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Send Us Your Comments

Part No.  A90830-04

Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this publication. 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 about this manual?

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 way:

- Electronic mail: mfgdoccomments@oracle.com

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

Audience for This Guide

Welcome to Release 11i of the Oracle Advanced Pricing User’s Guide. This guide is intended for anyone who is interested in setting up and using Oracle Advanced Pricing.

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

- The principles and customary practices of your business area.
- Oracle Advanced Pricing
  - If you have never used Oracle Advanced Pricing, Oracle suggests you attend one or more of the Oracle Advanced Pricing training classes available through Oracle University.
- The Oracle Applications graphical user interface.
  - To learn more about the Oracle Applications graphical user interface, read the Oracle Applications User’s Guide.

Implementation steps and setup procedures documentation is located in the Oracle Advanced Pricing Implementation Manual.

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

How To Use This Guide

This guide contains the information you need to understand and use Oracle Advanced Pricing:
Chapter 1 Introduces Oracle Advanced Pricing concepts and provides an overview of Oracle Advanced Pricing functionality.

Chapter 2 Introduces Oracle Advanced Pricing qualifiers, qualifier groups, and associated qualifier functionality.

Chapter 3 Introduces Oracle Advanced Pricing modifiers, pricing limits, Pricing Organizer, and associated modifier functionality.

Chapter 4 Introduces Oracle Advanced Pricing formulas and associated formula functionality.

Chapter 5 Explains Oracle Advanced Pricing price lists and associated price list usage and functionality.

Chapter 6 Explains Oracle Advanced Pricing multi-currency conversion lists and how to use them with price lists and agreements.

Chapter 7 Introduces Oracle Advanced Pricing agreements and associated agreement functionality.

Chapter 8 Introduces Oracle Advanced Pricing attribute management, data mapping rules, and associated functionality.

Chapter 9 Introduces Oracle Advanced Pricing Pricing Engine Request Viewer and associated functionality.

Chapter 10 Listing and definition of Oracle Advanced Pricing reports and concurrent programs.

Appendix A Provides a listing of Oracle Advanced Pricing attribute seed data.

Appendix B Provides a listing of Oracle Advanced Pricing seeded freight formulas.

Appendix C Provides Oracle Advanced Pricing usage scenarios for formulas.

Appendix D Provides Oracle Advanced Pricing usage scenarios for modifiers.

Appendix E Provides a listing of Oracle Advanced Pricing navigation paths.

Conventions

In this manual, we use a number of notational and text conventions to visually identify different kinds of information.

Text Conventions

The following text conventions are used in this manual:
Note
A **Note** calls attention to an important feature or fact that is related to the contents of the previous paragraph. Here is an example of a Note:

---

**Note:** A Note calls attention to an important feature or fact that is related to the contents of the previous paragraph.

---

Warning
A **Warning** represents information about a condition that could prevent application or Application Integration from working correctly. Here is an example of a Warning:

---

**Warning:** A Warning represents information about a condition that could prevent application or Application Integration from working correctly.

---

Shortcut Keys
Oracle Advanced Pricing provides computer keyboard shortcut keys that can be used as an alternative to the mouse pointer for navigating and enabling buttons and check boxes in the Advanced Pricing windows.

The following tables provide the shortcut key combinations and functions that are used in the Advanced Pricing windows:

**Shortcut keys: Advanced Pricing - Price Lists window**

<table>
<thead>
<tr>
<th>Region</th>
<th>Function</th>
<th>Shortcut Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price List region</td>
<td>Mobile Download check box</td>
<td>Alt+M</td>
</tr>
<tr>
<td>Price List region</td>
<td>Active check box</td>
<td>Alt+A</td>
</tr>
<tr>
<td>List Lines tab</td>
<td>Price Break button</td>
<td>Alt+B</td>
</tr>
<tr>
<td>List Lines tab</td>
<td>Pricing Attributes button</td>
<td>Alt+P</td>
</tr>
<tr>
<td>Qualifier tab</td>
<td>Copy Group button</td>
<td>Alt+C</td>
</tr>
</tbody>
</table>
### Shortcut keys: Copy Price List / Copy Modifiers window

<table>
<thead>
<tr>
<th>Region</th>
<th>Function</th>
<th>Shortcut Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy From</td>
<td>Include Discounts check box</td>
<td>Alt+D</td>
</tr>
<tr>
<td>Copy From</td>
<td>Retain Effective dates check box</td>
<td>Alt+R</td>
</tr>
<tr>
<td>N/A</td>
<td>Submit button</td>
<td>Alt+U</td>
</tr>
</tbody>
</table>

### Shortcut keys: Adjust Price List window

<table>
<thead>
<tr>
<th>Region</th>
<th>Function</th>
<th>Shortcut Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Submit button</td>
<td>Alt+U</td>
</tr>
</tbody>
</table>

### Shortcut keys: GSA Price List window

<table>
<thead>
<tr>
<th>Region</th>
<th>Function</th>
<th>Shortcut Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main tab</td>
<td>List Limits button</td>
<td>Alt+L</td>
</tr>
<tr>
<td>Main tab</td>
<td>List Qualifiers button</td>
<td>Alt+Q</td>
</tr>
<tr>
<td>Header Level qualifiers</td>
<td>Copy Group button</td>
<td>Alt+G</td>
</tr>
<tr>
<td>Modifier Summary</td>
<td>Line Limits button</td>
<td>Alt+I</td>
</tr>
</tbody>
</table>

### Shortcut keys: Modifier Setup window

<table>
<thead>
<tr>
<th>Region</th>
<th>Function</th>
<th>Shortcut Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main tab</td>
<td>List Limits button</td>
<td>Alt+L</td>
</tr>
<tr>
<td>Main tab</td>
<td>List Qualifiers button</td>
<td>Alt+Q</td>
</tr>
<tr>
<td>Main tab</td>
<td>Active check box</td>
<td>Alt+C</td>
</tr>
<tr>
<td>Main tab</td>
<td>Automatic check box</td>
<td>Alt+U</td>
</tr>
<tr>
<td>Header Level qualifiers</td>
<td>Copy Group button</td>
<td>Alt+G</td>
</tr>
<tr>
<td>Modifier Summary</td>
<td>Line Limits button</td>
<td>Alt+I</td>
</tr>
<tr>
<td>Modifier Summary</td>
<td>Exclude button</td>
<td>Alt+X</td>
</tr>
<tr>
<td>Modifier Summary</td>
<td>Pricing Attributes button</td>
<td>Alt+P</td>
</tr>
</tbody>
</table>
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 Corporation 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
Other Information Sources

You can choose from many sources of information, including online documentation, training, and support services, to increase your knowledge and understanding of Oracle Advanced Pricing.

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

Online Documentation

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

- **Online Help** - The new features section in the HTML help describes new features in 11i. This information is updated for each new release of Oracle Advanced Pricing. The new features section also includes information about any features that were not yet available when this guide was printed. For example, if your administrator has installed software from a mini-packs an upgrade, this document describes the new features. Online help patches are available on OracleMetaLink.

- **11i Features Matrix** - This document lists new features available by patch and identifies any associated new documentation. The new features matrix document is available on OracleMetaLink.

- **Readme File** - Refer to the readme file for patches that you have installed to learn about new documentation or documentation patches that you can download.

Related User's Guides

Oracle Advanced Pricing shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other documents when you set up and use Oracle Advanced Pricing.

You can read the guides on-line 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 Guide**
This guide explains how to navigate the system, enter data, and query information, and introduces other basic features of the GUI available with this release of Oracle Advanced Pricing (and any other Oracle Applications products). You can also access this document on-line by choosing Getting Started and Using Oracle Applications from the Oracle Applications help system.

**Oracle Applications Developer's Guide**
This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the Oracle Applications User Interface Standards. It also provides information to help you build your custom Oracle Developer forms so that they integrate with Oracle Applications.

**Oracle Applications User Interface Standards**
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.

User Guides Related to This Product

**Oracle Order Management User's Guide**
This guide describes how to enter sales orders and returns, copy existing sales orders, schedule orders, release orders, create price lists, discounts for orders, run processes, and create reports.

**Oracle Self Service Web Applications User's Guide**
This guide describes how Oracle Self Service Web Applications enable companies to provide a self-service and secure web interface for its employees, customers and suppliers. Employees can change their personal status, submit expense reports or
request supplies; customers can check on their orders; and suppliers can share production schedules with their trading partners. This guide is available in HTML only.

Installation and System Administration

Oracle Advanced Pricing Implementation Manual
This manual contains the information you need to set up and implement Oracle Advanced Pricing.

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

Installing Oracle Applications
This guide provides instructions for managing the installation of Oracle Applications products. In Release 11i, much of the installation process is handled using Oracle Rapid Install, which minimizes the time it takes to install Oracle Applications and the Oracle 8i Server 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 11i. This guide describes the upgrade process in general and lists database upgrade and product-specific upgrade tasks. You must be at either Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0 to upgrade to Release 11i. You cannot upgrade to Release 11i directly from releases prior to 10.7.
Maintaining Oracle Applications
Use this guide to help you run the various Oracle applications, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, Relink, and others. It contains how-to steps, screen shots, and other information that you need to run the Oracle applications.

Oracle Applications Product Update Notes
Use this guide as a reference if you are responsible 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 11i. It includes new features and enhancements and changes made to database objects, profile options, and seed data for this interval.

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 on-line help, and manage processing.

Oracle Workflow Guide
This guide explains how to define new workflow business processes as well as customize existing Oracle Applications-embedded workflow processes. You also use this guide to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes.

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 11i. It includes new features, enhancements, and changes made to database objects, profile options, and seed data for this interval.

Multiple Reporting Currencies in Oracle Applications
If you use the Multiple Reporting Currencies feature to record transactions in more than one currency, use this manual before implementing Oracle Advanced Pricing. This manual details additional steps and setup considerations for implementing Oracle Advanced Pricing with this feature.
**Multiple Organizations in Oracle Applications**
This guide describes how to set up and use Oracle Advanced Pricing with Oracle Applications' Multiple Organization support feature, so you can define and support different organization structures when running a single installation of Oracle Advanced Pricing.

**Oracle Workflow Guide**
This guide explains how to define new workflow business processes as well as customize existing Oracle Applications-embedded workflow processes. You also use this guide to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes.

**Oracle Applications Flexfields Guide**
This guide provides flexfields planning, setup and reference information for the Oracle Advanced Pricing implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This manual 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 Order Management Suite APIs and Open Interfaces Manual**
This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes API’s and open interfaces found in Oracle Order Management Suite.

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

Training
Oracle offers a complete set of training courses to help you and your staff master Oracle Advanced Pricing 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 Advanced Pricing 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 Oracle8i 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 Corporation develops and markets an integrated line of software products for database management, applications development, decision support and office automation, as well as Oracle Applications. Oracle Applications provides the E-business Suite, a fully integrated suite of more than 70 software modules for financial management, Internet procurement, business intelligence, supply chain management, manufacturing, project systems, human resources and sales and service management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers, and personal digital assistants, enabling 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 application products, along with related consulting, education and support services, in over 145 countries around the world.

Your Feedback

Thank you for using Oracle Advanced Pricing and this user’s guide.

Oracle values your comments and feedback. At the beginning of this guide is a Reader’s Comment Form you can use to explain what you like or dislike about Oracle Advanced Pricing or this user’s guide.

You can send your comments to the following e-mail address: mfgdoccomments@oracle.com.
This chapter explains Oracle Advanced Pricing and includes the following topic:

Overview of Oracle Advanced Pricing

Oracle Advanced Pricing supports e-business applications by providing a flexible pricing engine that executes pricing and promotional calculations for Oracle Order Management and other Oracle Applications. This application is licensed as Oracle Advanced Pricing.

**Note:** For more information on implementation steps, setup procedures, and profile options, see: *Oracle Advanced Pricing Implementation Manual.*

Oracle Advanced Pricing provides the flexibility to meet the needs of complex pricing situations for a range of demanding industry business requirements which include:

- Consumer goods, telecommunications, services, high technology, automotive, and aerospace/defense businesses which sell to other businesses.
- Telemarketing, mail order catalog, and web store businesses which sell directly to consumers.

Oracle Advanced Pricing provides advanced pricing capabilities that enable you to set up your pricing information and to model complex data relationships to determine the correct price.

With Oracle Advanced Pricing, you can perform the following functions:

- Create a list price for an item or item hierarchy.
- Set a list price based on volume breaks.
- Set security:
  - Give specific access to privileges to view or maintain price lists or modifiers to all pricing users.
  - Control which operating units can use price lists or modifiers.
- Define price breaks using block pricing to evaluate prices as a single block. For example, if item weight is between 5-15 pounds, then the price is $5. If the weight is between 16-30 pounds, the price is $10.
- Do Price List Maintenance tasks such as searching across a single or multiple price lists and updating the price, formula, or effective dates of price list lines.
- Usage Pricing/counter price - calculate price based on usage brackets.
Overview of Oracle Advanced Pricing

- Point break (all quantity in one bracket).
- Range Break (quantity in each bracket gets the price of that bracket).
- Set a list price/discounts at multiple levels of flattened hierarchies and use precedence to select the right price/discount.
- Dynamically calculate the price based on simple or a complex formula.
- Define a formula to create a price relation (price of item A is Price of Item B + $20).
- Create multiple currency conversion criteria for a single base currency price list.
- Set up GSA prices.
- Define pricing agreements.
- Get a price/discount from an external source (my price = competitors price - 5%).
- Set a percent/fixed/lump sum discount or surcharge.
- N-Dimensional Pricing (if width between 2-4 and thickness between 1-3 then multiple the price by 0.3).
- Benefit/surcharge based on total volume of multiple order lines of the same order.
- Set up deals and promotions.
- Buy one get one free.
- Coupon issue (Buy over $1000 and get a coupon of $100 for future purchase).
- Other item discount (Buy A and B get 20% off on C).
- Item Upgrade (For the price of 12 Oz. Shampoo get 16 Oz. Shampoo).
- Terms upgrade (Buy over $100 and get upgraded to air shipment).
- Set discounts as “to be accrued.”
- Set up freight and special charges.
- Mark discounts as exclusive or incompatible to each other.
- Create Cascading discounts (discounts to be applied on subtotals).
- Set spending and usage constraints to stop application of promotion when limit is reached.
- Query on multiple modifier criteria across all modifier setups.
Create your own eligibility conditions by grouping the qualifiers.

Define your own qualifier and qualifier sourcing rules (if today = Sunday then give 10%).

View the criteria that the engine uses to select price and modifiers for a pricing request.

Oracle Advanced Pricing and its pricing engine work through open, business object oriented APIs. The following Oracle Application suites use the pricing engine:

- Oracle Order Management
- Oracle Customer Relationship Management

The Pricing Concept

The pricing engine receives transaction information, prepares pricing requests, selects price lists and modifier lists, and applies price adjustments (benefits) to the transaction.

The pricing engine, displayed in the graphic below, answers the following questions as it determines a price:

- Who qualifies for prices and benefits?
- What is the product hierarchy and what pricing attributes pertain to this item or service?
- How should I adjust the order price or order line price?

The following diagram shows the elements of the pricing concept:

- A sales order
- The qualifier hierarchy
- The pricing request
- The pricing engine
- The list price and adjustments
- The setup entities: Price lists, qualifiers, modifiers, products, formulas, and pricing attributes

After the diagram, the text explains these elements.
Figure 1–1 Pricing Overview

Order Fulfillment/Other Pricing Application
Line 1, Item=Shampoo, Customer=Cust1
Line 2, Item=Conditioner, Customer=Cust1

Build Qualifier Hierarchy, Product Hierarchy, Derive attribute values

Pricing Request
Line 1, Product Hierarchy, Qualifier Hierarchy
Line 2, Product Hierarchy, Qualifier Hierarchy

Engine
Select Eligible List Lines
Evaluate Incompatibility
Fetch Modifier Details
Calculate Price

Return List Price and Adjustments

Setup

Price Lists
Qualifiers
Modifiers
Products
Formula
Pricing Attributes
Who Qualifies?

Pricing qualifiers control who is eligible for certain prices (price lists) and benefits (modifiers).

Some example qualifiers are:
- Customer Class = VIP
- Order Type = Special

What is the Product Hierarchy and Pricing Attributes?

The product hierarchy and pricing attributes control what is being priced or modified on a price list or modifier list.

An example of a product hierarchy with pricing attributes is All Plastic items of Grade B quality get 50% discount.

How Should I Adjust the Price?

Pricing modifiers control how a modifiers affect the final price (selling price).

Some example modifiers are:
- Discount of 2%
- Buy 1 get 1 free
- Get 480 ml shampoo for the same price as 360 ml shampoo
- Get a coupon for 100 currency units if you buy over 1000 currency units

The Pricing Engine

The advanced, flexible pricing engine performs pricing and benefit calculations for Oracle Order Management products and Oracle Customer Relationship Management products through open APIs.

The pricing engine performs the following functions:
- Prepares the price request structure
- Selects applicable price lists and modifier lists
- Determines base list price
- Calculates final selling price
- Applies benefits and surcharges (from modifier lists) to list price to determine selling price
Preparing the Price Request Structure
The calling applications submit price requests. This function configures a pricing request into a pricing request structure. The pricing request structure provides information about all the qualifiers and product pricing attributes.

Selecting the Price List or Modifier List
This function selects which price lists are eligible for the current pricing request. It uses the qualifiers and pricing attributes to select an eligible list of prices or modifiers it can apply to the pricing request lines according to the certain rules.

Determining List Price
This function takes the validated price list lines and applies them to the pricing request lines. You can specify the list price on a price list as unit price, percent price, or formula.

Applying Price and Modifier Adjustments
This function takes the validated modifier list lines and applies them to the pricing request lines.

The modifier function provides price adjustments such as discounts, price breaks, surcharges, coupons, item and term substitutions, and other item discounts. Discount and surcharges modifiers affect the selling price; freight charge modifiers do not affect the selling price.
Pricing Components

Qualifiers
Qualifiers control who receives benefits. They can assign discounts and promotions to:
- Specific customers
- Customer groups
- Order types
- Order amount
- Specific customer or group of customers

Qualifier Groups
Qualifier groups allow you to group multiple conditions and to assign them to a single benefit. For more information, see: Oracle Advanced Pricing User’s Guide, Qualifier Groups.

Pricing Attributes
Pricing attributes control what is being priced or modified on a price list or modifier list.

Price Lists
Price lists contain prices and currencies associated with products and services. Each price list contains basic header information with one or more item lines. Price lists can have:
- Prices for specific products and services or for product groups
- Prices as absolute values, percents of other prices, or as formulas
- Prices applicable to the entire organization or to one operating unit
- Negative prices
For more information, see: Oracle Advanced Pricing User’s Guide, PriceLists.
Modifiers

Pricing modifiers control how the pricing engine can modify the pricing requests and pricing request lines. The modifiers are:

- Discount: Reduces the price by a fixed amount or percentage or provides a new price.
- Surcharge: Increases the price by a fixed amount or percentage or provides a new price.
- Item upgrade: Replaces an ordered item with another item for the same price as the original item.
- Other item discount: Gives a price adjustment or benefit to a specified item on an order when the customer orders one or more specified items on that same order.
- Coupon: Issues a coupon as an offer of discount on other goods and services which is redeemable on a future pricing request.
- Terms substitution: Upgrades payment, shipping, and freight terms.
- Freight/Special charges: Charges for shipping and miscellaneous situations, for example, duty, handling charges, and insurance
- Promotional goods: Adds a new item to an order and gives this item a price adjustment or benefit when the customer orders one or more specific items on the same order.
- Price break: Applies a variable discount or surcharge price adjustment to a pricing request based on the break type and condition met. You can use both point- and range-type breaks.

The following table shows scenarios with examples of the qualifiers, modifiers, and pricing attributes that support them:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Qualifier</th>
<th>Modifier</th>
<th>Product Hierarchy</th>
<th>Pricing attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYZ corporation gets 10% discount on all the products</td>
<td>Customer = XYZ Corporation</td>
<td>10% discount</td>
<td>Null</td>
<td>Null</td>
</tr>
</tbody>
</table>
Overview of Oracle Advanced Pricing

Table 1–1 Scenarios where Qualifiers, Modifiers, and Pricing Attributes are Used

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Qualifier</th>
<th>Modifier</th>
<th>Product Hierarchy</th>
<th>Pricing attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Order_Type = Return and customer class = Retail</td>
<td>Order Type = Return</td>
<td>15% Surcharge</td>
<td>Electronic Items</td>
<td>Null</td>
</tr>
<tr>
<td>and customer class = Retail</td>
<td>Customer Class = Retail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>surcharge for all the “Electronic” items.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade B Motor Oil gets $20 off</td>
<td>Null</td>
<td>$20.00 discount</td>
<td>Motor Oil</td>
<td>Grade B</td>
</tr>
</tbody>
</table>

For more information, see: Oracle Advanced Pricing User’s Guide, Modifiers.

Formulas

Pricing formulas allow the pricing engine to determine item prices based on the following:

- A combination of pricing attributes and factors based on the value of a pricing attribute
- The list price on the price list line to which the formula is attached
- The list price on any specific price list line
- A numeric constant
- A customizable function

You can also attach a formula to a modifier line for the pricing engine to use to calculate discounts.

You can use two types of formulas:

- Static: You specify the formula and execute a concurrent process which calculates absolute price values.
- Dynamic: You specify the formula and the pricing engine uses the formula in its calculations each time that someone orders the product.

For more information, see: Oracle Advanced Pricing User’s Guide, Formulas.

Pricing Service Items

The pricing engine prices service items in the same way that it prices inventory items. In Oracle Order Management, the parent item is the serviceable item and
must be in the install base. Oracle Order Management passes both the serviceable item and the service item to the pricing engine; the pricing engine first prices the serviceable item and then prices the service item.

You can price service items as follows:

- Unit price: You set a list price for the service item.
- Percent price: You set a percentage; the price of the service item is that percentage of the serviceable item list price. To use this method, select the flag Service Item in the Service tab when you define the item.

When pricing service items, attend to the following order management attributes when pricing service items. They are passed through the pricing engine application program interface (API):

- Ordered Quantity (API: P_Line_Tbl.Line_Quantity): The order quantity of the service item expressed in the in the serviceable item unit of measure.
- Service Duration and Service Period (API: P_line_Tbl.UOM_Quantity): The duration of the service being ordered, for example, to order Computer Maintenance for one year, set Service Duration to 1 and Service Period to Year. You set these values in the Service tab when you enter the item in the order. In the API, P_line_Tbl.UOM_Quantity is the service duration expressed in Ordered UOM Code service period.

**Oracle Order Management Service Item: Pricing Example**

Price list setup for laptop computer:

- Product: Laptop Computer
- Application Method: Unit Price
- UOM Code: EA
- List Price: 1000 currency units

**Price list setup for computer service-unit price method**

- Product: Computer Service
- Application Method: Unit Price
- UOM Code: Month
Overview of Oracle Advanced Pricing

- List Price: 10 currency units

**Price list setup for computer service-percent price method**
- Product: Computer Service
- Application Method: Percent Price
- UOM Code: Month
- Percent Price: 2

**Order line:**
- Product: Computer Service
- Ordered Quantity: 1
- Ordered UOM: Month
- Service Period: Year
- Service Duration: 1
- Serviceable Item: Laptop Computer

**List price calculation for computer service**
- Unit price method: 10 currency units per month * 12 months service period/duration = 120 currency units
- Percent price method: (1000 currency unit laptop computer * 2% computer service percent price) * 12 months service period/duration = 240 currency units

**Implementation Planning**
Visualizing the price bands of an organization may assist you in developing an effective implementation plan for Oracle Advanced Pricing.

---

**Note:** Implementation steps, setup procedures, and profile options documentation is located in the *Oracle Advanced Pricing Implementation Manual.*

---

The following table provides a visual guide for mapping the modifiers of an organization to the components of Oracle Advanced Pricing.
The source pricing data is based upon the assumptions that item Super Wine has an item category of Wine. An order for a quantity 15 was placed on 15-Jun-2000 for a customer XYZ Corporation, who belongs to a customer class VIP.

Table 1–2 Implementation Planning:

<table>
<thead>
<tr>
<th>Buckets</th>
<th>Pricing Phases</th>
<th>Incompatibility Group</th>
<th>Qualifiers/Product Attributes (Precedence)</th>
<th>Modifiers/Price List</th>
<th>Discount</th>
<th>Sub Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Price</td>
<td>List Line Base Price</td>
<td>EXCLUSIVE</td>
<td>Customer Class - VIP (310) Item Code - Super Wine (220)</td>
<td>Corporate List - $1000</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Base Price</td>
<td>List Line Base Price</td>
<td>EXCLUSIVE</td>
<td>Item Category - Wine (290) Preferred Vendors - $800</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Base Price</td>
<td>List Line Base Price</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>$1,000</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>List Line Adjustments</td>
<td>Level 1</td>
<td>Item Quantity &gt; 10 (800) Item Code - Super Wine (220)</td>
<td>$100</td>
<td>null</td>
<td>null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>List Line Adjustments</td>
<td>Level 1</td>
<td>Customer Class - VIP (310) Summer Promotion 15%</td>
<td>Null</td>
<td>null</td>
<td>null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>List Line Adjustments</td>
<td>Level 2</td>
<td>Customer id - XYZ Corp (260) VIP discount $40</td>
<td>$40</td>
<td>Null</td>
<td>null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>List Line Adjustments</td>
<td>Level 2</td>
<td>Customer id - XYZ Corp (260) Weekday Discount $20</td>
<td>Null</td>
<td>null</td>
<td>null</td>
</tr>
<tr>
<td>Buckets</td>
<td>Pricing Phases</td>
<td>Incompatibility Group</td>
<td>Qualifiers/Product Attributes (Precedence)</td>
<td>Modifiers/Price List</td>
<td>Discount</td>
<td>Sub Total</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
<td>-----------------------</td>
<td>---------------------------------------------</td>
<td>----------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>All Line Adjustments</td>
<td>Level 1</td>
<td>Item Category - Wine (290)</td>
<td>General Discount - $20</td>
<td>$10</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>All Line Adjustments</td>
<td>Exclusive</td>
<td>Order Date &lt; 01-Dec-2000 (510)</td>
<td>Seasonal Discount - $10</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>Header Level Adjustments</td>
<td>Level 1</td>
<td>Null</td>
<td>Preferred Customer 10%</td>
<td>100</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>Line Charges</td>
<td>Level 1</td>
<td>Null</td>
<td>Handling Charge $20</td>
<td>$20</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>Header Level Charges</td>
<td>Level 1</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 1</td>
<td>Header Level Charges</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>$750</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>Adjustments</td>
<td>Level 2</td>
<td>Null</td>
<td>High usage surcharge 2%</td>
<td>($15)</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>All Line Adjustments</td>
<td>Level 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>Header Level Adjustments</td>
<td>Level 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>Line Charges</td>
<td>Level 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>Header Level Charges</td>
<td>Level 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
</tbody>
</table>
The following factors should be considered when planning your implementation. For more information on setting up, see: *Oracle Advanced Pricing Implementation Manual*.

- **List price**: Decide whether your prices are at an individual product level or at the product hierarchy or both. Also, determine the precedence levels in your organization. Determine if you base list prices on the volume purchased. Plan the number of price lists. To get a better performance, minimize the number of price lists and price list lines by using a combination of qualifiers, modifiers, pricing attributes, and formulas.

  Based upon the source pricing data, the product attribute Item Code of Super Wine for Corporate price list has a product precedence of 220, whereas product attribute Item Category of Wine for Preferred vendors price list has a product precedence of 290. Pricing picks up a list of lower precedence and hence $1000 from Corporate List is returned. This is because the pricing phase “List line base price” has “Precedence” for resolving the incompatibility.

- **Modifier types**: Categorize your discounts and promotions into the appropriate modifier types; each modifier type produces different results. For example, the Other Item Discount requires the customer to order the original item as a prerequisite to offering the discount; however, the Promotional Goods discount adds a new line to the order.

- **Buckets**: The pricing engine may calculate different selling prices depending on how you group your discounts into buckets. Plan your cascading discounts so that you can assign discounts to buckets based on the subtotal on which each discount needs to be applied.

  Based upon the source pricing data, 4th July promotion of 10% defined in Bucket 1 is applied on the list price of $1000, whereas High Usage surcharge of 2% defined in Bucket 2 is applied on the subtotal $750 from bucket 1.

### Table 1–2 Implementation Planning:

<table>
<thead>
<tr>
<th>Buckets</th>
<th>Pricing Phases</th>
<th>Incompatibility Group</th>
<th>Qualifiers/ Product Attributes (Precedence)</th>
<th>Modifiers/ Price List</th>
<th>Discount</th>
<th>Sub Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket 2</td>
<td>Header Level Charges</td>
<td>Level 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>$765</td>
</tr>
</tbody>
</table>
Phases: Decide to which event and phase each discounts and promotions belong. For example, Oracle recommends that you place:

- Line level discounts in the Line Adjustments phase
- A promotion such as Buy item A and item B and get a discount on Item C in the All Lines phase
- Modifiers to apply when orders ship in a ship event

Phases are also tied to the order events. To apply a discount only when an order is shipped, assign the modifier to a phase which is executed in SHIP event.

Incompatibility groups and exclusivity: determine the pricing bands to which the various discounts and promotions belong. Determine which discounts and promotions apply on top of one another, are incompatible, or are exclusive. Analyze all discount schemes and promotions to determine the impact.

Based upon the source pricing data, the bucket Bucket 1 and pricing phase List Line Adjustments has two Incompatibility groups called Level 1 and Level 2. Level 1 has two promotions: 4th July Promotion and Summer Promotion. The 4th July Promotion has a product precedence of 220 and Summer promotion has a qualifier precedence of 310. The 4th July promotion is picked from incompatibility group Level 1 because it has the lower precedence.

Incompatibility Group Level 2 has two discounts: VIP discount and Weekday Discount, both with a qualifier precedence of 260. Pricing resolves the incompatibility by picking the best discount.

The bucket Bucket 1 and pricing phase All Line Adjustments has two incompatibility groups: Level 1 and Exclusive. Although General Discount in Level 1 has a lower product precedence, Seasonal discount for $10 which is in the Exclusive bucket is picked up by the engine.

Note: The pricing engine determines incompatibility and exclusivity within phases.

Modifier levels: Categorize the modifiers into line, group line, and order modifiers. How the pricing engine treats a modifier can change depending on your classification.

Automatic, Override, Asked for, and Accrual flags: It is very important that you understand how the pricing engine operates with these flags so that you can set...
them to reflect your business needs. Analyze all of your discounts, promotions, and charges in terms of these features.

