Oracle® In-Memory Cost Management for Process Industries

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Oracle In-Memory Cost Management for Process Industries User's Guide, Release Release 12.1

Part No. E52182-05

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Primary Author: Susan Saperstein

Contributing Author: Venkat Chukkapalli,, Ashish Pathak, Rammohan Gangarapollu, Bryan So, Fan Yang

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Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document. Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

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Preface

Intended Audience

Welcome to Release Release 12.1 of the *Oracle In-Memory Cost Management for Process Industries User's Guide.*

See Related Information Sources on page viii for more Oracle E-Business Suite product information.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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Structure

- 1 Overview
- 2 In Memory Cost Management Setup
- 3 Cost Simulations
- 4 Profit Analysis
- 5 Process Manufacturing Cost Comparisons
- **A Navigation Paths**
- **B** Interfaces for In-Memory Cost Management
- **C** Concurrent Programs

Related Information Sources

Oracle Cost Management User's Guide

This guide describes how to use Oracle Cost Management in either a standard costing or average costing organization. Cost Management can be used to cost inventory, receiving, order entry, and work in process transactions. It can also be used to collect transaction costs for transfer to Oracle Projects. Cost Management supports multiple cost elements and multiple subelements. It also provides comprehensive valuation and variance reporting.

Oracle Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition

Oracle Business Intelligence Enterprise Edition (OBIEE) is part of Oracle Fusion Middleware It integrates existing applications into an enterprise reporting solution. This product provides a full range of business intelligence capabilities enabling you to collect up-to-date data from your organization, and present the data in easy-to-understand formats on dashboards.

Oracle General Ledger User's Guide

This guide explains how to plan and define your chart of accounts, accounting period types and accounting calendar, functional currency, and set of books. It also describes how to define journal entry sources and categories so you can create journal entries for your general ledger. If you use multiple currencies, use this manual when you define additional rate types, and enter daily rates.

Oracle Hyperion Smart View for Office User's Guide

Smart View provides a common Microsoft Office interface for Oracle Hyperion products and data sources. Using Smart View, you can view, import, manipulate, distribute, and share data from these data sources in Microsoft Excel, Word, Outlook, and PowerPoint.

Oracle Process Manufacturing Cost Management User's Guide

This guide provides information for costing all material and resource transactions in process enabled Inventory organizations. The Process Costing application is used by cost accountants to capture and review the manufacturing costs incurred in their process manufacturing businesses.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite 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 E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, 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 E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite 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.

Overview

Overview of In-Memory Cost Management

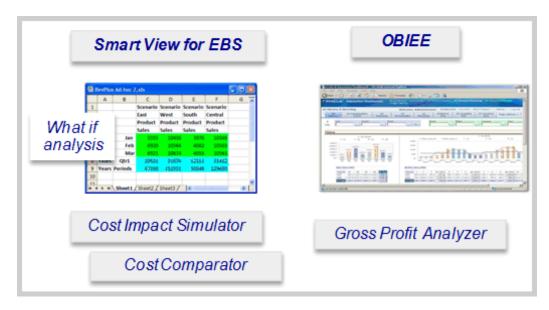
Oracle In-Memory Cost Management provides tools for a full approach to maximizing profit margins by enabling near real-time insight into all aspects of cost management in Discrete and Process Industries. In-Memory Cost Managements extreme performance is possible because of the technical innovations within Oracle engineered systems, including smart scans, flash cache, and high-bandwidth low-latency InfiniBand networking.

Cost accountants, finance, and operations managers can use In-Memory Cost Management to quickly perform what-if simulations on complex cost data and instantly visualize the impact of changes to their business. Specifically optimized for Oracle engineered systems, In-Memory Cost Management provides a suite of solutions to perform complex cost analyses, identify optimal profit margins, and perform cost planning and forecasting so that companies can make decisions in time to capture the highest possible profits, safeguard current margins and identify optimal future margins, streamline financial overview across the supply chain, and increase financial close efficiency.

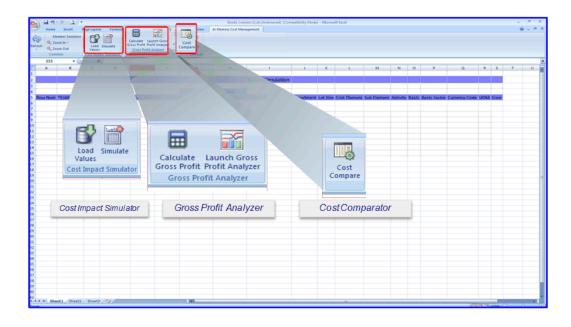
When analyzing large volumes of data and performing complex queries from multiple tables, performance can be severely degraded using traditional disk based technology. Businesses require faster access to information to make reliable decisions for their organization. In-memory processing enables organizations to have immediate access to simulation results and improve query performance by using multidimensional databases, or data cubes (multidimensional extensions). This enables businesses to adapt to continuously changing market needs to efficiently manage the supply chain. Oracle In-Memory Cost Management uses the following architecture and technical systems:

 Oracle Exadata Database delivers extreme performance for all types of database workloads including Online Transaction Processing (OLTP), Batch, Data Warehousing (DW), and consolidation of mixed workloads.

- Oracle Exalytics In-Memory Business Intelligence delivers fast performance for business intelligence and planning applications.
- Oracle Exalogic consists of software, firmware, and hardware for deploying Oracle applications, Fusion Middleware. Exalogic improves performance without requiring code changes.
- Oracle Hyperion Smart View provides a common interface designed for E-Business Suite Management enabling you to view, import, manipulate, distribute, and share data in Microsoft Office Excel.
 - Costing Management and Where-Used engines are run on an Exadata-X3 machine. A Smartview Provider servlet is deployed in Exalytics Weblogic server which interacts with the Cost Management Engine through Java Database Connectivity (JDBC).
- Oracle Business Intelligence Enterprise Edition (OBIEE) delivers a set of tools for reporting, query and analysis, online analytical processing, and dashboards.



In-Memory Cost Management provides a set of tools leveraging cost impact simulations, profit analysis, and cost comparisons.



• Cost Impact Simulator (CIS)

Simulations show the impact of product cost variations from bills of materials, routings, resources, overheads, batches, and recipes. The Cost Impact Simulator is used for analyzing the impact on Inventory, WIP, In Transit, Cost of Goods Sold values - and gross profit margins originating from cost changes to items, resources, and overheads. You have the ability to perform comprehensive what-if analysis on complex multi level bills of materials, routings, formulas, batches, and recipes in near real-time. This tool replaces the manual labor intensive process of translating the impact of cost changes into the price list. You can investigate the impact of a cost change by identifying the cost components and supplying its new cost; and the tool provides you with the all the items affected by this change and provides the new costs for these items. See: Overview of Cost Impact Simulations, *Oracle In-Memory Cost Management for Discrete Industries User's Guide*, and Overview of Process Cost Impact Simulations, page 3-1

Gross Profit Analyzer (GPA)

The Gross Profit Analyzer uses Oracle Business Intelligence Enterprise Edition (OBIEE) technology. There are two methods for invoking the GPA. You can navigate from CIS to analyze the downstream impacts of changes to costs on Cost of Goods Sold and margins (actual, planned, and forecasted). You can also navigate directly to GPA from the Navigator to analyze actual versus simulated COGS and margins. See: Overview of Analyzing Gross Profits, page 4-1

Cost Comparison Tool

The comparison tool provides detailed cost elemental comparison and deviations across entities and multiple locations. Cost changes impact product margins and price. You can investigate deviations and take corrective actions to mitigate cost

overruns. You can compare cost structures, cost based bills of material, routing costs of finished goods, recipes, and formulas in a side by side view. See: Overview of Cost Comparisons, page 5-1

Edge Deployment for Multiple Instances

In-Memory Cost Management supports multiple Oracle E-Business instances by pulling data from all instances and importing calculations made from the data back into all instances - Extract, Transform, and Load (ETL). Data synchronization from E-Business applications to In-Memory Cost Management is provided by working in the background. You can:

- Extract historical and incremental data (new records created).
- Transform the initial load to the point where the ETL process started.
- Load and propagate the ongoing changes in data in the source EBS instance to a target In-Memory Cost Management instance.

Ongoing transactional data is moved continuously from E-Business applications to the In-Memory Cost Management instance on Exadata. This enables In-Memory Cost Management to always work on current data.

Oracle Data Pump is used for the initial load in transferring the historical data, and providing a server-side infrastructure for fast data and metadata movement between Oracle databases. Data Pump automatically manages multiple parallel streams of unload and load for maximum throughput.

Ongoing data changes are replicated using Oracle Golden Gate for real-time data integration. This application performs transactional change data capture, data replication, transformations, and verification between operational and analytical enterprise systems enabling high-speed, high volume comparison between instances.

A concurrent request program, Write Back Simulation from CMI to EBS, is used to bring back selective simulation data from In-Memory Cost Management to E-Business applications. See:

- Write Back Simulation from CMI to EBS, page C-8
- Oracle In-Memory Cost Management Installation and Configuration Guide, Note Number 1662342.1 on My Oracle Support (support.oracle.com)

In Memory Cost Management Setup

Setting Up In-Memory Cost Management

The following functions need to be performed to setup Oracle In-Memory Cost Management:

In-Memory Cost Management Automated Setup Scripts, page 2-1

Smart View Cell Formatting, page 2-1

Responsibilities, page 2-3

Connecting to Data Sources, page 2-4

Profile Options, page 2-6

In-Memory Cost Management Automated Setup Scripts

A setup procedure and scripts are documented in the Oracle In-Memory Cost Management Installation and Configuration Guide.

