navigate to the **Copy Resource Cost** window.
- Complete the fields as described.
- Click **OK** to start the copying process.

Copy Resource Costs Field Reference

The fields on this window are:

Copy Resources

Organization From

Enter the organization from which you are copy costing data.

Organization To

Enter the organization to which you are copying costing data.

Calendar From

Enter the cost calendar from which you are copying costing data. Cost calendars are set up using the Cost Calendar window.

Calendar To

Enter the cost calendar to which you are copying costing data. Cost calendars are set up using the Cost Calendar window. The target cost calendar's company is validated against the target organization's company.

Period From

Enter the cost calendar period from which you are copying costing data. Cost calendars periods are set up using the Cost Calendar window.

Period To

Enter the cost calendar period to which you are copying costing data. To copy costing data to all periods, leave this field blank.

Note: You can copy component costs from a frozen or closed period to an open one. However, you cannot copy costs to a closed period from an open one.

Cost calendars periods are set up using the Cost Calendar window.

All Periods

Click All Periods box to copy resource costs to all subsequent open or frozen periods in a given calendar. If this box is checked, then the target period (Period To) is blanked out.

Cost Method From

Enter the cost method code from which you are copying costing data. Cost method codes are defined using the Cost Method Codes window.

Cost Method To

Enter the cost method code to which you are copying costing data. Cost method codes are defined using the Cost Method Codes window.

The Cost Method field defaults with a value based on the given calendar. You can modify this value. A warning displays if the given cost method does not match the cost calendar's cost method.

Resource Class

Enter the resource class from which you are copying costing data. Setup resource classes using the Resource Classes form.

Period-End Cost Processing

This topic provides an outline for period-end processing of standard component costs and actual component costs.

The following topics are covered:

- Standard Cost Period-End Processing
- Actual Cost Period-End Processing

Standard Cost Period-End Processing

This topic provides an outline for period-end processing of standard component costs. For detailed procedures on each of the steps, refer to the following discussions.

The following graphic illustrates the Standard Cost Period-End Processing flow. First, formula, effectivity, routings and cost burden data as well as item costs, resource costs, and any standard cost adjustments are input to the cost rollup, and the cost rollup is run. Second, preliminary cost update is run and the test subsidiary ledger update is run and reviewed. Third, all inventory transactions are completed for the period, and the inventory close processing is run. Finally, the final cost update and update subsidiary ledger functions are run, and inventory cost revaluation is released.

Complete all Enter/Modify Enter/Modify Enter/Modify Transactions Formulas Effectivities Routings Update Inventory Enter/Modify Cost Copy Item Costs & Burdens Resource Costs if Run Cost Rollup needed Make Standard Cost Adjustments Run Cost Update Run Test Subsidiary Preliminary Ledger Run Inventory Close Processing Run Inventory Cost Revaluation Run Final Cost Update Update Subsidiary Ledger

Figure 10-1 Standard Cost Period-End Processing Flow

Run Cost Rollup

Run the cost rollup at period-end time to consolidate standard costs of components into product costs. The rollup encompasses component costs that have changed, and also new items, formulas, products, routings, and burdens that were added and set up for costing. Refer to the Standard Cost Calculations discussion for detailed cost rollup procedures.

Run Preliminary Update/Freeze Costs for General Ledger

On the Cost Update form, indicate that you are Freezing the results of the cost rollup for the period. You can then (optionally) run a test update of the general ledger subsidiary ledger for testing purposes (you may later change component costs, then run another cost update to replace those costs). Refer to the Freezing Costs for General Ledger discussion for details on running cost updates.

Note: Cost Update form is available under the OPM Manufacturing Accounting Controller module.

Close Inventory Calendar Period

Close the period (month, quarter, fiscal year) to prevent any further inventory transactions from being posted to it. Select either the Preliminary Close or Final Close.

- Preliminary Close Period has been closed to transactions, but you may still open it and post transactions for the period
- Final Close Transactions will no longer post for the period (balances have been frozen; you cannot open the period again)

Refer to the *Inventory Close* discussion in the *Inventory Management* manual for period close details.

Run Final Cost Update

Final Update

Specify that this update is Final; this locks the component costs for the specified period. Through an interface with a general ledger application (such as Oracle General Ledger) you can then export these booked costs to the proper general ledger accounts. Account mapping parameters that you establish in the Manufacturing Accounting Controller module (MAC) determines the accounts to which costs will update. See the Manufacturing Accounting Controller manual for subsidiary ledger update procedures.

Actual Cost Period-End Processing

The Actual Cost Period-End Processing topic provides an outline for period-end processing of actual component costs. For detailed procedures on each of the steps, refer to the discussions that are notes.

The following graphic illustrates the *Actual Cost Period-End Processing* flow.

- First, closed POC and production batch step data, completed sales shipments and closed AR, completed physical inventory cycle counts and adjustments, and completed purchasing, receiving, and closed AP data are fed to the inventory close and the inventory close processing is run.
- Second, actual cost adjustments, GL expense allocation, invoicing, and cost burden data is fed to actual cost and the actual cost process is run.
- Third, preliminary cost update is run and the test subsidiary ledger update is run and reviewed.
- Finally, the final cost update and update subsidiary ledger functions are run, and inventory close processing is released.

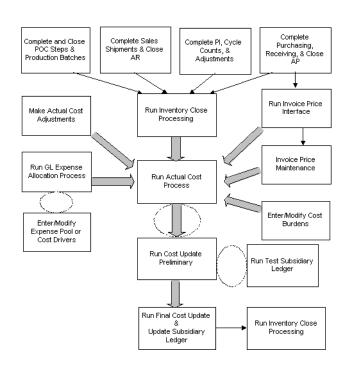


Figure 10-2 Actual Cost Period-End Processing Flow

Close Inventory Calendar Period

Close the period (month, quarter, fiscal year) to prevent any further inventory transactions from being posted to it. Select either the Preliminary Close or Final Close.

- Preliminary Close Period has been closed to transactions, but you may still open it and post transactions for the period
- Final Close Transactions will no longer post for the period (balances have been frozen; you cannot open the period again)

Refer to the *Inventory Close* discussion in the *Inventory Management* manual for period close details.