- Other setups: Precedence preferences, profile options, break types, and pricing attribute control the pricing engine behavior. Determine the values for these settings that reflect your business needs.

- Precedence setups: Evaluate default precedence values for qualifiers and product hierarchy and change them to reflect your business needs.

For a list of seeded precedence values, see: Oracle Advanced Pricing User’s Guide, Pricing Attribute Seed Data.

- Unit of Measure: Decide the pricing units of measure for each item because:
  - Whether the pricing engine selects a modifier depends on the unit of measure
  - The list price in the order unit of measure overrides the precedence. When it processes a pricing request, the pricing engine first chooses eligible price list lines whose unit of measure matches the calling unit of measure. If there are multiple price list lines with matching unit of measure, the pricing engine chooses the price list line with the better precedence. If there are no price list lines with matching unit of measure, the pricing engine looks for price list lines with selected primary unit of measure flag for that item, then chooses the best precedence price list line.

Determine whether you need to set up new qualifier segments and mapping rules. While Oracle Advanced Pricing has certain qualifier segments and mapping rules seeded, you may need to define discounts, promotions, and charges based on other qualifier segments.

For more information, see: Oracle Advanced Pricing User’s Guide, Overview of Attribute Management.
This chapter describes how to create, query, delete, and modify qualifier groups and use qualifiers within qualifier groups. Once qualifier contexts and attributes have been created, you can use them to set qualifier groups.

This chapter includes the following topics:

- Overview of Oracle Advanced Pricing Qualifiers on page 2-2.
- Creating a Qualifier Group on page 2-6.
- Querying a Qualifier Group on page 2-15.
- Modifying or Deleting Qualifier Groups on page 2-16.
- Using Qualifiers with Price Lists on page 2-16.
- Using Qualifiers with Modifiers on page 2-16.
Overview of Oracle Advanced Pricing Qualifiers

Oracle Advanced Pricing lets you define qualifiers to determine eligibility rules governing who can receive a particular price, discount, promotion, or benefit. Qualifiers and qualifier groups can then be linked to Oracle price lists and modifiers.

Oracle provides seeded qualifier contexts and attributes. Qualifier values for these predefined attributes are sourced from the Oracle Application database whenever applicable. For more information, see: Appendix A, Attribute Seed Data.

You can set up qualifier context/attributes to suit your own business needs to determine eligibility for benefits or price. The following lists common qualifier terms:

**Qualifier Contexts**
Qualifier contexts are flattened hierarchies where similar qualifying attributes can be grouped into logical categories. The specificity is indicated by precedence.

**Qualifiers**
Qualifiers are specific attributes that assist Oracle Advanced Pricing with limiting the who for benefit or price eligibility.

**Qualifier Value**
A qualifier value is a value you chose to associate a qualifier attribute.

**Qualifier Grouping Numbers**
A qualifier consists of qualifier lines that define eligibility for a particular price, discount, promotion, or benefit. Qualifier grouping numbers are assigned to qualifier lines to create AND and OR conditions that define how the pricing engine should evaluate the qualifier lines. For more information, see: Using Qualifier Grouping Numbers on page 2-2.

**Using Qualifiers**
Qualifiers and qualifier groups can be associated with Oracle price lists and modifiers at the following levels:

- Price List: Price List
- Modifier: Modifier List, Modifier List Line

Various methods can be used to associate qualifiers with price lists or modifiers:
a. Create qualifier groups using the Qualifier Groups window and then attach the qualifier group to the price list, modifier list, or modifier list line.

b. Create qualifier(s), and then attach individual qualifiers within the Price List or Modifiers window.

c. Any combination of method 1 and 2.

Once an entity has qualified for a particular benefit, Oracle Advanced Pricing attributes can further refine which benefits can be given.

You can create, modify, query, and delete qualifier groups.

Oracle has predefined basic qualifier contexts and associated qualifier attributes that use Oracle Application database tables as the data source wherever applicable. The following table illustrates several predefined structures that can be used in determining benefit eligibility.

<table>
<thead>
<tr>
<th>Table 2–1  Predefined Qualifier hierarchy structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifier Context</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Customer</td>
</tr>
<tr>
<td>Order</td>
</tr>
<tr>
<td>Terms</td>
</tr>
<tr>
<td>Volume</td>
</tr>
</tbody>
</table>

Order Amount as a qualifier refers to the sum of the list prices on all active order lines. It is not the same as Order Total in Oracle Order Management which can include the effect of modifiers.

You can set up hierarchies in flattened format using qualifier contexts and attributes. Flattened format is required as qualifiers do not store any relationships among the hierarchies. The following table illustrates a hierarchy with 3 different levels of qualifier attributes. This hierarchy can be stored by creating a context such as Geography. Under this context, you would define 3 attributes, such as State, Territory, and Customers.

<table>
<thead>
<tr>
<th>Table 2–2  Example qualifier “Geography” Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifier attribute</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>State</td>
</tr>
<tr>
<td>Territory</td>
</tr>
</tbody>
</table>
To enable the user to select and enter correct values for the three attributes, you would have to define specific validation sets for each attribute, using value set definitions to provide the correct source.

For more information on Value Sets, see Oracle Applications Flexfields User’s Guide, Planning and Defining Values and Value Sets.

Since hierarchical relationships are not stored, you need to define the sourcing information. This is required because when the pricing engine has to make a determination as to whether a particular customer can receive a particular benefit, the engine needs to know the information at all the levels of hierarchy.

In this hierarchy, if the qualifying conditions established were that Territory must be West and State must be California, then the pricing engine would need to know both the Territory and the State of the customer in order to determine eligibility. If the qualifying conditions established were that Territory must be West or State must be California, then the pricing engine would need to know only the Territory or the State of the customer in order to determine eligibility.

### Qualifier Group Impact when Merging Customers

When you merge customers in Oracle Receivables, you can merge:

- The information from one customer (the From customer) with the information from another customer (the To customer).
- The information from one or more customer sites of that customer (the From sites) with the site information from the other customer (the To sites).

If the From customer is referenced in any qualifiers (the qualifier context is Customer), the Oracle Receivables merge process executes an Oracle Advanced Pricing process to update the following qualifier information:

- If you merge customer: The process changes the customer name on the qualifier from the From customer to the To customer.
- If you merge sites: The process changes the site from the From customer to the To customer for qualifiers with the following attributes:
  - Bill To

#### Table 2-2  Example qualifier “Geography” Context

<table>
<thead>
<tr>
<th>Qualifier attribute</th>
<th>Qualifier attribute value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>all customers, subset of customers by purchase volume</td>
</tr>
</tbody>
</table>
Overview of Oracle Advanced Pricing Qualifiers

- Site Use
- Ship To

Verify these changes in the Value From and Value To fields of the following windows:

- Qualifier Group form, Qualifiers tab
- Advanced Pricing - Price Lists window, Qualifiers tab
- Qualifiers - Header Level Qualifiers window (from Advanced Pricing - Define Modifier window), Qualifiers tab
- Qualifiers - Line Level Qualifiers form (from Advanced Pricing - Define Modifier window), Qualifiers tabbed region
Creating a Qualifier Group

The Qualifier Group window lets you create a new qualifier group and its associated qualifiers. An example of a qualifier group could be: Customer must be in territory WEST and Order Amount is between $2000 and $5000 or Order Quantity must be greater than 10,000. The Qualifier Group can use seeded qualifiers (source attributes) such as Customer Name and Order Amount or your own qualifier attributes. These qualifiers could come from one or more qualifier contexts.

To add a new qualifier group:

1. Navigate to the Qualifier Group window.

2. Enter the qualifier group Name.

3. Optionally, enter a Description of the qualifier group.

   In the Qualifiers tab, enter a Grouping No. When entering the same numeric value for multiple qualifiers within a group, this creates an AND condition.
Creating a Qualifier Group

1. You must enter the EXACT values for Start Date and End date for EACH qualifier with a qualifier group when simulating an AND condition. If different dates are entered in either field, then the entire qualifier grouping will be ignored by the pricing engine.

2. When entering different numeric values for multiple qualifiers within a group in the Grouping No. field, this creates an OR condition. For more information, see: Using Qualifier Grouping Numbers on page 2-2.

4. In the Context field select a qualifier context.

5. Select a qualifying Attribute for the context chosen in step 5.

6. In the Operator field select a value. Valid options are Equals =: NOT Equals (NOT =: and Between (BETWEEN).

   Note: Between operator serves as Between condition when Value from and Value to field both contain a value.

   - To simulate a Greater Than condition, enter a value in the Value From field, and leave Value To field blank.
   - To simulate a Less Than condition, enter a value in the Value To field, and leave Value From field blank.

7. Enter Value From and Value To. The LOV will display the values based on the value set definition of the qualifier attribute chosen.

   Some qualifiers use large valusets, for example, those based on all customers. To reduce the number of items that display in the Value From and Value To fields, you can:

   - Enter search criteria in the field.
   - Click the list of values indicator.

   If you do not enter search criteria and click the list of values indicator, a warning advises you that you have not entered search criteria and that the search may take a long time:

   - To view a reduced list of values, click No, enter search criteria, and click the list of values indicator.
   - To view the entire list of values display, click Yes.
   - If you do not want to see the list of values, click Cancel.
Set the profile option QP: Valueset Lookup Filter to avoid this message.

8. The field Value From Meaning displays additional details of the qualifier when you query a qualifier after saving it. For example, if the context is CUSTOMER and the attribute is Ship To, Value From displays the customer name and Value From Meaning displays the site use location for the customer. If the context/attribute combination has no additional details, Value From and Value From Meaning are identical.

9. In the Start Date field, enter an optional date that the qualifier becomes active.

10. In the End Date field, enter an optional date that the qualifier becomes inactive.

11. Save your work.

Example of Qualifier Group
Customer must be in territory WEST and Order Amount is between $2000 and $5000 or Order Type must be Standard.

Create a qualifier group, for example West1. The following table demonstrates field values to define the qualifier group West1.

<table>
<thead>
<tr>
<th>Grouping Number</th>
<th>Context</th>
<th>Attribute</th>
<th>Operator</th>
<th>Value From</th>
<th>Value To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Geography</td>
<td>Territory</td>
<td>=</td>
<td>West</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>Volume</td>
<td>Order Amount</td>
<td>Between</td>
<td>2000</td>
<td>5000</td>
</tr>
<tr>
<td>2</td>
<td>Order</td>
<td>Order Type</td>
<td>=</td>
<td>Standard</td>
<td>Null</td>
</tr>
</tbody>
</table>

Using Qualifier Grouping Numbers

A qualifier consists of qualifier lines that define eligibility for a particular price, discount, promotion, or benefit. Qualifier grouping numbers are assigned to qualifier lines to create AND and OR conditions that define how the pricing engine should evaluate the qualifier lines. For example, if the customer is Vision AND a credit card is used to make payment then apply the 10% discount modifier.

The qualifier grouping number is important when you attach multiple qualifiers because it indicates to the pricing engine how to evaluate the qualifiers:

- Qualifiers with the same grouping number are evaluated as a boolean AND condition (an entity must meet all of the conditions to qualify).
Qualifiers with different grouping numbers are evaluated as a boolean OR condition (an entity must meet one of the conditions to qualify).

If -1 is used as a qualifier grouping number, the qualifier is ANDED to each qualifier group so you do not have to manually add it to each qualifier group.

**AND Conditions**

An AND condition means that all qualifier lines with the same Qualifier Grouping Number must evaluate as "true" before the pricing engine can select the associated modifier.

In the following example, both Line A and Line B, which have the same Qualifier Grouping Number, must be true to satisfy the AND condition. So, for example, if the customer is not Vision Operations but the credit rating is Excellent, then the modifier cannot be selected (assuming these are the only qualifiers for the modifier). The modifier will only be selected if the customer is Vision Operations (qualifier line A) AND their credit rating is Excellent (qualifier line B).

<table>
<thead>
<tr>
<th>Qualifier Grouping Number</th>
<th>Qualifier Line</th>
<th>Qualifier Context and Attribute Values</th>
<th>Condition Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Line A</td>
<td>Customer: Vision Operations</td>
<td>AND</td>
</tr>
<tr>
<td>1</td>
<td>Line B</td>
<td>Credit Rating: Excellent</td>
<td>AND</td>
</tr>
</tbody>
</table>

The next table shows a setup where a 10% discount on each order is offered only if a Preferred customer spends more than $150:

<table>
<thead>
<tr>
<th>Qualifier Group</th>
<th>Qualifier Attribute</th>
<th>Operator</th>
<th>Value From</th>
<th>Value To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer Class</td>
<td>=</td>
<td>Preferred</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>Order Amount</td>
<td>Between</td>
<td>150</td>
<td>Null</td>
</tr>
</tbody>
</table>

**OR Conditions**

An OR condition is created by assigning a different qualifier grouping number (such as 1 and 2) to successive qualifier lines. The OR condition provides more flexibility because only one of the qualifier groups needs to be eligible to be selected. So in the following example, if either the customer is Vision Operations
Creating a Qualifier Group

(qualifier line A) OR if the credit rating is Excellent (qualifier line B) then the modifier is eligible for selection. If both are true then the modifier is also selected:

Table 2–6  OR Conditions

<table>
<thead>
<tr>
<th>Qualifier Grouping Number</th>
<th>Qualifier Line</th>
<th>Qualifier Context and Attribute Values</th>
<th>Condition Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Line A</td>
<td>Customer: Vision Operations</td>
<td>OR</td>
</tr>
<tr>
<td>2</td>
<td>Line B</td>
<td>Credit Rating: Excellent</td>
<td>OR</td>
</tr>
</tbody>
</table>

In the following example, a 10% discount is given on each order placed by a preferred customer OR each order in which a customer spends more than $150:

Table 2–7  OR qualifying condition

<table>
<thead>
<tr>
<th>Qualifier Group</th>
<th>Qualifier Attribute</th>
<th>Operator</th>
<th>Value From</th>
<th>Value To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer Class</td>
<td>=</td>
<td>Preferred</td>
<td>Null</td>
</tr>
<tr>
<td>2</td>
<td>Order Amount</td>
<td>Between</td>
<td>150</td>
<td>Null</td>
</tr>
</tbody>
</table>

Using Combined AND/OR Conditions

The following table displays a grouping number setup using a combination of AND and OR conditions:

Table 2–8  Using Combined AND and OR Conditions

<table>
<thead>
<tr>
<th>Qualifier Grouping Number</th>
<th>Qualifier Line</th>
<th>Condition Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Line A</td>
<td>AND</td>
</tr>
<tr>
<td>1</td>
<td>Line B</td>
<td>AND</td>
</tr>
<tr>
<td>2</td>
<td>Line C</td>
<td>OR</td>
</tr>
<tr>
<td>3</td>
<td>Line D</td>
<td>OR</td>
</tr>
</tbody>
</table>

An AND condition is created for Lines A and B because they are both assigned the same qualifier grouping number (1). Qualifier lines assigned the same grouping number must both be evaluated as true statements before they can be selected.
An OR condition is created between qualifier lines with different grouping numbers. So if either Line A/B (both must be evaluated together) OR Line C OR Line D evaluate as true, then the pricing engine can select the modifier.

**Using -1 as Qualifier Grouping Number**

Typically, positive integers are used for qualifier grouping numbers such as 1, 2, or 3. However, if -1 is used as a qualifier grouping number, the qualifier is ANDED to each qualifier group saving you time from manually adding the AND qualifier.

For example, to offer a discount in which a qualifier is mandatory for all qualifying conditions, the mandatory qualifier would be assigned the -1 qualifier group. The search engine processes -1 qualifying conditions first and only processes other qualifier groups if the pricing request qualifies for the -1 qualifier grouping number conditions.

For example, suppose you wanted to give a 10% discount on an order provided the:

- Customer is a "Preferred" customer.
- Customer (any customer) orders from a US web site and spends more than $150.

However, to be eligible for the discount the customer must use a VISA credit card to pay. In the following example, the credit card type of Visa is assigned the -1 Qualifier Grouping Number to make it a mandatory qualifier before the modifier can be selected.

**Using Qualifier Grouping Numbers across Qualifier Groups**

When qualifiers are assigned to a qualifier groups, all the qualifiers in the qualifier group are attached to the modifier or price list. Before you attach multiple qualifier groups, you must indicate how the process should coordinate the grouping numbers. You select one of the following grouping number options:

- Retain Grouping Numbers Across Qualifier Groups: The grouping numbers of each attached qualifier remains as it appears in its qualifier group. In this case, the collection of attached qualifiers does not mirror the AND and OR combinations within each of the original qualifier groups.

- Generate Unique Grouping Numbers Across Qualifier Groups: The process maintains the AND and OR combinations within each of the original qualifier groups and then creates OR conditions between the groups. It attaches the first qualifier group with grouping numbers as is, then finds the highest grouping number used, increases it by one, and increases all of the grouping numbers of
the second group by this number. It attaches subsequent groups in the same manner, using the highest grouping number used by the just previously attached group.

- Both: If you attach qualifiers using one option and then reaccess the window and attach additional qualifiers using the other option, the second round qualifiers attach differently depending on the option. If the second round option is Retain Grouping Numbers Across Qualifier Groups, the process attaches those qualifiers among the already existing qualifiers. If the second round option is Generate Unique Grouping Numbers Across Qualifier Groups, the process begins attaching groups using grouping numbers incremented from the highest existing grouping number.

The following tables show examples of how the process sets the grouping numbers when you use each option. It presents the qualifiers grouped by each qualifier group:

<table>
<thead>
<tr>
<th>Table 2–9 Selected Qualifier Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifier</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>Q2</td>
</tr>
<tr>
<td>Q3</td>
</tr>
<tr>
<td>Q4</td>
</tr>
<tr>
<td>Q5</td>
</tr>
<tr>
<td>Q6</td>
</tr>
<tr>
<td>Q7</td>
</tr>
<tr>
<td>Q8</td>
</tr>
<tr>
<td>Q9</td>
</tr>
<tr>
<td>Q10</td>
</tr>
</tbody>
</table>

The grouping numbers within group G1, for example, create the qualification that the entity qualifies if it meets condition Q1 OR (condition Q2 AND condition Q3) OR condition Q4.

The following table shows the attached qualifiers when you select the option Retain Grouping Numbers Across Qualifier Groups. It presents the qualifiers grouped by
each qualifier grouping number to highlight that it does not retain the original qualifier group relationships:

**Table 2–10  Option: Retain Grouping Numbers Across Qualifier Groups**

<table>
<thead>
<tr>
<th>Qualifier Group</th>
<th>Qualifier</th>
<th>Grouping Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Q1</td>
<td>1</td>
</tr>
<tr>
<td>G2</td>
<td>Q5</td>
<td>1</td>
</tr>
<tr>
<td>G2</td>
<td>Q6</td>
<td>1</td>
</tr>
<tr>
<td>G2</td>
<td>Q7</td>
<td>1</td>
</tr>
<tr>
<td>G3</td>
<td>Q8</td>
<td>1</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>G1</td>
<td>Q2</td>
<td>2</td>
</tr>
<tr>
<td>G1</td>
<td>Q3</td>
<td>2</td>
</tr>
<tr>
<td>G3</td>
<td>Q9</td>
<td>2</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>G1</td>
<td>Q4</td>
<td>3</td>
</tr>
<tr>
<td>G3</td>
<td>Q10</td>
<td>3</td>
</tr>
</tbody>
</table>

The following table shows the attached qualifiers when you select the option Retain Grouping Numbers Across Qualifier Groups. It presents the qualifiers grouped by each qualifier group to highlight that it does retain the original qualifier group relationships:

**Table 2–11  Option: Generate Unique Grouping Numbers Across Qualifier Groups**

<table>
<thead>
<tr>
<th>Qualifier</th>
<th>Qualifier Group</th>
<th>Grouping Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>G1</td>
<td>1</td>
</tr>
<tr>
<td>Q2</td>
<td>G1</td>
<td>2</td>
</tr>
<tr>
<td>Q3</td>
<td>G1</td>
<td>2</td>
</tr>
<tr>
<td>Q4</td>
<td>G1</td>
<td>3</td>
</tr>
<tr>
<td>Q5</td>
<td>G2</td>
<td>4 (3 + 1)</td>
</tr>
</tbody>
</table>
### Table 2–11 Option: Generate Unique Grouping Numbers Across Qualifier Groups

<table>
<thead>
<tr>
<th>Qualifier</th>
<th>Qualifier Group</th>
<th>Qualifier Grouping Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6</td>
<td>G2</td>
<td>4 (3 + 1)</td>
</tr>
<tr>
<td>Q7</td>
<td>G2</td>
<td>4 (3 + 1)</td>
</tr>
<tr>
<td>Q8</td>
<td>G3</td>
<td>5 (4 + 1)</td>
</tr>
<tr>
<td>Q9</td>
<td>G3</td>
<td>6 (4 + 2)</td>
</tr>
<tr>
<td>Q10</td>
<td>G3</td>
<td>7 (4 + 3)</td>
</tr>
</tbody>
</table>
Querying a Qualifier Group

The Find Qualifiers window lets you query for a specific qualifier group or define a new qualifier groups.

**To query for a qualifier group:**

1. Navigate to the Find Qualifiers window.

**Figure 2–2  Find Qualifiers window**

2. Select the name of the qualifier group that you want to find.
3. Choose Find to display the Qualifiers window.
Modifying or Deleting Qualifier Groups

The Qualifiers window lets you modify (update or delete) a qualifier group or an associated qualifier.

To modify a qualifier group and qualifiers:
1. Navigate to the Qualifiers window.
2. Locate the Qualifier Group to modify or delete.
3. Modify or delete the record.

Note: You must first delete all associated qualifiers within a group before you can delete the qualifier group.

4. Click Save.

Using Qualifiers with Price Lists

Qualifiers or qualifier groups can be associated with a particular price list, or price list line. For more information on attaching a qualifier or qualifier group to a price list, see: Oracle Advanced Pricing User’s Guide, Price Lists.

Using Qualifiers with Modifiers

Qualifiers or qualifier groups can be associated with a particular modifier list or modifier list line. For more information on attaching a qualifier or qualifier group to modifiers and modifier lines, see: Oracle Advanced Pricing User’s Guide, Modifiers.
This chapter describes modifiers and includes the following topics:

- Overview of Modifiers on page 3-2.
- Creating a Modifier List on page 3-21.
- Creating List Level Qualifiers on page 3-25.
- Creating Modifier Lines on page 3-29.
- Creating Line Level Qualifiers on page 3-55.
- Attaching Pricing Attributes to Modifier Lines on page 3-58.
- Excluding Items on page 3-60.
- Using the Pricing Organizer on page 3-63.
- Using the Pricing Organizer as Query Find on page 3-83.
- Copying a Modifier List on page 3-93.
- Overview of Promotional Limits on page 3-98.
- Redeeming Accruals on page 3-120.
Overview of Modifiers

Modifiers enable you to set up price adjustments (for example, discounts and surcharges), benefits (for example, free goods, coupons) and freight and special charges that the pricing engine applies immediately to pricing requests or accrues for later disbursement. Using modifiers, you can:

- Set up a modifier list with multiple modifier lines.
- Create eligibility rules for modifiers by assigning list and line level qualifiers.
- Define modifiers that are incompatible with other modifiers.
- Create exclusive modifiers.
- Create cascading modifiers.
- Accrue monetary and non-monetary benefits.
- Create monetary or usage limits that a customer can receive for a promotion, deal, or other modifier.

**Note:** If you are using the multi-currency feature with price lists and modifiers, see: Considerations for Modifiers Using Multi-Currency Price List as a Qualifier on page 6-11.

You can only view or update a modifier in your pricing transaction entity. The profile QP: Pricing Transaction Entity must match the pricing transaction entity of the modifier.

You can only view or update a modifier in your source system. The profile QP: Source System Code must match the source system of the modifier. Otherwise, the modifier is view-only.

Advanced Promotion and Deals

Modifier list types of Promotion and Deal have a parent-child relationship for reporting purposes. When you create a modifier list type of Deal, you must associate it to a parent promotion by providing the promotion name and version. Since this association is for reporting purposes, information that you define on the promotion is independent of and does not affect the information on the Deal.

You can create ask for promotions or deals; those that pricing engine does not apply unless the customer asks for them. At order entry, you must reference the modifier list name or number or the modifier line number.
You can do the following with promotions and deals:

- Create versions to retain history
- Match effectivity dates
- Use multiple modifier types
- Issue coupons
- Offer discounts on other items when a customer purchases one
- Offer promotional goods
- Offer upgraded merchandise
- Substitute favorable payment terms
- Create both monetary and non-monetary promotional accruals

**Modifier Concepts**

You use the Advanced Pricing - Define Modifier window to set up price adjustments, benefits, freight and special charges, and set up promotional limits to control spending or usage. You can define simple discounts and surcharges as well as more advanced deals and promotions within the same window.

The following diagram shows modifier components and related entities:

- Modifier lists contain one or more modifiers. Modifiers have list level and line level components. Each list level must have one or more lines associated with it.
- By defining qualifiers at the list and line levels, you define a customer’s eligibility for the modifier.
- Control features that influence modifiers are products and product groups, pricing attributes, phases, incompatibility groups, levels, and buckets
- The use of modifiers can result in volume breaks, additional buy/get products, and benefits.

The following diagram provides an overview of modifiers and related concepts such as modifiers, modifier lists and qualifiers.
Modifier List Types
Using modifier lists, you can create groupings of price adjustments, benefits, and freight and special charges that you offer and report together to meet various business needs. At the list level, you define criteria that is common to all of the line level modifiers. You can use the following list types:

- Deal
- Discount List
Overview of Modifiers

- Freight and Special charge List
- Promotion
- Surcharge List

For each list type that you define, you associate certain line types.

**Modifier Types: Line Level**

Use modifier lines to define the type of price adjustments, benefits or freight and special charges that the pricing engine applies to pricing requests. You can associate certain line types with a list type. The following list describes the modifier types available at the line level:

- **Coupon Issue**: Issues a coupon on one order for the customer to redeem for a price adjustment or benefit on a later order.
- **Discount**: Creates a negative price adjustment.
- **Item Upgrade**: Replaces a specific item ordered with another item for the same price.
- **Other Item Discount**: Gives a price adjustment or benefit to a specified item on an order when the customer orders one or more other items on the same order.
- **Price Break Header**: Applies a variable discount or surcharge price adjustment to a pricing request based meeting the condition of a break type. You can use both point and range type breaks.
- **Promotional Goods**: Adds a new item with a price adjustment or benefit when the customer orders one or more other items on the same order.

**Note:** If you are using Promotional Good (PRG) type of Modifier Line with multi-currency price lists, see: Using Promotional Good type of Modifier Line on page 6-12.

- **Surcharge**: Creates a positive price adjustment.
- **Term Substitution**: Replaces freight charges, shipping charges, and payment terms with typically more favorable charges.

The following table details the modifier line types that can be used with a selected modifier list type. Each row is a modifier line type and each column is a modifier list type. A Yes in a row indicates that you can use the line type in the list type, a No indicates that you cannot:
Overview of Modifiers

Table 3–1  Modifier Line Type and Modifier List Type Relationships

<table>
<thead>
<tr>
<th>Modifier Line Type (listed in column below)</th>
<th>Deal</th>
<th>Discount List</th>
<th>Freight &amp; Special Charge List</th>
<th>Promotion</th>
<th>Surcharge List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coupon Issue</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Discount</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Item Upgrade</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Other Item Discount</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Price Break Header</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Promotional Goods</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Surcharge</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Terms Substitution</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Modifier Application Matrix

Use the following tables to help you select an application method when setting up header, line, and group of lines modifier lines.

The following table shows order level modifiers and the application methods available for each. The Value column shows application methods available if entering a value for the modifier. The Formula column shows application methods if you are entering a formula for the value for the modifier:

Table 3–2  Modifier Application Method - Order Level

<table>
<thead>
<tr>
<th>Modifier</th>
<th>Application Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount List</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Surcharge List</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Freight/Special charge List</td>
<td>Lumpsum</td>
<td>Lumpsum</td>
</tr>
</tbody>
</table>

The following table shows line level modifiers and the application methods that you can use for each. The Value column shows application methods if you are entering a value for the modifier and the Formula column shows application methods if you are entering a formula for the value for the modifier:
The following table shows group of lines level modifiers and the application methods that you can use for each. The Value column shows application methods if you are entering a value for the modifier and the Formula column shows application methods if you are entering a formula for the value for the modifier:

<table>
<thead>
<tr>
<th>Modifier Type</th>
<th>Application Method</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
</tr>
<tr>
<td>Surcharge</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
</tr>
<tr>
<td>Freight/Special Charges</td>
<td>Percent, Amount, or Lumpsum</td>
<td>Percent, Amount, or Lumpsum</td>
</tr>
<tr>
<td>Other Item Discount (Get)</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
<td>None</td>
</tr>
<tr>
<td>Price Break</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
</tr>
<tr>
<td>Promotional Good (Get)</td>
<td>Percent, Amount, Newprice, or Lumpsum</td>
<td>None</td>
</tr>
</tbody>
</table>
Lumpsum/Group of Lines Calculation
The pricing engine applies a modifier based on its application method. When the value Lumpsum is selected as the Application Method for a modifier, the pricing engine creates a price adjustment for the defined lump sum amount based on either the item quantity or item amount.

Two cases are described below that demonstrate how Lumpsum adjustments are applied at the Group of Lines level to calculate adjustments for:

- Group quantity (sum of item quantities) or
- Item amount (a monetary amount)

For each case, a modifier with the following setup is used:

### Table 3–5  Example of “Lumpsum” Modifier Setup used in Cases 1 and 2

<table>
<thead>
<tr>
<th>Application Method</th>
<th>Type</th>
<th>Level</th>
<th>Modifier Type</th>
<th>Product Attribute</th>
<th>Product Attribute Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumpsum</td>
<td>Discount List</td>
<td>Group of Lines</td>
<td>Discount</td>
<td>All Items</td>
<td>All</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Case 1: Group Quantity
The following example demonstrates how the adjustment amount is calculated when the Lumpsum modifier is applied against Item Quantity on the following price list lines:

### Table 3–6  Lumpsum Group Quantity Calculation and Sample Price List

<table>
<thead>
<tr>
<th>Line</th>
<th>Item</th>
<th>Quantity</th>
<th>Price</th>
<th>Adjustment Amount calculated when Lumpsum Modifier Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS54888</td>
<td>10</td>
<td>$80</td>
<td>$20 * 10 qty</td>
</tr>
<tr>
<td>2</td>
<td>AS54999</td>
<td>40</td>
<td>$20</td>
<td>$20 * 40 qty</td>
</tr>
</tbody>
</table>

The pricing engine calculates the adjustment amount as follows:

1. The pricing engine calculates the Group value—this is the sum of all item Quantity lines:
   - Sum of all Quantity lines = 10 + 40 = 50. Therefore, the Group value is 50:
     - Group value for Line 1: 50
     - Group value for Line 2: 50
2. To obtain the adjusted amount, the Value (from the Value field of the modifier—in this case, 1000) is divided by the Group value (50):
   - Line 1: 1000/50 = 20
   - Line 2: 1000/50 = 20

   Therefore, the adjustment amount for each line is 20. The adjustment amount per quantity is $20. The total adjusted amount for the entire order is $1000: Line 1 is $200, and Line 2 is $800.