The steps and information in this guide show you how to configure the AppsDataSource, data security, underlying Oracle Applications Technology, and components required for this product. See: Oracle In-Memory Cost Management Installation and Configuration Guide, Note Number 1662342.1 on My Oracle Support (support.oracle.com)

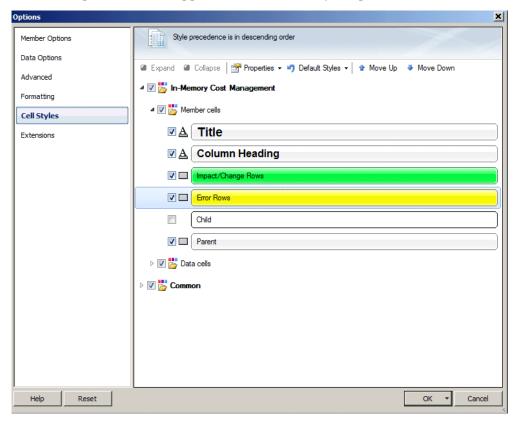
Smart View Cell Formatting

Oracle Hyperion Smart View for Office provides a common Microsoft Office interface for In-Memory Cost Management data sources. The Smart View interface enables you to view, import, manipulate, distribute, and share data sources in Microsoft Excel. The Smart View ribbon contains commands for operations and reporting.

For improved readability, you can set spreadsheet cell style color and text options appearing in all the workbooks and worksheets you create. On the Cell Styles page, specify the formatting to indicate certain types of member and data cells. Because cells may belong to more than one type - a member cell can be both parent and child, for example, you can also set the order of precedence for how cell styles are applied.

To specify a cell background colors and font styles:

- Navigate to either the Cost Impact Simulation or Cost Comparison worksheets.
- Select the Smart View ribbon.
- Select the Options icon. 3.
- When the Options window appears, select the Cell Styles option.



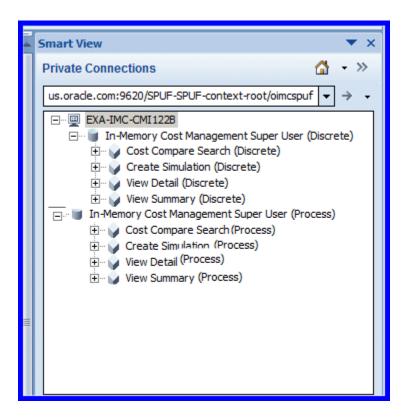
- 5. Select Member cells and expand the drop-down menu. The following cell types appear:
 - Title
 - Column Heading
 - Impact /Change Rows
 - Error Rows

- Child
- Parent
- Select the check box next to the cell type, and double-click the cell type to change the option.
 - For Title and Column Heading cells, the Font dialog box appears. You can change the font type, size, style, and color.
 - For Impact/Change Rows, Error Rows, Child, and Parent cells the Color dialog box appears to change the cell background color.
- After entering individual cell changes, choose OK to save your work and return to the Options window.
- Save formatting options by choosing:
 - OK to save formatting options for your current session only.
 - The drop-down arrow on the OK button and select Save as Default Settings to set your selections as default settings.

Formatting Options, Oracle Hyperion Smart View for Office User's Guide

Responsibilities

A responsibility provides a context in which a user operates such as access to or restrictions for functions. For example, two responsibilities may have access to the same window, but one responsibility may have additional options available on the window or spreadsheet that the other responsibility does not have.



In-Memory Cost Management standard menu user responsibilities are seeded in the application. You can setup other responsibilities in the Users Window, Oracle E-Business Suite Security Guide.

Oracle Business Intelligence Enterprise Edition

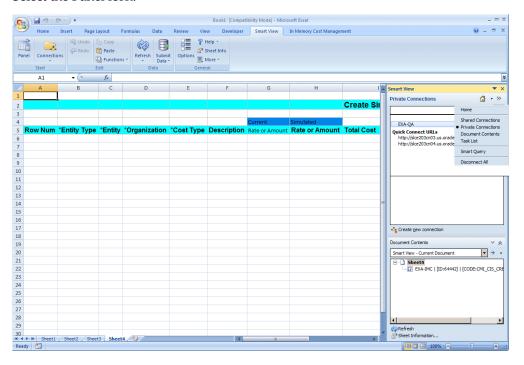
When launching the Oracle Business Intelligence Enterprise Edition (OBIEE) pages from the Cost Impact Simulator, your user responsibility must have access to the CIS GPA Common function. This responsibility context is used for Organization and Operating unit security in the OBIEE pages. When users have this responsibility, after selecting Launch Gross Profit Analyzer, then the OBIEE page opens. If the responsibility is not set for the user, an error message appears and access to the Gross Profit Analyzer pages are denied.

Connecting to Data Sources

The Cost Impact Simulation and Cost Comparison pages use Oracle Hyperion Smart View for Office with Microsoft Excel for investigating costing data in your organization. You can connect directly to active connections, those that you created by saving a shared connection to your local computer, or a configured URL that is not shared. You may need to access other connections through the Smart View panel.

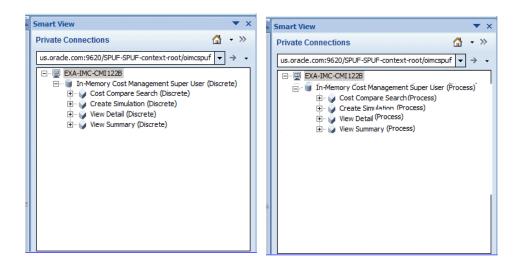
To navigate to data source connections:

- Navigate to the Cost Impact Simulation or Cost Comparison page.
- Select the Smart View ribbon.
- Select the Panel icon. 3.



The Smart View panel appears on the side of the Excel spreadsheet. It is used to connect to data sources. The panel displays links to various types of connections. You can move, resize, or close the panel.

- In the Smart View panel, select a server connection from one of the data sources to establish a connection to display on the spreadsheet. Choices are:
 - Private Connections: Those that you create by saving a shared connection to your local computer, or by entering a URL. These connections appear in a drop-down menu.
 - Recently Used: Connections that were previously accessed or any task you saved. You can *pin* files to mark records used frequently to note them easily in your list. Select the pushpin icon to enable this feature.
- 5. If you select a private connection in the Connection panel, you can expand the connection to show the list of responsibilities; and then select a responsibility and expand the tasks. See: Responsibilities, page 2-3



6. Select the task you want to perform. The layout for that task appears on the spreadsheet.

Related Topics

Oracle Hyperion Smart View for Office User's Guide

Profile Options

During implementation, you set a value for each user profile option to specify how In-Memory Cost Management controls access to and processes data. Generally, the system administrator sets and updates profile values. This table indicates whether you can view or update the profile option, and at which System Administrator levels the profile options can be updated: User, Responsibility, Application, or Site. You are required to provide a value for a Required profile option.

An Optional profile option provides a default value, which you only need to change if you do not want to accept the default. The key to the following chart is as follows:

- XYou can update the profile option
- You can view the profile option value but you cannot change it.
- You cannot view or change the profile option value.

| Name | User | System Admin User | Sys Admin Respons ibility | System Admin Administ | Site | Required ? | Default Value |
|---|------|-------------------------|------------------------------------|-----------------------------|------|------------|------------------|
| CMI: Debug Mode Enabled | | X | Х | Х | х | N | None |
| CMI: Default Currency Conversi on Type | | Х | X | X | X | N | None |
| CMI: Incremen tal Margin Load Start Date (mm/dd/ yyyy) | | X | X | X | X | N | 01-Jan-19 80 |
| CMI: Number of Months for Simulate d Margin Load | | X | X | X | X | N | 11 |
| CMI: Smart View Quantity Decimal Precision | X | X | X | X | X | Yes | 5 |

| Name | User | System Admin User | Sys Admin Respons ibility | System Admin Administ | Site | Required ? | Default Value |
|---|------|-------------------------|------------------------------------|-----------------------------|------|---------------|---|
| CMI: Smart View Server Name | | X | X | X | X | Yes | Refer to the Oracle In-Memor y Cost Managem ent Installatio n and Configura tion Guide |
| CMI: Smart View Server URL | | X | X | X | X | Yes | Refer to the Oracle In-Memor y Cost Managem ent Installatio n and Configura tion Guide. |

CMI: Debug Mode Enabled

This profile is used for debug purposes only in the Create Process Simulation page:

- If set to Null or zero (0), the system will purge the simulation code for a failed simulation. This enables you to reuse the simulation code.
- If set to any numeric value greater than zero, the system will not purge the simulation code of a failed simulation. This enables you to troubleshoot the reason for the failure.

Note: Any simulation code can be removed using Purge Simulation concurrent program.

CMI: Default Currency Conversion Type

Sets the default currency type used in the Gross Profit Analyzer. This is used when documents or the interface does not have a conversion type defined.

CMI: Incremental Margin Load Start Date (mm/dd/yyyy)

Date used for the Incremental Margin Load concurrent program's first run. This date determines the first date the program uses when loading the data for the first time. Any orders with activity after this date are considered in first load. If the value in the profile option is null, the system uses the date as 01-Jan-1980.

CMI: Number of Months for Simulated Margin Load

This is the number of months to be used in the Simulated Margin Load concurrent program. This number determines the starting point that the Simulation Margin Load program and Calculate Gross Profits in the Smart View program considers for orders. Any orders created after the date calculated by this profile option are considered for the simulation margin calculation. For example, if the value of this profile is 11, then the Simulation Margin Load and Calculate Gross Profits considers all the orders ordered in the last year for the simulation calculation. If this profile option has a null value, the system uses the value of 11.

CMI: Smart View Quantity Decimal Precision

Sets the decimal precision used for displaying quantity fields in Smart View. The default value is 5 places.