Calculate Actual Costs

Specify the period for which actual costs will be processed. Actual cost processing takes the following into account:

- Raw Material Costs
- **Production Batch Costs**
- **Burden Cost Details**
- **GL** Expense Allocation Costs

The period in the cost calendar must be either open or frozen (a closed period cannot be entered). Refer to the Actual Cost Calculations discussion for procedures on calculating actual costs.

Run Preliminary Update/Freeze Costs for General Ledger

On the Cost Update form, indicate that you are Freezing the results of the cost rollup for the period. You can then (optionally) run a test update of the general ledger subsidiary ledger for testing purposes (you may later change component costs, then run another cost update to replace those costs). Refer to the *Freezing Costs* for General Ledger discussion for details on running cost updates.

Run Final Cost Update

Final Update

Specify that this update is Final; this locks the component costs for the specified period. Through an interface with a general ledger application (such as Oracle General Ledger) you can then export these booked costs to the proper general ledger accounts. Account mapping parameters that you establish in the Manufacturing Accounting Controller module (MAC) determines the accounts to which costs will update. See the *OPM Manufacturing Accounting Controller* manual for subsidiary ledger update procedures.

Cost Management Reports

This topic describes the available costing reports. Reports are available through the Application's Standard Report Submission window.

The following topics are covered:

- Item Cost Detail Report
- Actual Cost Adjustments Report
- GL Expense Allocation Definition Report
- GL Expense Allocation Detail Report
- Cost Warehouse Association Report
- GL Item Cost Detail Report
- Costed Receiving Report
- **Inventory Valuation Report**
- Batch Yield Variance Report
- Material Usage and Substitution Variance Report

Item Cost Detail Report

Use the Item Cost Detail Report to view the cost of an item in each of the warehouses in which it is stored. The costs shown are based on the cost calendar, period, and cost method selected. The report can be printed by warehouse, item and item class.

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- Complete the fields as described in the Item Cost Detail Report Parameters topic and click **OK**.
- 4. Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

Calendar

Enter the cost calendar for which you want to item costs.

Period

Enter the cost calendar period for which you want to item costs.

Cost Method

Enter the cost method for which you want to item costs.

From Whse

To report item costs for a range of warehouses, enter the first warehouse in the range.

To Whse

To report item costs for a range of warehouses, enter the last warehouse in the range.

From Item

To report item costs for a range of items, enter the first item in the range.

To Item

To report item costs for a range of items, enter the last item in the range.

From Item Class

To report item costs for a range of item classes, enter the first item class in the range.

To Item Class

To report item costs for a range of item classes, enter the last item class in the range.

Actual Cost Adjustments Report

The Actual Cost Adjustments Report reflects actual costs adjustments made for a specific cost calendar and period. You can print cost adjustment information for all items in all warehouses, or restrict the report to one or more items in one or more specific warehouses.

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- **3.** Complete the fields as described in the Actual Cost Adjustments Report -Parameters topic and click **OK**.
- 4. Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

Calendar

Specify the costing calendar for which you are printing actual cost adjustments.

Period

Indicate the cost period within the costing calendar for which you are printing actual cost adjustments.

Cost Method

Specify the cost method for the type of actual costing adjustments that will be included in the report.

From Item

To report actual cost adjustments for a range of items, enter the first item in the range.

To Item

To report actual cost adjustments for a range of items, enter the last item in the range.

From Whse

To report actual cost adjustments for a range of warehouses, enter the first warehouse in the range.

To Whse

To report actual cost adjustments for a range of warehouses, enter the last warehouse in the range.

GL Expense Allocation Definition Report

The GL Expense Allocation Definition Report lists the definitions of the accrued general ledger expenses to be allocated to specified items. You can list definitions for all general ledger expense allocation codes, or restrict the report to only desired ones.

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- Complete the fields as described in the GL Expense Allocation Definition Report - Parameters topic and click **OK**.
- 4. Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

Company

Specify the company for which you are listing general ledger cost allocation account definitions.

From Allocation code

To report on a range of allocation codes, enter the first allocation code in the range.

To Allocation Code

To report on a range of account codes, enter the last allocation code in the range.

GL Expense Allocation Detail Report

The GL Expense Allocation Detail Report is a detailed list of all of the expense costs that were allocated to item components from the general ledger indirect expense accruals. You can list allocation detail for all general ledger expense allocation codes, or restrict the report to allocations for only desired ones.

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- **3.** Complete the fields as described in the GL Expense Allocation Detail Report -Parameters topic and click **OK**.
- **4.** Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

Company

Specify the company for which you are listing general ledger cost allocation details.

Cost Calendar

Indicate the cost calendar to which expenses will be allocated to the mapped accounts.

Period

Indicate the cost calendar period to which expenses will be allocated to the mapped accounts. This must be an open period.

From Allocation code

To report on a range of general ledger expense allocations, enter the first allocation code in the range.

To Allocation Code

To report on a range of general ledger expense allocations, enter the last allocation code in the range.

Cost Warehouse Association Report

The Cost Warehouse Association Report lists the cost warehouses associated with the inventory warehouses, or inventory warehouses associated with cost warehouses.

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- **3.** Complete the fields as described in the Cost Warehouse Association Report -Parameters topic and click **OK**.
- 4. Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

From Cost Whse

To report associations for a range of costing warehouses, enter the first costing warehouse in the range.

To Cost Whse

To report associations for a range of costing warehouses, enter the last costing warehouse in the range.

From Inventory Warehouse

To report associations for a range of inventory warehouses, enter the first inventory warehouse in the range.

To Inventory Warehouse

To report associations for a range of inventory warehouses, enter the last inventory warehouse in the range.

Sort By

If you want to list costing warehouses associated with each specific inventory warehouse, choose costing warehouses. To list inventory warehouses associated with a specific costing warehouse, select the Inventory Warehouse option.