Case 2: Item Amount Calculation
The following example demonstrates how an adjustment for lumpsum modifier is calculated based on Item Amount (the monetary amount for each item). The Lumpsum modifier is applied against the following items on a sample sales order:

<table>
<thead>
<tr>
<th>Line</th>
<th>Item</th>
<th>Quantity</th>
<th>Price</th>
<th>Adjustment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS54888</td>
<td>10</td>
<td>$80</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>AS54999</td>
<td>40</td>
<td>$20</td>
<td>12.5</td>
</tr>
</tbody>
</table>

The engine calculates the lumpsum based on Item Amount as follows: Value divided (/) by Group Value:

1. Group Value is calculated as follows:
   
   \[ \text{Group Value} = \text{Sum of all lines’ unit price} \times \text{quantity/ unit price per line} \]

   Total Group Value = $80\times10 + $20\times40 = 1600
   
   - Group Value for Line 1 = 1600/80 = 20
   - Group Value for Line 2 = 1600/20 = 80

2. To obtain the adjusted amount per unit, the Value (from the Value field of the modifier—in this case, 1000) is divided by the Group value for each line:
   
   - Line 1: 1000/20 = 50
   - Line 2: 1000/80 = 12.5

Manual Modifiers
Manual modifiers are modifiers that the pricing engine returns to the calling application instead of applying automatically. The calling application stores the
modifiers in a price adjustments table and displays them so that you can select the adjustments to be applied on an order line.

To control incompatibility processing for manual modifiers, set a value for the profile option QP: Return Manual Discounts. To view the incompatibility processing options for manual modifiers, refer to the description of the profile option.

The following modifier types can be manual:

- Discounts
- Surcharges
- Price break lines
- Freight and special charges

You can set manual modifiers at the order, line, and group of lines levels and make them overridable.

**Incompatibility**

Your business needs may require you to use modifiers that you do not want the pricing engine to apply to an order or order line in combination with other modifiers (incompatible modifiers).

You can use incompatibility groups to assign incompatibility levels to modifier lines. When the pricing engine encounters incompatible modifiers, it uses incompatibility processing to resolve the incompatibility.

**Incompatibility Processing**

Incompatibility processing occurs when a customer is eligible for more than one modifier and you instruct the pricing engine not to use these modifiers together.

You can assign multiple incompatibility levels to each pricing phase. When you create modifier lines, you assign each modifier to a phase and assign it an incompatibility level.

Since the pricing business rules allow the pricing engine to apply only one modifier for each incompatibility level and phase combination, it must resolve incompatibilities.

Incompatibility processing considers all the modifier types such as Freight and Special Charges and evaluates them as a single entity. Once the incompatibility processing is complete, only one modifier remains which may or may not be the Freight and Special Charge modifier type depending on the incompatibility setup.
Overview of Modifiers

**Base Price**
During the phase List Line Base Price, if the pricing engine selects more than one eligible price list line in the desired unit of measure, it resolves the incompatibility by picking the price list line having the highest precedence (lowest precedence number) and uses it as the base price of the item.

The pricing engine always picks up the list price from a price list based on Incompatibility resolve code as Precedence. In the pricing phase List Line Base Price, irrespective of the value of the Incompatibility code at the User level, the pricing engine picks up the list price based on Precedence only. Use the Event Phases window to set the incompatibility resolve code for a phase.

**Precedence**
During the phases List Line Adjustment, All Line Adjustments, and Header Level Adjustments if the pricing engine selects more than one eligible modifier it resolves the incompatibility using the best price feature. The best price feature instructs the pricing engine to select the modifier that offers the lowest price to the customer. For non-monetary modifiers, the pricing engine uses the estimated general ledger value of the modifier as the value of the modifier.

You can create one exclusive modifier in each pricing phase. When the pricing engine encounters an exclusive modifier, it suspends incompatibility pricing for the phase and applies only the exclusive modifier.

The following table shows an example of the pricing engine using precedence to resolve incompatibilities. The Engine Applies column indicates whether the pricing engine selects the modifier.

<table>
<thead>
<tr>
<th>Modifier</th>
<th>Phase</th>
<th>Incompatibility Level</th>
<th>Precedence</th>
<th>Engine Applies</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% discount</td>
<td>30</td>
<td>1</td>
<td>260</td>
<td>No</td>
</tr>
<tr>
<td>100 currency unit promotion</td>
<td>30</td>
<td>1</td>
<td>240</td>
<td>Yes</td>
</tr>
<tr>
<td>Free promotional good</td>
<td>30</td>
<td>2</td>
<td>260</td>
<td>Yes</td>
</tr>
<tr>
<td>50 currency unit lumpsum</td>
<td>30</td>
<td>3</td>
<td>200</td>
<td>Yes</td>
</tr>
<tr>
<td>3% discount</td>
<td>30</td>
<td>3</td>
<td>240</td>
<td>No</td>
</tr>
<tr>
<td>25 currency unit deal</td>
<td>40</td>
<td>1</td>
<td>260</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Overview of Modifiers

Buckets
To create cascading price adjustments, you can place modifiers into different buckets. When the pricing engine calculates price adjustments, it:
- Calculates percent type modifiers using the previous bucket’s subtotal
- Sums all bucket modifier values to create a bucket subtotal

Null buckets
The pricing engine automatically applies order level modifiers and manual modifiers to the Null bucket. With the Null bucket, the pricing engine:
1. Calculates percent discounts using the list price.
2. Sums all bucket modifier values to create a bucket subtotal.
3. Applies the subtotal after the last numbered bucket.

For all other modifiers, you:
- Do not have to assign a bucket.
- Can assign the Null bucket.

The modifiers in a Null bucket are applied last and always adjust from the list price.

Examples of Null buckets
For example, the list price for an SP ATO Model is $55 with a discount for 50% in the Null bucket.

In Bucket 1, a 10% discount is applied, and the calculated price is:
- $55 - (10% * 55) = $49.5

In Bucket 2, a surcharge of 10% is applied, so the calculated price is:
- $49.5 + (10% * 49.5) = $54.45

In the Null bucket, the modifiers are applied last and taken out of the list price, so the calculated price is:
- $54.45 - (50% * 55) = $26.95

Note: Refer to the phase event mapping discussion to learn how to set phase incompatibility resolution.
The following table describes another bucket example. When the base list price is $100, the pricing engine calculates the final selling price of $66.20. The Price Adjustment column shows the value of each modifier, the Bucket Subtotal column shows the total value of all modifiers for the bucket, and the Selling Price shows the price at the beginning of the calculation and after application of each bucket subtotal. The value Null means that there is no value for that cell; the value Null Bucket means that the modifier is grouped in the null bucket:

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Modifier</th>
<th>Price Adjustment</th>
<th>Bucket Subtotal</th>
<th>Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>100.00</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>2% discount</td>
<td>(2.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>5 currency unit discount</td>
<td>(5.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>Null</td>
<td>Null</td>
<td>(7.00)</td>
<td>93.00</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>2</td>
<td>5 currency unit discount</td>
<td>(5.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>2</td>
<td>Null</td>
<td>Null</td>
<td>(5.00)</td>
<td>88.00</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>3</td>
<td>2 currency unit surcharge</td>
<td>2.00</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>3</td>
<td>10% discount</td>
<td>(8.80)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>3</td>
<td>Null</td>
<td>Null</td>
<td>(6.80)</td>
<td>81.20</td>
</tr>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Null Bucket</td>
<td>5% discount</td>
<td>(5.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Null Bucket</td>
<td>10 currency unit discount</td>
<td>(10.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>Null Bucket</td>
<td></td>
<td>Null</td>
<td>(15.00)</td>
<td>66.20</td>
</tr>
</tbody>
</table>

**Events**

Events are points in the process flow of the calling application at which it sends a pricing request to the pricing engine (analogous to a workflow event). The
information that the pricing engine returns, for example, base prices, price adjustments, promotions, or freight charges, depends on the pricing phases of the event.

For example, if you need to price sales orders at shipment, use the Reprice Line event and insert the Reprice Line workflow activity into the order process workflow to invoke the repricing. The pricing engine uses the price list and modifiers that are in effect at order entry to meet booking requirements such as credit check.

**Accruals**

You can create monetary and non-monetary accruals, for example, the customer accrues ten airline frequent flyer credits for each item they purchase. The pricing engine uses them in price calculations and passes them to the calling application.

Accruals:

- Do not affect the selling price of an order line
- Do not appear as chargeable items on invoices
- Create an adjustment record in the database

You can:

- Assign expiration dates to accruals
- Mark accruals redeemed
- Use buckets with monetary accruals. Since accruals do not effect the selling price of an order line, the pricing engine does not include them in bucket calculations but uses bucket numbers to determine the price from which to calculate the accrual value.

The following table shows a bucket calculation with accruals; however, it does not show the details of each bucket calculation. The Price Adjustment column shows the value of each modifier, the Bucket Subtotal column shows the total value of all modifiers for the bucket, and the Selling Price shows the price at the beginning of the calculation and after application of each bucket subtotal. The value Null in a cell means that there is no value for that cell; the value Null Bucket means that the modifier is grouped in the null bucket:

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Modifier</th>
<th>Price Adjustment</th>
<th>Bucket Subtotal</th>
<th>Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Qualifiers and Grouping Numbers
When qualifiers are assigned to a qualifier group, all the qualifiers in the qualifier group are attached to the modifier. Before you attach multiple qualifier groups, you must indicate how the process should coordinate the grouping numbers. For more information on qualifier groups, see: Using Qualifier Grouping Numbers across Qualifier Groups on page 2-11.

Cross Order Volume
You can provide extra benefits to a customer after they place a certain amount of business with you. The cross order volume feature allows you to create modifiers that are qualified across an accumulation of orders and applied when a customer meets certain volume levels. It accumulates and sums order amount, item quantity, and item amount across the orders of each customer.

Cross Order Volume Profile Options
To use cross order volumes, set up periods in the following profile options:

- QP: Cross Order Volume Period 1
- QP: Cross Order Volume Period 2
- QP: Cross Order Volume Period 3

Assign a default value to each profile option in unit of measure Days. For example, set the profile options as follows:

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Modifier</th>
<th>Price Adjustment</th>
<th>Bucket Subtotal</th>
<th>Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>Null</td>
<td>Null</td>
<td>(7.00)</td>
<td>93.00</td>
</tr>
<tr>
<td>2</td>
<td>Null</td>
<td>Null</td>
<td>(5.00)</td>
<td>88.00</td>
</tr>
<tr>
<td>3</td>
<td>Null</td>
<td>Null</td>
<td>(6.80)</td>
<td>81.20</td>
</tr>
<tr>
<td>Bucket</td>
<td>Null</td>
<td>Null</td>
<td>(15.00)</td>
<td>66.20</td>
</tr>
<tr>
<td>1</td>
<td>10% accrual</td>
<td>(10.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>1</td>
<td>5% accrual</td>
<td>(5.00)</td>
<td>Null</td>
<td>Null</td>
</tr>
<tr>
<td>2</td>
<td>10% accrual</td>
<td>(9.30)</td>
<td>Null</td>
<td>Null</td>
</tr>
</tbody>
</table>
Overview of Modifiers

- QP: Cross Order Volume Period 1: 30
- QP: Cross Order Volume Period 2: 60
- QP: Cross Order Volume Period 3: 90

Cross Order Volume Load

Run the concurrent process Cross Order Volume Load to populate the cross order volume tables. The qualifier and pricing attribute sourcing functions determine the cross order volumes for a customers and customer-item combinations.

To run the Cross Order Volume Load process:

1. Select Cross Order Volume Load to execute either for a single operating unit or for all operating units.
2. Enter the load effective date; otherwise the process uses the current date. It uses the cross order volume profile options to determine the order lines included in the cross order volumes.

For example:

- Profile option QP: Cross Order Volume Period 1: 30
- Profile option QP: Cross Order Volume Period 2: 60
- Profile option QP: Cross Order Volume Period 3: 90
- Concurrent process Cross Order Volume Load, Effective Date: 31-December
- Cross order period 1: Order lines with request date between 1-December and 31-December
- Cross order period 2: Order lines with request date between 1-November and 31-December-2000
- Cross order period 3: Order lines with request date between 2-October and 31-December-2000

The Cross Order Volume Load concurrent process has been coded so the qualifier and pricing attribute sourcing functions determine the cross order volumes for a customer and customer-item combinations. The Cross Order Volume Load considers only orders and order lines in Booked status. The Cross Order Volume Load does not look at returned or cancelled order lines.

The information in the cross order volume tables is only as current as when the last Cross Order Volume Load concurrent process was run. As orders continued to be booked the concurrent process will need to be executed to include this information.
Your business processes should dictate how often these tables need to be loaded with more current information.

The pricing engine calculates the Cross Order/Item Amounts using the List Price on the Order Line not the Selling Price, this is consistent with the calculation of all non-Cross Order Amount based Qualifiers/Pricing Attributes.

The cross order loader calculates the order total and item amount in the currency that is in the set of books. For example, if your set of books is in USD (dollars) and you also have orders in Japanese Yen, the Cross Order Amounts are calculated and summed in USD. The value of the order in Japanese Yen is converted to USD by the cross order loader before including the value in the total amount.

When an order is input as Japanese Yen, and the engine is pricing in Japanese Yen, in an Organization where the Set of Books currency was USD, the seeded sourcing APIs for the Cross Order Amount qualifiers convert the total Cross Order Amount in USD to Japanese Yen.

The pricing engine accumulates all Cross Order totals for an Organization, but it does not summarize across Organizations. The pricing engine only takes into account the orders that a customer has placed with each Sales Organization, and does not consider orders that the customer placed with other Sales Organizations. When running the Cross Order Volume Loader, if you specify an organization, it runs the load for that organization; if you leave it null, it will summarize for all organizations for which there are orders (assuming a multi-org install). Even if it is loading for multiple organizations, each summary is still within each organization.

When performing currency conversions in the Cross Order Volume Loader or Sourcing APIs, the engine performs the conversion using the order header currency conversion rate in Oracle Order Management. If the order header has no currency conversion rate, the pricing engine determines the conversion rate from the rates defined in Oracle General Ledger.

When you have different units of measure (UOM) for orders, the Cross Order Volume Loader converts from the ordered UOM to the Oracle Inventory primary UOM. In the cross order tables, the item quantity is always the primary UOM of the Item. When the pricing engine sources a Cross Order Quantity for an item, the seeded sourcing API converts the Cross Order Item Quantity from the primary UOM to the Ordered UOM and the pricing engine then converts the Cross Order Item Quantity from the Ordered UOM to the Pricing UOM.

If the pricing engine cannot find a UOM conversion rate for an item to convert from the Ordered UOM to the Primary UOM, the engine returns an Error Message in the Cross Order Loader log file. In this case the total Cross Order Quantity for this item will be incorrect.
Overview of Modifiers

**Cross Order Volume Modifiers**
You set up cross order modifiers by using cross order qualifiers or volume attributes.

Seeded cross order qualifiers are:

- **Context:** Volume
- **Qualifier Attributes:**
  - PERIOD1_ORDER_AMOUNT
  - PERIOD2_ORDER_AMOUNT
  - PERIOD3_ORDER_AMOUNT

You use this qualifier attribute if you want your modifier to be qualified based on the total order amount for the period specified in the profile option. You can set up these qualifiers at the modifier list level or line level.

For example, set up the modifier with a list level qualifier as follows:

- **Context:** Volume
- **Qualifier Attributes:** PERIOD1_ORDER_AMOUNT
- **Operator:** Between
- **Value From:** 10000
- **Value To:** 49999

At order entry time, information is sent to the pricing engine. For example, the pricing engine determines if this customer is eligible to receive this modifier. The engine compares the Qualifier attribute value of 10,000 against the total order amount for this customer in the cross order volume tables. If the total order amount in the cross order volume tables is between 10,000 and 49,999, the order line is eligible to receive the modifier and the pricing engine applies this modifier.

You can use the cross order qualifiers with any modifier list or line type.

---

**Note:** Since the cross order volume load sourcing does not add the current order amount to the Cross Order Amount, you could also use the Cross Order Amount qualifiers to qualify a Price List.

---

Seeded cross order item attributes are:

- PERIOD1_ITEM_AMOUNT
Overview of Modifiers

- PERIOD2_ITEM_AMOUNT
- PERIOD3_ITEM_AMOUNT
- PERIOD1_ITEM_QUANTITY
- PERIOD2_ITEM_QUANTITY
- PERIOD3_ITEM_QUANTITY

You use the volume attribute if you want your modifier to be applied based on the item amount or item quantity for the period specified in the profile option. This volume attribute is setup on the modifier line in the volume type field. For example:

- Product Attribute: Item Number
- Product Attribute Value: Item A
- Volume Type: Period 1 Item Quantity
- Break Type: Point
- Operator: Between
- UOM: EA
- Value From: 100
- Value To: 999
- Application Method: Percent
- Value: 10

At order entry time, information is sent to pricing engine. The engine determines if this customer is eligible to receive this modifier. The engine compares the volume attribute value of 100 against the total item quantity for this customer-item in the cross order volume tables. If the total item quantity in the cross order volume tables is between 100 and 999, the order line is eligible to receive the modifier and the engine applies this modifier.

There are restrictions by modifier line type with the use of the cross order volume attributes:

- You can use cross order volume attributes with any line type as a single line break.

- You can use cross order volume attributes with modifier line type Price Break, thus you can create multiple level breaks and apply a discount or a surcharge based upon the tier level that is met.
Cross Order Volume Report

Run the Cross Order Volume Report to view the information in the cross order volume tables. The report displays the total order amount, total item amounts and total item quantities for each customer and period.

**Note:** The cross order volume loader only accumulates orders for items in the Cross Order Item Amount/Quantity Summary that have modifiers using the cross order volume attributes. Similarly the engine only gives total Cross Order summaries if a Cross Order qualifier has been used in a modifier. Therefore it necessary to run the cross order volume concurrent request after you setup any modifiers using either (a) a Cross Order Amount Qualifier that has not been used previously or (b) a Cross Order Item Amount/Quantity Pricing Attribute for an item that has not been used previously. This is to ensure that all items totals are accumulated and loaded into the cross order tables.
Creating a Modifier List

Using modifier lists, you can create groupings of price adjustments, benefits, and freight and special charges that you offer and report together to meet various business needs. At the list level, you define criteria that is common to all of the line level modifiers.

When creating a modifier (either brand new or duplicating a modifier), but before saving it, you can change the following:

- Primary buy item
- Additional buy items
- Get items

After saving the modifier, you can change or delete the following:

- Primary buy item
- Additional buy items
- Get items (but can reduce quantity)
- Add additional buy items and get items and be able delete them prior to saving.
  You can change the quantity of the get items.

In Price Breaks, you cannot change the primary buy item after saving. However, you can change the primary buy item before saving the modifier, even after clicking the Define Details button.

To create a modifier list:

1. Navigate to the Advanced Pricing-Define Modifier window.

---

**Note:** If you cannot query or update the modifier after saving it or exiting, consult with your Pricing Administrator for access privileges. Your security privileges may not allow you to access this window.
2. In the Main tab, select the modifier Type such as Deal, Discount List, Freight and Special charge List, Promotion, or Surcharge List.

**Note:** If using formulas in a modifier, you can only use the following modifier types: Discount, Surcharge, Freight/Special Charges, and Price Breaks.

- For reporting purposes, Modifier list types of Promotion and Deal have a parent-child relationship; therefore, a modifier list type of Deal must be associated to a parent promotion by providing the promotion name and version.

- This relationship is for reporting purposes and the information you define on the promotion is independent of and does not affect the information on the Deal.

3. Enter the modifier list Number.
4. Enter a Name to identify the modifier.

5. If the modifier Type is Promotion or Deal, enter a Version.

6. Select or clear Active.

   **Note:** The pricing engine performs more effectively if the Active box is cleared for expired modifiers. The pricing engine evaluates the modifier only if the Active box is selected (inactive modifiers are not evaluated further by the pricing engine). You can query inactive modifier lists.

The Global box is selected when the Pricing Security Control Profile is set to ON. This means that the modifier list can be used by all operating units for pricing transactions. If cleared, the modifier’s use is restricted to the operating unit of the user creating the modifier list.

7. Select or clear the Automatic box:
   - If selected, the Automatic box is also selected at the line level, and the pricing engine automatically applies the modifier.
   - If cleared, then the modifier must be manually applied.

   **Note:** If Automatic is enabled at the list level you can still manually apply line types of Discount, Surcharge, and Freight/Special Charges by clearing the Automatic box at the line level.

8. Enter the Currency. The pricing engine applies modifiers to sales orders of the same currency.

9. Enter the start and end date range for the modifier lines.

   **Note:** If you do not enter dates and check Active, the list is effective from the creation date.

10. Enter a Description for the modifier list. If the modifier list Type is Promotion or Deal, select the Advanced tab.
In the Advanced tab

11. Enter the Parent Number and Parent Version to specify the promotion with which this deal is associated.

Note: Modifier list types of Promotion and Deal have a parent-child relationship for reporting purposes. For a modifier list of type Deal, you must associate it to a parent promotion by providing the promotion name and version. Since this association is for reporting purposes, information that you define on the promotion is independent of and does not affect the information on the Deal.

12. Select the Ask for box. This means that the customer must specifically request that the modifier benefit be applied (for example, by providing a special discount number), otherwise it will not be applied.

Note: If the pricing engine selects multiple modifiers to apply to an order line, Ask for promotions receive a higher preference than other modifiers.

13. Select Date Type I field to specify Order Date and Date Type II field to specify Requested Ship Date. Order Date and Requested Ship Date are passed by Order Management and cannot be changed. If you enter both dates, the sales order must meet both dates to be eligible for the modifier.

14. Save your work.

Note: The same results can be achieved by creating qualifiers for Order Date and Ship Date and attaching them to the modifier. These qualifiers are sourced and the user can override the mapping rules for these qualifiers.
Creating List Level Qualifiers

You can create qualifiers to determine the eligibility of who can receive modifiers at the list level. If an order is not eligible for a modifier list, it is not eligible for that list’s line level modifiers even if the lines have qualifiers for which the order is eligible.

**Note:** If you are using multi-currency feature price lists, see: Considerations for Modifiers Using Multi-Currency Price List as a Qualifier on page 6-11.

To create list level qualifiers:
1. Navigate to the Advanced Pricing - Define Modifier window.

*Figure 3–3 Advanced Pricing - Define Modifier: Modifiers Summary tab*
Creating List Level Qualifiers

2. In the Main tab, click List Qualifiers to display the Qualifier Groups window. If qualifiers are associated with the modifier list, then the Qualifier Groups window does not display.

Figure 3–4 Qualifier Groups window

3. Complete the following steps to add qualifiers or qualifier groups. If you do not want to add qualifiers from qualifier groups, click Cancel.

4. To add qualifiers from qualifier groups, select one or more qualifier groups that you want to attach.

5. Select one of the grouping options (Retain Grouping Numbers Across Qualifier Groups or Generate Unique Grouping Numbers Across Qualifier Groups). For more information, see: Using Qualifier Grouping Numbers across Qualifier Groups on page 2-11.

6. Click OK to display the Qualifier window. In this window the qualifiers associated with the qualifier groups are listed.

You can add, change, and delete individual qualifiers and change the grouping numbers or dates. If you have attached qualifier groups, verify that the grouping numbers in the window display the correct combination of AND and OR conditions.
Creating List Level Qualifiers

**Figure 3–5 QUALIFIER - Header Level Qualifiers**

7. Enter the Grouping Number. Qualifiers with the same grouping number generate an AND condition and qualifiers with different grouping numbers generate an OR condition. If -1 is used as a qualifier grouping number, the qualifier is ANDED to each qualifier group so you do not have to manually add it to each qualifier group. For more information, see: Using Qualifier Grouping Numbers on page 2-8.

8. Enter the Qualifier Context.

9. Enter the Qualifier Attribute.

---

**Note:** After you save a qualifier with Qualifier Context of Modifier List and Qualifier Attribute of Coupon Number, you cannot modify or delete it. Since the pricing engine creates coupons (and a qualifier for each coupon) these coupon qualifiers are not subject to manual changes and deletions.

10. Enter the Operator, Value From, and Value To.

The Value From Meaning field provides additional details about the selected qualifier. For example, if the qualifier context is CUSTOMER and the attribute is Ship To, Value From displays the customer name and Value From Meaning displays the site use location for the customer. If the context/attribute...
combination has no additional details, Value From and Value From Meaning are identical.

11. Click Copy Groups to add qualifiers from other qualifier groups, and enter Start and End dates of the qualifier. For more information on Qualifiers, see: Oracle Advanced Pricing User’s Guide, Qualifier Groups.

12. View and, if necessary, adjust the precedence numbers that default from the qualifier definition.

The pricing engine uses the Precedence to resolve incompatibility. If multiple modifiers are eligible within the same phase and incompatibility level, the modifier with the lowest precedence is applied.

13. Click OK and save your work.

**Note:** The start and end dates of the list qualifiers must be within the start and end date of the modifier list.
Creating Modifier Lines

Use this process to create modifier lines.

**Note:** If creating limits for a modifier line, be aware that the following modifier line types and parameters will prevent you from creating line limits for the modifier line:

- If the Modifier line type is Other Item Discount, Promotional Goods, Coupon Issue, Item Upgrade, or Term Substitution.
- If the Automatic box is cleared (if the modifier line is manually applied).
- If the Override check box is enabled.

**To enter basic modifier line information:**

1. Navigate to the Advanced Pricing - Define Modifier window.

**Figure 3–6 Advanced Pricing - Define Modifier window**
2. In the Modifiers Summary tab, Modifier No field, a default modifier number identifies the modifier line. You can change this value; however, the Modifier No for each modifier line must be unique within the modifier list.

3. Enter the level that the modifier is applied:
   - Order: If the line is eligible to receive the modifier, the pricing engine applies the modifier at the order level.
   - Line: If the line is eligible to receive the modifier, the pricing engine applies the modifier at the line level.
   - Group of Lines: If the pricing request is eligible to receive the modifier, the pricing engine considers the item quantity or item amount consumed for a group of order lines:

4. If you are creating a Discount, Surcharge, or Freight/Special Charges modifier list, and using a formula to calculate the amount, select either Line or Order.

   **Note:** For Order level Discount and Surcharge modifiers, only Percent can be selected as the Application Method. For Order level Freight and Special Charges modifier, Lumpsum must be selected as the Application Method.

5. Select a modifier type. If you plan to set up promotional limits for the modifier, confirm using the table below that promotional limits can be applied to the modifier line type:

   **Table 3–12 Promotional Limits for Modifier**

<table>
<thead>
<tr>
<th>Modifier Type</th>
<th>Promotional Limits can be applied?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coupon Issue</td>
<td>No</td>
</tr>
<tr>
<td>Discount</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

3-30 Oracle Advanced Pricing User's Guide
Creating Modifier Lines

6. Enter the Start and End Date for the modifier line.

**Note:** The start and end date for the modifier line must be between the start and end date on the modifier list. The pricing engine confirms that the dates for the modifier line are valid so that the modifier line can be applied.

7. Select or clear the Automatic box. If selected, the pricing engine automatically applies this modifier. If cleared, it must be manually applied to an order.

*For Promotional Limits:* If you are using promotional limits with the modifier, the Automatic check box must be enabled and remain enabled at both the modifier header and list level. Limits do not function with a modifier that is applied manually.

**Note:** If you select the Automatic box, the Automatic box for each modifier line also becomes selected.

In the Advanced Pricing - Define Modifier window, you can clear the Automatic box for the following line level modifiers: Discount, Surcharge, and Freight/Special Charges. Clear the Automatic box if you want the modifier to be manually applied.

If you are using promotional limits with the modifier, the Automatic box must remain selected.

---

**Table 3–12 Promotional Limits for Modifier**

<table>
<thead>
<tr>
<th>Modifier Type</th>
<th>Promotional Limits can be applied?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Upgrade</td>
<td>No</td>
</tr>
<tr>
<td>Other Item Discount</td>
<td>No</td>
</tr>
<tr>
<td>Price Break Header</td>
<td>Yes</td>
</tr>
<tr>
<td>Promotional Goods</td>
<td>No</td>
</tr>
<tr>
<td>Surcharge</td>
<td>Yes</td>
</tr>
<tr>
<td>Term Substitution</td>
<td>No</td>
</tr>
</tbody>
</table>
8. Select or clear Override. If selected, the value of this modifier on each order that you enter can be changed: for example, the value of a Discount modifier can be changed from 5 to 10 percent.

Note: For Promotional Limits: If the Override box is selected, you cannot create a line limit for this line.

9. Enter the Pricing Phase for this modifier line. Only valid phases for this modifier level appear in the list of values.

10. Enter incompatibility level in Incompatibility Group.

11. Enter a Bucket value.

Note: For manual discounts, leave Bucket null. You can define order-level adjustments only in the null bucket so that the pricing engine always applies them to the list prices of the order lines.

12. Proration Type is reserved for future use.

13. Enter a numeric value in the Comparison Value field. The pricing engine uses this value to compare modifier types of Promotional Goods (PRG), Other Item Discount (OID), and other modifier types to resolve incompatibility and determine which modifier(s) to apply. This is used when the pricing phase incompatibility resolution is Best Price.

14. In Product Attribute, select an attribute in the item context of the Pricing Context such as Item Number, Item Category, or All Items.

Note: Use All Items to define a modifier that applies to all items in your product hierarchy.

15. Select a Product Attribute Value. If you select ALL_ITEMS for Product Attribute, the Product Attribute Value is ALL.
16. The Precedence value will default based on the Product Attribute Value. This value can be updated.
   If two or more modifiers tie based on precedence processing, then the engine resolves using best price processing without going below the established precedence.

17. Enter a Volume Type to instruct the pricing engine which item attribute to use when qualifying for a modifier.

    Note: Valid Volume types are Item Quantity and Item Amount. Period is reserved for future use.

18. Enter = or BETWEEN in Operator; for example, item quantity = 5 or item quantity between 5 and 20.

    Note: If you select Recurring for Break Type, you must select BETWEEN.