CMI: Smart View Server Name

Server name displayed in Smart View panel when user connects to In-Memory Cost Management. It must be same server name used when deploying the WAR file. Refer to the Oracle In-Memory Cost Management Installation and Configuration Guide.

CMI: Smart View Server URL

URL to launch In-Memory Cost Management Smart View from Oracle E-Business. It must be based on URL after deploying the WAR file. Refer to the Oracle In-Memory Cost Management Installation and Configuration Guide.

See: Setting User Profile Options, Oracle E-Business Suite Setup Guide

Cost Simulations

Overview of Process Manufacturing Cost Impact Simulations

The In-Memory Cost Management Cost Impact Simulation tool provides a method to analyze the impact of cost variations in items, resources, overheads, and recipes on your enterprise. You can specify the new cost and review at all the impacted assemblies and subassemblies. This new cost is the simulated cost. For the impacted material and resources- you can view the current on hand, work in process, and in transit values compared with the simulated value. You can review summary to detailed data for each affected assembly, and view the indented cost structure in the detail page. In the View Detail page further cost changes can be made to material, material overhead, resources, overhead, outside processing, and resubmitted in the simulation program.

The Cost Impact Simulation page enables you to:

- Validate, create, and refresh data dynamically to create simulations of cost rollups.
- Use analysis capabilities from Oracle Hyperion Smart View.
- Search based on context-in the spreadsheet for cost elements.
- Create reports in Excel, Word, and PowerPoint.
- View data on Oracle Business Intelligence Enterprise Edition dashboards.

Oracle Hyperion Smart View uses data changes you input and executes one of several PL/SQL procedures depending on the simulation stage: validating, creating, or updating a simulation. After creating a simulation, you can see a summary view of assembly level cost data and an exploded detail view of indented cost data.

Related Topics

Connecting to Data Sources, page 2-4

Using the Member Selector, page 3-2

Modifying Cost Simulation Results, page 3-13

Creating Process Manufacturing Cost Simulations, page 3-3

Viewing Process Manufacturing Cost Simulation Summaries and Details, page 3-9

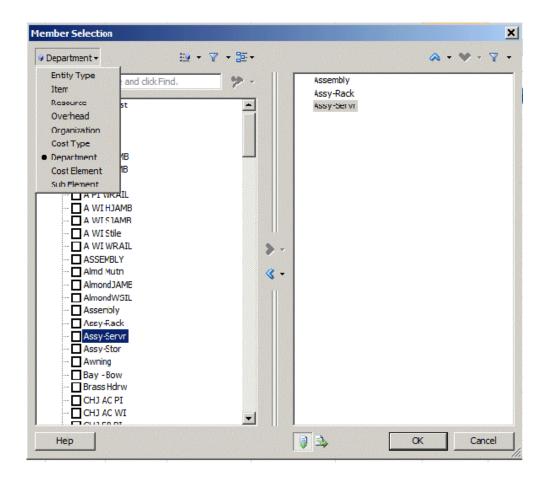
Purging Simulation Records, page C-5

Using the Member Selector

The Member Selection dialog box enables you to select multiple values to display on the spreadsheet when searching for column values. Available values, or members, for the dimension selected appear in a tree.

To select multiple values on the spreadsheet:

- Navigate to either the Cost Simulation or Cost Comparison worksheet.
- Place your cursor in the column for the associated value you want to search.
- Select Member Selection in the In-Memory Cost Management ribbon. The Member Selection dialog box appears.
- Click the Dimension Selector button to change the column.



- In the drop-down menu, select the parameter or column type you are searching. The available values appear in a tree list.
- Enable the check boxes next to the values you want to enter on the spreadsheet.
- Select the Right-Arrow tool to move values to the Selection pane.
- Select OK to save your work. The values selected are displayed on the spreadsheet grid.

Creating Process Manufacturing Cost Simulations

The Cost Impact Simulation tool is also used to investigate the data contained in your cost structures in recipe ingredients, batches, and formulas within process manufacturing operations. You enter text or search for cost parameters, refresh the data entry, enter simulated costs, and submit the changes for the simulated rollup.

Note: Before performing any cost impact simulations, ensure that a standard cost rollup for the Calendar code in the period of the simulation can be performed.

Results can be analyzed in summary and detail pages. In the View Summary page, you can review the simulated and current cost of the impacted final products and intermediate products. In the View Detail page, you can review the indented cost structure of a particular impacted assembly and subassembly for the simulation.

Value Searching for Simulations

When searching for values for cost simulations - you can either enter search criteria and select Refresh to update the column values, or enter values in the required columns:

- When entering search criteria in the required fields, select Refresh to display the search results, and then change the values in the Simulated Rate or Amount columns. The system copies the existing cost records from the basis cost type and updates the row with the Simulated Rate or Amount. This method is used when you choose to update an existing cost subelement of the item with a specific value.
- When entering values in the required columns, select Simulate without choosing Refresh. The system copies all the cost records for the components from the basis cost type and then inserts one more records with of the values you entered. This method is used when you choose to add a new cost subelement to the cost of the item.

In both methods, the system calculates a simulation cost value with the new cost you supply. If you want to add subelements to the existing cost structure of an item or override its cost, you can enter a value for the particular entity.

Cost simulation records can be deleted from your system using the Purge Simulation concurrent request program, see: Purging Simulation Records, page C-5

To enter cost parameters in the Cost Impact Simulation tool for Process Manufacturing:

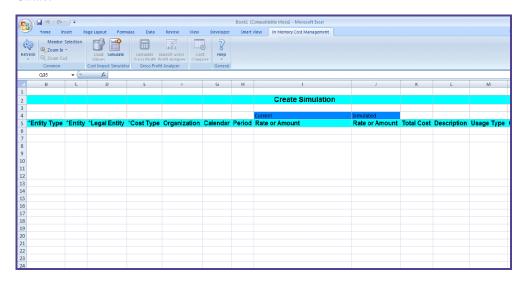
1. Navigate to the Process Create Simulation worksheet.

Note: In the In-Memory Cost Management product, Smart View always opens in a new active Excel worksheet.

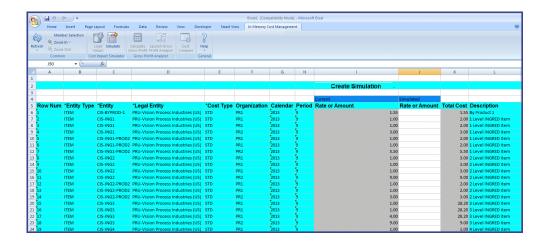
- 2. If you need to establish or change a connection to your data, select the Smart View Panel, see: Connecting to Data Sources, page 2-4
- 3. Enter search parameters by entering values, or partial values and wild card characters in the required parameter columns including:

- Entity Type: ITEM or RESOURCE
- Entity: Values for the Entity Type selected
- Legal Entity: Incorporated business that can contain several organization cost groups.
- Cost Type

These parameters have the same functions as parameters of the cost rollup, see: Running Standard Cost Rollup, Oracle Process Manufacturing Cost Management User's Guide.



- You can filter your search by looking for values for Organization, Calendar, or Period.
- To select multiple values, choose Member Selection. The Member Selection dialog box appears for selecting from a large list of specific column type values. See: Using the Member Selector, page 3-2
- Depending on the search method selected, you will choose either Refresh or Simulate, see: Value Searching for Simulations, page 3-4
- 7. If you choose Refresh, the corresponding data for the parameters selected appears. The Refresh function displays only user defined or defaulted costs for a particular entity. If no calendar and period are specified, the system identifies the period related to current system date and then refreshes data corresponding to that period.



The associated data displays in the rows of the spreadsheet including:

- Entity Type: ITEM or RESOURCE
- Legal Entity: Corporation, partnership or proprietorship that a legal construct through which the law allows lawsuits, property ownership, and contracts for the organization.
- Entity: Values for the Entity Type selected
- Cost Type: Standard or Actual.
- Organization: A business unit such as a plant, warehouse, division, department.
- Calendar: Costing calendars define an unlimited number of costing periods.
 Each period is assigned a period status to indicate costing activity that is permitted.
- Period: Calendar periods, that is month.
- Rate or Amount
 - Current for the cost type selected.
 - Simulated this field is blank. You enter a value when creating a simulation.
- Total Cost: Total Item cost of the item in the selection.
- Description: Item description or resource name.
- Usage Type: Indicates if the cost type is for general or lab use.
- Component Class Code: Identifies the cost component class associated to the

each item cost record.

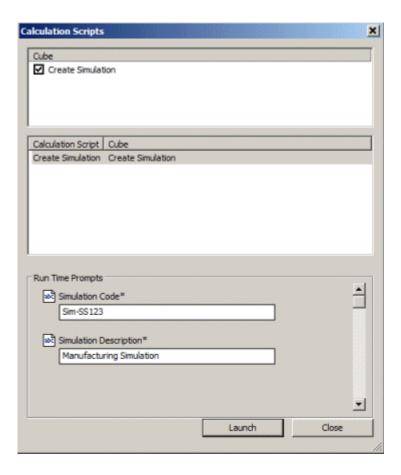
- Analysis Code: Codes used to group component costs from multiple cost component class types, providing a more granular tracking of costs.
- Unit of Measure: Item's primary unit of measure.
- Currency Code: Functional currency of the ledger associated to the legal entity specified in the search criteria.
- Error If there are errors, detailed text related to the simulation error appears in this column.

Launching a Simulation in the Process Create Simulation Smart View Spreadsheet

After entering cost changes in the Simulated Rate or Amount column, submit the changes for the simulated rollup. The procedure for launching the simulation uses only two Run Time Prompts in the simulation.