GL Item Cost Detail Report

The GL Item Cost Detail Report lists the cost updates generated by the cost update process. Use this report to verify the updated cost and make corrections before executing the subsidiary ledger process. You can restrict the report to one or more items or warehouses, and select from four report types:

- GL Item Cost Detail
- GL Item Cost Summary
- Zero/Negative Item Cost Detail
- Zero/Negative Item Cost Summary

Submitting the Report

- **1.** Navigate to the **Submit Request** window.
- Enter the name of the report in the **Request Name** field.
- **3.** Complete the fields as described in the GL Item Cost Detail Report Parameters topic and click **OK**.
- **4.** Complete the other fields on the **Submit Request** window and click **Submit** Request.

Selected Report Parameters

Calendar Code

Specify the calendar code for which the report is to be generated.

Period

Specify the period for which this report is to be generated. The period defined can be for an open, frozen, or closed period.

Cost Method

The cost method defined by the calendar displays. However, the default can be changed.

From Item Class

To report for a range, enter the first item class in the range.

To Item Class

To report for a range, enter the last item class in the range.

From Item

To report for a range of items, enter the first item in the range.

To Item

To report for a range of items, enter the last item in the range.

From Whse

To report for a range, enter the first warehouse in the range.

To Whse

To report for a range, enter the last warehouse in the range.

Report Type

Indicate the type of report to be printed. There are four options:

- GL Item Cost Detail
- GL Item Cost Summary
- Zero/Negative Item Cost Detail
- Zero/Negative Item Cost Summary

Sort By

Indicate whether the report should be generated by either an item or warehouse.

Costed Receiving Report

The Costed Receiving Report is available through OPM Logistics. Please refer to Purchase Management for details.

Inventory Valuation Report

The Inventory Valuation Report is available through OPM Inventory. Please refer to Inventory Management for details.

Batch Yield Variance Report

The Batch Yield Variance Report is available through OPM Process Execution. Please refer to Production Management for details.

Material Usage and Substitution Variance Report

The Material Usage and Substitution Variance Report is available through OPM Process Execution. Please refer to Production Management for details.

Navigation Path

This topic provides the default navigation path for Accounting Setup and the cost management profile options.

- Cost Management Navigator Paths
- Setting Cost Management Profile Options

Cost Management Navigator Paths

Although your System Administrator may have customized your Navigator, typical navigation paths are described in the following tables. In some cases, there is more than one way to navigate to a form. These tables provide the most typical default path.

Window	Path
Purchase Acquisition Costs	Cost Management:Setup:Acquisition Cost
Actual Cost Adjustments	Cost Management:Actual Costs:Adjustments
Actual Cost Adjustments	Cost Management:Reports: Standard:Run
Actual Cost Process	Cost Management:Actual Costs:Actual Cost Process
Actual Cost Process	Cost Management:Actual Costs:View Transactions
Actual Cost Transaction View	Cost Management:Cost Details:Special:Actual Cost Transaction View
Actual Cost Transaction View	Cost Management:Actual Costs:View Transactions or Cost Management:Actual Costs:Adjustments:Special:Actual Transactions View
Actual Costs Adjustment Codes	Cost Management:Setup:Actual Costs:Expense Allocations: Adjustment Reasons
Allocation Codes	Cost Management:Setup:Actual Costs:Expense Allocations:Codes
Allocation Definitions	Cost Management:Setup:Actual Costs:Expense Allocations:Codes
Component Groups	Cost Management:Setup: Component Groups
Copy Item Costs	Cost Management:Copy Costs: Copy Items Cost

Window	Path
Copy Percentage Burdens	Cost Management:Setup:Percentage Burdens:Copy Burdens
Copy Resource Costs	Cost Management:Copy Costs: Copy Resource Cost
Cost Allocation General Ledger Account Maintenance	Cost Management:Actual Costs: Expenses:Maintenance
Cost Allocation Process Control	Cost Management:Actual Costs: Expenses:Allocations
Cost Allocation Processing	Cost Management:Actual Costs: Expenses:Allocations:Special:Start
Cost Analysis Codes	Cost Management:Setup:Analysis Codes
Cost Burdens	Cost Management:Burden Details
Cost Calendars	Cost Management:Setup: Calendars
Cost Component Classes	Cost Management:Setup: Component Classes
Cost Details	Cost Management:Cost Details
Cost Method Codes	Cost Management:Setup:Cost Method Codes
Cost Rollup Error Messages	Cost Management:Standard Costs:Cost Rollup:Special:View Error Messages
Cost Rollup Process	Cost Management:Standard Costs: Cost Rollup
Cost Rollup Process Status	Cost Management:Standard Costs: Cost Rollup:Special:Process Status
Cost Warehouse Association Report	Cost Management:Reports: Standard:Run
Costing Warehouse Associations	Cost Management:Setup:Cost Warehouses
Display Cost Burden	Cost Management:Cost Details: Special:Burden Details
Expenses to Allocate	Cost Management:Setup:Actual Costs:Expense Allocations: Expenses

Window	Path	
Find Actual Cost Adjustments	Cost Management:Actual Costs: Adjustments:Query:Find	
Find Actual Cost Transaction View	Cost Management:Cost Details: Special:Actual Cost Transaction View:Query Find	
Find Actual Cost Transactions	Cost Management: Actual Costs: View Transactions: Query: Find or Cost Management: Actual Costs: Adjustments: Special: Actual Transactions View: Query: Find	
Find Actual Costs Adjustment Codes	Cost Management:Setup:Actual Costs:Expense Allocations: Adjustment Reasons:Query:Find	
Find Allocation Codes	Cost Management:Setup:Actual Costs:Expense Allocations:Codes: Query:Find	
Find Allocation Definitions	Cost Management:Setup:Actual Costs:Expense Allocations:Codes: Query:Find	
Find Burdens Details	Cost Management:Burden Details: Query:Find	
Find Component Groups	Cost Management:Setup: Component Groups:Query:Find	
Find Cost Allocation General Ledger Account Maintenance	Cost Management:Actual Costs: Expenses:Maintenance:Query:Find	
Find Cost Analysis Codes	Cost Management:Setup:Analysis Codes:Query:Find	
Find Cost Calendars	Cost Management:Setup: Calendars:Query:Find	
Find Cost Component Classes	Cost Management:Setup: Component Classes:Query:Find	
Find Cost Details	Cost Management:Cost Details: Query:Find	
Find Cost Method Codes	Cost Management:Setup:Cost Method Codes:Query:Find	
Find Costing Warehouse Associations	Cost Management:Setup:Cost Warehouses:Query:Find	