19. To create greater than and less than conditions, leave From Value and To Value blank, as follows:
   - From Value = 5 and To Value blank creates the condition Value > 5
   - From Value blank and To Value = 100 creates the condition Value < 100
   - From Value = 5 and To Value = 100 creates the condition Value >= 5 and value <= 100

20. Select the unit of measure (UOM) for the item or item category. The UOM field is mandatory if one or more of the following conditions exist:
   - Line type is Promotion Goods or Other Item Discount or Item Upgrade.
   - Modifier Line level is Group of Lines.
   - Modifier line volume type pricing attribute is Item Quantity.
The UOM is not mandatory if the volume type is Item Amount and the modifier type is Promotional Good, Item Upgrade, or Other Item Discount modifier.

**Note:** For Promotional Limits:
- If no Product UOM is defined for the Modifier Line, line limits with basis of Item Quantity will not get created.
- If no Benefit UOM is defined for a Modifier Line, line limits with basis as Accrual Units will not get created.
- If no Benefit or Product UOM is defined, neither Item Quantity or Accrual Units displays in the Basis list of values (LOV) to prevent line limits from being created.

21. Enter the Value From and Value To.

22. Select either Point or Recurring as the Break Type. The Break Type is optional for the following modifier types:
- Discount
- Surcharge
- Freight Charge
- Promotional Goods
- Coupon Issue

The following table provides an example of a setup for a point break.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break Type</td>
<td>Point</td>
</tr>
<tr>
<td>Modifier Line Type</td>
<td>Discount</td>
</tr>
<tr>
<td>Product Attribute</td>
<td>Item</td>
</tr>
<tr>
<td>Product Attribute Value</td>
<td>Item A</td>
</tr>
<tr>
<td>Volume Type</td>
<td>Item Quantity</td>
</tr>
<tr>
<td>Operator</td>
<td>Between</td>
</tr>
</tbody>
</table>
The pricing engine interprets this point setup as follows: an order of 100 cases of item A gets a 2 currency unit discount. If you order 200 cases of item A, you receive a 4 currency unit discount. The following table details an example setup for a recurring price break:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UOM</td>
<td>Cases</td>
</tr>
<tr>
<td>Value From</td>
<td>100</td>
</tr>
<tr>
<td>Application Method</td>
<td>Amount</td>
</tr>
<tr>
<td>Value</td>
<td>2</td>
</tr>
</tbody>
</table>

The pricing engine interprets this recurring setup as order 100 cases of item A and get a 2 currency unit discount. If you order 200 cases of item A you receive a 4 currency unit discount.

23. You must enter a value for Modifier Type Price Break to determine the method of calculating the volume break.

Select either:
Creating Modifier Lines

- Point: For Point, the pricing engine charges each unit of volume at the price of the break within which the total falls.
- Range: The pricing engine charges each unit of volume at the price of the break within which it falls.

The following table shows a sample price break sequence. After the table, the text explains how the pricing engine applies this information for the price break types:

**Table 3–15 Price Break**

<table>
<thead>
<tr>
<th>Product Attribute</th>
<th>Value From</th>
<th>Value To</th>
<th>Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item A</td>
<td>1</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>Item A</td>
<td>101</td>
<td>200</td>
<td>10</td>
</tr>
<tr>
<td>Item A</td>
<td>250</td>
<td>&lt;all 9’s&gt;</td>
<td>15</td>
</tr>
</tbody>
</table>

Using the example in this table, the pricing engine calculates the discount differently depending on the type of price break:
- Point: If the total quantity of Item A is 150, the discount is against 150 at 10%.
- Range: If the total quantity of Item A is 150, the discount is against 100 at 5% and 50 at 10%.

**24. Save your work.**

**To enter discount/charges information:**
1. In the Discounts/Charges tab, select or clear Include on Returns. If you select it, the pricing engine includes freight charge on returns.
For modifier line types of Discount, Surcharge or Price Break Header, enter a formula name if you are using a formula to calculate the amount. If the formula equation includes Modifier Value (MV), the value for MV originates from the Value field in the Discounts/Charges tab. Consider the following formula with the equation *(List Price * Modifier Value = Final Discount)*:

<table>
<thead>
<tr>
<th>Formula</th>
<th>List Price (LP)</th>
<th>Modifier Value (MV)</th>
<th>Final Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP *MV=Final Discount</td>
<td>20</td>
<td>3</td>
<td>60</td>
</tr>
</tbody>
</table>

At Order Entry, when the modifier is selected and the formula LP * MV is applied, the list price of the item on the order (LP) is multiplied by the value that is entered in the modifier’s Value field. In this case, the value is 3. So the final discount is 20*3=60.
Creating Modifier Lines

A formula without a Modifier Value component can be attached to a modifier even if a value is entered on the modifier line. In this case, the formula takes precedence and the modifier value is not used. Instead, the number returned by the formula is considered as a final discount.

3. Select an Application Method that defines how the pricing engine applies this modifier:
   - Percent: Creates a percentage price adjustment on each unit using the percentage entered in the Value field.
   - Amount: Creates a fixed price adjustment on each unit using the amount entered in the Value field.
   - Lumpsum: Creates a price adjustment for this lump sum amount on the entire line.
   - New price: Overrides the selling price of this item and makes the new price specified in the Value field the new selling price. Creates a price adjustment for the difference in list price and the new price.

The following table shows examples of how the pricing engine uses the Application Method to calculate the extended selling price of an order line:

<table>
<thead>
<tr>
<th>List Price</th>
<th>Item</th>
<th>Quantity Ordered</th>
<th>Application Method</th>
<th>Value</th>
<th>Price Adjustment</th>
<th>Extended Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Item A</td>
<td>200</td>
<td>Amount</td>
<td>5</td>
<td>5 per unit</td>
<td>1000</td>
</tr>
<tr>
<td>10</td>
<td>Item A</td>
<td>200</td>
<td>Percent</td>
<td>5</td>
<td>5%</td>
<td>1900</td>
</tr>
<tr>
<td>10</td>
<td>Item A</td>
<td>200</td>
<td>New Price</td>
<td>5</td>
<td>5</td>
<td>1000</td>
</tr>
<tr>
<td>10</td>
<td>Item A</td>
<td>200</td>
<td>Lumpsum</td>
<td>5</td>
<td>5 off</td>
<td>1995</td>
</tr>
</tbody>
</table>

4. Enter a numeric value (this is the modifier value or MV). The application value selected in the preceding step determines how the value is applied. For example, if the application value is Percent, then the value is applied as a percent.
   - If a formula is attached to the modifier line: If you have attached a formula and the formula equation includes a component type of Modifier Value (MV), the value entered in the modifier line is used in the equation.
If a formula without a Modifier Value component is attached to the modifier line, then the value is not used during the formula calculation when the final discount is returned.

Complete the remaining steps if you enter an accrual:

5. For line type Discount, select Accrue to enter an accrual.
6. Enter Benefit Qty and Benefit UOM of the benefit that you want to accrue. Use the benefit columns to define non-monetary accruals.
7. Enter Expiration Date to specify when the accrued transactions expire.
8. Enter Expiration Period and Period Type. The pricing engine calculates expiration date. Expiration period begins when item begins to accrue.

---

**Note:** You cannot enter these fields if you enter an Expiration Date.

---

9. Rebate Transaction is reserved for future use.
10. % Estimated Accrual Rate is reserved for future use.
11. Enter Accrual Conversion Rate to specify the conversion of the Benefit UOM to the primary currency. For example, if one air mile is 0.50 currency units, the accrual conversion rate is 0.50.

12. Save your work.

**To enter freight charge information:**

1. Enter the following information in the Modifiers Summary tab:
   - Level: Use Line or Order
   - Modifier Type: Use Freight/Special Charge
   - Phase: If Level is Line: use Line Charge or Line Manual Charge. If level is Order, enter the Charge Name.
   - Bucket

2. In the Discounts/Charges tab, enter charge name in Charge Name.
3. The Include on Returns box is selected by default so that the pricing engine includes freight charge on returns. Alternately, clear this selection if you do not want the pricing engine to include freight charge on returns.

4. Enter a Formula name to use a formula to calculate a discount, surcharge, or freight charge.

5. Enter the Application Method to instruct the pricing engine how to apply this modifier. Valid values are:
   - Percent
   - Amount
   - Lumpsum

**Note:** You can only select Lumpsum for order Level freight charge.
6. Enter Value unless you are using a formula.
7. Save your work.

**To enter item upgrade information:**
1. Enter the following information in the Modifiers Summary tab:
   - Level
   - Modifier Type: Use Item Upgrade
   - Phase
   - Bucket
   - Product Attribute
   - Product Attribute Value
   - UOM
2. In the Promotion Upgrades tab, enter Upgrade Item.

*Figure 3–9  Advanced Pricing - Define Modifier window: Promotion Upgrades tab*
Creating Modifier Lines

When the pricing engine applies the qualifying item on the order line, it changes the original item to the upgraded item and retains the price of the original item.

3. Save your work.

**To enter terms substitution information:**

1. Enter the following information in the Modifiers Summary tab:
   - Level
   - Modifier Type
   - Phase
   - Bucket

2. In the Promotion Terms tab, enter the Terms Attribute.

---

**Note:** Before entering the upgrade item, relate the item and its upgrade item in Oracle Inventory. Select Promotional Upgrade for Relationship Type. When you complete this relationship, the related item appears in the list of values for this field.
The pricing engine substitutes the terms on the order or line with the terms that you specify:

3. Enter the new terms in Terms Value.
4. Save your work.

**To enter coupon issue information:**
1. Enter the following information in the Modifiers Summary tabbed region:
   - Modifier Number

   **Note:** You must enter a value. The pricing engine uses the number to generate a unique number series for the coupon. It passes the coupon number to the calling application; the customer quotes this number when redeeming the coupon.

   - Level
Creating Modifier Lines

1. Modifier Type
2. Phase

2. In the Coupons tab, skip Benefit Qty and Benefit UOM fields. Enter the last date that the customer can redeem the coupon in the Expiration Date field.

Alternately, if you enter values for the Expiration Period Start Date, Expiration Period, and Period Type, the pricing engine automatically calculates the Expiration Date. For example, for the following coupon set up, the pricing engine calculates an expiration date of 20 July:

- Expiration Period Start Date: 20 April
- Expiration Period: 3
- Period Type: Month

Figure 3–11 Advanced Pricing - Define Modifier window
3. Enter the Redemption Rate to specify the percentage probability that customers might redeem this coupon.

4. Enter Coupon Conversion Rate to specify the conversion of the Benefit UOM to the primary currency. For example, if one air mile is 0.50 currency units, the accrual conversion rate is 0.50.

5. Enter the Coupon Modifier Number to select an existing discount or promotional good as a benefit of the coupon.

---

**Note:** Modifier type coupon issues use a predefined modifier type discount or promotional good to specify the benefit (the get) that you receive when you redeem the coupon. When you create a coupon issue, you attach an existing discount or promotional good.

6. Save your work.

---

**Note:** Qualifiers that you attach to a coupon issue determine which customer gets the coupon. When the customer redeems the coupon, the pricing engine validates the coupon number against the customer qualifier and also validates the qualifiers for the discount or promotional goods benefit (the get).

---

**To enter Other Item Discount and Promotional Goods information:**
Other Item Discount gives a price adjustment or benefit to a specific item already on an order (the get item) when the customer orders one or more other specified items (the buy items) on the same order. The Other Item Discount modifier must be applied at the Group of Lines level.

Promotional Goods adds a new item to an order and provides a price adjustment or benefit for the item when the customer orders one or more specified items on the same order. The item does not need to be originally on the order. Even if the item is on the order, the pricing engine creates a new line for the item.
Creating Modifier Lines

1. Enter the following information in the Modifiers Summary tab:
   - Level
   - Modifier Type
   - Phase: For Other Item Discount, Phase defaults to 30 All Lines Adjustment. If you create a new phase to use for this modifier type, set Phase to 30 All Lines Adjustment.
   - Bucket
   - Product Attribute
   - Product Attribute Value
   - UOM

2. Click Define Details to display the Define Modifier Details window.

**Note:** If you are using Promotional Good (PRG) type of Modifier Line with Multi-Currency, see: Using Promotional Good type of Modifier Line on page 6-12.
Perform steps 4 through 10 for each buy product.

**Note:** Use the Additional Buy Products region to specify the buy condition of the modifier along with the original product from the Modifiers Summary tab. The pricing engine considers the product that you define in the Modifier Summary as the primary item and uses it to determine the eligibility of the get condition. It also verifies other buy items.

4. In the Additional Buy Products region, enter the Group Number to specify the AND or OR condition of the buy side of the modifier. To join lines with AND, use the same group number on each line; to join lines with OR, use a different group number on each line.

5. Select a Product Attribute, for example, Item, Item Category, or All Items.

7. Enter the unit of measure of the item or item category in Buy UOM.
8. Enter Pricing Attribute.

**Note:** This is a volume pricing attribute; use either item quantity or item amount.

9. Enter = or Between in Operator.
10. Enter Value From and Value To.
11. Perform steps 12 - 18 for each promotions get product.

**Note:** Use the Get region to specify the get condition of the modifier.

12. In the Get region, enter the item number or item category in Get Product Attribute.
13. Enter the item number or item category in Get Product Value.
14. Select the unit of measure (UOM) that Enter
15. Enter the quantity of the product that you want to offer in this modifier in Get Quantity.
16. Enter the unit of measure of this product in Get UOM.
17. Enter Get Price. The list of values displays all price lists that contain the item.
18. Select an Application Method:
   - Amount
   - Percentage
   - Lumpsum
19. Enter the Value of the application method.
20. Perform steps 20 - 24 for each other item discount get product.

**Note:** Use the Get region to specify the get condition of the modifier.
21. In the Get region, Product Attribute defaults to Item Number.

Note: If you manually delete or change a free good line for an order/quote line on the order, for example, change the number of free good items from 3 to 2 on the Sales Order pad, for subsequent repricing calls, the overridden manual entry is retained.

For example, suppose a customer buys Item A and gets two of Item B free. If you change the number of free goods that the customer gets from one to two on the Sales Order pad, on subsequent repricing, the manually overwritten amount is retained so the customer gets the one free good.

22. Enter the item number in Product Attribute Value.

23. You cannot enter values for the UOM, Get Quantity, and Get Price fields.

24. Enter Application Method. Valid values are:
   - Amount
   - Percentage
   - Lumpur

25. Enter the Value of the application method.

26. Save your work.

To enter price break header information:
1. Select the Modifiers Summary tab.
2. Select the Level for the modifier to be applied:
   - Group of Lines
   - Line
3. Select Price Break Header as the Modifier Type.
Creating Modifier Lines

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Optionally, enter a Start and End Date range for the modifier line.</td>
</tr>
<tr>
<td>5.</td>
<td>Select Automatic to have the modifier applied automatically by the pricing engine.</td>
</tr>
<tr>
<td>6.</td>
<td>Optionally, select the Override box.</td>
</tr>
<tr>
<td>7.</td>
<td>Complete the following entries:</td>
</tr>
<tr>
<td></td>
<td>- Pricing Phase</td>
</tr>
<tr>
<td></td>
<td>- Incompatibility Group</td>
</tr>
<tr>
<td></td>
<td>- Bucket</td>
</tr>
<tr>
<td></td>
<td>- Break Type:</td>
</tr>
<tr>
<td></td>
<td>- Point: The pricing engine charges each unit of volume at the price of the break within which the total falls.</td>
</tr>
<tr>
<td></td>
<td>- Range: The pricing engine charges each unit of volume at the price of the break within which it falls.</td>
</tr>
<tr>
<td></td>
<td>- Product Attribute</td>
</tr>
<tr>
<td></td>
<td>- Product Attribute Value</td>
</tr>
<tr>
<td></td>
<td>- UOM</td>
</tr>
<tr>
<td></td>
<td>- Volume Type</td>
</tr>
</tbody>
</table>

**Note:** The Net Amount feature can be used with a modifier line of type Price Break Header to calculate the selling price based on the net bucketed Item Amount. To use this, the following must be set up:
- Automatic box for the modifier line must be selected.
- Group of Lines is not selected as the Level for the modifier line.

For more information, see: Example of Net Amount-based Unit Selling Price on page 3-53.

**Note:** To use Net Amount, Item Amount must be selected as Volume Type. The Net Amount is used to calculate the selling price based on the bucketed Item Amount.
8. Click the Price Breaks tab.

Figure 3–13 Advanced Pricing - Define Modifier window: Price Breaks tab

9. Select an Adjustment Type:
   - Discount
   - Surcharge

10. Select the Net Amount box to calculate the selling price based on the bucketed Item Amount volume. To select the Net Amount box, the following prerequisites must also be selected in the Advanced Pricing - Define Modifiers window:
   - Modifier Type: Price Break Header
   - Automatic box: Selected (in the Modifiers Summary tab)
   - Volume Type: Item Amount

11. To use the price break to calculate an accrual, select Accrue.
Creating Modifier Lines

12. If using accruals, enter an Expiration Date to specify when the accrued transactions expire.

13. Enter Expiration Start Date, Expiration Period and Period Type. The pricing engine calculates expiration date. Expiration period begins when the item begins to accrue.

   The Rebate Transaction Type defaults to Credit Memo and is reserved for future use.

14. Estimated Accrual Rate is reserved for future use.

15. Click Define Details to display the Define Modifier Details window.

   **Figure 3–14  Define Modifier Details window**

16. In the Price Breaks tab, enter the Value From and Value To.
17. To use a formula to calculate a discount, select the Formula.

18. Enter an Application Method:
   - Amount
   - Lumpsum
   - New Price
   - Percent

19. Enter a Value for the Application Method. The Value is related to the Application Method selected. For example, if the Application Method is Percent, and 10 is the Value, the discount (if applied as a discount) is 10-percent.

20. If applicable, enter the Benefit Quantity and Benefit UOM (unit of measure).

21. Enter the Accrual Conversion Rate to specify the conversion of Benefit UOM to the modifier primary currency. For example, if 1 air mile is 0.50 currency units, the Accrual Conversion Rate is 0.5.

22. Save your work.

**Example of Net Amount-based Unit Selling Price**

The Net Amount feature calculates the selling price based on the bucketed item amount for price break modifiers. You can use the net amount feature by selecting the Net Amount check box in the Price Breaks tab for a modifier line.

The following conditions are required for the modifier line before you can select Net Amount:
   - Automatic check box for the modifier line must be selected.
   - Modifier Type for the modifier line must be Price Break Header and related price breaks must be set up
   - Volume Type for the modifier line is Amount
   - Level for the modifier line cannot be Group of Lines
Creating Modifier Lines

Example of Net Amount Calculations

The following table displays a modifier setup that will calculate Net Amount for an order. To select Net Amount, the modifier line must be of type Price Break Header and price break ranges must be set up (in this example, the break type is Point):

<table>
<thead>
<tr>
<th>Modifier Setup</th>
<th>Bucket</th>
<th>Discount</th>
<th>Break Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 1: Discount A</td>
<td>1</td>
<td>40%</td>
<td>n/a</td>
</tr>
<tr>
<td>Line 2: Discount B</td>
<td>1</td>
<td>30%</td>
<td>n/a</td>
</tr>
<tr>
<td>Line 3: Price Break Header C</td>
<td>2</td>
<td>5%</td>
<td>$0-1000</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>7%</td>
<td>$1001-2000</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>10%</td>
<td>$2001-9999</td>
</tr>
</tbody>
</table>

If the preceding modifier were applied to the following order, the Net Amount selling price would be calculated as follows:

<table>
<thead>
<tr>
<th>Order Item</th>
<th>List price</th>
<th>Order quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS54888</td>
<td>$2000 each (per unit)</td>
<td>2</td>
</tr>
</tbody>
</table>

a. Discount A (40%) applied: the unit adjusted amount = $800
b. Discount B (30%) applied: the unit adjusted amount = $600
c. Unit selling price at the end of bucket 1 is $2000-($800+$600) = $600. This becomes the unit selling price for the next bucket.
d. For PBH C to apply: the Net Amount is ($2000*2)-(800*2)-(600*2) = $1200. This qualifies for the second break of C, which is 7%.
e. PBH C applied: the unit adjustment amount is 7%*600 = $42. This will be applied to the unit selling price of the previous bucket.

So final unit selling price will be $600-42 = $558.
Creating Line Level Qualifiers

Use this process to create qualifiers for modifiers at the line level. The pricing engine uses these qualifiers to determine eligibility for line level modifiers. If an order is not eligible for a list level modifier, the order lines may be eligible for list line level modifiers if the order lines have qualifiers for which the order is eligible.

When creating qualifiers, consider secondary price lists that may need to be included to be considered for the modifier. For example, if a customer qualifies for a discount from Price List A but the effectivity of the item drives the engine to the secondary price list (Price List B), the customer does not receive the discount unless the qualifier also includes Price List B.

To create line level qualifiers:
1. Navigate to the Advanced Pricing - Define Modifier window.
2. Navigate to the Modifiers Summary tab and select a modifier.
3. Click Line Qualifiers.

Figure 3–15 Qualifier Groups window

If the Qualifier Groups window appears, this modifier list has no qualifiers:
Creating Line Level Qualifiers

a. To add individual qualifiers (not qualifiers groups), click OK and go to step 6.

b. To add qualifiers from qualifier groups:
   ■ Select the qualifier groups that you want to attach. All the qualifiers that are associated with the group will appear in the Qualifiers tab.
   ■ Select a grouping option: Retain Grouping Numbers Across Qualifier Groups or Generate Unique Grouping Numbers Across Qualifier Groups. For more information on qualifier groups, see: Using Qualifier Grouping Numbers across Qualifier Groups on page 2-11.

4. Click OK to display the Qualifier window. You can add, change, and delete qualifiers, change the grouping numbers, and change the dates.

If you have attached qualifier groups, verify if the grouping numbers display the correct combination of AND and OR conditions.

Figure 3–16 QUALIFIER - Header Level Qualifiers

5. If you are entering a qualifier, enter the Grouping Number. Qualifiers with the same grouping number generate an AND condition while qualifiers with different grouping numbers generate an OR condition. For more information on grouping numbers, see: Using Qualifier Grouping Numbers on page 2-8.

6. Enter the Qualifier Context.

7. Enter the Qualifier Attribute.
8. Enter the Operator, Value From, and Value To. The Value From Meaning field provides additional details about the selected qualifier. For example, if the qualifier context is CUSTOMER and the attribute is Ship To, the Value From field displays the customer name and the Value From Meaning field displays the site-use location for the customer. If the context/attribute combination has no additional details, Value From and Value From Meaning are identical.

9. Click Copy to add qualifiers from other qualifier groups.

10. View the Precedence numbers that default from the qualifier definition. The pricing engine uses precedence for resolving incompatibility. If multiple modifiers are eligible within the same phase and incompatibility level, the modifier with the lowest precedence is applied.

11. Click OK.

12. Save your work.

---

**Note:** After you save a qualifier with Qualifier Context of Modifier List and Qualifier Attribute of Coupon Number, you cannot modify or delete it. Since the pricing engine creates coupons (and a qualifier for each coupon) these coupon qualifiers are not subject to manual changes and deletions.

---

**Note:** The start and end dates of the list qualifiers must be within the start and end date of the modifier list.
Attaching Pricing Attributes to Modifier Lines

Use this process to attach attributes to the items and item categories that you define in modifier lines. When the pricing engine determines eligibility for a modifier, it validates the pricing attributes along with the item number or item category.

**Note:** Pricing attributes apply only to the primary items that you define in the Modifiers Summary tab. They do not apply to items that you define for additional buy items and get items.

**To attach pricing attributes to modifier lines:**

1. Navigate to the Advanced Pricing - Define Modifier window.
2. Select the Modifiers Summary tab and select a modifier.
3. Click Pricing Attribute to display the More Pricing Attributes window.

![Figure 3–17 More Pricing Attributes window](image)

4. Enter a Pricing Context.
5. Enter a Pricing Attribute.
6. Enter an operator value such as = or BETWEEN.

---

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7. Enter Value From and Value To.
8. Click OK and save your work.
Excluding Items

Use this process to exclude items from a modifier.

**To exclude items:**

1. Navigate to the Advanced Pricing - Define Modifier window.
2. Navigate to the Modifiers Summary tab and select a modifier. You cannot exclude items if the modifier level is Order.
3. Click Exclude to display the Exclude Items window.

*Figure 3–18 Exclude Items window*

4. Enter a Product Attribute.
5. Enter the Product Value to be excluded.
6. Select Exclude and click OK.
7. Save your work.
Exclusion Items and Modifier Eligibility

If the order lines meet the modifier criteria, then the modifier is applied to eligible order lines. However, if an exclusion has been applied to certain items or item categories in an order line, the modifier is not applied to the ineligible lines.

The following example show how a modifier is handled for order lines without exclusions and with exclusions:

**Example 1: Modifier_Shampoo1 (No Exclusions Applied)**

A modifier Modifier_Shampoo1 has the following setup:

- Level: Group of Lines
- Item Category: Shampoo
- Quantity: > 100 quantity

To be eligible for the modifier Modifier_Shampoo1, the following order lines must meet the following criteria: the item category must be Shampoo and the total item quantity must be greater than (> 100):

<table>
<thead>
<tr>
<th>Order Line ID</th>
<th>Item</th>
<th>Qty</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shampoo1</td>
<td>100</td>
<td>Shampoo</td>
</tr>
<tr>
<td>2</td>
<td>Shampoo2</td>
<td>20</td>
<td>Shampoo</td>
</tr>
<tr>
<td>3</td>
<td>Shampoo3</td>
<td>30</td>
<td>Conditioner</td>
</tr>
</tbody>
</table>

Order Lines 1 and 2 qualify for Modifier_Shampoo1 because Shampoo is the eligible category for that modifier and the item total meets the item quantity amount.

**Example 2: Modifier_Shampoo2 (Exclusion Applied)**

A modifier Modifier_Shampoo2 has the following setup:

- Level: Group of Lines
- Item Category: Shampoo
- Quantity: > 100 quantity
- Exclusion Item: Shampoo1
To be eligible for the modifier Modifier_Shampoo2, the item category must be Shampoo and the item quantity must be greater than (> 100. However, the item Shampoo1, which is the exclusion item, cannot receive the modifier:

*Table 3–21  Shampoo Modifier Example (Exclusion Item)*

<table>
<thead>
<tr>
<th>Order Line ID</th>
<th>Item</th>
<th>Qty</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shampoo1</td>
<td>100</td>
<td>Shampoo</td>
</tr>
<tr>
<td>2</td>
<td>Shampoo2</td>
<td>20</td>
<td>Shampoo</td>
</tr>
<tr>
<td>3</td>
<td>Conditioner1</td>
<td>30</td>
<td>Conditioner</td>
</tr>
</tbody>
</table>

Order Line 2 would have been eligible for the modifier Modifier_Shampoo2 (Shampoo1 is the excluded item); however, because the item quantity for Order Line 2 is less than 100, it is not eligible for the modifier.
Using the Pricing Organizer

You can manage and track your modifiers more effectively by using the Pricing Organizer to create simple or complex queries (searches). The Find Modifier window enables you to query on modifier setup information to help you find information essential to your business such as:

- All the active automatic promotions for customer A for a given source system.
- All the active promotions for customers within the Western region for the month of May.
- All discounts for item A that customer B is qualified for.
- All promotions that will end by May 31st for a given customer
- All modifiers that use price list A as a qualifier.
- All modifiers for my product category that customer C is eligible for if they ask for the promotion.

Once the query results are returned, you can view a modifier summary, or view details for a particular modifier.

The resulting query, but not the search results, can be saved as a personal query (not shared) or a public query that can be shared with other users. This enables you to re-run the query without having to re-enter the query criteria.

You can also rename an existing query or delete it when it is no longer required.

From the Modifiers window, you can create new modifiers as well. For more information on:

- Saving a Modifier Query, see: Saving a Modifier Query on page 3-89.
- Renaming a Modifier Query, see: Maintaining a Modifier Query on page 3-91.
- Deleting a Modifier Query, see: Maintaining a Modifier Query on page 3-91.

Process Flow for Querying and Displaying Modifiers

The following process flow summarizes the main steps involved in querying and displaying modifiers:

1. Enter the query criteria in the Find Modifiers window.

   If you have previous query criteria in the fields, you can clear any existing queries from all tabs by clicking Clear.
2. Click Find to run the query and display the results in the Modifier Organizer window.
3. The modifiers at the Header tab or the Lines tab can be selected and opened.
4. You can save the query criteria by a name in the public or private folder.
5. You can create a new modifier by selecting the New Modifier button from the Find Modifiers or Modifier Organizer window.

**Note:** If Pricing Security is ON, a user with View Only access privilege can view modifier information if it displays in the search results. Maintain privilege is required to make any changes.
Creating a Query in the Find Modifiers window

You can create a modifier query in the Find Modifiers window to find specific modifiers and related modifier lines. The Find Modifiers window consists of tabbed regions where you can select modifier setup information as your search criteria. You can select from modifier header and lines details, product attributes, pricing attributes, and qualifiers.

The results display in the Headers/Lines tabs of the Modifier Organizer window.

You can query by the following search criteria:

- Modifier Header details from the Header tab.
- Modifier Line details from the Lines tab.
- Other modifier line details from the Additional Lines Criteria tab.
- Product Attribute details from the Product Attribute tab.
- Pricing Attribute details from the Pricing Attributes tab.
- Qualifier details from the Qualifiers tab.

Entering Query Criteria across Multiple tabs

You can select search criteria in one tab or across multiple tabs of the Find Modifiers window.

When you have completed your entries in the following tabs, click Find to start the query. After the results display in the Modifier Organizer window, select a modifier header or line detail from the Headers or Lines tab to view the modifier details. You can open a specific modifier from the Modifier Organizer window.

Header tab

You can enter query criteria for modifier list details in the Header tab. This includes information such as Modifier Type, Modifier Number, Modifier Name, Version, Parent No, and Currency.

Note: You can enter your query criteria in one tab or across multiple tabs depending on your query requirements. To narrow the search results, specify additional query criteria.