To launch a Process cost simulation:

- 1. After you select Refresh for searching data, enter cost changes in the Simulated Rate or Amount column.
- 2. Select Simulate. The Calculation Script dialog box appears for entering calculation script values.
- 3. Enter required values in the Simulation Code and Simulation Description prompts. The Simulation code can be an alphanumeric value less than or equal to 10 characters.



- 4. Select Launch to create the simulation.
 - If the simulation is successful, a success message appears. The results appear in the View Summary page after a successful generation when you close Calculation Script dialog box.
 - If the simulation is unsuccessful, an error message appears. You must resubmit
 and launch your data again to create a simulation. A line level detail error
 appears when simulation ends in error. Errors are caused when one of the
 required search parameters does not have a value. An informational message
 appears if there are no results from your selected search parameters.
- **5.** After creating the cost simulation, you can select the following functions in the In-Memory Cost Management ribbon:
 - Member Selection to choose a previous simulation to display on the spreadsheet.
 - Load Values enables loading the Inventory, WIP, and In Transit quantities for the impacted items in the corresponding Excel cell. It also loads the basis cost

type for these values and associated with the simulation in the corresponding cell

- Zoom In to navigate to the View Detail page, and Zoom Out to return to the View Summary page.
- Calculate Gross Profit to run a required background process for viewing the Gross Profit Analyzer dashboard.
- Launch Gross Profit Analyzer to display the dashboard after running the required background process and view the impact of the simulation just created on COGS and margins, see: Overview of the Gross Profit Analyzer, page 4-1
- Cost Compare to navigate to the Cost Comparison page for selected items in the current simulation. This will launch the cost comparison of the item where the cursor is placed between the simulation and the basis cost type. See: Overview of Cost Comparisons, page 5-1

Viewing Process Manufacturing Cost Simulation Summaries and Details

The Process View Summary page layout displays the unit cost summary information for product items and associated recipes, formulas, and resource usages.

To view Process Manufacturing cost simulation summaries:

1. Navigate to the Process View Summary page.

The Summary page layout shows the finished goods costs in a summary format. You can view the summary of the unit costs and simulated costs displayed for comparison.



Note: This layout is view-only. You cannot modify any data in the summary layout.

The information appears in the following columns:

Entity Type: ITEM or RESOURCE

- Entity: Values for the Entity Type selected
- Description
- Recipe Number
- Recipe Version
- Unit of Measure
- Organization Code
- Unit Cost: Current and Simulated
- Percentage of Cost Change
- Currency Code
- Current Quantity: On Hand, WIP, In Transit
- Simulated Quantity: On Hand, WIP, In Transit
- Simulated Value: On Hand, WIP, In Transit
- 2. Select item rows and use the Zoom In tool (or double-click left mouse button) to display the View Detail page, and the Zoom Out tool (or double-click right mouse button) to return to the View Summary page.

To view cost simulation details:

- 1. Navigate to the Process View Details page. You can:
 - Select various component level details of the selected assembly and Zoom In to see details of the components.
 - View the indented cost structure of the assembly you selected for Zoom In.
 - Zoom Out from the top assembly to navigate back to the View Summary page.

| 1 | | | | | | | | | | | | |
|----|---------------------|------------------------------------|-----------------|---------------|-----|--------------|------------------|----|----------------------|---------------|------------------|-------|
| 2 | | | | | | | | | View Detail | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | Simulation Code | ResTest | Description | ResTest | | | | | | | | |
| 6 | Simulation Date | '30-SEP-2013 | Status | Finished | | | | | | | | |
| 7 | | PRU-Vision Process Industries (US) | Basis Cost Type | STD | | | | | | | | |
| 8 | | 2013 | Period | 9 | | | | | | | | |
| 9 | Start Date | '01-SEP-2013 | End Date | '30-SEP-2013 | | | | | | | | |
| 10 | Product Item | CIS-PRODUCT-2 | Recipe No | CIS-PRODUCT-2 | | | | | | | | |
| | | PR2 | Recipe Vers | 2 | | | | | | | | |
| 12 | Total Extended Cost | 390.56608875 | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| | Row Num | Item | Level | | | Source Org % | | | Component Class Code | Analysis Code | Formula Quantity | Scrap |
| 16 | 1 | CIS-PRODUCT-2 | 1 | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | | | | 2.00 | l . |
| 17 | | CIS-PRODUCT-2 | | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | | 1-EQUIP | VAL | | |
| 18 | | CIS-PRODUCT-2 | | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | | | VAL | | |
| 19 | | CIS-PRODUCT-2 | 1 | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | | | VAL | | |
| 20 | | CIS-PRODUCT-2 | | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | 30 | 1-LBRDIR | VAL | | |
| 21 | | CIS-LEAF-52 | 2 | PR2 | PR1 | 1 | CIS-PRODUCT-2/2 | | | | 2.00 | I |
| 22 | | CIS-ING1-PROD2 | | PR2 | PR2 | 1 | CIS-PRODUCT-2/2 | | | | 3.00 | |
| 23 | 8 | CIS-INTPROD-21 | 2 | PR2 | PR2 | 1 | CIS-INTPROD-21/1 | | | | 1.00 | I |
| 24 | | | | | | | | | | | | |

- **2**. Information displays in the following columns:
 - Item
 - Level
 - Organization
 - Source Organization
 - Source Organization Percentage
 - Recipe: Information that defines the manufacturing requirements for a specific product. Recipes include the sequencing of ingredients and processing instructions
 - Step: Operations or stages in the manufacturing cycle required to transform ingredients into finished goods.
 - Component Class Code: Identifies the cost component to be applied to the percentage overhead.
 - Analysis Code: Codes used to group component costs from multiple cost component class types, providing a more granular tracking of costs.
 - Formula Quantity
 - Scrap Factor
 - Resource Usage: Equipment or labor used in production multiplied by charges.
 - Rate or Amount
 - Simulated
 - Extended Quantity/Rate or Amount

- Item Cost/Resource Rate
- **Extended Cost**
- **Current Item Cost**
- Description
- Formula: Statement of ingredient requirements and planned product yield. A formula can also include processing instructions and ingredient sequencing directions.
- Formula Quantity/Resource Usage Unit of Measure
- Scale Type: The proportional or disproportional increase or decrease of product, byproduct, or ingredient quantities in a formula or batch. Scaling types are fixed, proportional, and integer.
- Routing: A sequenced set of operations to perform to complete a production batch.
- Routing Quantity
- Routing Unit of Measure
- Operation
- Step Quantity
- Step Quantity Unit of Measure
- **Process Quantity**
- Process Quantity Unit of Measure
- Resource Count
- **Activity Factor**
- Currency Code
- Included in Rollup
- Error: If there are errors, detailed text related to the simulation error appears in this column.

Related Topics

Creating Process Manufacturing Cost Simulations, page 3-3 Modifying Cost Simulation Results, page 3-13

Modifying Cost Simulation Results

You can further test and update simulations from the results displaying on the View Detail page. You modify cost values and run the Simulation Calculation script again. The Update Simulation program:

- Creates a new simulation based on the new values entered.
- Enables you to Zoom Out from the top parent assembly to see the updated simulated cost of all assemblies in the summary layout.

To modify cost simulation details:

On the View Detail page for a cost simulation, select the costs you want to change. You can update the quantity, rate or amount, and unit cost for the following entities as shown in the following table:

| Entity | Qty/Rate or Amount | Unit Cost |
|--------------------------|--------------------|-----------|
| Component | Yes | No |
| Resource | Yes | Yes |
| Overhead | No | Yes |
| Outside processing (OSP) | Yes | Yes |
| Material | No | Yes |
| Material Overhead | No | Yes |

- Select Simulate to display the Update Simulation dialog box.
- Choose Launch.
- After the simulation successfully processes, choose Close. The View Detail page refreshes with values based on the new modified values

entered.

Related Topics

Creating Cost Simulations, Oracle In-Memory Cost Management for Discrete Industries User's Guide

Creating Process Manufacturing Cost Simulations, page 3-3

Viewing Cost Simulation Summaries and Details, Oracle In-Memory Cost Management for Discrete Industries User's Guide

Viewing Process Manufacturing Cost Simulation Summaries and Details, page 3-9

Profit Analysis

This chapter covers the following topics:

- Overview of Analyzing Gross Profits
- Generating Data for Profit Analysis
- Selecting Search Criteria
- Viewing an Overview of Gross Profits
- **Viewing Gross Profit Products**
- Viewing Gross Profit Customers
- Viewing Impacts on Gross Profit

Overview of Analyzing Gross Profits

The In-Memory Cost Management Profit Analyzer provides the ability to analyze the impact of Cost of Goods Sold (COGS) and profit margins in your organization. Oracle Business Intelligence Enterprise Edition (OBIEE) technology provides a graphical dashboard displaying actual versus simulated COGS and gross margins originating from variations to costs. This dashboard enables you to visualize and quickly analyze costs occurring across the supply chain. When cost changes occur, you can investigate deviations, and then take corrective action. You can view detail panes on the dashboards to examine actual and simulated data on:

- Cost of Goods Sold and gross margins on shipped, unshipped orders, and planned orders.
- Sales orders shipped.
- Planned orders.
- Top items sold, planned, and shipped.

- Orders by product and customer.
- Hierarchy by product and customer.

You can display data in either a graph or table view, and export data to PDF, Microsoft Excel, and other documents.

There are two OBIEE dashboards to analyze Cost of Goods Sold and gross profit data. Both dashboards show the actual compared to simulated costs created in the Cost Impact Simulator:

- Gross Profit Analysis: You can access this dashboard directly from the Navigator. This dashboard shows the impact of profitability in three areas: Overview, Product, and Customer. All panels enable you to refresh, print, export, or copy the data shown in the specific panel.
- Impact on Gross Profit: You can navigate from the Cost Impact Simulator to analyze the downstream impacts of changes to costs, and also from the Navigator. This dashboard shows the cost impacts of previous simulations. All panels enable you to refresh, print, export, or copy the data shown in the specific panel.