Window	Path	
Find Expenses to Allocate	Cost Management:Setup:Actual Costs:Expense Allocations: Expenses:Query:Find	
Find Invoice Lines	Cost Management: Actual Costs: AP Invoice Prices: Query: Find	
Find Material Cost Component Class	Cost Management:Setup:Actual Costs:Matl Cost Components: Query:Find	
Find Resource Costs	Cost Management:Resource Costs: Query:Find	
Find Rollup Source Warehouses	Cost Management:Setup:Standard Costs:Source Warehouses:Query: Find	
Find Rollup Target Warehouses	Cost Management:Setup:Standard Costs:Target Warehouses:Query: Find	
Formula Details	Cost Management:Cost Details: Special:Formula Details	
GL Expense Allocation Definition	Cost Management:Reports: Standard:Run	
GL Expense Allocation Detail Report	Cost Management:Reports: Standard:Run	
GL Item Cost Detail Report	Cost Management:Reports: Standard:Run	
Invoice Price Maintenance	Cost Management:Actual Costs: AP Invoice Prices	
Item Cost Detail Report	Cost Management:Reports: Standard:Run	
Item Cost Selection	Cost Management:Cost Details: Special:Item Cost List	
Lot Cost Items	Cost Management:Lot Cost:Setup:Lot Cost Items	
Lot Cost Burdens	Cost Management:Lot Cost:Setup:Burdens	
Lot Cost Details	Cost Management:Lot Cost:Lot Cost Details	
Lot Actual Cost Process	Cost Management:Lot Cost:Setup:Lot Actual Cost Process	

Window	Path
Lot Cost Adjustment	Cost Management:Lot Cost:Setup:Lot Cost Adjustment
Lot Cost History Report	Cost Management:Lot Cost:Reports:Lot Cost History
Item Lot Cost Detail Report	Cost Management:Lot Cost:Reports:Item Lot Cost Detail
Material Cost Component Class	Cost Management:Setup:Actual Costs:Matl Cost Components
Percentage Burden Codes	Cost Management:Setup:Percentage Burdens:Codes
Burden Priorities	Cost Management:Setup:Percentage Burdens:Priorities
Burden Percentage	Cost Management:Setup:Percentage Burdens:Percentages
Source and Target Percentage Burden Components	Cost Management:Setup:Percentage Burdens:Associations
Resource Cost Selection	Cost Management:Resource Costs:Special:Resource Cost List
Resource Costs	Cost Management:Resource Costs
Rollup Source Warehouses	Cost Management:Setup:Standard Costs:Source Warehouses
Rollup Target Warehouses	Cost Management:Setup:Standard Costs:Target Warehouses
Routing Details	Cost Management:Cost Details:Special:Routing Details
Start Actual Cost Process	Cost Management:Actual Costs: Actual Cost Process:Special:Start
Start Cost Rollup	Cost Management:Standard Costs: Cost Rollup:Special:Start
View Error Messages (Actual Cost Process)	Cost Management:Actual Costs: Actual Cost Process:Special:View Error Messages

Setting Cost Management Profile Options

During your implementation, you set a value for selected profile options to specify how your Cost Management application controls access to and processes data. Cost Management uses the listed profile options:

- GMF: Actual Cost Process Error Limit
- GMF: Actual Costing Maximum Iteration Limit for Circular Reference
- GMF: Standard Cost Rollup Error Limit
- GMF: Copy Item Costs Copy Recipe information to target
- GMF: Use Only Cost Effectivities for Cost Rollup
- GMF: Use Only Costing Validity Rules for Cost Rollup
- GMF: Include Receipts in Actual Cost
- GMF: Include Invoices in Actual Cost
- GMF: Exclude Negative Inventory Balance
- GMF: Exclude Invoices Which Have No Receipts
- **GMF**: Costing Tolerance Percent
- GMF: Delete Ingredient Cost When No Effectivity Found
- GMF: Transaction Type Mapping for AR Update
- GMF: User Organization Security in Costing Forms
- GMF: Validate Cost Data Entry

You can set up these profile options when you set up other applications prior to your Cost Management implementation. Refer to the other product user's guides for more details on how these products use these profile options.

Your System Administrator sets user profile options at one or more of the following levels: Site, Application, Responsibility, and User. Use the Personal Profile Options window to view or set your profile options at the user level. You can consult the Oracle Process Manufacturing Implementation Guide for a complete description of the profile options listed. Consult your Oracle Applications System Administrator's Guide for a list of profile options common to all Oracle Applications.

Setting Cost Management Profile Options

Acquisition Costs

This topic describes the Acquisition Cost functionality used with Oracle Purchasing for Process Inventory.

The following topics are covered:

- Support Acquisition Cost in Oracle Purchasing for Process Inventory
- Required Setup
- **Actual Cost Process Changes**
- Subledger Update Changes
- Examples

Support Acquisition Cost in Oracle Purchasing for Process Inventory

The Acquisition Cost is supported by the Oracle Purchasing for Process Inventory. It is available in OPM Family Pack J (Oracle Application 11.5.9).

The acquisition cost supports the following functionality:

- Entering acquisition costs while creating a PO Line.
- Entering codes and default cost component classes, analysis codes, inventory, or expense cost indicators on the Acquisition Cost Codes window (accessed from the OPM Cost Management Setup menu).
- Entering acquisition costs as either a unit cost or total cost.
- Changing the inventory or expense flag at the purchase order line detail.
- Actual Cost process considers acquisition costs indicated as affecting inventory and calculates item costs appropriately.
- Subledger Update process books acquisition costs either to expense or inventory.

Note: Acquisition Cost Entry window is available only when entering a purchase order line. It is not available while entering receipts.