1. Select only the criteria required for your query. If a field is left blank, it is not included as a query criteria.
Figure 3–19 Find Modifiers window: Header tab

Table 3–22 Find Modifiers window: Completing Header tab information

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Query by a modifier Type such as Deal, Discount List, Freight and Special charge List, Promotion, or Surcharge List.</td>
</tr>
<tr>
<td>Parent No</td>
<td>Query by a Parent No.</td>
</tr>
<tr>
<td>Number</td>
<td>Query by the modifier Number.</td>
</tr>
<tr>
<td>Parent Version</td>
<td>Defaults if Parent No is selected.</td>
</tr>
<tr>
<td>Name</td>
<td>Query by the modifier Name.</td>
</tr>
<tr>
<td>Active</td>
<td>Select Yes to query modifier lists that are currently Active or No to query inactive modifier lists</td>
</tr>
<tr>
<td>Version</td>
<td>Query by a specific Version of the modifier.</td>
</tr>
<tr>
<td>Ask For</td>
<td>Select Yes to query for modifiers that are Ask For or No for modifiers that are not Ask For.</td>
</tr>
<tr>
<td>Currency</td>
<td>Select the Currency.</td>
</tr>
</tbody>
</table>
### Find Modifiers window: Completing Header tab information

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source System</td>
<td>Query for modifiers created by the selected Source System.</td>
</tr>
<tr>
<td>Last Updated By</td>
<td>Query for modifiers last updated by the selected value.</td>
</tr>
<tr>
<td>Order Date Exist</td>
<td>Select Yes to query for modifiers where an order is defined or No to query for modifiers without any order dates entered.</td>
</tr>
<tr>
<td>Last Update Date</td>
<td>Query for modifiers by the last updated modifier date.</td>
</tr>
<tr>
<td>Ship Date Exist</td>
<td>Select Yes to query for modifiers with an existing ship date is defined or No to query for modifiers without any ship dates entered.</td>
</tr>
<tr>
<td>Exact Effective Date Match</td>
<td>When the Exact Effective Date Match is selected, only modifiers with the matching dates specified in the Effective From/To are returned.</td>
</tr>
<tr>
<td>Effective From/To</td>
<td>Enter Effective From and To dates to query modifiers whose Effective From/To dates are within the selected date range.</td>
</tr>
</tbody>
</table>
Examples of Querying by Effective Dates

The following examples show how effective dates can be used in a query. You can enter your search criteria in the following fields:

- Exact Match (check box)
- Effective From
- Effective From (High)
- Effective To
- Effective To (High)

If Exact Date Match is checked, the = (equal to) operator is used for the query. Otherwise >= and <= operators are used for Effective From/To and Effective From/To (High) fields respectively.

For cases other than Exact Date Match, modifiers having NULL values for Effective dates are also selected.

The following modifier setups are used in the query examples below:

<table>
<thead>
<tr>
<th>Modifier Name</th>
<th>Effective From</th>
<th>Effective To</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>10-DEC-1999</td>
<td>10-JAN-2001</td>
</tr>
<tr>
<td>M2</td>
<td>10-MAR-2001</td>
<td>30-MAR-2002</td>
</tr>
<tr>
<td>M3</td>
<td>—</td>
<td>30-APR-2003</td>
</tr>
<tr>
<td>M4</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>M5</td>
<td>10-MAR-2001</td>
<td>—</td>
</tr>
<tr>
<td>M6</td>
<td>19-MAR-2001</td>
<td>10-NOV-2002</td>
</tr>
</tbody>
</table>

Example1: Finding Modifiers by a) Exact Effective Date Match b) Effective From/To range

The following example describes the query criteria and modifiers retrieved for a query by:

a) Exact Date match

b) Effective From/To dates
a) Exact Date match
Select the Exact Effective Date Match box. The Effective From (High) and Effective To (High) fields are grayed out. You can only enter values in the Effective From and Effective To fields. For example, if you enter
- Effective From: 10-MAR-2001
- Effective To: 30-MAR-2002
The modifier M2 will be returned.

b) Effective From/To range
Specify the values in any or all the four fields.
- Effective From: 01-JAN-2001
- Effective From (High): 15-MAR-2001
- Effective To: No Value
- Effective To (High): 01-DEC-2002
The modifiers M2, M4 and M5 are returned.

Example 2: Finding Modifiers by a Single Date-the same date in Effective From (High) and Effective To fields
Enter the same date in Effective From (High) and Effective To fields.
For example, to find all the modifiers effective on 10-MAR-2001, enter
- Effective From (High): 10-MAR-2001
- Effective To: 10-MAR-2001
The modifiers M2, M3, M4 and M5 are returned.

Example 3: Finding Modifiers by Date Range
Enter the low date range in Effective From (High) and high date range in Effective To fields.
For example, to find all the modifiers effective between date range 01-JAN-2001 and 10-JAN-2001, enter:
- Effective From (High): 01-JAN-2001
- Effective To: 10-JAN-2001
The modifiers M1 and M4 will be returned. You can also do exact or range date matches to find modifiers by their effective dates.

**Lines tab**
You can enter query criteria for modifier lines in the Lines tab. However, you cannot query the following:

- additional buy items for promotional goods or other item discounts
- get items for promotional goods or other item discounts
- price break lines details

---

**Note:** You can enter query criteria in one tab or across multiple tabs depending on your query requirements.

---

1. Select only the criteria required for your query. If the field is left blank, it is not included as a query criteria.
Figure 3–20 Find Modifiers window: Lines tab

![Find Modifiers window](image)

### Table 3–24 Find Modifiers window: Entering a query in the Lines tab

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modifier No</td>
<td>Query by Modifier Line Number.</td>
</tr>
<tr>
<td>Type</td>
<td>Query by modifier line type. When you query on Coupon Issue, only the coupon issues line is retrieved.</td>
</tr>
<tr>
<td>Level</td>
<td>Query by the modifier line level such as Group of Lines, Line, or Order.</td>
</tr>
<tr>
<td>Pricing Phase</td>
<td>Query lines for a specified Pricing Phase. Type the Pricing Phase ID rather than the description. Alternately, select the pricing phase from the Pricing Phase list.</td>
</tr>
<tr>
<td>Bucket</td>
<td>Query modifier lines assigned to a particular bucket.</td>
</tr>
<tr>
<td>Incompatibility Group</td>
<td>Query modifier lines associated for a specific Incompatibility Group.</td>
</tr>
<tr>
<td>Automatic</td>
<td>Select Yes for modifier lines that have the Automatic box selected and No for modifier lines that do not have Automatic selected.</td>
</tr>
</tbody>
</table>
Using the Pricing Organizer

Table 3–24  Find Modifiers window: Entering a query in the Lines tab

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override</td>
<td>Select Yes for modifier lines with the Override box selected and No for modifier lines that do not have Override selected.</td>
</tr>
<tr>
<td>Include on Returns</td>
<td>Select Yes for modifier lines that have the Include on Returns box selected and No for modifier lines that do not have the Include on Returns box selected.</td>
</tr>
<tr>
<td>Accrual</td>
<td>Select Yes for modifier lines that have the Accrual box enabled and No for modifier lines that do not have the Accrual box enabled.</td>
</tr>
</tbody>
</table>
| Formula            | Select one of the following:  
|                    |   ■ No Formula: to query by lines that have no formula attached.  
|                    |   ■ Any Formula: to query on modifier lines that have any formula attached regardless of the formula.  
|                    | Select the formula name from the list.                                                                                                       |
| Application Method | Query for modifier lines associated with an Application Method such as Percent, Amount, Lumpsum, and New Price.                               |
| Comparison Value   | Query for lines for a given Comparison Value.                                                                                                 |
| Value              | Query by modifier lines for a given value.                                                                                                    |
| Break Type         | Query by a Break Type for the modifier lines such as point or range.                                                                          |
| Terms Attribute    | Query modifier lines associated with certain terms such as Freight Terms, Shipping Terms, and Payment Terms.                                 |
| Upgrade Item       | Query modifier lines by Upgraded Item.                                                                                                         |
| Terms Value        | Query modifier lines with certain Terms Value.                                                                                                 |
| Last Updated By    | Query by the last user who updated the modifier.                                                                                               |
| Last Update Date   | Query by the date when the modifier was last updated.                                                                                           |
| Charge Names       | Query by Charge such as Administration Fees, Duty Fees, Export Fees and so on.                                                              |
| Exact Effective Date Match | When the Exact Effective Date Match check box is enabled, only modifiers with the matching dates specified in the Effective From/To are returned. |
| Effective From/To  | Enter Effective From/To dates to query modifiers whose Effective From/To dates are within the selected date range.                           |
Using the Pricing Organizer

Additional Lines Criteria tab

You can select query criteria if Coupon Issue, Price Break Header, or Discount was selected as the Modifier Type in the Lines tab or if a modifier type is not selected in the Lines tab. Otherwise, the fields are grayed you cannot make any selections.

**Note:** You can enter query criteria in one tab or across multiple tabs depending on your query requirements.

1. Select only the criteria required for your query. If a field is left blank, it is not included as a query criteria.

**Figure 3–21 Find Modifiers window: Additional Lines Criteria tab**

**Table 3–25 Find Modifiers window: Completing Header tab information**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit Quantity</td>
<td>Query by Benefit Quantity.</td>
</tr>
</tbody>
</table>

Modifiers 3-73
Using the Pricing Organizer

Table 3–25  *Find Modifiers window: Completing Header tab information*

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit UOM</td>
<td>Select a specified UOM such as LBS (pounds) from the list.</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Query by Expiration Date to query modifiers with lines matching the specified expiration date.</td>
</tr>
<tr>
<td>Expiration Period Start Date</td>
<td>Query Expiration Start date. This is an exact date match query.</td>
</tr>
<tr>
<td>Expiration Period</td>
<td>Query by the Expiration Period.</td>
</tr>
<tr>
<td>Period type</td>
<td>Query by a specified Period type.</td>
</tr>
<tr>
<td>Rebate Transaction type</td>
<td>Query by a Rebate Transaction type.</td>
</tr>
<tr>
<td>Accrual Conversion Rate</td>
<td>Query by an Accrual Conversion Rate when modifier type is Discounts for accrual.</td>
</tr>
<tr>
<td></td>
<td>Coupon Conversion Rate: For modifier type Coupon, this field displays the Coupon Conversion Rate.</td>
</tr>
<tr>
<td></td>
<td>Accrual Redemption Rate: Query by an Accrual Redemption Rate.</td>
</tr>
<tr>
<td></td>
<td>Coupon Redemption Rate: For modifier type Coupon, this field displays the Coupon Redemption Rate.</td>
</tr>
<tr>
<td>Coupon Modifier Number</td>
<td>Query by the Coupon Modifier Number if modifier type is coupon.</td>
</tr>
</tbody>
</table>
Product Attributes tab
1. Select one of the following options from the Product Attributes tab.

**Figure 3–22  Find Modifiers window: Product Attributes tab**

- **Products**: This enables you to query the specified fields on the window.
- **No Products**: If this option is selected, the remaining fields on the window are greyed out. The query returns modifier lines that do not have any product attributes defined.
- **Not Specified**: If this option is selected, the remaining fields on the window are greyed out and the query ignores whether a modifier line has product attributes or not. This is the defaulted value and additional query criteria is needed for the query to execute.

2. When Product Attributes field is enabled above, query by Product Attribute.

**Note:** The Product Attribute Value can be entered only after a Product Attribute has been selected.
If you select Products in the Product Attributes field, you can also query by Exclude Items.

3. Enter one or more Exclude Items in the Exclude Items region.

The query retrieves modifiers that have that item defined as an Exclude Item. If more than one exclude product is selected, then modifiers with at least one of the Exclude Items defined are retrieved.

**Note:** When querying by an item, the query results will return modifier lines that specify the item number and not include modifier lines for item category.
Pricing Attributes tab

1. Select the Pricing Attributes tab.

Figure 3–23  Find Modifiers window: Pricing Attributes tab

2. Select one of the following options from the Pricing Attributes field:

- Pricing Attributes: This option enables the query fields on the window. Enables you to query by one or more combinations of Pricing Context/Attributes. For example, you could query by Volume (Pricing Context) and Total Item Quantity (Pricing Attribute). If no values are entered, the query returns only those modifiers with at least one product attribute.

- No Pricing Attributes: If this option is selected, the remaining fields on the form are greyed out. The query will return modifier lines that do not have any pricing attributes defined.

- Not Specified: If this option is selected, the remaining fields on the window are greyed out and the query ignores whether a modifier line has Pricing
Attributes or not. This is the defaulted value and additional query criteria is needed to run the query.

3. Select Pricing Attributes in the Pricing Attributes field to query by pricing context. The Pricing Attribute field is enabled if a Pricing Context is selected. The Pricing Attribute Value is enabled only after a Pricing Attribute has been selected.

4. Select an operator value such as = or BETWEEN. The Value To field is grayed out if the Operator value is =.

   If the operator value is left blank or is BETWEEN, the query evaluates the values in the Value From and Value To fields to determine if there is an exact match.

5. You can specify up to 3 pricing attributes with a combination of OR/AND operators.

Examples of using AND/OR Operators to query Pricing Attributes

The following table displays modifiers named M1, M2, M3, and M4 and their pricing attributes:

<table>
<thead>
<tr>
<th>Table 3–26 Example of AND/OR Operators to Query Pricing Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modifier Name</strong></td>
</tr>
<tr>
<td>M1</td>
</tr>
<tr>
<td>M2</td>
</tr>
<tr>
<td>M3</td>
</tr>
<tr>
<td>M4</td>
</tr>
</tbody>
</table>

The following table displays the results for a query by Pricing Attributes. The query results depend on the AND/OR operator criteria selected: Yes means the modifier is retrieved and No means it is not.

<table>
<thead>
<tr>
<th>Table 3–27 Using AND/OR Operators to Query Pricing Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conditions</strong></td>
</tr>
<tr>
<td>OR/OR</td>
</tr>
</tbody>
</table>
### Table 3–27 Using AND/OR Operators to Query Pricing Attributes

<table>
<thead>
<tr>
<th>Conditions</th>
<th>M1 - Blue, Large, and Grade A</th>
<th>M2 - Blue</th>
<th>M3 - Large</th>
<th>M4 - Blue and Grade A</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND/AND</td>
<td>Yes (Blue, Large, and Grade A)</td>
<td>No (not Blue and Large and Grade A)</td>
<td>No (not Blue and Large and Grade A)</td>
<td>No (not Blue and Large and Grade A)</td>
</tr>
<tr>
<td>OR/AND</td>
<td>Yes (Blue/Large and Grade A)</td>
<td>Yes (Blue)</td>
<td>No (not Large and Grade A)</td>
<td>Yes (Blue)</td>
</tr>
<tr>
<td>AND/OR</td>
<td>Yes (Blue and Large/Grade A)</td>
<td>No (not Blue and Large)</td>
<td>No (not Blue and Large)</td>
<td>Yes (Grade A)</td>
</tr>
<tr>
<td>Null PA1, And/OR</td>
<td>Yes (Large/Grade A)</td>
<td>No (no PA's)</td>
<td>Yes (Large)</td>
<td>Yes (Blue/Grade A)</td>
</tr>
</tbody>
</table>
Qualifiers tab

1. Select the Qualifiers tab.

Figure 3–24  Find Modifiers window: Qualifiers tab

2. Select one of the following options from the Qualifiers tab:
   - Qualifiers: This option enables you to query the fields on the window:

<table>
<thead>
<tr>
<th>Qualifier Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifier Context</td>
<td>Customer</td>
</tr>
<tr>
<td>Qualifier Attribute</td>
<td>Customer Name</td>
</tr>
<tr>
<td>Operator</td>
<td>= (exact match)</td>
</tr>
<tr>
<td>Value</td>
<td>World of Business</td>
</tr>
</tbody>
</table>
No Qualifiers: If this option is selected, the remaining fields on the window are greyed out. The query retrieves modifier lines that do not have any qualifier attributes defined.

Not Specified: If this option is selected, the remaining fields on the window are greyed out and the query ignores whether a modifier line has a qualifier attribute or not. This is the defaulted value and additional query criteria is needed to run the query.

3. Select Qualifiers in the Qualifiers field to query by qualifier context. The Qualifier Attribute field is enabled if a Qualifier Context has been selected. The Qualifier Attribute value is enabled only after a qualifier attribute is selected. Otherwise, the fields are grayed out and you cannot specify any qualifier values.

4. Select one of the following operator values: =, BETWEEN, or NOT=. If you select the = or NOT= operator, the Value To field is grayed out.

5. For an exact match choose =. For a range of values, select BETWEEN. If you want to filter out values for a given range select NOT=.

If the operator is left blank or BETWEEN, the query evaluates the values in the Value From and Value To fields to determine if there is an exact match.

6. Select the Exact Effective Date Match box to retrieve modifiers with the dates specified in Effective From/To.

7. You can specify up to 3 qualifiers by selecting the OR/AND operators.

Examples of using AND/OR operators to query Pricing Qualifiers
You can select up to three qualifiers by specifying the OR/AND operators:

- Q1=Customer Name
- Q2= Order Type
- Q3 = Ship To

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Modifier 1 - Cust Name, Order Type, &amp; Ship To</th>
<th>Modifier 2 - Customer Name</th>
<th>Modifier 3 - Order Type</th>
<th>Modifier 4 - Cust Name and Ship To</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR/OR</td>
<td>Yes (Customer Name/Order Type/Ship To)</td>
<td>Yes (Customer Name)</td>
<td>Yes (Order Type)</td>
<td>Yes (Customer Name/Ship To)</td>
</tr>
</tbody>
</table>
Table 3–29  Using AND/OR Operators to Query Pricing Qualifiers

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Modifier 1 - Cust Name, Order Type, &amp; Ship To</th>
<th>Modifier 2 - Customer Name</th>
<th>Modifier 3 - Order Type</th>
<th>Modifier 4 - Cust Name and Ship To</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND/AND</td>
<td>Yes (Customer Name and Order Type and Ship To)</td>
<td>No (not Customer Name and Order Type and Ship To)</td>
<td>No (not Customer Name and Order Type and Ship To)</td>
<td>No (not Customer Name and Order Type and Ship To)</td>
</tr>
<tr>
<td>OR/AND</td>
<td>Yes (Customer Name/Order Type and Ship To)</td>
<td>Yes (Customer Name)</td>
<td>No (Not Order Type and Ship To)</td>
<td>Yes (Customer Name)</td>
</tr>
<tr>
<td>AND/OR</td>
<td>Yes (Customer Name and Order Type/Ship To)</td>
<td>No (not Customer Name and Order Type)</td>
<td>No (not Customer Name and Order Type)</td>
<td>Yes (Ship To)</td>
</tr>
<tr>
<td>Null Q1, And/OR</td>
<td>Yes (Order Type/Ship To)</td>
<td>No (No Q1)</td>
<td>Yes (Order Type)</td>
<td>Yes (Ship To)</td>
</tr>
</tbody>
</table>
Using the Pricing Organizer as Query Find

From the Advanced Pricing - Define Modifier window, you can query modifier and qualifier information using the query fields of the Pricing Organizer. You can run queries to find:

- Modifier lines for a product attribute or pricing attribute
- Qualifiers for a context, attribute, attribute value, and effective dates

When you click the Find icon, the Pricing Organizer displays one or more search tabs for entering query criteria. Only the tabs and fields relevant to the query are enabled; the others are grayed out.

So, for example, if you want to query for list qualifiers, the Pricing Organizer displays the List Qualifiers tab where you can enter your search criteria.

**To query modifier line information:**

1. Display the modifier in the Advanced Pricing - Define Modifier window.
2. Select a modifier line in the Modifiers Summary tab, and click the Find icon.

   The Pricing Organizer displays the Lines tab and other tabs where you can enter the search criteria. All the tabs will be active except for the Header tab. The Qualifiers tab will now be Line Qualifiers.
3. Enter your search criteria then click the Find icon.

The modifier lines matching your search criteria display in the Advanced Pricing - Define Modifier window.

**To query qualifier information:**
1. Display the modifier in the Advanced Pricing - Define Modifier window.
2. Click the List Qualifiers or Line Qualifiers button.

The Pricing Organizer displays the Qualifiers tab where you can enter the search criteria. If you are querying from the List Qualifiers region, the List Qualifiers tab will be enabled. If you are querying from the Line Qualifiers region, the Line Qualifiers tab is enabled. The tab is the same, only the label changes.
3. Enter your search criteria (up to 3 qualifiers with the OR condition) and then click the Find icon to find the qualifiers that meet your search criteria.

The qualifiers matching your search criteria display in the Qualifiers region of the Advanced Pricing - Define Modifier window.
Running the Modifier Query

After the query criteria has been selected, you can run the query to retrieve the search results. If a modifier matches all the specified search criteria, the modifier is retrieved and displayed in the Modifier Organizer window.

To run a modifier query
1. From the Find Modifiers window, click Find to run the query. At least one query criteria must be entered to run the query.

   **Note:** Alternately, to run a saved query, just double-click the query name. The saved query names are displayed in the Personal or Public folders in the Modifier Organizer window. For more information, see: Saving a Modifier Query on page 3-89.

The search results display in the following tabs of the Modifier Organizer window:

- Header tab: Displays a summary of the modifiers’ header information.
- Lines tab: Displays a summary of modifier line details provided at least one query criteria has been entered in the Lines, Additional Lines, Products, Pricing Attributes, or Qualifiers tab.
Using the Pricing Organizer

**Figure 3–27 Modifier Organizer window**

![Modifier Organizer window](image)

The following table summarizes what modifier level displays (header or line) when you enter your query criteria in the tabs (Header, Lines and so on).

**Table 3–30 Query Criteria and Display Results**

<table>
<thead>
<tr>
<th>Query Criteria</th>
<th>Display Header</th>
<th>Display Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Header</td>
<td>X</td>
<td>n/a</td>
</tr>
<tr>
<td>In Lines</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In Header and Lines</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Qualifiers on Header</td>
<td>X</td>
<td>n/a</td>
</tr>
<tr>
<td>Qualifiers on Lines</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Using the Pricing Organizer

Opening a Queried Modifier (from the Pricing Organizer)

You can select a record from either the Headers or Lines tabs to view more details.

- Select a modifier in the Headers tab, and click Open Modifier to display modifier details.
- Select a modifier line in the Lines tab and click Open Modifier to display the current modifier for the selected modifier line.

The modifier displays in the Advanced Pricing - Define Modifier window.

<table>
<thead>
<tr>
<th>Query Criteria</th>
<th>Display Header</th>
<th>Display Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifiers on Headers and lines</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Products Line</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pricing Attributes</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Note: If you select Restrict Lines and click Open Modifier, only those lines that meet the query criteria on the Find Modifiers window are displayed. They display in the Modifiers Summary tab of the Advanced Pricing - Define Modifier window.
Saving a Modifier Query

If you frequently use the same query, you can save it and rerun without re-entering the search criteria again—just double-click the saved query name.

The query can be saved as either a Personal or Public query: a Personal query is not shared while a Public query is shared with other users. When saving the query, select the Public check box to save it as a public query in the Public Folder; otherwise it is saved as a personal query in the Personal Folder.

**To save a modifier query**

1. Do a query in the Find Modifiers window to display the search results in the Modifier Organizer window.

2. Right-click the Search Results folder in the left pane to display the menu.

3. Choose Save to display the User Defined Queries window.
4. Enter a Name for the query.

5. Select Public to save the query as a Public query that can be shared with other users. Otherwise, it is saved as a Personal query.

6. Click OK to save the query.
Maintaining a Modifier Query

Once you have saved your queries, you can rename an existing query, move queries between Public and Personal folders, or delete a query that is no longer required.

Note: A public query can be renamed, moved from Public to Personal folder, or deleted only if the value of the profile option QP: Administer Public Queries is set to Y (Yes).

To rename a saved modifier query:
1. Find the saved query to be renamed in either the Personal Folders or Public Folders.
2. Right-click the query name to display the menu, then choose Rename Query to display the User Defined Queries window.
3. Enter the new name and click OK.

To move a saved query between the Personal or Public folder:
1. Find the saved query to be moved in either the Personal Folders or Public Folders.
2. Right-click the query name to display the menu, then choose Rename Query to display the User Defined Queries window.
3. Select or clear the Public box and click OK. The selected query has now moved over.

To delete a modifier query:
1. Select the query to be deleted in either the Personal Folders or Public Folders.
2. Right-click the query name, then choose Delete to display the Decision window.
3. In the Decision window, click Yes to delete or No to return to the Modifier Organizer window.
4. Save your work.
Creating a Modifier

If the modifier you need does not exist, you can create a new modifier by clicking the New Modifier button in the Find Modifiers window.

**To create a new modifier from the Pricing Organizer window:**

1. Click New Modifier in the Find Modifiers window to display the Advanced Pricing - Define Modifier window.
   
   Alternately, click the New Modifier button from the Headers or Lines tab of the Modifier Organizer window to display the Advanced Pricing - Define Modifier window.

2. Enter information for the new modifier.

3. Save the modifier.
Copying a Modifier List

You can quickly create a new modifier by copying an existing one. The modifier lines, pricing attributes, and qualifiers will be copied from the original modifier to the new one. The following attributes are copied to the new modifier: price breaks, other item discounts, coupons, promotional goods, setups and lines.

When you copy a modifier, you can enter a unique number and name for the new modifier and either update or keep the effective dates for the modifier list and lines. The combination of modifier name, number, and version must be unique across modifier lists. Although it is possible to copy an existing modifier name, you must enter a unique number for the new modifier.

Promotional limits attached to the original modifier are not copied. The promotional limits must be created again for the new modifier.

Note: If you do not see the modifier list that you are trying to copy, it is possible that you may not have access privileges to it. You must have at least View Only security privilege to copy a modifier list. Consult your Pricing Administrator.
To copy a modifier list:
1. Navigate to the Copy Modifiers window.

*Figure 3–30 Copy Modifiers window*

### In the Copy From region:
2. In the Number field, select the modifier list that you want to copy. The currency and name displays for the selected modifier.
3. Select Retain Effective Dates to copy the effective dates from the original to the new modifier.

### In the Copy To region:
4. In the Number field, enter a name for the new modifier.
5. Optionally, enter a description in the Name field and the effective dates for the modifier.
6. Click Submit to copy the modifier. A Request ID number displays so you can track your copy request. Select View > Requests and search by your Request ID number to view your request status.

The new modifier is inactive until you select the Active box for the modifier.

**To activate the new modifier:**


2. In the Main tab of the Advanced Pricing - Define Modifier window, select Active to activate the modifier.
Copying a Modifier Line

You can quickly copy an existing modifier line to a new line record in the Advanced Pricing - Define Modifier. The following information is copied to the new modifier line:

- All the contents of the modifier summary and all other tabs.
- All the Exclude Products attached to this modifier line.
- All the Pricing Attributes attached to this modifier line.
- All the Line Qualifiers attached to this modifier line.
- All the Line Details (additional and get products, price break lines) attached to this modifier line.

All fields that are copied can be updated except for the Level and Modifier type fields. The Product Attribute and Product Value fields can be updated even after clicking Define Details. However, once the new modifier line is saved, these fields cannot be updated.

To copy a modifier line:
1. Display the modifier in the Advanced Pricing - Define Modifier window.
2. Select the modifier line to be copied.
3. Click the New icon in the toolbar to create a new blank line beneath the original line.
4. Choose Edit > Duplicate > Record Above to duplicate the original line. Alternately, select the SHIFT + F6 keys.
5. Once the line is duplicated, you can modify or save it.
Note: The profile option QP: Allow Duplicate Modifiers, which is typically set by the System Administrator, determines if duplicate modifiers are permitted. If this profile option is set to Yes (the default), then you can duplicate an existing modifier. If set to No, you must change the new line before you can save it. A modifier line is considered a duplicate if the attributes of the original and duplicated line match within the same modifier list:

- List Line Start Date Active
- List Line End Date Active (Overlapping of the dates will also be treated as duplicates)
- Modifier Level Code (Order/Line)
- Automatic Flag (Selected/Cleared)
- Product UOM code
- Product Attribute
- Product Attribute Value
- Pricing Attributes
- Set of Qualifiers

6. Save your work.
Overview of Promotional Limits

Oracle Advanced Pricing enables you to set limits for benefits that a customer can receive for a promotion, deal, or other modifier. By limiting the amount of a benefit that can be received, you can keep promotional spending within budget and prevent promotion budget overruns.

Note: To use limits, Oracle Advanced Pricing must be installed and the profile option QP: Promotional Limits Installed must be set to Yes by the System Administrator.

If you are unable to access the promotional limits windows or make updates, you may not have the appropriate access privilege. You must have at least View Only privileges to view. To make any changes or updates to the windows, you must have Maintain privileges. Consult your Pricing Administrator.

For example, promotional limits could be used to provide a 10% discount on the first 500 units of an item sold, or a 10% discount for an item until the promotional limit is reached; for example, once the promotion reaches $100,000.

In addition to setting limits on promotional spending, you can also monitor current and cumulative promotional spending in real time, order by order.

You can set limits for a specific monetary value such as the first $500 or by a specific category such as a customer. Oracle Advanced Pricing enables you to set limits in terms of accrual units, discount cost, gross revenue, item quantity, and usage (by customer, by promotion, by promotion and customer). Within a promotion, deal, or modifier, you can also set eligibility for limits by customer, product, or other entity:

- Customer: Define a limit by customer, a group of customers, or at any level in your customer hierarchy.
- Product: Define a limit for a product or group of products in your product hierarchy.

If multiple organizations exist for your corporation, you can set a different limit for each sales organization, group of organizations in your company hierarchy, or give the same limit for all. When entering a limit, you can select if you want to consider to set this limit

- By organization
- Across all organizations
For a specific organization.

You can define a limit across the current transaction or across all transactions to which a promotion or modifier has been applied.

---

**Note:** You cannot create line limits in the following situations:

- If the Modifier line type is Other Item Discount, Promotional Goods, Coupon Issue, Item Upgrade or Term Substitution.
- If the Automatic box is cleared so that the modifier line must be manually applied.
- If the Override check box is enabled.
Overview of Promotional Limits

Creating Limits

Oracle Advanced Pricing enables you to create monetary or usage limits that a customer can receive for a promotion, deal, or other modifier.

*Limits not copied to new modifier:* If copying a modifier, existing limits at either the line or header level, are not copied from the original modifier to the new modifier. The promotional limits must be created again for the new modifier.

**Note:** To use limits, Oracle Advanced Pricing must be installed and the profile option QP: Promotional Limits Installed must be set to Y (Yes) by the System Administrator.

You can create limits at the:

- Modifier header level for a promotion, deal, or modifier list.
- Modifier line level: Limits can be applied to line modifiers and applied to a line, group of lines, or order.
- Both Modifier header and line levels

**Caution for line limits:** Line limits cannot be created if the Modifier Type for the modifier line is Other Item Discount, Promotional Goods, Coupon Issue, Item Upgrade, or Term Substitution.

- The Automatic check box for the modifier line must be enabled, and the Override Flag must be cleared otherwise you cannot enter a limit for the modifier.
- If no Product UOM was defined for the modifier line, line limits with basis of Item Quantity will not get created. If no Benefit UOM was defined for a Modifier Line, line limits with basis as Accrual Units will not get created.
- If no Benefit or Product UOM is defined for a modifier line, neither Item Quantity or Accrual Units displays in the Basis list of values (LOV) and line limits cannot be created for that line.