Note: When launching the Oracle Business Intelligence Enterprise Edition (OBIEE) pages from the Cost Impact Simulator, your user responsibility must have access to the CIS GPA Common function. See: Responsibilities, page 2-3.

Related Topics

Generating Data for Profit Analysis, page 4-2

Selecting Search Criteria, page 4-3

Viewing an Overview of Gross Profits, page 4-4

Viewing Gross Profit Products, page 4-9

Viewing Gross Profit Customers, page 4-15

Viewing Impacts on Gross Profit, page 4-19

Generating Data for Profit Analysis

Several concurrent programs are used to collect cost information and generate data to display on Profit Analysis dashboards:

- Create Product Category Hierarchy (In-Memory Cost Management)
- Create Territory Hierarchy (In-Memory Cost Management)

- Create Time Dimension (In-Memory Cost Management)
- Incremental Margin Load (In-Memory Cost Management)
- Simulation Margin Load (In-Memory Cost Management)

Related Topics

Profile Options, page 2-6

In-Memory Cost Management Concurrent Programs, page C-1

Selecting Search Criteria

The Profit Analysis dashboards open defaulting to:

- Gross Profit Analysis defaults to cost type ACTUAL.
- Impact on Gross Profit, defaults to a cost type you have access.

You can change the cost type to other types have access to, along with other parameters during your analysis.

Note: The cost type ACTUAL is a seeded cost type for profit analysis which has the actual values only. The values in ACTUAL are used to create the simulated values. The dashboard also enables you to select the cost type ACTUAL to look at the actual values.

To select search criteria in the Profit Analyzer dashboards:

Navigate to the Gross Profit Analysis or Impact on Gross Profit dashboards.



- Select values in the Search panel to change the information appearing on the dashboard. You can select multiple search parameters for each value. Choices are:
 - Simulation Cost Type
 - Organization Ledger
 - Fiscal Year (displays only on Gross Profit Analysis dashboard)

- Fiscal Quarter (displays only on Gross Profit Analysis dashboard)
- Period
- Product
- Sales Organization
- Sales Channel
- Sales Representative
- Customer
- 3. Select Apply to reformat the information and change the values appearing in the panels.

Data does not display if the specified criteria does not have information for the selected value combination.

Viewing an Overview of Gross Profits

The Overview region of the Gross Profit Analyzer has six panels displaying actual data compared to simulated data. These panels include:

- Profitability Summary of Margins and COGS for Sales Forecasts, Shipped Orders, and Unshipped Orders
- Gross Margin by Period
- Gross Margin by Sales Organization
- Gross Margin by Sales Representative
- Cost of Goods Sold for Planned Orders by Period
- Gross Margin for Planned Orders by Period

All panels enable you to:

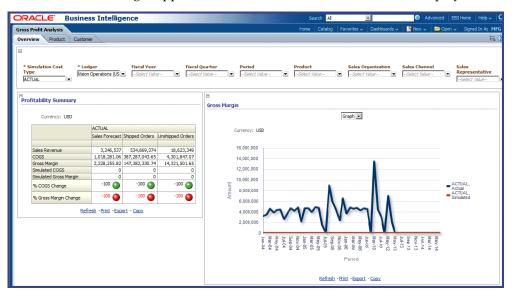
- Refresh, print, export, or copy the data shown in a specific panel.
- View data in either graph or table view.
- Display both actual versus simulated data for the cost type selected.

Some of the panels also enable you to navigate to reports showing more detail on the values appearing on the graphs and tables.

To view an overview of gross profits:

- Navigate to the Gross Profit Analysis page, and select the Overview tabbed region.
- You can select values in the Search panel to change variations and reformat the data appearing, see: Selecting Search Criteria, page 4-3
- The Profitability Summary panel is a table view of orders in relationship to margin and COGS for the cost type selected. For sales forecasts, shipped, and unshipped orders you can view:
 - Sales Revenue
 - COGS and Gross Margin (both actual and simulated)
 - Percentage of Change for COGS and Gross Margin

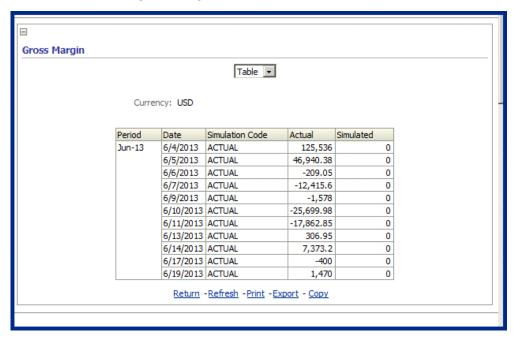
The variation of changes appear in both a numerical and color-coded display.



- The Gross Margin by Period panel shows the amount per period of your organization's gross margin for the selected Fiscal Period.
- Use the drop-down box to change the display between graph or table view, and back again. Select the table view.
 - Both views list the actual and simulated values for the fiscal periods, and other values used in your search criteria.



6. Select a particular period in the table to view daily variations of the month for the actual and simulated gross margins.



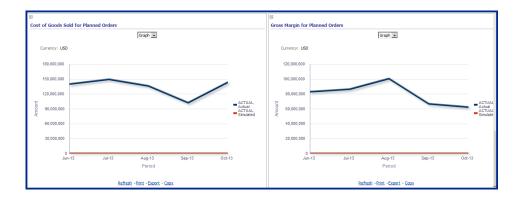
- 7. To see an overview of profitability by sales organization and sales representative, view the following panels:
 - The Gross Margin by Sales Organization panel shows the amount of sales for

each organization selected in the search criteria.

The Gross Margin by Sales Representative panel shows the amount of sales earned by representatives selected in the search criteria.



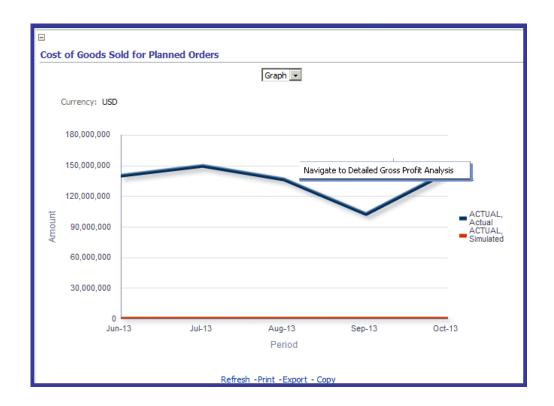
- Select the drop-down menu to display the data between a table or graph view, and back again.
- To filter results for top grossing organizations and representatives, change the value in the Top box. Select Apply to see the results.
 - In the table view for the Gross Margin by Sales Organization panel, you can view individual organizations.
- 10. To see an overview of profitability for planned orders by period, view the following panels. These panels show the profitability of suggested order quantities for orders created by your planning and scheduling system:
 - The Cost of Goods Sold for Planned Orders by Period panel shows the COGS amount for orders planned per fiscal period selected in your search criteria.
 - The Gross Margin for Planned Orders by Period panel shows the gross margin for the orders planned for the fiscal periods selected in your search criteria.



- 11. On the Cost of Goods Sold for Planned Orders by Period and the Gross Margin for Planned Orders by Period panels, you can navigate to detail reports by left-clicking your mouse in the following areas:
 - On the line in the graph view
 - Values in the Actual or Simulated columns in the table view

Note: Use mouse left-click to access the reports; mouse right-click displays OBIEE report settings and not the In-Memory Cost Management detail reports.

When you choose the appropriate method for the panel display, a link appears: Navigate to Detailed Gross Profit Analysis.



12. Select the link, and the Detailed Gross Profit Analysis report appears.



Viewing Gross Profit Products

The Product tabbed region of the Gross Profit Analyzer contains six panels showing the profitability of your organization's products including:

- Cost of Goods Sold
- Gross Margin
- Cost of Goods Sold for Unshipped Orders

- Gross Margin for Unshipped Orders
- Cost of Goods Sold for Planned Orders
- Gross Margin for Planned Orders

All panels enable you to:

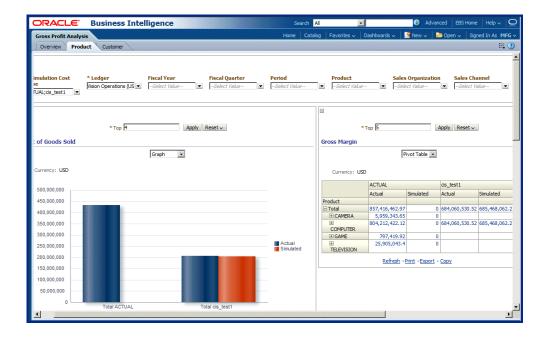
- Refresh, print, export, or copy the data shown in a specific panel.
- View data in either graph or table view.
- Display both actual versus simulated data for the cost type selected.
- Navigate to reports showing more detail on the values appearing on the graphs and tables.

To view COGS and gross margins for products in the Gross Profit **Analysis dashboard:**

- 1. Navigate to the Gross Profit Analysis page, and select the Product tabbed region.
 - Data displaying on the panels is for products selected according to your search criteria, see: Selecting Search Criteria, page 4-3

The overview summary panels show profitability for shipped orders only:

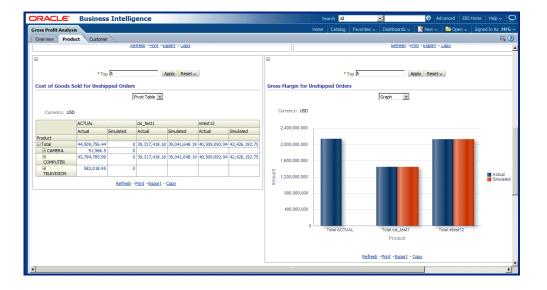
- The Cost of Goods Sold panel shows the profitability of selected products in your search criteria.
- The Gross Margin panel shows the profitability of the difference between total revenue and the cost of goods sold of selected products in your search criteria.
- 2. To filter results for most profitable products, change the value in the Top box. Select Apply to see the results.