Required Setup

The subsequent paragraphs describe the setups required in various applications to use acquisition cost.

OPM Manufacturing Accounting Controller

Event Fiscal Policy

The following are recommended settings for PUR source and PORC sub-event.

- For standard cost, set the Purchase Price Variance to Book INV at Item Cost.
- For actual cost, if you do not want to track PPV, then set the Purchase Price Variance to Book INV at Receipt Price.

Note: It is recommended that you do not use Book INV at Invoice Price if you have acquisition cost.

OPM Cost Management

Set up Acquisition Cost Codes in the OPM Cost Management responsibility. The Acquisition Cost window is available in the Setup menu. This window is also available under the OPM Purchase Management responsibility. If you are using Oracle Purchasing for Process Inventory, then set up acquisition cost codes in the OPM Cost Management responsibility. See "Defining Acquisition Cost Codes" for more details.

The Actual Cost process considers acquisition costs specified as affecting inventory and calculates the item costs appropriately. It also considers the fixed acquisition costs per receipt line.

Oracle Purchasing

Use the Acquisition Cost Entry window to apply additional costs associated with a purchase order shipment such as taxes, duty, and freight in Oracle Purchasing.

On Oracle Purchasing Shipments window, choose Acquisition Costs on the Actions menu. The Acquisition Cost Entry window displays.

The Acquisition Cost lets you specify fixed acquisition costs to be applied to each receipt line using the Total Cost Basis option.

Acquisition Cost Entry Field Reference

The fields on this window are:

PO Number

Displays the purchase order number. You cannot edit this field.

Line Number

Displays the purchase order line. You cannot edit this field.

Shipment Number

Displays the purchase order shipment. You cannot edit this field.

Item

Displays the item number for the purchase order line. You cannot edit this field.

UOM

Displays the primary unit of measure for the item. You cannot edit this field.

Extended Total Cost

Displays the total acquisition cost for the shipment based on the acquisition cost amounts. You cannot edit this field.

Shipment Quantity

Displays the shipment quantity for which the acquisition cost is specified. You cannot edit this field.

Cost Code

Enter the code for the type of acquisition cost you are entering.

Description

The cost description displays automatically. You cannot edit this field.

Total Cost Basis

This field has two values, PO Line and Receipt Line. If the Total Cost Flag box is selected, then the Total Cost Basis and the Total Cost fields are enabled. If the Total Cost Basis is set to PO Line, then the acquisition cost is calculated by first dividing the total acquisition cost by the PO line quantity to derive a unit cost which is then multiplied by the receipt quantity. If the Total Cost Basis is set to Receipt Line, then the acquisition cost is applied in total against the receipt line quantity. If the Total Cost Flag box is not selected, then you enter the unit acquisition cost per purchase order unit of measure of the item.

For example, you order 100,000 pounds of material from a supplier. The freight for the transportation of the goods from the supplier's location to the company's warehouse to the freight forwarder is \$500 per truck. Create a purchase order for the 100,000 pounds of material and enter the acquisition cost of \$500 against the PO shipment line using the Total Cost Flag option.

The supplier sends three trucks of the material with each truck containing 30,000, 30,000, and 40,000 pounds respectively. If you set the Total Cost Basis to PO LIne, then the acquisition cost of \$500 is distributed among the entire PO shipment line quantity of 100,000 pounds using the acquisition cost of \$0.005 per pound (\$500 divided by 100,000 pounds), which is considered for the three trucks resulting in an inaccurate cost.

If you set the Total Cost Basis to Receipt Line, then the acquisition cost is applied to the actual quantity on the receipt line rather than the quantity on the PO shipment line. The acquisition cost of \$.0167 per pound (\$500 divided by 30,000 pounds) is applied to the first two truckloads of 30,000 pounds per truck and an acquisition cost of \$.0125 per pound (\$500 divided by 40,000 pounds) is applied to the third truckload.

Total Cost

Check this box if you want to specify total acquisition cost for the acquisition code. If the Total Cost Flag box is unchecked, then the Total Cost is disabled. In which case, enter the per unit acquisition cost. In the case of total cost, the cost entered is divided by the shipment quantity to arrive at the unit cost.

Unit Cost

Enter the acquisition cost applied to per unit of the shipment for the acquisition code.

Acquisition Cost Indicator

The acquisition cost indicator (inventory or expense) defaults from the acquisition cost code setup, but you can override it.

- Select Inventory if the acquisition cost of the item on this line should be charged to an inventory account.
- Select Expense if the acquisition cost of the item on this line should be charged to an expense account.

Delete

Marks records for logical deletion.

Actual Cost Process Changes

The Actual Cost process considers acquisition costs specified as affecting inventory and calculates the item costs appropriately. Refer to examples in the subsequent topics.

Subledger Update Changes

The Subledger Update process retrieves acquisition costs entered for the purchase order lines in Oracle Purchasing and books them to the OPM Subledger. Refer to examples in the subsequent topics.

Examples

The subsequent paragraphs describe examples of how the cost calculation and the Subledger Update process handle acquisition costs.

Data Setup

Set up the following data in the Acquisition Cost Codes window:

Acquisition Code	Component Class	Analysis Code	Acquisition Cost Indicator
PACKING	PACK	IND	Expense
TAX	TAX	IND	Inventory
FREIGHT	FREIGHT	DIR	Inventory

Item A has the following receipts for two purchase orders.

For PO 1

- For Item A, Quantity is 100 and the PO Price is \$3.00
- Acquisition Costs are PACKING of \$0.10 and TAX of \$0.25

For PO 2

- For Item A, Quantity is 100 and the PO Price is \$4.00
- Acquisition Costs are TAX of \$0.50 and FREIGHT of \$0.80

Example 1. Cost Calculation under Actual Cost

The costs are calculated as follows, assuming MATERIAL as the material cost component:

MATERIAL component:

```
= [100 * 3.00 + 100 * 4.00] / [100 + 100]
= $3.50
```

TAX component:

$$= [100 * 0.25 + 100 * 0.50] / [100 + 100]$$

= \$0.375

FREIGHT component:

$$= [100 * 0.80] / [100 + 100]$$

= \$0.40

The total item cost of Item A is:

$$MATERIAL + TAX + FRIEGHT = Item Cost$$

$$$3.500 + $0.375 + $0.400 = $4.275$$

Note: The PACKING component does not appear in the cost since the Acquisition Cost Indicator is set to Expense for this acquisition code.