You can define header and line level limits in terms of accrual units, discount cost, gross revenue, item quantity, and usage (by customer, by promotion, by promotion and customer). The limit can be defined by a specific value or a limit for each
Overview of Promotional Limits

Element that receives a promotion; for example, a limit of $100 for each customer. The following examples illustrate different ways limits can be applied:

**Customers**
You can define limits for all individual customers, group of customers, or specifically named customers; for example:

- No more than $100 of benefit to any one customer on any order from promotion Y.
- Customer XYZ is limited to $1000 cumulative benefit from promotion X.
- All VIP customers are limited to $2000 cumulative benefit.

**Individual stock-keeping units (SKU’s) or groups of SKU’s**
You can define limits for individual SKU’s or groups of SKU’s that are being promoted; for example:

- Limit aggregate expense for promotion X to $50,000 for item 1234.
- Limit VIP customers to $2000 cumulative benefit.

**Individual or aggregated transactions**
You can define limits that apply to individual transactions or aggregated transactions; for example:

- Limit customers so they cannot exceed $50 for any order.
- Limit customers’ use of promotion X for either $400 cumulative discount or placing an order 3 times.
- Limit the total expense that customers may receive from a fall promotion to $5000.

When setting up a limit, you must select a *basis* that defines the unit being monitored for limit checking. Available limit bases are accrual units, charge amount, cumulative discount amount, gross revenue, item quantity, and usage.

For example, if accrual units were used as the *basis* for monitoring units such as air miles, the limit would monitor the number of air miles accrued.

---

**Note:** If the effective end date for a modifier has been reached, you can still attach limits. However the modifier and associated limit will not be applied if the limit date is expired.
To create limits at the modifier header level or line level:
1. Navigate to the Advanced Pricing - Define Modifier window.

Figure 3–31  Advanced Pricing - Define Modifier window: List and Line Limits

2. Click List Limits to enter a limit at the modifier header level, or click Line Limits to enter a limit at the modifier line level.
Caution: The Automatic box for the modifier line must be enabled so that the List Limits button or Line Limits button can be clicked.

The following conditions must be fulfilled before you can enter limits for a modifier line:

- At least one line modifier must be listed in the Modifiers Summary tab before entering a line limit. Otherwise the Line Limits button is grayed out.
- You can only create Line limits for the following modifier types: Discount, Price Break Header, and Surcharge. Line limits cannot be created for the following Modifier Types: Other Item Discount, Promotional Goods, Coupon Issue, Item Upgrade, or Term Substitution.
- The Automatic box for the modifier line must be selected, and the Override Flag must be cleared otherwise you cannot enter a limit for the modifier.

Figure 3–32  Define Limits window
3. The Num is a unique limit number that defaults automatically to identify the limit transaction.

4. Select the basis for the limit. The basis defines the type of limit that is applied and how the consumption is measured. For example, if the basis is Accrual Units, the limit is calculated by the number of units accrued such as 4000 air miles. You can select from the following available bases:
   - **Accrual Units**: For example, each customer accrues 100 air miles for each 10 currency units spent up to a limit of 5000 air miles per customer.
   - **Discount Cost**: For example, when the cost of the promotion has exceeded 50,000 currency units, the promotion ends.
   - **Gross Revenue**: For example, each customer receives the promotion for the first 250 currency units that they order from the website.
   - **Item Quantity**: For example, a customer receives $10 off a case of 12 one-gallon cans of orange juice for the first 1000 cases.
   - **Usage**: Usage can be based by customer, promotion, or both customer and promotion:
     - **Customer**: For example, each customer cannot get a promotion more than 5 times.
     - **Promotion**: For example, promotion is available on the first 25 orders placed.
     - **Promotion and Customer**: For example, promotion is available to the first 25 different customers who place an order.

When a pricing request is processed, the pricing engine checks each request against the limit to see if it exceeds the limit and applies the amount of the benefit against the limit.

5. Select how you want the limits enforced:
   - **Select Across the Current Transaction** if you want the pricing engine to maintain a consumption record for each order that consumes the limit.
   - **Select Across All Transactions** if you want the pricing engine to maintain one consumption record for all orders that consume the limit.

6. Enter the amount of the limit. You can increase or decrease an existing limit; however, you cannot decrease it lower than the amount by which the limit has been consumed. For example, if two orders each for 100 currency units have consumed the limit, you cannot lower the limit below 200.
7. The Unit field defaults to a unit of measure that corresponds to the Basis selected: for example, a currency unit such as USD (US dollars) for Gross currency.

8. Select a constraint to restrict the limit to a product or qualifier attribute:
   - Select Product Attribute to set limits for a specific product(s).
   - Select Qualifier Attribute to set limits for a qualifier such as a customer, modifier list, or order.

9. To filter limits by sales organization, select By Organization. If enabled, the organization for the transaction and modifier must match before the limit can be applied. This enables you to restrict limits to transactions for your organization.

   **Note:** Even if the transaction is ineligible to receive the limit, it may be eligible to receive the modifier.

10. You can select additional criteria from the Constraint, Context, and Attribute fields to restrict eligibility for limits by certain products or qualifiers. For example, the following setup can be used to define eligibility by customer name:

    **Table 3–31 Example of Constraint, Context, and Attribute**

    | Constraint | Context | Attribute   |
    |------------|---------|-------------|
    | Qualifier Attribute | Customer | Customer name |

11. Select Constraint 1 which can be either a product or qualifier attribute.

12. Select a Context for the product or qualifier constraint.

13. Select an Attribute for the Context. For example, if the Context is Customer, you can select Customer name as the Attribute to restrict the limit by customer name.

14. You can define additional product or qualifier attributes in the Constraint 2, Context 2, and Attribute 2 fields.
Overview of Promotional Limits

15. The When Exceeded field determines the handling action if a pricing request exceeds the promotional limit. The initial value automatically defaults from the profile option QP: Limit Exceed Action that is set up by the System Administrator. Optionally, if you do not want the default, you can select a different handling action:

- Hard - Adjust Benefit Amount: Adjusts the order benefit amount so that the order meets but does not exceed the promotional limit. For example, if a customer close to their promotional limit places a new order that exceeds the limit amount, the customer receives the benefit only until the amount is reached.

- Soft - Full Benefit Amount: Applies the full benefit to the order and then sends a status message to place a promotional hold on the order. For example, if a customer close to their promotional limit places a new order that exceeds their limit amount, under a soft limit the customer gets the full promotion benefit applied to the order. A status message is sent to the calling application (such as order management) that the limit has been exceeded.

16. In the Hold? field, select one of the following hold actions:

- Select Hold? to have a status message sent to the calling application (such as order management) when the limit is exceeded.

- Unable the Hold? box so that the pricing engine does not place a promotional hold.

Note: If the Soft - Full benefit amount is selected in the When Exceeded field, then the Hold? box is automatically enabled and cannot be updated.

17. Save your work.

18. Optionally, click Other Attributes to display the Define Attributes window to define additional criteria.
For example, if you have selected customer and customer name and want the limit applied to a particular customer, select the customer name from the Value field.

19. Save your work.

**Note:** To qualify for a limit, all the qualifier conditions must be met. Otherwise, the limit will not be applied.
Overview of Promotional Limits

Viewing Limit Balances and Transaction Details
Oracle Advanced Pricing enables you to view balances including the amount consumed (used) and available for a selected limit or across transaction limits. For a selected balance, you can view the detailed transactions that have consumed the balance. The available balance is calculated using the following formula:

\[ \text{Available balance} = \text{Limit Amount} - \sum \text{(Consumed Amounts from saved Transactions)} \]

Manual versus Automatic Updating of Balances
For most transactions, limit balances are updated automatically when orders are re-priced or when the limit amount is changed. Some balances are not updated automatically and must be manually updated to reflect the new balances: for example, for returned, cancelled, and deleted orders or when a manual transaction is added to adjust limit balances. To update the limit balances manually, you must click Update balances to view the updated balance.

As transactions are processed, cumulative promotional spending is subtracted from the available limit balance. The pricing engine updates the available balance for transactions that complete successfully such as a booked order line or transactions in progress; for example, a sales order line that is entered but not saved or booked.

However, if a transaction in progress was rolled back or exited abnormally from the calling application (such as Order Management), the balance is still updated and therefore the available limit balance may not reflect the true balance. When this occurs, you must manually update the balance to reflect the true balance.

Once the order or order line is saved and booked, then the available limit balance is reduced by the amount of the completed transaction(s).
To view a limit balance:

1. Navigate to the Define Limits window.

Figure 3–34 Define Limits window

The limits and their balances display in the Balances region. If the limit is arranged by category such as sales organizations, product attributes, or qualifier attributes, one limit balance displays for each category.

**Note:** A limit and sub-limits only appear if transactions have posted against them.

The Available field displays the amount of the limit or sub-limit remaining. If the limit is set up by category, then the following Organization (Org) fields display:

- Org Context: Displays the sales organization for the sub-limit balance.
- Org Attribute: Displays the product attributes/qualifier attributes for the sub-limit balance.
Overview of Promotional Limits

- Org Value: Displays the product attributes/qualifier attributes for the sub-limit balance.
- Org Meaning

To view limit transaction details:
1. Navigate to the Define Limits window.
2. In the Balances section of the Define Limits window, select the balance whose transaction details you want to view.
3. Click Transactions to display the Define Transactions window.

Figure 3–35 Define Transactions window

<table>
<thead>
<tr>
<th>Date Request Dt</th>
<th>Price Req Code</th>
<th>Manual Amount</th>
<th>Request Type</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>28/AUG/2001</td>
<td>ONT-MISSING HE</td>
<td>150000</td>
<td>ONT</td>
<td></td>
</tr>
<tr>
<td>28/AUG/2001</td>
<td>ONT-MISSING HE</td>
<td>350000</td>
<td>ONT</td>
<td></td>
</tr>
</tbody>
</table>

Note: The Transactions window only displays if there are transactions applied against the limit. Transactions display after you save a sales order.

The following fields are defined:
- Date Request: Display the date the transaction occurred.
- Price Req Code: Displays the pricing code automatically for an Automatic transaction. You can enter a pricing code manually for a Manual transaction.
- Manual: Enabled if a manual transaction has been added. You can update, delete, or add a manual transaction.
- Amount: Displays the amount of the limit consumed.
- Request Type: Displays the name of the calling application such as Order Management.

- Reason: Displays a reason (if applicable) for the transaction. You can enter a manual reason which is used especially in manual adjustments.

---

**Note:** In the Define Transactions window, you can choose to adjust the limit balance by manually adding new transactions or updating existing manual transactions. A limit transaction created by the Pricing engine cannot be updated or deleted. Only manual transactions can be added, update and deleted.
Overview of Promotional Limits

Updating an Existing Limit Balance

Oracle Advanced Pricing provides a running available balance so you know the amount consumed (used) and available for a selected limit. Balances for limits are updated automatically when orders are re-priced or when the limit amount is changed.

In certain cases such as returned, cancelled, and deleted orders, the limit balances are not updated automatically and the balance must be manually updated using the Update balances button. If a manual transaction is added to adjust limit balances, you must click Update balance to view the new available limit balance.

To update an existing limit balance:
1. Navigate to the Define Limits window.

Figure 3–36 Define Limits window

2. Verify that the balances match the sum of the transactions. Click Update balance or run the concurrent process QP: Update Limit Balance.
3. Click Transactions to display the Transactions window. Confirm that the transactions are correctly applied to the balance.

4. To change the limit balance, enter a transaction in the Transactions window. Enter a positive quantity in the Amount field to lower the available balance or use a negative quantity to raise the available balance.

5. Recalculate the balances in the Define Limits window by choosing the Update balance button or by running the concurrent process QP: Update Limit Balance.
Enforcing Limits

Oracle Advanced Pricing enables you to set up an enforcement policy to manage transactions if the promotional limits are exceeded. When the benefit amount for a transaction or transaction lines exceed the set limit or available limit balance, the default handling method resolves the situation.

The default limit enforcement is set up by the System Administrator in the QP: Limit Exceed Action profile option. You can accept the default or optionally, select an alternate handling method. The following limit handling methods are available:

- **Hard - Adjust Benefit Amount:** Any partial benefit available will be given up to the limit. A promotion based on Usage (number of times it is given) is considered to be a hard limit.

- **Soft - Full Benefit Amount:** The full benefit of the promotion is given and a message is sent to the calling application to advise that the limit has been exceeded. If a limit is exceeded, then the order header and lines need to be placed on a promotional limit hold until appropriate business processes allow progression of the entire sales order. These processes may involve adjusting the promotional limits or repricing the order.

In addition to setting hard and soft limits you can also make the following adjustments when the limit is exceeded:

- **Adjust the limit up or down while the enforcement is operating.**

- **Deactivate the promotion or increase the remaining available limit.**
Adjusting the Limit Amount

You can increase or decrease an already existing limit for a promotion, deal, or modifier and have the adjustment reflected in the available balance. However, you cannot decrease it lower than the amount by which orders have consumed it. For example, if two orders, each for $100 have consumed the limit, you cannot lower the limit below $200.

---

**Note:** A limit (header or line level) that has been created by a different source system code cannot be updated or deleted by a user who has logged in using a different source system. For example, if a limit was created for a modifier by a *Trade Management* user, the same limit can only get updated or deleted by a *Trade Management* user. A user logged in Advance Pricing can view limits for the modifier but cannot edit the existing limits.

---

If the promotion, deal, or modifier is inactive because the limit was previously exceeded, the promotion, deal, or modifier will be re-activated once the limit is increased.
To adjust the limit amount:
1. Navigate to the Define Limits window.

**Figure 3–37  Define Limits window**

2. Enter the new Amount for the limit. If decreasing the limit, you cannot decrease it lower than the amount by which orders have consumed it.
Changing Modifier Incompatibility

You can review and change incompatibilities in the Incompatibility Groups window. When you query incompatibility levels for a specific phase, you can view the modifier lines attached to each incompatibility group and assign them to a new incompatibility level.

**Note:** If you are unable to access or update this window, you may not have the appropriate access privileges. Consult your Pricing Administrator.

**To change modifier incompatibility:**

1. Navigate to the Incompatibility Groups window.

**Figure 3–38  Incompatibility Groups window**

2. Run a query using one of the following criteria:
   - Phase sequence
   - Phase name
Overview of Promotional Limits

- Incompatibility group
- Phase sequence and incompatibility group

**Note:** If you query a phase without specifying an incompatibility Group, the form returns all modifier lines for this phase, even if they do not have an assigned incompatibility group.

3. View the following information for each modifier line that displays:
   - Incompatibility Group
   - Modifier Name
   - List Type
   - Line Number
   - Line Type
   - Application Method
   - Start Date Active
   - End Date Active
   - Benefit Quantity
   - Value
   - Product Precedence
   - Product Attribute
   - Product Attribute Value
   - Benefit UOM
   - Accrual Flag
   - Recurring Flag

**Note:** You can only update Incompatibility Group.

Perform steps 4-7 for each modifier whose incompatibility group you want to change.

4. Select a modifier and click Modifiers.
5. The Advanced Pricing - Define Modifier window for the modifier list to which modifier line belongs displays.

6. You can select a different group from the list of values.

7. Save your work.
Redeeming Accruals

You can mark accrued price adjustments as redeemed and record redemption transaction information. In addition, you can unredeem coupons recorded as redeemed in error.

Note: You cannot create an accrual record in this window.

To redeem accruals:

1. Navigate to the Redeem Accruals window.

Figure 3–40  Redeem Accruals window

2. Query accrual records.

Note: Clear Redeem and enter customer name to find all unredeemed accruals for a customer. The window only displays accrual records that the pricing engine created.

3. Do steps 4-7 for each accrual that you want to redeem.
4. Select Redeem.
5. Enter the Transaction Reference number for the system that redeemed the accrual.
6. Enter the Payment System that issued the payment for the accrual.
7. Enter the Redeemed Date (the default is the current date).
8. To mark a redeemed accrual record as unredeemed, clear Redeem. Verify that the Transaction Reference, Payment System, and Redeemed Date fields are blank.
9. Save your work.

**Note:** You can not mark an accrual record as partially redeemed. For example, a customer purchases a computer and accrues 100 air miles. You cannot mark 60 air miles redeemed at one time and 40 air miles redeemed at a later time.
This chapter describes formulas and includes following topics:

- **Overview of Formulas** on page 4-2.
- **Creating a Pricing Formula** on page 4-3.
- **Finding Formula Factor Lines** on page 4-12.
- **Updating Formula Prices** on page 4-14.
Overview of Formulas

Formulas consist of mathematical expressions that the pricing engine evaluates to calculate the list prices of items and discounts applied to them. Formulas can be linked to a price list line or modifier line. You can use formulas to:

■ Create a price from a computation as an alternative to entering prices in a price list.
■ Calculate a price adjustment. For example, you can instruct the pricing engine to calculate a discount by attaching a formula to a discount line.
■ Set up and maintain formulas based on component types.

When you attach a formula to a price list line, you typically do not enter a price for that line because the pricing engine uses the formula to calculate the final list price of the product or service. One exception is a formula that has a list price as Formula Type: in this case, you must enter the list price (base price) for the formula to use in its calculations.

Note: You can attach a formula that has a List Price component to price list lines and to modifier lines. For more information, see: Oracle Advanced Pricing User’s Guide, Price Lists.

You can choose one of the following methods to determine how a formula calculates the price:

■ Dynamic calculation: The list price resulting from the formula calculation is not calculated or stored anywhere until the sales order is entered with that Price List line item. When the sales order is entered, the pricing engine evaluates the formula and displays the final list price on the order.
■ Static calculation: If the formula is attached to a price list line for static calculation of the final list price, you can run a concurrent program at any time to calculate the final list price using the formula up front (not wait until order entry time) and also store it in the price list.

Seeded Formulas

Oracle Advanced Pricing provides seeded formulas that you can use when setting up freight charges. For more information, see: Overview of Seeded Formulas on page B-2.
Creating a Pricing Formula

You can set up and update formulas and formula lines in the Advanced Pricing - Pricing Formulas window. A formula is a valid mathematical expression used to determine the list prices of items and the discounts applied to those items. The formula lines provide details about each part of the formula.

A formula can contain any of the following:

- Parentheses: for example, (and)
- Mathematical operators: for example, +, -, /, and *
- Built-in functions: for example, NVL, SQRT, and MOD
- Operands: Operands are step numbers about which you provide more detail. You can use as many step numbers as you need, up to the limit of the field. You can repeat a step number in a formula, for example, 1+2*2.

Oracle Advanced Pricing uses the formula line and evaluates it to obtain the value of the operand and calculates a formula. It does not use the face value of the step number.

For each preceding step number, you need to create four formula lines since the formula has four step numbers.

**Note:** An operand is not a numeric constant. If you want to use a numeric constant in a formula, you must create a step number in the formula expression and then assign the numeric constant to the step number in a formula line.
You assign one of the following types to each formula line:

- **Function**: The function GET_CUSTOM_PRICE retrieves a price from an external system and uses it in the formula calculation. You create the program logic to map to the external data source by developing PL/SQL program packages. The function GET_CUSTOM_PRICE returns a numeric value.

  **Note**: Advanced Pricing formulas supports all the functions supported by PL/SQL. For more information on PL/SQL functions, see: Oracle9i SQL Reference, Release 2 (9.2), Functions.

- **List price**: The price of the item in a specific price list to which you have attached a formula.

- **Factor list**: A list of factors that you can link to multiple pricing attributes or a range of these attributes. The pricing engine evaluates the formula, then chooses one of these factors depending into which range the actual pricing attribute of the item falls.

  For example, a step in the formula may have different factors defined for different ranges of glass thickness: a glass with thickness between 0.1 and 0.3 mm has a factor of 3 and a glass with thickness between 0.4 and 0.8 mm has a factor of 5. The pricing engine determines which factor qualifies when it evaluates an order and applies this factor in the formula calculation.

  You can also relate multiple factor conditions. For example, if the base pricing attribute for glass thickness is between 0.1 and 0.3 mm AND the length of the glass is between 0.5 and 2 m, apply the factor of 3 OR if the base pricing attribute for glass thickness is between 0.4 and 0.8 mm AND the length of the glass is between 0.5 and 2 m, apply the factor of 5.

- **Modifier Value**: Uses the value that is entered in the Value field from the Advanced Pricing - Define Modifier window > Discounts/Charges tab.

- **Numeric constant**: A numeric value.

- **Price list line**: The price of the item in a specific line number of a specific price list.

- **Pricing attribute**: The absolute value of a pricing attribute (such as thickness or height) of an item.

  Pricing attributes are characteristics of products and services that you can specify when the characteristics help to determine the price of a product or
Creating a Pricing Formula

...service. Distance, age of a related product, customer class, product family group, and level of service are examples of pricing attributes. You can specify one or a combination of pricing attributes and assign them to a product or service. At order entry time, the pricing engine evaluates the attributes you have specified during formula setup to calculate the price.

You can define as many attributes as you need to meet your pricing business needs. For example, you may use the formula 1*2 to calculate the price of a glass item. Step 1 is a pricing attribute for thickness and step 2 is the list price to calculate the price of a glass item; if 100 is the base price of the glass item and 0.3 is the value of the thickness attribute of the glass then the pricing engine evaluates the formula as 0.3*100 which is 30.

Null Values in Formulas
During formula calculation, if a step results in a null value, the formula fails. For example, in the formula 1*2, step 2 is of type Pricing Attribute, pricing attribute context is Physical Attribute, pricing attribute is Volume, and the user should supply the volume at order entry time.

Since the user may not provide a volume use the NVL expression in the formula to point to a step that evaluates to a non-null value. Change the formula to 1*NVL(2,3). In the formula line for step number 3, arrange for a non-null value, for example the numeric constant 8. If the user does not provide a value for volume, the pricing engine uses 8 in the formula calculation.

If the expression does not use NVL in the expression, and the step number evaluates to NULL, the entire expression evaluates to NULL, the formula calculation fails, and the calling application processes the failure.

GET_CUSTOM_PRICE
The following diagram illustrates the GET_CUSTOM_PRICE function. It shows several formulas which reference price lists and discounts. When the pricing engine evaluates a formula, it passes the formula, price list, and discount information to GET_CUSTOM_PRICE. GET_CUSTOM_PRICE returns a value, the pricing engine uses that value to calculate the formula and returns the formula value to the calling application.

After the diagram, the text explains the GET_CUSTOM_PRICE function in more detail.
Creating a Pricing Formula

Figure 4–1  Get Custom Price

To use the Function formula type, modify the function GET_CUSTOM_PRICE. Write custom code in the function body that uses the standard input parameters. You can only write a function body that returns a number.

You can use the GET_CUSTOM_PRICE function in more than one formula. The formula ID is an input parameter which you can use to differentiate code logic among formulas.

To use the return value in a formula, do the following:

- Set up a formula having a formula line of type Function.
- Set the system profile option QP: Get Custom Price Customized to Yes at the Site level. If the pricing engine evaluates custom code within the GET_CUSTOM_PRICE function and the profile option is No, the formula calculation fails, and the calling application processes the failure.
GET_CUSTOM_PRICE is in the package QP_CUSTOM and its specification is QPXCUSTS.pls. QP_FORMULA_PRICE_CALC_PVT calls QP_CUSTOM.Get_Custom_Price().

The pricing engine passes the parameters to the function. You may not change the GET_CUSTOM_PRICE parameters which are:

- p_price_formula_id: Primary key of the formula that uses the Get_Custom_Price function.
- p_list_price: List price on the price list line to which the formula using Get_Custom_Price is attached. May be null.
- p_price_effective_date: Pricing Effective Date, the date for which the pricing engine is evaluating the formula.
- p_req_line_attrs_tbl: PL/SQL table of records containing context, attribute, and attribute value records for product and pricing attributes and a column indicating the type (Product Attribute or Pricing Attribute). The engine passes only the pricing and product Attributes of the price list line to which the formula is attached.
To create a pricing formula:
1. Navigate to the Advanced Pricing - Pricing Formulas window.

**Figure 4–2 Advanced Pricing - Pricing Formulas window**

2. Enter a Name and Description for the formula.
3. Enter the Effective Dates range.
4. Enter a Formula expression. A formula consists of step numbers (such as 1, 2, 3) used in an arithmetic equation such as 1*2.
   - A step number such as 1 in the formula expression corresponds to the formula line with the same step number in the Formula Lines region.
   - The Seeded check box indicates if the formula is seeded or not.
5. Every time a new formula expression is created, the concurrent program Build Formula Package should be run to generate the formula package.
   - From the Tools menu, select Build Formula Package to run the program.
   - Alternately, you can also run the Build Formula Package concurrent program. A
Dialog box displays a message if the formula package generation was successful.

6. Save your work.

In the Formula Lines region, you create formula lines and assign a Step number that can be used in the Formula expression. Complete the following steps for each formula line you want to create.

7. Select one of the following Formula Types:
   - Function: The Component field displays GET_CUSTOM_PRICE. You must write the function in this PL/SQL package and it must return a number. Please refer to Figure 5.2 for an overview of GET_CUSTOM_PRICE.
   - List Price: The price of the item in a specific price list to which you have attached a formula.
   - Factor List: Select an existing factor list in Component field. Alternately, to create a new factor list, type a new name in the Component field, and press the Enter key. When you complete your entries for the formula line, click Factors to create the factor criteria in the Factors window.
   - Modifier Value: A formula which has a Modifier Value as a component cannot be attached to a price list line.
   - Numeric Constant: Enter the numeric constant in Component.
   - Price List Line: A formula which has List Price as a component and is attached to a price list line gets the list price from the Value entered in a price list line.
   - Pricing Attribute: Select the Pricing Attribute Context and Pricing Attribute.

8. Enter the Step number for the formula expression. Step numbers cannot be repeated in the Formula Lines region even though they can be repeated in the Formula expression.

   The Seeded check box is selected for seeded formula lines.

9. The Reqd Flag check box is currently not used by the pricing engine except if you are using custom code for tracking formula line information. If you are using custom code for this purpose, then select the Reqd Flag check box.

10. Save your work.
Creating a Pricing Formula

To define factor list details:

1. If the Formula Type is Factor List, click Factors to display the Factors window.

**Figure 4–3  Factors window**

In the Base Pricing Attributes region, complete steps 2-9 for each base pricing attribute factor. To search for formula factor lines, see: Finding Formula Factor Lines on page 4-12.

2. Select a value for Base Pricing Attribute Context.

   If you have multiple entries, you must use the same base context in this region (to create an OR condition); the pricing engine chooses one of the entries. Use the Associate Pricing Attributes region to associate additional contexts with the base context (to create an AND condition where both attributes must be present to qualify).

3. Select a value for Base Pricing Attribute.

4. Select a comparison Operator and enter the Value From/To:
   - If you select the operator Between, you must enter a Value From. If you do not enter a value for Value To, it defaults to unlimited.
Creating a Pricing Formula

- If you select =, you must enter Value From and you cannot enter Value To.

Enter the Adjustment Factor.

5. Enter Start/End Date range for this attribute in this factor list.

---

**Note:** The effectiveness of this pricing attribute in this factor list also applies in all other formulas that use this factor list.

---

Do the next two steps for each associated pricing attribute.

6. In the Associate Pricing Attributes region, select an Associated Pricing Attribute Context and Associated Pricing Attribute to associate with the base pricing attribute context and base pricing attribute values (to create an AND condition).

7. Select a comparison Operator and enter the Value From/To:
   - If you select the operator Between, you must enter a value for Value From.
     If you do not enter a value for Value To, it defaults to unlimited.
   - If you select =, you must enter Value From and you cannot enter Value To.

8. Save your work.
Finding Formula Factor Lines

A factor list can consist of hundreds of factor lines and associated base pricing attributes. If your business requirements require you to change the values of certain pricing attributes, it is time consuming to scroll through the entire factor list to find a required record. Instead use the Find Formula Factor Lines window to selectively retrieve the records you want.

You can narrow your search by selecting search criteria that defines the factor line you want to retrieve. You can query by Pricing Context, Pricing Attribute, Query Operator, and Pricing Attribute Value.

The query returns all those factors in the factor list which has either a base or an associated pricing attribute that meets the query criteria. The results are sorted by the Pricing Attribute Value From of the Base Pricing Attribute of the factor lines that are returned by the query.

**To find formula factor lines:**

1. Navigate to the Find Formula Factor Lines window.

2. Enter the Factor Pricing Attribute Context for the query such as Item.

3. Enter the Factor Pricing Attribute such as or Item Category or Customer Item.
4. Enter the Query Operator such as = or Between. The = operator returns an exact match while the Between operator returns a range of values. If the Pricing Context on the Query Find window is Item and the Pricing Attribute is either Item Number or Item Category, then the Query Operator is restricted to the value =.

5. Enter a Pricing Attribute Value From High/Low to define the range of values you want queried; for example, to restrict a query to a range of item numbers from 23456 to 45674. However, if the = operator is selected you can only enter a value for Pricing Attribute Value From Low.

6. Click Find to return the query results.

7. Alternately, to start a new query, click Clear to clear the current query criteria and enter your query criteria.

8. Click New to create a new Base Pricing Attribute.
Updating Formula Prices

Use this process when you use static formulas to set list prices. When you attach a formula to a price list line, you can choose:

- Dynamic calculation: When you enter an order the pricing engine uses the formula to calculate list price.
- Static calculation: Prior to order entry, you execute a concurrent process which calculates the list price.

**To update formula prices:**
1. Navigate to the Update Formula Prices window.

![Figure 4–5 Update Rule Prices window](image)

2. To calculate formula-based prices for price list lines whose formulas you have added or changed since the process last executed, select New and Modified Lines Only of Price Lists.

To instruct the process to calculate formula-based prices for all price list lines, clear New and Modified Lines Only of Price Lists.

3. To consider price list lines that have any formula, select Update All Pricing Formulas for Price Lists.

To consider price list lines that have a certain formula, select Update Individual Pricing Formula for Price Lists, and select the specific Pricing Formula.

The process applies this choice after it selects the price list lines according to the criteria for Step 2.

4. Click Submit to display the Request ID.
This chapter describes price lists and includes the following topics:

- Overview of Price Lists on page 5-2.
- Using Secondary Price Lists on page 5-3.
- Creating a Price List on page 5-5.
- Creating a GSA Price List on page 5-22.
- Adjusting Prices for a Price List on page 5-32.
- Adding Items to a Price List on page 5-29.
- Copying a Price List on page 5-35.
- Copying a Price List on page 5-35.
- Copying a Price List Line on page 5-38.
- Using the Price List Maintenance feature on page 5-39.
- Querying Price List Lines on page 5-64.
- Deleting Price List Information on page 5-64.
Overview of Price Lists

Price lists are essential to ordering products because each item entered on an order must have a price. Each price list contains basic list information and one or more pricing lines, price breaks, pricing attributes, qualifiers, and secondary price lists. Basic information includes the price list name, effective dates, currency, pricing controls, rounding factor, and shipping defaults such as freight terms and freight carrier.