Use the drop-down box to change the display from a graph or a pivot table, and back again.

The pivot table view shows the actual and simulated COGS or gross margin in a row for the total amount.

- Expand the Total column to display the actual and simulated amount of the next level of the product hierarchy.
- In the Unshipped Orders region, Gross Profit Analysis dashboard, two panels show COGS and gross margins for unshipped orders:
 - Cost of Goods Sold for Unshipped Orders shows the income of products for orders booked but not yet shipped.
 - Gross Margin for Unshipped Orders shows the difference between revenue and COGS of products for orders booked but not yet shipped.



- To see an overview of profitability for planned orders by product, view the following panels. These panels show the profitability of suggested order quantities for orders created by your planning and scheduling system.
 - The Cost of Goods Sold for Planned Orders by Product panel shows the COGS amount for the orders planned for products selected in your search criteria.
 - The Gross Margin for Planned Orders by Product panel shows the gross margin for the orders planned for products selected in your search criteria.



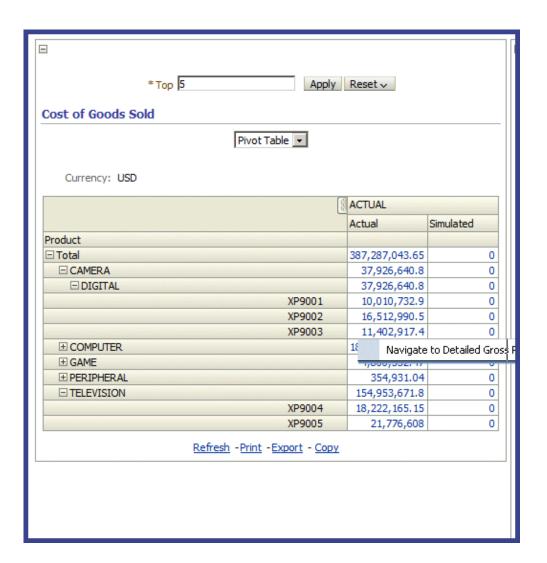
To navigate to detail reports:

- On any of the panels, navigate to detail reports by left-clicking your mouse in the following areas:
 - On the line in the graph view

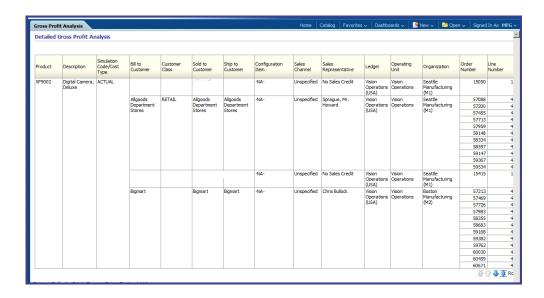
• Values in the Actual or Simulated columns in the table view

Note: Use mouse left-click to access the reports; mouse right-click displays OBIEE report settings and not the In-Memory Cost Management detail reports.

When you choose the appropriate method for the panel display, a link appears: Navigate to Detailed Gross Profit Analysis.



2. Select the link, and the Detailed Gross Profit Analysis report appears.



Viewing Gross Profit Customers

The Customer region of the Gross Profit Analyzer has six panels displaying actual values compared to simulated data of your gross profits and COGS for your customers. These panels include:

- Cost of Goods Sold
- Gross Margin
- Cost of Goods Sold for Unplanned Unshipped Orders
- Gross Margin for Unshipped Orders
- Cost of Goods Sold for Planned Orders
- Gross Margin for Planned Orders

All panels enable you to:

- Refresh, print, export, or copy the data shown in a specific panel.
- View data in either graph or table view.
- Display both actual versus simulated data for the cost type selected.
- Navigate to reports showing more detail on the values appearing on the graphs and tables.

To view gross profits and margins for customers:

- Navigate to the Gross Profit Analysis page, and select the Customer tabbed region.
- You can select values in the Search panel to change variations and reformat the data appearing, see: Selecting Search Criteria, page 4-3

The overview summary panels show the profitability for shipped orders only:

- The Cost of Goods Sold panel shows the profitability of selected customers in your search criteria.
- The Gross Margin panel shows the profitability of the difference between total revenue and the cost of goods sold of selected customers in your search criteria.
- To filter results for the most profitable customers, change the value in the Top box. Select Apply to see the results.



- Use the drop-down box to change the display from a graph or a pivot table, and back again.
 - The pivot table view shows the actual and simulated COGS or gross margin in a row for the total amount.
- Expand the Total column to display the actual and simulated amount of the next level of the customer hierarchy.
- 6. In the Unshipped Orders region, two panels show COGS and gross margins for unshipped orders in the Gross Profit Analysis dashboard:
 - Cost of Goods Sold for Unshipped Orders shows the income per customer for orders booked but not yet shipped.

Gross Margin for Unshipped Orders shows the difference between revenue and COGS per customer for orders booked but not yet shipped.



- To see an overview of profitability for planned orders by customer, view the following panels. These panels show the profitability of suggested order quantities for orders created by your planning and scheduling system.
 - Cost of Goods Sold for Planned Orders by Customer panel shows the COGS amount for the orders planned for customers selected in your search criteria.
 - Gross Margin for Planned Orders by Customer panel shows the gross margin for the orders planned for customers selected in your search criteria.



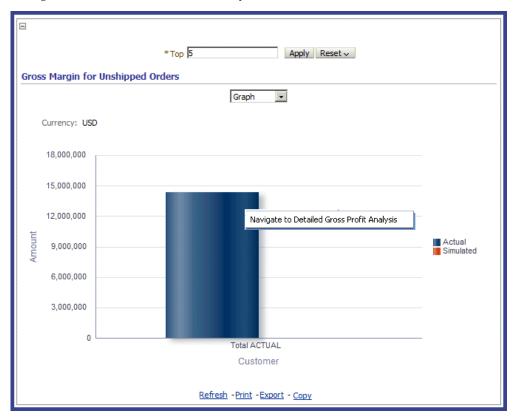
To navigate to detail reports:

- On any of the panels, navigate to detail reports by left-clicking your mouse in the following areas:
 - On the line in the graph view

Values in the Actual or Simulated columns in the table view

Note: Use mouse left-click to access the reports; mouse right-click displays OBIEE report settings and not the In-Memory Cost Management detail reports.

When you choose the appropriate method for the panel display, a link appears: Navigate to Detailed Gross Profit Analysis.



Select the link, and the Detailed Gross Profit Analysis report appears.



Viewing Impacts on Gross Profit

The Impact on Gross Profit dashboard shows the results of a previous simulation performed. You can change the display to other simulations by selecting a Simulation Code value in the search region. The dashboard consists of 6 panels showing:

- Cost of Goods Sold by Product
- Gross Margin by Product
- Gross Margin for Unshipped Orders by Product
- Gross Margin for Unshipped Orders by Customer
- Cost of Goods Sold for Planned Orders by Period
- Gross Margin for Planned Orders by Period

All of the panels enable you to:

- Refresh, print, export, or copy the data shown in a specific panel.
- View data in either graph or table view.
- Display both actual versus simulated data for the cost type selected.

To view impacts on gross profits:

Navigate to the Impact on the Gross Profit dashboard.

The initial view defaults to a simulation in which you have access. The Simulation Code field value and any of the other search parameters can be changed in the Search panel to reformat the data appearing, see: Selecting Search Criteria, page 4-3

- In the COGS and Gross Margin for shipped orders panels you can see the:
 - The Cost of Goods Sold by Product panel shows the profitability of selected products in your search criteria.
 - The Gross Margin by Product panel shows the profitability of the difference between total revenue and the cost of goods sold of selected products in your search criteria.

See: Viewing Gross Profit Products, page 4-9

- In the COGS and Gross Margin for unshipped orders panels:
 - The Cost of Goods Sold for Unshipped Orders shows the income of products

for orders booked but not yet shipped.

The Gross Margin for Unshipped Orders shows the difference between revenue and COGS per customer for orders booked but not yet shipped.

See: Viewing Gross Profit Products, page 4-9 - and Viewing Gross Profit Customers, page 4-15

- **4**. In the COGS and Gross Margin for planned orders panels:
 - The Cost of Goods Sold for Planned Orders by Period panel shows the COGS amount for orders planned per fiscal period selected in your search criteria.
 - The Gross Margin for Planned Orders by Period panel shows the gross margin for the orders planned for the fiscal periods selected in your search criteria.

See: Viewing an Overview of Gross Profits, page 4-4

Process Manufacturing Cost Comparisons

Overview of Cost Comparisons

The In-Memory Cost Management Cost Comparison tool provides the ability to compare detailed indented assembly and recipe costs across different plants and organizations. Costs are presented in a side by side view. This enables you to view costed bills or recipes and associated elements, investigate differences, and take actions on costs impacting profitability. You can:

- Import simulation analysis directly into Microsoft Excel spreadsheets.
- Use capabilities from Oracle Hyperion Smart View.
- Dynamically refresh data.
- Create reports in Microsoft Excel, Word, and PowerPoint.

The Cost Comparison pages consist of two functions: searching for elements, and viewing the results. You can also navigate the Cost Comparison page by selecting Cost Compare in the Cost Simulation View Summary page.