Example 2. Bookings to Subledger

The subsequent paragraphs describe the impact of choosing Book INV at Item Cost or Book INV at PO Price in the Event Fiscal Policy window.

The Subledger Update process uses the two purchase orders described for booking subledger entries.

Example 2a. Purchase Price Variance set to Book INV at Item Cost (using Actual Cost)

In this example, the Purchase Price Variance on the Event Fiscal Policy window is set to Book INV at Item Cost. As the table displays, the inventory account is in balance with the inventory valuation at item cost.

Even though actual cost is used, the calculations and bookings are the same for standard cost. Refer to Example 2b for the standard cost.

In this example, the item cost is calculated as:

$$MATERIAl + TAX + FRIEGHT = Item Cost$$

$$\$3.5000 + \$0.3750 + \$0.4000 = \$4.2750$$

PO₁

- For Item A, the Quantity is 100 and the PO Price is \$3.0000
- Acquisition Costs are PACKING of \$0.1000 and TAX of \$0.2500

The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 350.0000		3.50 * 100 Material Component
INV	\$ 40.0000		0.40 * 100 Freight Component
ISP		\$ 300.0000	3.00 * 100 PO Price
PPV		\$ 90.0000	

INV	\$ 37.5000		0.375 * 100 TAX Component
AAC		\$ 25.0000	0.25 * 100
ACV		\$ 12.50000	

EXP	\$ 10.0000		0.10 * 100 PACKING Component
AAC		\$ 10.0000	Booked as Expense

PO₂

- For Item A, the Quantity is 100 and the PO Price is \$4.0000
- Acquisition Costs are TAX of \$0.5000 and FREIGHT of \$0.8000 The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 350.0000		3.50 * 100 Material Component
ISP		\$ 400.0000	4.00 * 100 PO Price
PPV	\$ 50.0000		

INV	\$ 37.5000		0.375 * 100 TAX Component
AAC		\$ 50.0000	0.50 * 100
ACV	\$ 12.50000		

INV	\$ 40.0000		0.40 * 100 FREIGHT Component
AAC		\$ 80.0000	0.80 * 100
ACV	\$ 40.0000		

Assume, the actual consumption has a quantity of 125 at the cost of \$4.2750

The following entries result in subledger:

Account Title	Debit	Credit	Calculated As
INV		\$ 534.3750	125 * 4.275

At the end of the period, each account summary is as follows:

INV	\$ 320.6250		
ISP		\$ 700.0000	
ACV		\$ 165.0000	
EXP	\$ 10.0000		
PPV	\$ (40.0000)		
ACV	\$ 40.0000		

Inventory Valued at Cost

INV	\$ 320.6250		(100 + 100 - 125) * 4.275
-----	-------------	--	---------------------------

Example 2b. Purchase Price Variance set to Book INV at Item Cost (using Standard Cost)

In this example, the Purchase Price Variance on the Event Fiscal Policy window is set to Book INV at Item Cost. The item cost is calculated using the Standard Cost.

As the table displays, the inventory account is in balance with the inventory valuation at item cost. Bookings are similar for standard cost.

In this example, the item cost is setup as:

MATERIAl + TAX + FRIEGHT = Item Cost

\$3.0000 + \$0.3750 + \$0.2000 = \$3.5750

PO₁

- For Item A, the Quantity is 100 and the PO Price is \$3.0000
- Acquisition Costs are PACKING of \$0.1000 and TAX of \$0.2500

The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 300.0000		3.00 * 100 Material Component
INV	\$ 20.0000		0.20 * 100 Freight Component
ISP		\$ 300.0000	3.00 * 100 PO Price
PPV		\$ 20.0000	

INV	\$ 37.5000		0.375 * 100 TAX Component
AAC		\$ 25.0000	.25 * 100
ACV		\$ 12.50000	

EXP	\$ 10.0000		0.10 * 100 PACKING Component
AAC		\$ 10.0000	Booked as Expense

PO₂

- For Item A, the Quantity is 100 and the PO Price is \$4.0000
- Acquisition Costs are TAX of \$0.5000 and FREIGHT of \$0.8000

The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 300.0000		3.00 * 100 Material Component
ISP		\$ 400.0000	4.00 * 100 PO Price
PPV	\$ 100.0000		

INV	\$ 37.5000		0.375 * 100 TAX Component
AAC		\$ 50.0000	0.50 * 100
ACV	\$ 12.50000		

INV	\$ 20.0000		0.40 * 100 FREIGHT Component
AAC		\$ 80.0000	0.80 * 100
ACV	\$ 40.0000		

Assume, the actual consumption has a quantity of 125 at the cost of $\$\,3.5750$

The following entries result in subledger:

Account Title	Debit	Credit	Calculated As
INV		\$ 446.8750	125 * 3.575

At the end of the period, each account summary is as follows:

INV	\$ 268.1250	
ISP		\$ 700.0000
ACV		\$ 165.0000
EXP	\$ 10.0000	
PPV	\$ 80.0000	
ACV	\$ 60.0000	

Inventory Valued at Cost

INV	\$ 268.1250	(100 + 100 - 125) * 3.575

Example 3. Purchase Price Variance set to Book INV at PO Price (Item Cost is at **Actual Cost)**

In this example, the Purchase Price Variance on the Event Fiscal Policy window is set to Book INV at PO Price. The item cost is calculated using the Actual Cost.