Note: You can only view or update a price list in your pricing transaction entity. The profile QP: Pricing Transaction Entity must match the pricing transaction entity of the price list.

You can only view or update a price list in your source system. The profile QP: Source System Code must match the source system of the price list. Otherwise, the price list is view-only.

The profile option QP: Selling Price Rounding Options affects the rounding of adjustments. For more information on this and other profile options, see: Oracle Advanced Pricing Implementation Manual, Profile Options.

Effective Dates
Price lists can have starting and ending dates. This enables you to prepare price lists ahead of when they are valid and to ensure they are not used until their start dates.

Inactive Price Lists
You can temporarily or permanently inactivate a price list by clearing the Active check box. Once a price list is inactivated, you can still do the following:

- Query the inactive price list: When querying, the check box is enabled, but the underlying value is null. To retrieve only inactive price lists, clear the check box; to retrieve only price lists that are active, clear the check box, then select it.
- Update it
- Base a formula on an inactive price list

Note: The pricing engine does select inactive price lists when doing a pricing request. Other applications can call an inactive price list and use relevant information.
Price List Currency
If you have global customers or do pricing in different currencies, the multi-currency feature enables you to maintain a single price list for multiple currencies. For more information, see: Overview of Multi-Currency Conversion Lists on page 6-2.

Rounding Factor
You can define the number of places to the right or left of the decimal point to which the pricing engine rounds prices from price lists and modifiers from modifier lists:

■ A negative rounding number such as -3 rounds the number of characters to the right of the decimal point. For example, a rounding factor of -3 indicates rounding to the nearest thousands so 1.1445 rounds to 1.145.

■ A positive rounding number such as +2 rounds the number of characters to the left of the decimal point. A rounding factor of 2 indicates rounding to the nearest hundreds so 107 rounds to 100.

■ If you enter zero, nothing is affected.

Note: You can limit the rounding factor value by the number of positions you specify in the extended precision format of the price list’s currency. For more information, see Oracle Advanced Pricing Implementation Manual, Profile Options, QP: Unit Price Precision Type.

Using Secondary Price Lists
The pricing engine uses secondary price lists when it cannot determine the price for an item using the price list assigned to an order. Primary and secondary price lists have the same currency.

If the item you are ordering is not in the primary price list, the pricing engine looks for the price on any attached secondary price list. If the item is found, the pricing engine uses the highest precedence secondary price list (the secondary price list with the lowest value for the precedence field).

If an item appears in both the primary and a secondary price list with the same effective dates, the pricing engine uses the primary price list to price the item. If an item appears on the primary price list but is not active (the effective end date has passed), the pricing engine uses the price on the secondary price list.
Agreement Price Lists

Oracle Advanced Pricing allows you to establish agreements with your customers that define the prices, payment terms, and freight terms that you negotiate.

There are two methods by which you can manage agreements:

- Standard agreements which use standard price lists (PRL)
- Pricing agreements which use agreement price lists (AGR)

**Note:** If you are unable to query or update the price list after saving or exiting from the window, consult with your Pricing Administrator for access privileges. Your security access privilege may not allow you to access the price list windows.
Creating a Price List

Price lists contain item and item category prices. You can define and maintain multiple price lists.

Note: If you are using the multi-currency conversion feature, also see: Overview of Multi-Currency Conversion Lists on page 6-2.

You can define the following types of prices on price lists:

- **Unit price**: A fixed price.
- **Percent Price**: A price which is a percent of the price of another item.
- **Formula**: Multiple pricing entities and constant values related by arithmetic operators. For example, you define the price of an item to be a percentage price of another price list line.
- **Price Break**: If the price of an item varies with the quantity ordered, you can define bracket pricing or price breaks. The following table displays an example of a price break setup:

<table>
<thead>
<tr>
<th>Price Break</th>
<th>Attribute</th>
<th>Value</th>
<th>Value From</th>
<th>Value To</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Item Number</td>
<td>A11111</td>
<td>1</td>
<td>11</td>
<td>$50</td>
</tr>
<tr>
<td>2</td>
<td>Item Number</td>
<td>A11111</td>
<td>12</td>
<td>100</td>
<td>$45</td>
</tr>
</tbody>
</table>

Qualifier Grouping Number Options

You can attach both qualifiers and qualifier groups to price list lines. When you attach qualifier groups, you are attaching all of the qualifiers in the qualifier group. The qualifier grouping number is important when you attach multiple qualifiers because it indicates to the pricing engine how to evaluate the qualifiers. For more information on qualifier groups, see: Using Qualifier Grouping Numbers on page 2-8 and Using Qualifier Grouping Numbers across Qualifier Groups on page 2-11.
To create a price list:

1. Navigate to the Advanced Pricing - Price Lists window.

**Figure 5–1  Advanced Pricing - Price Lists window: List Lines tab**

2. Enter a Name for the price list.

3. Select the Mobile Download box if you are using an Oracle Mobile application and want to download specific price lists onto a mobile device such as a laptop computer. The default value is No.

   You can select or clear the Mobile Download box either when creating or updating a price list.

4. To activate the price list, select the Active box.

5. Enter a description of the price list.

6. Enter the price list currency.

7. Enter a Round To value that is applied to the price list. A positive number indicates the number of places to the left of the decimal point. A negative
number indicates number of places to the right of the decimal point. The default is -2. The pricing engine rounds the base price and all discount amounts before using them in calculations.

The value returned depends on the value that was set for the profile option QP: Unit Price Precision Type:

- Standard: The rounding factor defaults to the currency’s precision value. You can override the rounding factor to any value greater than or equal to the currency’s precision value.

- Extended: The rounding factor defaults to the currency’s extended precision value. You can override the rounding factor to any value greater than or equal to the currency’s extended precision value.

8. Enter the starting and ending Effective Dates for the price list.
   The Start Date defaults to the current date.

9. Select the default Payment Terms.

10. Select the default Freight Terms.

   The Global box is selected when the Pricing Security Control profile option is set to ON. This means that the price list can be used by all operating units for pricing transactions. If cleared, the price list’s use is restricted to the operating unit of the user creating the price list.

11. Select the default Freight Carrier.

12. Enter any Comments.

13. Click the List Lines tab.

14. Select Item from the Product Context field.

15. Select a Product Attribute for the Item such as Item Number, Item Category, or All Items.

   **Note:** Use All Items to apply the same price to all items in your product hierarchy.

16. Enter a Product Value for the selected product attribute.

17. The UOM (unit of measure) field defaults from the item master of the validation organization. You can change it to any valid unit of measure for that item.
18. Select the Primary UOM box to select the primary pricing unit of measure for the item.

For example, an item (such as item A11111) in a price list may have two price list lines: one with a UOM of Each (EA)—the primary UOM—and the other with a UOM of Boxes. The pricing engine uses the pricing Primary UOM and the Oracle Inventory UOM conversion information to price an order whose unit of measure does not have a price list line. If an order for item A11111 is placed in the unit of measure Case (CS), the pricing engine accesses the unit of measure conversion tables to convert Case to Each (EA).

19. Select one of the following Line Types:

- Price Break Header: To set up price breaks for the item.
- Price List Line: To enter a base list price for the item.

20. If you selected Price Break Header as the Line Type, select the Price Break Type:

- Point: The pricing engine charges each unit of volume at the price of the break within which the total falls.
- Range: The pricing engine charges each unit of volume at the price of the break within which it falls.

21. Choose an Application Method:

- Block Price: This method is enabled only if Price Break Header is selected as the Line Type. Defines the price for the entire set of a block.
- Unit Price: Defines the price for inventory items and item categories

22. Enter a Value which is typically the base list price of the item.

If Price Break Header is selected as the Line Type, you cannot enter the Value (price) at the list line level. Instead, click Price Breaks to enter price break ranges.

23. Enter either a Static Formula or Dynamic Formula. If Price Break Header is selected as the Line Type, you cannot select a formula.

- For Static Formulas, run a concurrent process to calculate the value. The result of the calculation changes the Value.
- For Dynamic Formulas, you only need to enter Value if the formula includes list price as one of the formula components. At pricing time, the pricing engine calculates the price of the item using the formula. If the formula does not return a price, the engine uses the value of Price as the price.
For more information on formulas, see: Oracle Advanced Pricing User’s Guide, Formulas.

24. Enter the Start Date and End Dates for the price list line. The dates should be within the effective start and end dates of the price list.

25. Enter a value for the product precedence.
   When the pricing engine is trying to locate a price, it uses precedence to resolve conflicts when it selects more than one price list line from a price list.

26. Save your work.
To define pricing attributes:
1. Click Pricing Attributes in the List Lines tab to display the Pricing Attributes window.

Figure 5–2 Pricing Attributes window

2. Enter a pricing context.
3. Enter a pricing attribute.
4. Select = or BETWEEN for Operator.
5. Enter Value From.
6. If the Operator is BETWEEN, enter Value To.
7. Save your work.

Note: The pricing attributes are joined as AND conditions since they apply to one price list line.
Defining Price Breaks for a Price List

If the price of an item varies with the quantity ordered, you can define bracket pricing or price breaks.

**Note:** If you define a price break for an item category, all the items within the category are eligible for the price break.

The following table displays an example of a price break setup:

<table>
<thead>
<tr>
<th>Price Break</th>
<th>Pricing Context</th>
<th>Pricing Attribute</th>
<th>Value From-To</th>
<th>Price</th>
<th>Application Method</th>
<th>Recurring Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Volume</td>
<td>Item Quantity</td>
<td>1-11</td>
<td>$50</td>
<td>Unit Price</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Volume</td>
<td>Item Quantity</td>
<td>12-99999</td>
<td>$45</td>
<td>Unit Price</td>
<td>-</td>
</tr>
</tbody>
</table>

You can define two types of price breaks:

**Point price break**
Price is based on the price bracket in which the total quantity falls.

For example, using Point break pricing, if you ordered 16 units of Item A11111, the total quantity (16) falls into the Price Break 2 bracket where the unit price is $45:

Total price = 16 * $45 each = $720

**Range price break**
Price is based on the ranges of the defined price breaks. For each range, the engine calculates a price and sums across all ranges to obtain the list price.

For example, using Range break pricing, if you ordered 16 units of Item A11111, the unit price from Price Breaks 1 and 2 is applied as follows:

- 11 units * $50 each (unit price from Price Break 1) = $550
- 5 units * $45 each (unit price from Price Break 2) = $225

Total price = $550 + $225 = $775
To define price breaks:
Before setting up price breaks, the following must be selected in the Price Lists window:

- Line Type: Price Break Header
- Application Method: Unit Price or Block Price

1. Click Price Breaks in the List Lines ab of the Price Lists window to display the Price Breaks window. The Pricing Context is Volume (default), and the Pricing Attribute is Item Quantity. Optionally, select a different Pricing Attribute.

Figure 5–3  Price Breaks window

Complete the following steps for each price break to be defined:

2. Enter a Value From/To. To create no upper limit, enter all 9’s in Value To.

   Note: You cannot create overlapping break ranges in the Value From and To fields when setting up a price break; for example, if one break range is from 1 to 11, you cannot have another range that is 5 to 20.

3. Enter a Price:
   - For inventory items and item categories, enter the base list price of the item.
For service items: If the Application Method is Unit Price, enter the base list price of the item. If Application Method is Percent Price, enter a percent of another item’s price.

4. Select an Application Method:
   - Unit Price: For inventory items and item categories.
   - Percent Price: For service items. You will only see Percent Price as an Application Method if the price list line is a service item.
   - Block Price: For information on setting up price breaks with Block Price, see: Defining Price Breaks with Block Pricing (for application method Block Price) on page 5-14.

5. Save your work.
Defining Price Breaks with Block Pricing (for application method Block Price)

Block pricing is a feature that enables you to apply a lumpsum price rather than a per unit price to a pricing line. Block pricing also provides setup flexibility in scenarios where the unit of measure (UOM) of the break header is different from the pricing attributes of each child line. In non-block pricing price breaks, the UOM of the child lines is the same as that of the break header. In block pricing, child lines have different units of measure than the header. Lastly, block pricing also allows pricing setups that price by recurring values within blocks.

In regular breaks, break lines have application method of Unit Price (for inventory items) and Percent Price (for service items only). For block pricing breaks, Unit Price is replaced by Break Unit Price to denote the distinction between the break line UOM and the header UOM. Percent Price remains the same.

Like regular breaks, block pricing can be defined as either Point or Range price break types. They are similar to their regular break counterparts, except that for Point price breaks, break lines only have application method Block Price (this field cannot be updated).

For Range break lines that have application method Block Price, you can define a recurring value for that block. If you define the Recurring Value as 100, the range is priced for every 100 items within the block.

---

**Note:** If the recurring value does not divide evenly into the block, the resulting price is a prorated amount, not a flat rate, of the block price.

---

- Shipments between 100 and 200 lbs cost a flat rate of $50, regardless of the UOM. Without block pricing, the rate would be calculated by multiplying $50 against the unit quantity. So a 100 lb shipment would be calculated at $5000.00 (100 lbs x $50) instead of $50.00.

- For the first 1 to 100 the price is always fixed at a total amount or lump sum. After that, charge is by the unit: for example, each hour based on a price break.

- $10 for every hundred items until 1200. After that, $5 for every 50 items until 2000. After that, $0.30 per unit.

- $10 for every hundred until 1200 items. After that, $30 for every hundred in addition to the cost of the first 1200. For example, with block pricing you would be able to create a price list and price break setup, where the total cost for 1300 units will be $150 ($120 for the first 1200, $30 for every additional 100 units).
Example 1: Example of a Block price setup using a Recurring Value

You can apply a block price and have the price repeat for defined intervals (the recurring value); for example, to charge $10 per 100 items up to 1000 items. In this example, the recurring value is 100.

When a recurring value is used with price breaks, the Block price repeats for every interval defined by the Recurring Value column. In this example, for the first 1200 units, the price is $10 for each 100 units up to 1200 units.

For 1201 units and more, you could create a second price break to define a price of $30 for each 100 units.

So if 1300 units were purchased, the total cost would be $150 which is calculated as follows:

| Block price 1: Price for first 1200 (1200/100= 12 X $10): $120 (first price break) |
| Block price 2: Price for each additional block of 100 units beginning with 1201 units: $30 (second price break) |

This example could be set up as follows:

1. Navigate to the Advanced Pricing - Price Lists window.
2. Complete the fields in the Price Lists region.
3. In the List Lines tab, enter values for the selected Product Context (Item):
   - Product Attribute
   - Product Value
   - Product Description
   - UOM (unit of measure)
4. Select Price Break Header as the Line Type.
5. Select Range as the Price Break Type. When selected, the Recurring Value column in the Price Breaks window is enabled in the Price Breaks window. You cannot use recurring value for point price break.

6. Select Block Price as the Application Method.

7. Click Price Breaks to display the Price Breaks window.

**Example 2: Using Block price and Break Unit price with Price Breaks**

For additional pricing flexibility, a Block Price and Break Unit Price can be applied in a price break. This is commonly found in minimum price scenarios.

**Example 2a)**

A $100 flat price is charged for 1 to 100 minutes of cellular phone usage, after which the customer is billed a Break Unit Price of $1.00 per minute. This can be done by setting up a Block Price with a recurring value: for example, $10 per 100 minutes, and then applying a Break Unit Price of $1.00 for each minute over 100 minutes.

**Example 2b)**

- Block Price: $10 for every 100 units (the recurring value) up to 1200 units (first price break)
- Block Price: $5 for every 50 units (the recurring value) from 1201 to 2000 units (second price break)
- Break Unit Price: $0.30 per unit above 2000 units (third price break)

The following tables displays the Block Price and Per Unit price setup in the Price Lists window:

<table>
<thead>
<tr>
<th>Table 5–3 Price List line setup for Block price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>ALL (EA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5–4 Price Breaks window setup: Block Price and Break Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing Context</td>
</tr>
<tr>
<td>Volume</td>
</tr>
</tbody>
</table>
Creating a Price List

To reference secondary price lists:

1. Select the Secondary Price List tab.

2. Select a Secondary Price List.

Table 5–4  Price Breaks window setup: Block Price and Break Unit

<table>
<thead>
<tr>
<th>Pricing Context</th>
<th>Pricing Attribute</th>
<th>Value From-To</th>
<th>Price</th>
<th>Application Method</th>
<th>Recurring Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>Item Quantity</td>
<td>1201-2000</td>
<td>$5</td>
<td>Block Price</td>
<td>50</td>
</tr>
<tr>
<td>Volume</td>
<td>Item Quantity</td>
<td>2001-999999</td>
<td>$0.30</td>
<td>Break Unit Price</td>
<td>Null</td>
</tr>
</tbody>
</table>

Figure 5–4  Advanced Pricing - Price Lists window
Creating a Price List

3. Save your work.

Example of Secondary Price List

The pricing engine does not evaluate qualifiers on secondary price lists; however, some user setups may require them to be evaluated. If such setup is required the System Administrator must change the profile QP: Qualify Secondary Price Lists to Yes.

For example, suppose you have distributors who can only buy certain product families. Without qualifiers being checked on secondary lists, you must create one price list for each possible combination of product family. With this profile change, you can have a single parent price list with multiple secondary price lists, each for a product family with a qualifier that identifies the distributor by name or type.

Note: If the item you are ordering is not in the primary price list, the pricing engine looks for the price on any attached secondary price list. If the item is found, the pricing engine uses the highest precedence secondary price list (the secondary price list with the lowest value for the precedence field). For more information on secondary price lists, see: Using Secondary Price Lists on page 5-3.

Note: The profile option QP: Qualify Secondary Price Lists, which is typically set by the System Administrator, determines if a price list item from a non-validated line can be selected from the related secondary price list. If the profile option is set to Yes, then the qualifiers for the secondary price list are evaluated by the pricing engine. If set to No, the qualifiers set for the secondary price list are not considered.
Creating a Price List

To attach qualifiers:
1. Select the Qualifiers tab.

Figure 5–5  Advanced Pricing - Price Lists window: Qualifiers tab

2. You can either enter qualifiers or attach qualifier groups:

To enter qualifiers:
1. Enter a Grouping Number. Qualifiers with the same grouping number generate an AND condition and qualifiers with different grouping numbers generate an OR condition. For more information on qualifier grouping numbers, see: Using Qualifier Grouping Numbers on page 2-8.
2. Select the Qualifier Context.
3. Select the Qualifier Attribute. For example, if you selected Qualifier Context = Volume, then all the qualifier attributes for volume are listed (except Order Amount which cannot be used).
4. Enter Operator and Value From/To.
Creating a Price List

Note: Some list of values for qualifiers (such as Customer) may have large value sets that may prolong your query. To reduce the number of items that display in the list of values, enter additional search criteria in the field.

If you do not enter search criteria and click a list of values, a Decision window advises that you have not entered search criteria and that the search may take a long time:

- To display a reduced list of values, click No, enter search criteria, and click the list of values.
- To display the entire list of values, click Yes.
- If you do not want to see the list of values, click Cancel.

Set the profile option QP: Valueset Lookup Filter to avoid this message.

The Value From Meaning field displays additional details of the qualifier when you query a qualifier after saving it. For example, if the context is CUSTOMER and the attribute is Ship To, Value From displays the customer name and Value From Meaning displays the site use location for the customer. If the context/attribute combination has no additional details, Value From and Value From Meaning are identical.

5. Enter Start Date and End Date.
To attach qualifier groups:

1. Select Copy Group to display the Qualifier Groups window:

   **Figure 5–6 Qualifier Groups window**

   ![Qualifier Groups window](image)

2. Select the qualifier groups to attach. All the qualifiers that are associated with the group will appear in the Qualifiers tab.

3. Select one of the grouping options: Retain Grouping Numbers Across Qualifier Groups or Generate Unique Grouping Numbers Across Qualifier Groups. For more information, see: Using Qualifier Grouping Numbers across Qualifier Groups on page 2-11.

   **Note:** After selecting the qualifier groups, confirm that the grouping numbers display the correct combination of AND and OR conditions

4. Save your work.
Creating a GSA Price List

A General Services Administration (GSA) designation identifies a price list belonging to a United States government customer. For products on the GSA price list, a fixed price must be used and defined on the GSA contract.

You can create a GSA price list for your GSA customers. The GSA price list actually uses the Advanced Pricing - Define Modifier window to create a discount that adjusts the base price of the item to the GSA price.

The items on the GSA price list cannot be sold to commercial customers for a price equal to or less than the government price. Therefore, the price offered to the government must be the minimum in the market. A GSA violation occurs when a non-United States government customer is offered a price equal to or less than the GSA Price. You can set up multiple GSA price lists that are effective during the same time period.
To create a GSA price list:
1. Navigate to the Define Modifier - Define GSA Price window.
   The GSA price list and GSA prices are set up in the Advanced Pricing - Define Modifier window.

2. In the Main tab, enter Discount List as the Type.

3. Enter a Number and Name for the GSA price list.

4. Enter the effective Start Date and End Date.

   **Note:** For OR conditions, create each qualifier with a different grouping number.

5. Enter a Description for the GSA price list.
6. In the Modifiers Summary tab, enter a modifier number as an identifier for the GSA price list. The Level defaults to Line, and the Modifier Type defaults to Discount.

7. Enter the Start Date and End Date of this GSA price list line.

**Note:** The Start and End Dates for the discount line must be between the Start Date and End Date of the GSA price list. The pricing engine uses the discount line dates to confirm that the dates are in effect for each line.

8. Select the Override box to enable a user to override the GSA price for the selected price list line. Clear the Override box to prevent a user from overriding the GSA price for the selected price list line.

9. The Pricing Phase defaults to List Line Adjustment and the Incompatibility Group defaults to Level 1 Incompatibility.

10. The Bucket defaults to 1.

11. Enter Item Number in Product Attribute.

12. Select the item in Product Attribute Value.

13. Enter the Precedence value.

14. Select the corresponding Unit of Measure for the item such as Each or Carton.

15. When you have completed your entries in the Modifiers Summary tab, choose the Discounts/Charges tab.

   The Application Method in the Discounts/Charges tab defaults to Newprice.

16. Enter the Value for the item. The value is related to the selected Application Method. For example, if the Application Method is New Price then the Value is expressed in currency units.

17. Save your work.
To create GSA list qualifiers:
To create qualifiers for a GSA price list, you can select a qualifier context such as customer and then a qualifier attribute that defines the context further such as customer name.

Note: You may be unable to select existing groups from the Qualifiers tab because GSA price lists restrict the type of qualifiers that can be attached.

You can select one of the following Qualifier Contexts:

- Customer: For this qualifier context, you can select either Customer name (GSA customers only) or site as a Qualifier Attribute.
- Modifier List: For this qualifier context, you can select Price List as the Qualifier Attribute.

Note: You can only attach customers only at the list (header) level. You cannot assign line level qualifiers.

Do not change the qualifier flexfield sequence for the GSA qualifier in the flexfield setup.

1. Click List Qualifiers.
   Do steps 2-10 for each customer that is eligible for the GSA price.
2. Enter the Grouping Number.
   Note: Since Qualifier Context is Customer, make OR conditions by creating each qualifier with a different grouping number.

3. Select either Customer or Modifier List for Qualifier Context.
4. Enter the Qualifier Attribute.
   - If you selected Customer for the Qualifier Context, select either Customer name (GSA customers only) or site.
   - If you selected Modifier List for the Qualifier Context, select Price List as the Qualifier Attribute.
5. Enter Operator value and the Value From/To.
6. Enter the Start/End Date.
7. The Precedence defaults from the item segment of the descriptive flexfield.
8. Enter the customer name in Value From.
9. Enter start date and end date for the customer.
10. Save your work.

**Note:** The start and end dates of the list qualifiers must be within the start and end date of the modifier list.
Maintaining Price Lists

You can maintain your existing price lists by adding more inventory items, adjusting prices within a single price list, or copying an existing price list to another price list.

For more complex tasks, such as searching across multiple price lists or adjusting prices for the same item across many price lists, Oracle Advanced Pricing provides a Price List Maintenance feature which enables you to:

- Search for price list and line information across many price lists.
- Do mass updates to price lists and price list lines.

**Note:** You need View Only privileges to view price list and related windows. However, you must have Maintain privileges to make any updates. If you are unable to access or update this window, you may not have the appropriate access privileges. Consult your Pricing Administrator.

The following provides an overview of the common tasks you can do to maintain price lists and price list lines:

**Adding Inventory Items to a Price List**
When you add inventory items to a price list, you can specify an item status, such as active or planned; an item category, such as hardware or software; or a range of items. You can request the price to be either zero or the items’ costs in a specific inventory organization. Later, you can adjust the prices to your selling price.

The process only adds items that exist in the item validation inventory organization and that are not on the price list, even if they are inactive on the price list.

To add items from an item category, you must first define the default inventory category set for Order Management. When you add items from an item category, the process adds all items of the item category to the price list; it does not add the item category.

**Adjusting Price Lists**
You can increase or decrease the list price of price list lines by an amount or percentage within a price list. You can adjust prices for all lines on the price list, lines that belong to an item category, lines with items of a certain status, lines created on a specified date, or lines having a range of items.
For information on making simple adjustments to a single price list, see: Adjusting Prices for a Price List on page 5-32.

For information on making mass changes to a single price list or across price lists using the Price List Maintenance feature, see: Making Bulk Changes across a Selected Group of Lines on page 5-35.

Updating Prices (manually) for Price List Lines
You can always manually change the price on an existing price list line. If you type over the existing price, the new price is effective for new orders as soon as you save your changes.

If you use price list line effectivity dates, you can maintain a historical record of your prices.

Copying Price Lists
You can quickly create a new price list by copying an existing price list. Only active price list lines (those with an effective end date later than the current date) can be copied. You can also copy active discounts and effective dates from the original price list.

Price List Maintenance feature
The Price List Maintenance feature enables you to search across a single or multiple price lists, select related entities such as specific price list items, and make updates to price list or price list lines across a single price list or multiple price lists. Related tasks that you can do include:

- Mass Search
- Mass Update
Adding Items to a Price List

Use this process to add items from the item master file to price lists. You must define the price list header information before you can add items. You can add inventory items to a price list by selecting:

- A range of Items
- Item Category Set such as Inventory Items or Purchasing
- Item Category such as Hardware or Software
- Item Status such as Active or Planned

You can set the price to be either zero or equal to the items’ costs from a specific inventory organization. Later, you can adjust the prices to your selling price.

The process only adds existing items from the item validation inventory organization and that are not on the price list, even if they are inactive on the price list.

To add items from an item category, you must first define the default inventory category set for Order Management. When you add items from an item category, the process adds all items of the item category to the price list; it does not add the item category.

**Note:** Pricing submits a concurrent process when you add inventory items. The concurrent process only adds new items to a price list; it does not replace existing items, even if the existing items are ineffective.
To add items to a price list:

1. Navigate to the Add Items to Price List window.

2. Select the Price List to which you want to add items.

   Do one or more of the following steps to select criteria of the items to be added to your price list:

3. Enter an item or range of Items to be added to the price list.

   Note: You cannot use wild cards when you specify the beginning and ending item numbers.

4. Select an Item Category Set.

   If you specify an Item Category Set only, then all the items which belong to specified Item Category Set will be added to the specified price list.

5. To define selected items within an Item Category Set, select an Item Category.
6. Enter an Item Status to select items by their status.

7. Select the Set List Price Equal to Cost From check box if you have Oracle Inventory installed and to set the list price of the inventory item equal to its cost.

---

**Note:** The list price becomes zero if:

- You clear the Set List Price Equal to Cost From check box.
- The Inventory Organization does not use the standard costing method.

---

8. Enter an Inventory Organization to limit the source of the items to add to those in the organization. If you do not enter an organization, the process uses the organization specified in the profile option QP_ORGANIZATION_ID.

9. Click Submit. The Request ID can be used to track your request status.
Adjusting Prices for a Price List

Use this process to adjust the prices for a price list. You can adjust prices for the entire price list or selected items, item category sets, and item categories. You can define your criteria further by selecting the item status or creation date of the items to adjust.

For example, you can specify a category so that only the price list lines for the selected category are adjusted. If you leave any of the fields blank, pricing adjusts the price list regardless of that field.

You can adjust the price by either an amount or percent:

Percent: Enter a value to adjust list prices by a certain percentage. For example, when adjusting by a percentage, entering 10 raises list prices by 10 percent while -10 lowers list prices by 10 percent.

Amount: Enter a value to adjust list prices by a fixed amount. For example, when adjusting by an amount, entering 5 increases list prices by five whole units of currency. Entering -5 decreases list prices by five whole units of currency.

While adjusting prices:

- If the Item Category Set is specified only, then all the items which belong to the specified Item Category Set and are present in the specified price list will get adjusted.

- If both the Item Category Set and Item Category are specified, then all the items which belong to the specified Item Category Set and Item Category and are present in the specified price list will get adjusted.
To adjust a price list:

1. Navigate to the Adjust Price List window.

Figure 5–9  Adjust Price List window

2. Select the name of the Price List to adjust.
   The default Currency and Description of the price list displays.
   ■ To adjust prices for the complete price list only, go to step 8.
   ■ To adjust the prices of specified items, item category sets, or item categories in a price list, complete the following steps in the Item Prices to Adjust section. Select only the criteria to adjust:

3. Enter an Item or range of Items whose prices you want to adjust.
   
   **Note:** You cannot use wild cards when you specify the beginning and ending item numbers.

4. Select an Item Category Set.
   When you select an Item Category Set only, all item prices in that category set are adjusted.
5. To restrict items within a selected Item Category Set, select additional criteria in the Item Category field.

6. Select the Item Status to include items of a specific status.

7. Enter a Creation Date to adjust the prices of items added to the price list on that date.

8. In the Adjust By field, select Percent or Amount:
   - Percent: Enter a value to adjust list prices by a certain percentage. For example, when adjusting by a percentage, entering 10 raises list prices by 10 percent while -10 lowers list prices by 10 percent.
   - Amount: Enter a value to adjust list prices by a fixed amount. For example, when adjusting by an amount, entering 5 increases list prices by five whole units of currency. Entering -5 decreases list prices by five whole units of currency.

9. Enter a Value which corresponds to the percent or amount to be adjusted.

10. Choose Submit. The request ID is displayed in the Request ID field.
Copying a Price List

You can quickly create a new price list by copying an existing price list. Only active price list lines (those with an effective end date later than the current date) can be copied.

You can also copy:

■ active discounts from the original price list.
■ the effective dates from the original price list lines.