Related Topics

Searching for Process Cost Comparison Elements, page 5-1

Searching for Cost Comparison Elements, Oracle In-Memory Cost Management for Discrete Industries User's Guide

Searching for Process Cost Comparison Elements

The Process Cost Comparison Search function enables you to select search criteria, display the results of your search, and navigate to the results page to compare costs. You can search for values using Process Cost Compare Search page.

To search for Process Manufacturing items for comparison:

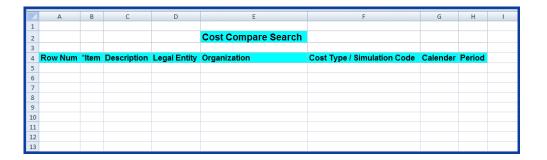
- Navigate to the Process Cost Compare Search page.
- If you need to establish or change a connection to your data, select the Smart View Panel, see: Connecting to Data Sources, page 2-4
- Enter search data.

The Item value is required.

Optionally you can also enter values in the Description, Legal Entity, Organization, Cost Type/Simulation Code, Calender, and Period columns. You can search for values by:

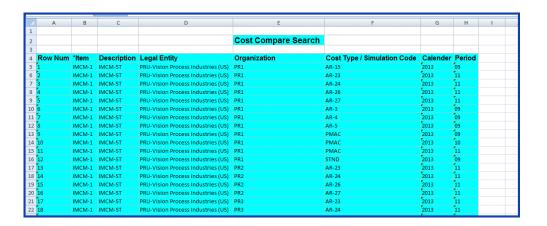
- Entering values, or partial values and wild card characters in the parameter columns.
- Selecting multiple values by choosing Member Selection. The Member Selection dialog box appears for selecting from a large list of

specific column type values. See: Using the Member Selector, page 3-2



After you have entered search criteria, select Refresh.

The data corresponding to your search criteria appears on the spreadsheet.



Related Topics

Viewing Process Cost Comparison Results, page 5-3

Viewing Process Cost Comparison Results

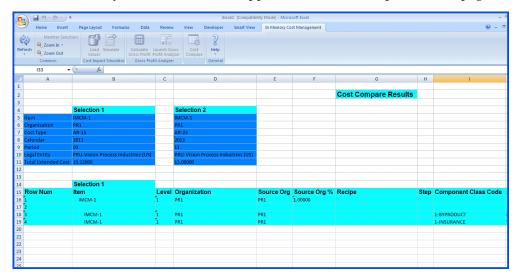
The Process Cost Compare Results page displays a side by side view of costed material and resources in recipes. You can navigate to this page by:

- Entering search criteria in the Process Cost Compare Search page and selecting records to compare.
- Selecting Cost Compare in the Process Cost Simulation View Summary page.
 - If one item is selected on the View Summary page, the results appearing on the Cost Compare Results page display the comparison between the simulated and basis cost type for the item selected.
 - If two items are selected on the View Summary page, the results appearing on the Cost Compare Results page display the comparison between the simulated and basis cost type for the item selected. Results appearing on the Cost Compare Results page display comparison between two items selected for the simulation costs.

To view cost comparison results:

- Navigate to the Process Cost Compare Search page, and enter your search criteria, see: Searching for Process Cost Comparison Elements, page 5-1
- When the results of your search appear on the worksheet, select two items.
- Select Cost Compare in the In-Memory Cost Management ribbon.

The results from your selected records appear on the Cost Compare Results page.



- **4.** The Cost Compare Results page opens with first level of components expanded for both selections in the following fields:
 - Item, Level, Organization, Source Organization, Source Organization Percentage
 - Recipe, Step, Component Class Code, Analysis Code, Formula Quantity
 - Rate or Amount, Extended Qty/Rate or Amount, Item Cost/Resource Rate, Extended Cost, Description
 - Formula, Formula Qty/Resource Usage Unit of Measure, Routing, Routing Unit of Measure
 - Operation, Step Quantity, Step Quantity Unit of Measure, Process Quantity, Process Quantity Unit of Measure
 - Resource count, Activity Factor, Include in Rollup
- 5. Select the row for one or two specific subassemblies.
- **6.** Select the Zoom In tool to expand the child rows.
 - Zoom In action can be performed for all levels of the subassemblies.
 - When displaying data for two assemblies, all child rows in each assembly are shown.
 - The rows where data is the same in both assemblies appear first; these first

rows are populated with data coming from both assemblies.

- 7. Select the expanded subassembly and choose Zoom Out to collapse the child rows
- 8. Choose Zoom Out again to return to the Cost Compare Search page

Navigation Paths

Process In-Memory Cost Management Navigation Paths

| Oracle Application | Description |
|--------------------|---|
| OPM/CMI | In-Memory Cost Management for Process Industries |
| OPM | Process Manufacturing |

Although your system administrator may have customized your navigator, typical navigational paths include the following windows and pages.

| Window or Page Name | Navigation Path |
|----------------------|--|
| Cost Compare Results | OPM/CMI > Process Cost Comparison > Compare Costs > Cost Compare Search > [enter search criteria] > (B) Refresh OPM/CMI > Process Cost Impact Simulation > View Summary > [select items] > (B) Cost Compare |
| Cost Compare Search | OPM/CMI > Process Cost Comparison > Compare Costs |

| Window or Page Name | Navigation Path |
|-------------------------|--|
| Create Simulation | OPM/CMI > Process Cost Impact Simulation > Create Simulation |
| | OPM/CMI > Process Cost Impact Simulation > Process Create Simulation |
| Gross Profit Analysis | OPM/CMI > Profit Analysis > Gross Profit Analysis |
| Impact on Gross Profit | OPM/CMI > Profit Analysis > Impact on Gross Profit |
| Incremental Margin Load | OPM/CMI > Profit Analysis > Launch Incremental Margin Load |
| Simulation Margin Load | OPM/CMI > Profit Analysis > Launch Simulation Margin Load |
| Purge Simulation | OPM/CMI > Process Cost Impact Simulation > Purge Simulation |
| Requests | OPM > Requests |
| View Details | OPM/CMI > Cost Impact Simulation > Process View Details |
| View Summary | OPM/CMI > Cost Impact Simulation > Process View Summary |

Interfaces for In-Memory Cost Management

Incremental Margin Load for Planned Orders Interface

You need to populate the planned interface table CMI_PLANNED_INTERFACE to load the profitability data for planned orders, The concurrent program Incremental Margin Load (In-Memory Cost Management) launches the concurrent program Incremental Margin Load for Planned Orders. The entries in the table CMI_PLANNED_INTERFACE are picked up for processing. The columns in this interface to be populated are described in the following table:

| Name | Туре | Required? | Description |
|-------------------|-------------|-----------|---|
| PLAN_ID | NUMBER | Yes | Identifier for plans. |
| PROCESS_PHASE | NUMBER | Yes | Needs to be set to 1 in order for it to be picked up by the concurrent program Incremental Margin Load (In-Memory Cost Management). |
| ORGANIZATION_ID | NUMBER | Yes | Sales organization identifier. |
| INVENTORY_ITEM_ID | NUMBER | Yes | Inventory item identifier. |
| UOM | VARCHAR2(3) | Yes | Unit of measure of the quantity. |

| Name | Туре | Required? | Description |
|------------------------------|--------------|-----------|--|
| GL_DATE | DATE | Yes | Required. The date the order is expected to be shipped. |
| SOLD_TO_CUST_AC CT_ID | NUMBER | No | Sold to customer account identifier, must be a valid customer account in table HZ_CUST_ACCOUN TS. |
| SHIP_TO_CUST_SIT E_USE_ID | NUMBER | No | Ship to customer site use identifier, must be a valid site_use_id in the table HZ_CUST_SITE_USE S_ALL. |
| BILL_TO_CUST_SITE _USE_ID | NUMBER | No | Bill to customer site use identifier, must be a validsite_use_id in the table HZ_CUST_SITE_USE S_ALL. |
| PRIMARY_SALESRE P_ID | NUMBER | No | Primary sales representative identifier |
| SALES_CHANNEL_ CODE | VARCHAR2(30) | No | Sales channel code. |
| ORDER_NUMBER | NUMBER | No | Order number. |
| ORDER_LINE_NUM BER | NUMBER | No | Order line number |
| HEADER_ID | NUMBER | No | Identifier for the order header from the planning system. |

| Name | Туре | Required? | Description |
|-----------------|--------------|-----------|---|
| LINE_ID | NUMBER | No | Identifier for the order line from the planning system. |
| QUANTITY | NUMBER | Yes | Order quantity in the unit of measure specified. |
| UNIT_PRICE | NUMBER | Yes | Unit price in the currency specified. |
| CURRENCY_CODE | VARCHAR2(15) | No | Currency code of the price. If not populated, the system uses the price of the functional currency of the organization. |
| CONVERSION_TYPE | VARCHAR2(30) | No | Currency conversion type. If not populated, the system uses the currency conversion type specified in profile option CMI: Default Currency Conversion Type. |

Concurrent Programs

In-Memory Cost Management Concurrent Programs

In-Memory Cost Management uses the following concurrent request programs:

- Create Product Category Hierarchy (In-Memory Cost Management, page C-1
- Create Territory Hierarchy (In-Memory Cost Management), page C-2
- Create Time Dimension (In-Memory Cost Management), page C-2
- Incremental Margin Load, page C-2
- Purge Margin Data, page C-3
- Purge Simulations, page C-5
- Simulation Margin Load, page C-5
- Write Back Simulation from CMI to EBS, page C-8

Create Product Category Hierarchy

This concurrent program creates the setup data used for Gross Profit Analysis dashboard. It considers the item category flexfields defined in the system and creates the hierarchy for the categories.