In this example, the item cost is calculated as:

$$MATERIAL + TAX + FRIEGHT = Item Cost$$

$$3.5000 + 0.3750 + 0.4000 = 3.5750$$

PO₁

- For Item A, the Quantity is 100 and the PO Price is \$3.0000
- Acquisition Costs are PACKING of \$0.1000 and TAX of \$0.2500

The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 300.0000		3.00 * 100 INV at PO Price
ISP		\$ 300.0000	3.00 * 100 PO Price
PPV			No PPV

INV	\$ 25.5000		0.25 * 100 TAX Component
AAC		\$ 25.0000	0.25 * 100
ACV			No ACV

EXP	\$ 10.0000		0.10 * 100 PACKING Component
AAC		\$ 10.0000	Booked as Expense

PO₂

- For Item A, the Quantity is 100 and the PO Price is \$4.0000
- Acquisition Costs are TAX of \$0.5000 and FREIGHT of \$0.8000

The subledger entries are as follows:

Account Title	Debit	Credit	Calculated As
INV	\$ 400.0000		4.00 * 100 Material Component
ISP		\$ 400.0000	4.00 * 100 PO Price
PPV			No PPV

INV	\$ 50.0000		0.50 * 100 TAX Component
AAC		\$ 50.0000	0.50 * 100
ACV			No ACV

INV	\$ 80.0000		0.80 * 100 FREIGHT Component
AAC		\$ 80.0000	0.80 * 100
ACV			No ACV

Assume, the actual consumption has a quantity of 125 at the cost of \$4.2750The following entries result in subledger:

Account Title	Debit	Credit	Calculated As
INV		\$ 534.3750	125 * 4.275

At the end of the period, each account summary is::

INV	\$ 320.6250		
ISP		\$ 700.0000	
ACV		\$ 165.0000	
EXP	\$ 10.0000		
PPV			
ACV			

Inventory Valued at Cost

Glossary

Actual Costing

The method by which OPM uses the actual cost of production components (resources, raw material purchase prices, and so on) to calculate the cost of production.

Analysis Codes

Categories by which different costs for the same item (such as value-added or standard costs) or a class of items, may be stored and reported.

Burden

A cost added to production to cover overhead expenses (such as facility rental).

Closed Calendar Period

A period in the current cost calendar which is locked against any further postings, or changes to existing postings.

Component Classes

Classifications by which production resources may be grouped for reporting.

Component Groups

Groupings by which resource or material costs (for example, raw materials and production machinery) may be collected for reporting.

Cost Calendar

A calendar comprised of the periods to which costing transactions will post.

Cost Methods

The methods by which OPM will calculate the costs of production (for example, actual costs of production).Cost Rollup

A procedure in which changes in product component costs (resource, material) are incorporated into the product's total cost.

Cost Update

The process by which all component costs are updated to the proper general ledger accounts.

Frozen Cost Period

A period in the current cost calendar in which no cost rollups and/or cost updates can be made to existing cost pistons. Newly-created cost postings may be entered, rolled up, and updated.

General Ledger Expense Allocations

Third-party general ledger accrual expenses that may be allocated to designated items for addition to production component costs.

Nominal Cost

The cost of using a resource to produce a single production unit.

Open Costing Period

A period in the current cost calendar to which daily cost transactions can post.

Routing Costs

The costs of resources used in operations and activities in a particular production routing.

Standard Costing

The method of defining the static cost of items, formulas, formula ingredients, and resources used during production.

Index

A	Allocation definitions
ABC, 1-7	defining, 5-5
Accounts payables, 2-3	assigning values to Inventory transactions, 1-9
Acquisition Cost, B-1	
Support in Oracle Purchasing for Process	В
Inventory, B-2	Batch costs
Acquisition Cost Codes	production, 6-19
defining, 2-33	Batch Yield Variance report, 11-11
Activity-Based Costing, 1-7	Burden cost details, 6-19, 10-7
Actual cost	Burden costs, 2-4, 3-7, 4-13, 6-19, 6-43
adjustments, 5-3, 6-31	prerequisites, 3-13
adjustments form, 5-3	I and I amount
calculate, 10-6	С
calculating, 6-6	<u>C </u>
period-end processing, 10-5	calculating
prerequisites, 6-2	Actual costs, 6-6 to 6-25, 10-6
processing, 6-26	Purchase Price Variance, 1-15
viewing, 6-40, 6-47	Standard cost, 4-3 to 4-9
Actual cost adjustments report, 11-4 to 11-5	Class component classes
Actual cost calculations, 2-3	manipulation, 2-12
Actual costing, 1-5, 2-3	close
setup, 5-1	Inventory calendar period, 10-3, 10-6
transactions, 2-3	Closed periods, 2-11
add/modify	Component classes, 4-14, 5-2, 5-4, 6-44
General Ledger costing data, 8-1, 8-6 to ??	Component groups
Adjustment reason codes	defining, 2-18
defining, 5-3	Copying
adjustments	costs, 9-2 to 9-7
Actual cost, 6-31 to 6-33	resource costs, 9-8 to 9-10
Allocation codes	
defining, 5-4	

Cost	Allocation codes, 5-4
Actual, 1-5, 2-3	Allocation definitions, 5-5 to 5-8
adjustments, 2-4, 5-3	component groups, 2-18
Burden details, 6-19	Cost analysis code, 2-16
defining, 1-3	Cost burdens, 3-13 to 3-16
development area, 1-2	Cost calendars, 2-8
monitoring and simulation, 1-2	Cost component classes, 2-12
Non-iterative processing, 9-1	Cost Methods, 2-2
product, 6-22	Costing warehouse associations, 2-19
running final update, 10-4, 10-7	Expense allocation accounts, 5-9 to 5-10
Standard, 1-5, 2-2	Resource costs, 3-8 to 3-12
type, 2-5	Rollup source warehouses, 3-17 to 3-19
update, 8-2	Rollup target warehouses, 3-20 to 3-21
viewing burdens, 6-43	Standard cost, for new items and
Cost analysis code	ingredients, 3-3
defining, 2-16	standard item costs, 3-2 to 3-7
Cost burdens, 3-13	Defining Acquisition Cost Codes, 2-33
viewing, 4-13	defining costs, 1-3
Cost calendar, 2-3, 3-4, 4-7, 6-3, 6-4, 6-9, 6-31, 8-6	by Cost Calendar Periods, 1-3
defining, 2-8	by Item, 1-3
Cost component classes	by multiple Cost Methods, 1-3
defining, 2-12	by Warehouse, 1-3
Cost Detail form, 3-2, 3-7	Defining Lot Cost Burdens, 7-13
prerequisites, 3-3	
Cost Management	E
navigator path, A-2	
Cost method code	Expense allocation accounts
Usage, 2-6	defining, 5-9
Cost method code usage	Expense allocation cost
for standard cost only, 2-6	General Ledger, 6-20
Cost method definition, 2-2	Expense allocations
Cost rollup, 4-3	General Ledger, 1-7, 2-4
running, 10-3	
Cost Update form, 8-5	F
Cost Warehouse Association report, 11-8	
Costed Receiving report, 11-11	Final cost update, 2-10
Costing warehouse associations	Formula costs
defining, 2-19	viewing, 4-15
-	freezing cost for General Ledger, 1-16
D	Frequently Asked Questions, 7-2
	Frozen periods, 2-10
data	
Standard cost, 2-2	
defining	