Note: Only categories defined under the category set attached to the functional area Cost Management are used in Gross Profit Analysis. The category information for an item is taken from the item master organization.

Run this program after product installation, after new categories are created, categories are changed, or the category assignment of items is changed.

Create Territory Hierarchy

This concurrent program creates the setup data to be used for Gross Profit Analysis. It considers the territory flexfield defined and creates the hierarchy for the territory.

Run this program after product installation and after territories are created or changed.

Create Time Dimension

This concurrent program creates the setup data for the Gross Profit Analysis dashboard. It uses general ledger periods and creates the time dimension required for reporting in Profit Analysis.

Run this program after product installation, each time new periods are opened, and when the calendar is changed.

Loading Incremental Margins

Incremental Margin Load Programs

There are two concurrent programs for incremental margin load, one for Discrete and one for Process manufacturing:

- Incremental Margin Load (In-Memory Cost Management)
- Incremental Margin Load (In-Memory Cost Management) for Process Manufacturing

These programs collect the data for actual costs; and incrementally load data from Accounts Receivables, Accounts Payables, Inventory, Order Management, and Cost Management - to gather the actual COGS and invoiced information for shipped and invoiced sales orders. They also gather data for sales orders that are open and booked but not yet shipped or invoiced, data for newly created items and customers. These programs must be run to use the following functions:

- Simulation Margin Load concurrent program.
- Calculate Gross Profits in the Cost Impact Simulation page.

At completion, the programs launch a child concurrent request - Incremental Margin Load for Planned Orders ll imports all the data from the Planned Order Interface, see: Incremental Margin Load for Planned Orders Interface, page B-1

Schedule the programs to run on a periodic basis to have the information needed for accurate simulations. Set the profile option CMI: Incremental Margin Load Start Date to set the date used for the concurrent program's first run. See: Profile Options, page 2-6.

Chronological Considerations for Profit Analysis Display

Invoice Quantity and Invoice Amount values are populated after the Invoice Import and Revenue Recognition programs in Accounts Receivables are run. Launch these

programs prior to launching the Incremental Margin Load program. Otherwise, COGS and Shipped Quantity values display as Null on the Profit Analysis dashboards.

After running the Interface Trip Stop-SRS process in Shipping Execution, ensure that the Workflow Background Process is successfully completed prior to launching the Incremental Margin Load concurrent program.

To launch incremental margin load

- 1. Navigate to the Incremental Margin Load request program.
- When the Request window appears, choose Submit.

The Request ID appears in the Decision window. You have the option to submit another request.

Purging Margin Data

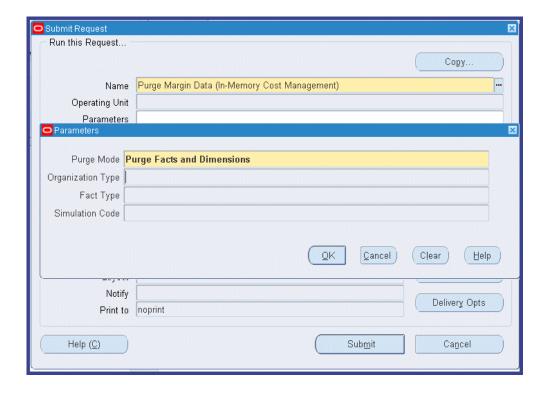
Purge Margin Data Concurrent Request

The Purge Margin Data program is used to purge collected COGS and revenue data in the fact tables and dimensions. Fact tables contain various measures, attributes of measures, and foreign keys that connect the fact table and the dimension tables. Dimensions contain attributes for items such as time, organization, and customer. This data is collected by the Gross Profit Analyzer to calculate the margins that are displayed in the multiple dashboards.

To launch the Purge Margin Data program

1. Navigate to the Purge Margin Data request program.

The Request and Parameters windows appear.



- 2. In the Parameters window, select a Purge Mode. Choices are:
 - Purge Facts and Dimensions
 - Purge Facts Only
- **3**. If you select Purge Facts Only, select values for the following parameters. Choices are:
 - Organization Type: Discrete, Process, or Both
 - Fact Type: Actuals, Simulation, Actuals and Simulations
- **4.** If the Purge Mode value selected is Purge Facts Only, and the Fact Type value is Simulation, select a Simulation Code.
 - Simulation Codes appearing are codes where the Simulation Margin Load or Calculate GPA programs have been executed.
- Choose OK.
- 6. On the Request window, choose Submit.
 - The Request ID appears in the Decision window. You have the option to submit another request.

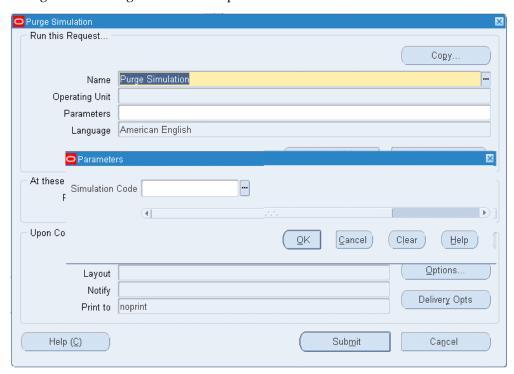
Purging Simulation Records

Older cost simulation records can be purged and deleted from your system. You can only delete one record at a time.

Purge Simulation Concurrent Request

To purge cost simulation records:

1. Navigate to the Purge Simulation request window.



- When the Parameters window appears, enter the Simulation Code value you want to delete from the system.
- Choose OK. 3.
- When the Request window appears, choose Submit. The Request ID appears in the Decision window. You have the option to submit another request.

Simulation Margin Load Programs

There are two simulation margin load programs: Simulation Margin Load and Simulation Margin Load for CIS Impacted Items.

Simulation Margin Load

The Simulation Margin Load concurrent program uses the actual cost information to create the simulated comparison data. The calculation is used in the Gross Profit Analysis and Impact on Gross Profit dashboards. After entering the Cost Type:

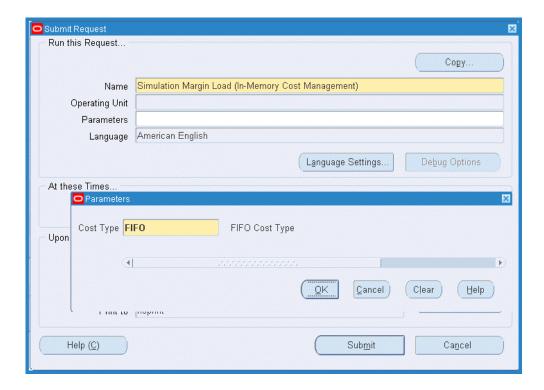
- The program calculates the simulated COGS and simulated margins based on the costs defined in that cost type.
- If the costs do not exist in the cost type specified, then the program attempts to get the cost from the default cost type specified.
- If the default value does not exist, then the simulated COGS is defaulted as actual COGS.

Set the profile option CMI: Number of Months for Simulated Margin Load to the number of months to be used in the concurrent program, see: Profile Options, page 2-6.

To launch simulation margin load:

1. Navigate to the Simulation Margin Load request program.

The Request window and Parameters window appear.



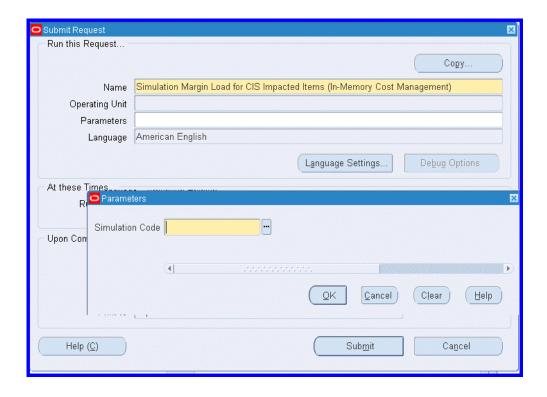
- In the Parameters window, select a Cost Type value.
- Choose OK.
- On the Request window, choose Submit. The Request ID appears in the Decision window. You have the option to submit another request.

Simulation Margin Load for CIS Impacted Items

This concurrent program is an option for the background calculation process required for viewing the Gross Profit Analysis and Impact on Gross Profit dashboards. It can be used in instances when the program fails after selecting Calculate GPA in the Cost Impact Simulator. The program uses the actual cost information to create the simulated comparison data for impacted items.

To launch Simulation Margin Load for CIS Impacted Items:

Navigate to the Simulation Margin Load for CIS Impacted Items request program. The Request and Parameters windows appear.



- In the Parameters window, select a Simulation Code value.
- Choose OK. 3
- On the Request window, choose Submit.

The Request ID appears in the Decision window. You have the option to submit another request.

Write Back Simulation from CMI to EBS

In-Memory Cost Management supports multiple Oracle E-Business databases by pulling data from, and importing the calculations back into each instance. The Write Back Simulation from CMI to EBS concurrent request is used to bring back selective simulation data from Memory Cost Management to E-Business products

After completing real-time data synchronization for your data, this concurrent process is run for a given simulation code to bring specific simulation data and cost information from In-Memory Cost Management. The program parameter accepts only one simulation code value as input. After performing all relevant validations, it writes back the simulation data from In-Memory Cost Management to E-Business.

For more information, see: Oracle In-Memory Cost Management Installation and Configuration Guide, Note Number 1662342.1 on My Oracle Support (support.oracle.com)

Write Back Simulation from CMI to EBS Concurrent Request

To launch the Write Back Simulation from CMI to EBS program:

- Navigate to the Write Back Simulation from CMI to EBS request program.
- The Request and Parameters windows appear. 2.
- In the Parameters window, select a Simulation Code value.
- Choose OK.
- On the Request window, choose Submit.

The Request ID appears in the Decision window. You have the option to submit another request.

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