Adjustment reason codes, 5-3

G	Lot Costing, 7-1
General Ledger accrued cost allocation, 5-2 add/modify costing data, 8-6 Expense allocation costs, 6-20 expense allocations, 1-7, 2-4, 5-2 Fiscal policy, 2-21, 2-22, 2-24, 2-26, 2-28, 2-30, 8-3	Examples, 7-25 Frequently Asked Questions, 7-2 Setup, 7-3,7-12 Understanding, 7-11 Viewing, 7-6,7-17 LSST, 6-10
running preliminary update/freeze costs, 10-3,	M
10-7 GL expense allocation costs, 10-7 GL Expense Allocation Definition report, 11-6 GL Expense Allocation Detail report, 11-7 GL Item Cost Detail report, 11-9 to 11-10	maintaining Invoice price, 6-37 to 6-39 manufacturing costs over time, 1-10 mapping costs based on Analysis code, 1-4 based on Cost Component, 1-4
1	Material component classes/analysis codes, 5-11,
indirect component processesing Standard costing, 2-15 Inventory calculation for Sales Orders, 1-17 cost revaluation, 1-12 valuation in production, 1-14 Inventory calendar close period, 10-3, 10-6 Inventory transactions assigning values to, 1-9 Inventory Valuation report, 11-11 Invoice price maintenance, 6-37 Item cost list, 6-41 viewing, 4-11 Item Cost Detail report, 11-2 to 11-3	5-11 to 5-12 Material Usage and Substitution Variance report, 11-11 monitoring and simulating costs, 1-2 N navigator path Cost Management, A-2 Non-iterative cost processing, 9-1 O Open periods, 2-10 OPM cost development area, 1-2 OPM Item Lot Cost Detail Report, 7-21
	P
Last Transaction, 6-10 last transaction cost, 6-10 Lot Actual Cost Process Running, 7-15 Lot Cost Adjustments Using, 7-19 Lot Cost Burdens Defining, 7-13	Period Moving Average Cost, 2-4, 6-8, 6-23 Period Weighted Average Cost, 2-4, 6-9, 6-24 periods closed, 2-11 frozen, 2-10 open, 2-10 Perpetual Average Cost, 2-4 Perpetual Weighted Average Cost, 6-9, 6-24 PMAC, 2-4, 6-8, 6-23

PPAC, 2-4, 6-9	revaluating
PPV, 1-15	Inventory cost, 1-12
Process cost allocations	Rollup target warehouses
from GL update, 6-3 to 6-5	defining, 3-20
Process operation control, 2-3	Rolup source warehouses, 3-17
Processing	Routing cost
Actual cost, 6-26 to 6-30	prerequisites, 6-45
Product calculation type, 2-7	viewing, 4-17, 6-45
product cost, 6-22	Routing costs
calculation methods, 6-23	prerequisites, 4-17
Production batch, 2-3, 5-1, 6-2, 6-47, 6-49	running
production batch	Cost rollup, 10-3
costs, 6-19	
	final cost update, 10-4, 10-7
Production batch costs, 10-7	preliminary update/freeze costs for General
Production costs, 2-21	Ledger, 10-3, 10-7
Purchase order receipts, 2-3, 6-47, 6-49	Running the Lot Actual Cost Process, 7-15
Purchase Price Variance	
calculating, 1-15	S
PWAC, 2-4, 6-9, 6-24	Sales Orders
R	inventory valuation, 1-17
Raw material calculation type, 2-6	Setting Up Lot Cost Items, 7-12
7.2	setup Actual cost, 5-1
Raw material costs, 6-7, 10-7	Standard cost
calculation methods, 6-8	
Report Coat Date: 7.21	calculation, 4-3
OPM Let Cost Distance 7 22	period-end processing, 10-2
OPM Lot Cost History, 7-23	viewing, 4-10
report	Standard cost burden, 6-19
Actual cost adjustments, 11-4	Standard cost data, 2-2
Cost Warehouse Association, 11-8	Standard cost rollups, 2-4
Costed receiving, 11-11	Standard costing, 1-5, 2-2
GL Expense Allocation Definition, 11-6	indirect component processing, 2-15
GL Expense Allocation Detail, 11-7	Standard item costs
GL Item Cost Detail, 11-9	defining, 3-2
Inventory Valuation, 11-11	
Item Cost Detail, 11-2	Т
Material Usage and Substitution	
Variance, 11-11	Time options, 1-11
	•
Resource cost	Transactions
Resource cost copying, 9-8 defining, 3-8	•

list, 3-11 selection, 3-10

U

update cost, 8-2 to 8-5 Usage Cost method code, 2-6 using, 5-11 to 5-12

٧

viewing
Actual cost, 6-40
Actual cost transactions, 6-47 to 6-49
Cost burdens, 4-13 to 4-14, 6-43 to 6-44
Formula costs, 4-15 to 4-16
Item cost list, 6-41 to 6-42
Item costs, 4-11 to 4-12
Routing costs, 4-17 to 4-18, 6-45 to 6-46
Standard cost, 4-10
Viewing Lot Cost, 7-6
Viewing Lot Costs, 7-17