You can copy an existing Standard price list type to a new Standard price list, or an existing Agreement price list to a new Agreement price list. After the price list is copied, you can create a new agreement and attach the new price list to the agreement. Since price list names cannot be duplicated, each price list name must be unique.

**Note:** When you copy a price list, the new price list has the same currency as the original price list. If you are using multi-currency enabled price lists, the multi-currency conversion attached to the original will be attached to the new price list.
To copy a price list:

1. Navigate to the Copy Price List window.

Figure 5–10  Copy Price List window

2. In the Copy From region, select the name of the Price List to copy. The price list can be either a Standard (PRL) or Agreement (AGR) price list.

   The default Currency and Description display for the selected price list.

3. Choose one of the following options:

   - To copy the entire price list, go to step 7.
   - To copy only certain items to a new price list, you can select the item or item range to copy. Enter an Item or range of Items to copy.

   Note: You cannot use wild cards when you specify the beginning and ending item numbers.
4. Select an Item Category and Item Category Set of the items to add. When you add items from an Item Category, the process adds all items of the item category to the price list; it does not add the item category.

   **Note:** You must enter both Item Category Set and Item Category for this criteria to be effective.

5. Select the Include Discounts check box to copy modifiers of type Discount List (DLT).

   This check box is provided for backward compatibility to enable users of Release 11 to copy the modifier type of DLT (Discount List) to the new price list. If this check box is enabled, only the modifier type of Discount List is copied but not any 11i modifiers.

   If you are not copying modifiers from version 11, you do not need to select this check box.

6. Enable the Retain Effective Dates check box so that the effective dates for the existing price list lines are copied to the new price list lines.

   **Note:** The process does not copy the effective dates of the price list, only the price list lines. You must enter effective dates for the new price list.

7. In the Copy to region, enter a name for the new price list. It can be either a Standard (PRL) or Agreement (AGR) price list.

8. Enter a Description for the new price list.

9. Enter Effective Dates for the new price list.

10. Click Submit to copy the price list or selected. The request ID is displayed in the Request ID field.
Copying a Price List Line

In the Price List window, you can duplicate an existing pricing line in the same price list. This saves you time from manually re-entering a new pricing line. Although the price list information and pricing attributes are duplicated, Price Break details from the source line are not copied.

Price list lines will be considered duplicate unless the:

- Product value is different.
- Effective dates are different.
- Product attributes are different.
- Comparison Operator Code is different.

To copy the price list line:
1. Enter a new price list or query an existing price list.
2. Navigate to the line below the price list line to be copied.
3. Select one of the following to duplicate the line:
   - Select the Shift+F6 keys.
   - From the Edit menu, select Duplicate > Record Above to duplicate the price list line.
4. You can change Product Value or Effective Dates to avoid a duplicate list line error from occurring in the same Price List.
5. Save your work.
Using the Price List Maintenance feature

The Price List Maintenance feature enables you to make changes to price lists and price list lines for a single price list or across many price lists. The frequency of these changes depend largely on your business processes and how often you update your prices—daily, monthly, quarterly, or annually.

You can do Simple or Advanced searches to find price list lines across a single price list or across many price lists. You can view your search results and then do a detail change or bulk change to update the value, formula or effective dates for selected price list lines.

After applying your changes, you can review the results in the Review & Submit page which is useful for modelling your pricing scenarios before submitting the final changes.

---

**Note:** You must have Maintain privileges to make any updates. If you are unable to access or update this window, you may not have the appropriate access privileges. Consult your Pricing Administrator.

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You can use Price List Maintenance for the following tasks:

**Searching**
- Do simple or advanced searches for a single or multiple price lists/price list lines
- Display display search results in a hierarchal format

**Changing**
- Do detail changes or bulk changes to change price list lines for a single price list or across price lists
- End date and create new line in Bulk Change
- Duplicate line in Detail Change
- Do mass maintenance across multiple price lists
Searching for Price Lists and Price List Lines

You can do a simple or advanced search depending on your requirements:

- Simple Search: Search by price list name (for example, Spring price list), product attribute, product value, and product description.
- Advanced Search: Search by price list header details, line details, pricing attribute details, qualifier details, and secondary price list details.

You can search on a single value for each search field for price list lines across one price list or multiple price lists. For example:

- Find all price lists where the price list header specifies Start Date = 12 Dec 2000 AND Price List Header End Date = 12 Feb 2002
- Find all price lists where price list has a qualifier specifying Customer Name = Vision Operations AND where a price list line specifies Product Attribute of Item Number = telephone
- Find all price lists where one or more of the price list lines specifies Item Category = Soda and Pricing Attribute = Diet

Viewing the Search Results

The results matching the search criteria display in the Results: Price Lists region of the Price List Maintenance page. The results are arranged in a nested hierarchy with the price list being the top-most node. You can view details about a price list by clicking the Expand icon (+) next to the price list name. Nodes beneath the price list node display related information pertaining to the selected price list such as price list lines, qualifiers and related information.

Price node  This is the top node. You will see a Price Lists node if your results include more than one price list. If you have a single price list returned in your search results, then the price list name itself is displayed as the top node.

If you click a node for a price list, for example, Corporate Price List, two additional nodes display: a Lines node and a Qualifier node. Each row under this node identifies the price list name and its description.

Lines node  Click the Lines node to display the price list lines (of the price list) which meet the search criteria. Each price list line displays the item number, item description, unit of measure, value, static or dynamic formula, start date and end date. If no line criteria such as lines, products and pricing attributes are entered in the search criteria, all the price list lines of the price list are displayed.
Also, if a price list line has associated price breaks or pricing attributes, the Expand icon (+) displays next to the product attribute value. Click the Expand icon (+) for the product attribute value to display the Breaks and Pricing Attributes node.

**Price Breaks node**  Click the Price Breaks node to display all the price breaks for the product attribute value. Each row displays the individual price breaks along with the value.

**Pricing Attributes node**  Click the Pricing Attributes node of the product attribute value to display the pricing attributes that match the query criteria. If no pricing attribute criteria is entered in the Search Criteria, all the pricing attributes of the price list line display. Each row displays the pricing attribute and pricing attribute value.

**Qualifiers node**  Click the Qualifiers node to display all the qualifiers of the price list which meet the search criteria. If no qualifier criteria is entered in the Search Criteria, all the qualifiers of the price list are displayed. Each qualifier displays the qualifier attribute and qualifier attribute value in the Description column.

**Figure 5–11  Example of Lines node and Qualifiers node**
To do a simple search:

1. Navigate to the Price List Maintenance page.

Figure 5–12  Price List Maintenance page

2. Select only the criteria required for your search:
   - Price List Name: Select a particular price list. Click the Search icon to display all the price lists or enter the name or part of the name. You could also use a wildcard like Co% to display all the price lists beginning with Co.
   - Product Attribute: Select a product attribute. Click the Search icon to display Product Attributes like Item number or Item Category.
   - Product Value: Select a particular product value for the selected product attribute. You must select a product attribute before you select a product value. Click the Search icon to display all the product values for the product attribute you have selected.
Using the Price List Maintenance feature

- Product Description: This displays the description of the product value. The product attribute must be entered first before the Product Description can be entered. Click the Search icon to display the product description.

3. When you have completed your entries, click Go to display the search results in the Results: Price Lists region of the Price List Maintenance page.

The search results display detailed information about each price list including price list lines, pricing attributes, and qualifiers. By clicking the Expand icon for a selected price list, you can view the price list lines and qualifiers for the price list. You can focus on any node by clicking the Focus icon.

4. If you select the price list, all the lines in the search results for that price list can be changed.

---

**Note:** For more information on icons, see *Oracle Applications Framework Guide.*
Using the Price List Maintenance feature

To do an advanced search:
1. Navigate to the Price List Maintenance page.
2. Click Advanced Search to display the Advanced Search page.

**Figure 5–13 Advanced Search page**

The Advanced Search page is divided into the following regions where you can select search criteria:

**Important:** Click the Search icon (where applicable) to display the available values for each field.

**Header region**
- Price List Name: Click the Search icon to display all the price lists or enter a wildcard value like Co% and click the Search icon to display all the price lists beginning with Co. Select a price list.
- Currency: Select a particular currency.

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Active: Select to search by Active or Inactive price lists.

Currency: Select a particular currency.

Start/End Dates: Click the Calendar icon to search by Start/End Dates. This date has to exactly match the price list start date active.

Round To: Select a Round To value to return price lists with the specified Round To value.

Payment Terms: Select the Payment Terms.

Freight Terms: Select a particular freight term.

Freight Carriers: Select a particular freight carrier.

**Line region**

- UOM: Select a particular unit of measure.
- Dynamic Formula: Select a particular dynamic formula. These dynamic formulas must not contain a line type as MV.
- Static Formula: Select a particular static formula. These static formulas must not contain a line type as MV.
- Precedence: Enter to search by product precedence.
- Application Method: Select whether the application method is a Percent Price or Unit Price.
- Value: Enter to search by the product value.
- Line Type: Select Price Break Header or Price List Line.
- Price Break Type: Select either Point or Range.
- Primary UOM: Select Yes or No depending on if the UOM is primary or not.
- Start Date/End Date: Click the Calendar icon to select a Start Date and/or End Date. This Start Date has to exactly match the price list line start date and the End Date has to exactly match the price list line end date active.

**Pricing Attribute**

- Pricing Context: Select a particular pricing context such as pricing attributes.
- Pricing Attribute: Select a particular pricing attribute for the pricing context you have selected.
- Operator: Select a particular operator such as =, BETWEEN and NOT=.
Using the Price List Maintenance feature

- **Value From**: Select a particular Value From for the pricing attribute you have selected. For numeric Value From, enter the value in the field. For example, if the pricing attribute is Handling Cost, then the Value From is numeric. This value has to exactly match the 'pricing attribute value from' of the pricing attributes which are attached to the price list lines returned from this search.

- **Value To**: Enter to search by Value To. This value has to exactly match the Pricing Attribute Value To of the pricing attributes which are attached to the price list lines returned from this search.

**Qualifier region**

- **Qualifier Context**: Select a particular qualifier context such as Customer or Order.

- **Qualifier Attribute**: Select a particular qualifier attribute for the qualifier context you have selected.

- **Operator**: Select a particular operator such as =, BETWEEN and NOT=.

- **Qualifier Value From**: Select a particular Qualifier Value From. For numeric Qualifier Value From, enter the value in the field. For example, when the Qualifier Context’ is VOLUME, the Qualifier Value From is numeric. This value has to exactly match the Qualifier Attribute Value From of a qualifier which is attached to the price lists returned from this search.

- **Qualifier Value To**: Select a Qualifier Value To. This value has to exactly match the Qualifier Attribute Value To of a qualifier which is attached to the price lists returned from this search.

- **Start Date**: Click the Calendar icon to select the effective start date. This date has to exactly match the start date of the qualifiers which are attached to the price lists returned from this search.

- **End Date**: Click the Calendar icon to select the effective end date. This date has to exactly match the end date of the qualifiers which are attached to the price lists returned from this search.

**Secondary Price List region**

- **Secondary Price List**: Select a particular secondary price list. You could also use wildcard character in your search like Co% to display all the price lists beginning with Co.

- **Description**: Select a particular description.

- **Precedence**: Enter to search by secondary price list precedence.
3. When your entries are complete, click Search to display the search results. The search results display in the Results: Price Lists region in the Price List Maintenance page.

4. Select the Price List Lines for change. From the search results, select the check box next to the price list and/or price list line(s) to be changed. You can change pricing entities such as Value, Pricing Formula, and the Start and End Dates of price list lines.

When a price list is selected, all the price list lines in the search results for that price list will be available for change.

**Note:** You can only select those price list lines with Line Type of Price List Line. Price list lines with Line Type of Price Break Header cannot be selected.

You cannot select price lists that belong to a different pricing transaction entity (PTE) or source system.
Using Detail Change or Bulk Change to change Price Lists and Price List Lines

Once you have completed your search in the Price List Maintenance page and selected a price list or price list lines, you can change the values, formula, or effective dates. The changes can be made for a single price list or across multiple price lists for lines with Line Type of Price List Line.

For example, you could adjust all plastic items by 3%, metal items by 5%, and extend the end date from September 30, 2003 to December 31, 2003 for a Corporate price list.

You can use either the Detail Change or Bulk Change feature to make changes depending on your business requirements.

Making Detail Changes across a Selected Group of Lines

In the Detail Change page, changes must be made separately to each price list line. So, for example, to adjust different prices for 11 price list line items, you must change each price list line separately.

In the Detail Change page, you can create a new line by clicking the Duplicate Line icon and then end dating the existing line; the information on the new line is duplicated from the original.

If there are overlapping dates for a product on a price list, an error message displays; for example, if you end date a price list line when the item is no longer sold.

To make detail changes:
1. After you have completed your search in the Price List Maintenance page, select the price list(s) or price list lines to be changed.
2. Click Detail Change to display the Detail Change page. In this page, you can update each selected price list line.
Using Detail Change or Bulk Change to change Price Lists and Price List Lines

Figure 5–14  Detail Change page

To view additional line details, click Show to view details about a price list line. For each price list line, you can make the changes to the existing line and/or duplicate a line and make changes to the newly created line.

**Note:** To duplicate a line, click the Duplicate Line icon.

3. To change the value of a price list line, for example to increase its price, select the desired value from the Type of Value Change field. Select one of the following values:

- **No Change:** The value of all the price list line remains the same.
- **Replace Value:** The value of the price list line will be changed to the value entered in the Value Change By field.
- **Amount:** The value of the price list line will be increased/decreased by the value entered in the Value Change By field.

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Using Detail Change or Bulk Change to change Price Lists and Price List Lines

- **Percent:** The value of the price list lines will be increased/decreased by the percentage value entered in the Value Change By field.
- **Clear Value:** The value of all the price list lines is changed to Null.

4. If you selected Replace Value, Amount, or Percent in the Type of Value Change field, enter a value or percentage in the Value Change By field.

The Changed Value field displays the changed value once you have completed your changes and clicked Apply.

For example, if the original value is 100, and you enter the following:

- **Type of Value Change:** Increase by Percent
- **Value Change By:** 10

After you click Apply, the Changed Value field displays 110.

5. Enter a Changed Start Date to replace the existing start date. You can then make further changes to the Changed Value for this price list line.

6. Enter a Changed End Date to replace the price list line end date.

If the price list line has a dynamic formula or static formula attached, the formula name is displayed in either the Static Formula or Dynamic Formula field.

7. To update or add a static or dynamic formula for a price list line, make your changes in the Static Formula or Dynamic Formula field. Select only one type of formula.

---

**Note:** To update or add a formula value, click the Search icon next to the Changed Static Formula or Changed Dynamic Formula fields to view the available static and dynamic formulas.

---

8. Click the Duplicate Line icon to duplicate the current line. You can change values of the current and the duplicated line.

9. Click Apply to display the newly calculated values in the Changed Value fields.
10. Click Next to display the Review & Submit page.

The Review & Submit page displays all the price list lines that have been updated and the newly created lines.
11. Click Submit to submit the changed lines. To return to the Detail Change page, click Back.

12. A Confirmation message confirms that the price list lines have been updated. Click the Continue Price List Maintenance link to return to the Search page.

Example of Detail Change
This example shows how the Detail Change page is used to make the following changes to price list lines for a fictitious price list (Corporate):

- Increase the price for price list line Item A by 10%.
- Add a formula to calculate price for price list line Item B.
- Create a new price list line for Item C and change the Start and End Dates.

1. In the Search Price Lists region of the Price List Maintenance page, enter your search criteria to return the Corporate price list. Click Search to display the results in the Results: Price Lists region of the Price List Maintenance page.

2. Select the Corporate price list and click Detail Change to display the Detail Change page.

3. In the Detail Change page, select or enter the following values for each of the price list lines to be changed:
4. To increase the price of Item A by 10%:
   - Type of Value Change = Percent
   - Change By = 10

5. To add a formula to calculate price for price list line Item B:
   - Click the Changed Static Formula or the Changed Dynamic Formula icon to select one of the available formulas. Select one formula type or the other, not both.

6. To create a new price list line for Item C and change the Start and End Dates:
   - Click the Duplicate Line icon for Item C to duplicate the price list line. When duplicating a line, remember to end date the previous line.
   - For the new line, enter the new Start Date and optionally, the End Date. When duplicating a line, ensure that the effective dates for a price list line do not overlap. Change the effective dates of the overlapping line to make the price list line unique. The New Line box is selected to indicate new lines.

7. Click Apply to view all the updated and newly created price list lines in the Detail Change page.

8. If satisfied with your changes, click Next to go to the Review & Submit page.

9. Click Submit to save the changes. A Confirmation page displays to confirm that all changes to the price list lines have been saved.
Making Bulk Changes across a Selected Group of Lines

The Bulk Change feature enables you to make the same change across all selected price list lines: for example, to adjust selected price list lines by $5. This saves time from updating each price list line separately. These changes are made in the Bulk Change page.

Unlike the Detail Change feature, which requires you to make changes to each price list line, the Bulk Change feature enables you make your changes once to update all selected price list lines. For example, bulk change could be used to:

■ Adjust all lines on Corporate Price list and Spring Price List by 10%
■ Adjust all lines on VIP price list and the first two price list lines of Fall price list (out of 10 price list lines) and change the end date to 12-Dec-2002.

When making changes to the price list line, you can end date the existing line and create a new price list line with the changes. The existing line will be end-dated, and the changes are reflected only in the new line.

In Bulk Change, you can choose to make a date change by selecting either the Override option or End Date and Create New option from the Action region. When end dating and creating a new line, you can also retain the existing start/end dates. Otherwise, they can override the start/end date of the existing line.

If there are overlapping dates for a product on a price list, the system will display an error; for example, if you end date a price list line when the item is no longer sold.
To make bulk changes across a selected group of lines:

1. After you have completed your search in the Price List Maintenance page, select the price lists or price lines to change.

2. Click Bulk Change to display the Bulk Change page. The Bulk Change feature enables you to do the same change across all the selected lines rather than to update each line separately (Detail Change).

Figure 5–17 Bulk Change page

The selected price list lines display in the Price List Lines region of the Bulk Change page. To view additional details about a price list line, click Show.

In the Maintenance Criteria region, you can make changes to the Start and End Dates, Formula, and Value and apply these changes to the price list lines:

3. In the Action region, select one of the following options:

   - End Date and Create New: Each selected price list line is end-dated and a new price list line is created with the changes specified in the Effective
Using Detail Change or Bulk Change to change Price Lists and Price List Lines

Date, Formula and Value regions. The Start Date or End Date for each price list line is updated. This is useful for keeping a version history of a price list line.

If there are multiple price list lines for the same item (with different effectivity dates), the price list line with the most forward effectivity dates will be end dated and a new line will be created. Any changes will be reflected on the new line.

Override: Each selected price list line will be updated with the changes you specify in the Effective Date, Formula and Value regions.

4. In the Effective Date region, select the Type of Date Change:

- No Change: The dates remain the same.
- Change Date: The dates are changed to those entered in the Start Date, End Date, New Line Start Date, and New Line End Date.

**Figure 5–18  Bulk Change page: Maintenance Criteria region**

<table>
<thead>
<tr>
<th>Maintenance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIP</strong> If “End Date and Create New” is selected in the Action region, you must end date the existing line and enter a start data for the new line.</td>
</tr>
<tr>
<td><strong>TIP</strong> When “End Date and Create New” is selected and there are multiple price list lines for the same item (with different effectivity dates), the price list line with the most forward effectivity dates will be end dated and a new line will be created. Any changes will be reflected on the new line.</td>
</tr>
</tbody>
</table>

**Action**

| **End Date and Create New** |
| **Override** |

**Effective Date**

To keep the existing start date of the price list line, leave the “Start Date” field blank and check “Retain Existing Start Date”. To keep the existing end date of the price list line, leave the “End Date” field blank and check “Retain Existing End Date”.

<table>
<thead>
<tr>
<th>Type of Date Change</th>
<th>Change Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date</td>
<td><img src="image" alt="Start Date" /></td>
</tr>
<tr>
<td>End Date</td>
<td><img src="image" alt="End Date" /></td>
</tr>
<tr>
<td>New Line Start Date</td>
<td>11-Mar-2003</td>
</tr>
<tr>
<td>New Line End Date</td>
<td>10-Apr-2003</td>
</tr>
</tbody>
</table>

**Formula**

<table>
<thead>
<tr>
<th>Type of Formula Change</th>
<th>Replace All Formulas with Dynamic Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Name</td>
<td><img src="image" alt="Formula Name" /></td>
</tr>
</tbody>
</table>

**Value**

| Type of Value Change | Amount | Change By | 10 |

| ![Change By](image) |

5. If you selected Change Date in the Type of Date Change field, enter the new dates in the following fields:

- **Start date**: This changes the start date of all the price list lines.

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Using Detail Change or Bulk Change to change Price Lists and Price List Lines

- **End date:** This changes the end date of all the price list lines.
- **New Line Start Date:** This date changes the start date of all the new price list lines created as a result of choosing the Action: End Date and Create New.
- **New Line End Date:** This date changes the end date of all the new price list lines created as a result of choosing the Action: End Date and Create New.
- **Retain Existing Start Date check box:** If selected, you do not need to enter a Start Date for the existing line. If cleared, the date in the Start Date field replaces the current Start Date.
- **Retain Existing End Date check box:** If selected, you do not need to enter an End Date for the existing line. If cleared, the date in the End Date field will replace the current End Date.

6. **In the Formula region, select the Type of Formula Change:**
   - **No Change:** The formulas remain the same.
   - **Remove Static and Dynamic Formula:** You can select from Any Formula or from available formula names. If you select a particular formula, then the matching formula attached to the price list lines will be removed. If Any Formula is selected, all formulas will be removed from price list lines.
   - **Replace All Formulas with Dynamic Formula:** The Dynamic Formula of all the price list lines will be changed to the Formula entered in the Name field.
   - **Replace All Formulas with Static Formula:** The Static Formula of all the price list lines will be changed to the Formula entered in the Name field.

7. **Select the Formula Name. Do not select a Formula Name if you selected No Change from the Type of Data Change list. Click the Search icon to display all the dynamic and static formulas.**

   **Note:** Formulas with Modifier Value as a formula type will not be displayed in the List of Values.

8. **In the Value region, select how the value should be changed for the selected price list lines:**
   - **No Change:** The value of all the price list lines remains the same.
   - **Replace Value:** The value of all the price list lines will be changed to the value entered in the Change By field.
Using Detail Change or Bulk Change to change Price Lists and Price List Lines

- Amount: The value of all the price list lines will be increased/decreased by the value entered in the Change By field.
- Percent: The value of all the price list lines will be increased/decreased by the percentage value entered in the Change By field.
- Clear Value: The value of all the price list lines is changed to Null.

9. When you have completed your entries, click Apply to apply your changes.

Note: Any validation errors display at the top of the page. You may be able to resolve the error by changing the start and end date values for the price list line.

The Bulk Change page displays both the new and original values. In this page, you can review your updates and, if you are satisfied with the results, submit the final changes:

- Changed Value (view-only): Displays the changed value if you entered a value for Type of Value Change and Value Change By.
  
  For example, if the original Value = 100, and you selected Type of Value Change = Increase by Percent, and Value Change By = 10 and clicked Apply, the new Changed Value that displays is 110.
- Changed Start/End Date: Displays the changed start and end dates.
- Changed Static Formula: Displays the changes static formula.
- Changed Dynamic Formula: Displays the changed dynamic formula.

10. If revisions are required, make your changes as follows:

- For Detail Change, change individual lines to correct the errors and click Apply.
- For Bulk Change, change your entries in the Maintenance Criteria region and click Apply to change all lines. Alternately, change the start date and end date for those lines that have errors and then click Next.
Using Detail Change or Bulk Change to change Price Lists and Price List Lines

11. Click Next to display the price list lines (existing and new lines) in the Review & Submit page. These price list lines display the original Value, Formulas, Start and End Dates, as well as the Changed Value, Changed Static Formula, Changed Dynamic Formula, and Changed Start Date, Changed End Date.

12. To make additional changes, click Back to return to the previous page. Only price list lines with changes display in this page.

13. Review your work and click Submit.

Example 1: Bulk Change to increase all price list lines on Corporate Price list and Spring Price List by 10%

1. In the Search Price Lists region of the Price List Maintenance page, enter your search criteria to return the Corporate Price List and Spring Price List. For example, you could do an Advanced Search using a qualifier such as Order Type = Standard to display related price lists. Click Search to view results in the Results: Price Lists region.

2. In the Results: Price Lists page, select the Corporate and Spring price lists and click Bulk Change to display the Bulk Change page.

3. In the Bulk Change page, select the following values:
   - Override box = Selected
   - Type of Value Change = Percent
   - Change By = 10

4. Click Apply to view the new changes. All the price list lines of the Corporate and Spring price lists display with the changes applied as above.

5. Click Next to go to the Review & Submit page.

6. In the Review & Submit page, click Submit to save the changes. A confirmation message is also displayed on this page.

Note: Whenever you change the values in the Maintenance Criteria region and click Apply, the changes are applied to the original value displayed on the price list lines in the search results, not to the price list line values which are currently in the Bulk Change Window. This means if you updated your price list by 10% from 100 to 110, and you decide you wanted to update to 20%, the price is now 120, not 132.
Example 2: Bulk Change to override the end date for selected lines

The following example shows how Bulk Change can be used to adjust all lines on the VIP price list and the first two price list lines of the Fall price list (out of 10 price list lines). The end date of the price list lines will also be changed to 12-Dec-2003.

1. In the Advanced Search page, enter your search criteria to return the VIP and Fall price lists.

2. When you have completed your entries, click Search to display the results in the Results: Price Lists page.

3. Select the VIP price list. For the Fall price list, click the Expand icon to view all the price list lines, then select the first two list lines.

4. Click Bulk Change to display the Bulk Change page. In the Maintenance Criteria region of the Bulk Change page, select the following values:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override box</td>
<td>Selected</td>
</tr>
<tr>
<td>Type of Date Change</td>
<td>Change Dates</td>
</tr>
<tr>
<td>Existing End Date</td>
<td>December 12, 2003</td>
</tr>
</tbody>
</table>

5. Click Apply.

   All the lines of VIP price list and first two price list lines of the Fall price list are displayed in a table with the changes applied as above.

6. Click Submit to display the Review & Submit page.

7. In the Review & Submit page, click Submit to save the changes. A confirmation message is also displayed.
Example 3: Bulk Change to change price by 10% for a specific item

The following example shows how the bulk change feature can be used to adjust the price for an item category, for example, orange juice, for all price lists. The current prices will be end-dated by May 31st and the new prices (discounted 10%) will take effect from June 1, 2003-August 3, 2003.

1. In the Advance Search page, select the following search values:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Attribute</td>
<td>Item Category</td>
</tr>
<tr>
<td>Product Value</td>
<td>Orange Juice</td>
</tr>
</tbody>
</table>

2. Click Search to view results in the Results: Price Lists region.

3. Select all price lists and click Bulk Change to display the Bulk Change page.

4. In the Maintenance Criteria region of the Bulk Change page, select the following values:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Date and Create New</td>
<td>Selected</td>
</tr>
<tr>
<td>Type of Date Change</td>
<td>Change Dates</td>
</tr>
<tr>
<td>Existing End Date</td>
<td>May 31, 2002</td>
</tr>
<tr>
<td>Retain Existing Start Date box</td>
<td>Selected</td>
</tr>
<tr>
<td>New Start Date</td>
<td>June 1, 2003</td>
</tr>
<tr>
<td>New End Date</td>
<td>August 31, 2003</td>
</tr>
<tr>
<td>Type of Value Change</td>
<td>Percent</td>
</tr>
<tr>
<td>Change By</td>
<td>10</td>
</tr>
</tbody>
</table>

5. Click Apply. All the lines of the Corporate price list are displayed with the changes applied as above.

6. Click Next to go to the Review & Submit page.

7. Click Submit to save the changes. A confirmation message confirms that the changes have been made.
Example 4: Bulk Change to an item to a Dynamic Formula

The following example shows how Bulk Change can be used to update the price of item AS54888 on Vision Operations’ price lists to a Dynamic Formula (F1) by clearing the Value and attaching a dynamic formula.

1. In the Search Price Lists region of the Price List Maintenance page, enter the search criteria:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Product Attribute</td>
<td>Item Number</td>
</tr>
<tr>
<td>Product Value</td>
<td>AS54888</td>
</tr>
</tbody>
</table>

2. Click Go to view results in the Results: Price Lists region.

3. Select the Vision Operations price list and then click Bulk Change to go to the Bulk Change page.

4. In the Maintenance Criteria region of the Bulk Change page, select the following values:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override</td>
<td>Selected</td>
</tr>
<tr>
<td>Type of Formula Change</td>
<td>Replace All Formulas with Dynamic Formula</td>
</tr>
<tr>
<td>Name</td>
<td>F1</td>
</tr>
<tr>
<td>Type of Value Change</td>
<td>Clear Value</td>
</tr>
</tbody>
</table>

5. Click Apply. All the price list lines for the selected price list display with the changes applied as above.

6. Click Next to display the Review & Submit page.

7. Click Submit to save the changes. A confirmation message confirms that the changes have been made.
Viewing Validation Errors

Any validation errors are displayed at the top of the page where the error occurred. Depending on the error, you can change the values in this price list line to resolve the error. Click Apply again to ensure the error disappears.

**Note:** Whenever you change the maintenance criteria and click Apply, the changes are applied to the price list lines, not to the price list lines values.
Querying Price List Lines

When querying price list lines, use the Find Price List Lines query window (from the toolbar Find icon) to find specific price list lines. You provide the product attribute context (for example, Item), product attribute (for example, Item Number), and product attribute value (for example, Product A).

**Note:** If you search using the Find Price List Lines window instead of using a query-by-example on the Advanced Pricing - Price Lists window, you may reduce the time that you need to wait for the search results.

Deleting Price List Information

You cannot delete a price list once it has been created. However, if a price list is no longer required, you can make it ineffective by entering an end date for the price list. The price list becomes inactive on the end date.
This chapter describes creating and using Multi-Currency Conversion Lists and includes the following topics:

- **Overview of Multi-Currency Conversion Lists** on page 6-2.
- **Summary of Multi-Currency Changes to Price Lists and Agreements** on page 6-3.
- **Creating a Multi-Currency Conversion List** on page 6-5.
- **Considerations for Modifiers Using Multi-Currency Price List as a Qualifier** on page 6-11.
- **Using Promotional Good type of Modifier Line** on page 6-12.
- **Attaching the Multi-Currency Conversion List to a Price List or Pricing Agreement** on page 6-16.
- **Updating the Multi-Currency Conversion List** on page 6-19.
Overview of Multi-Currency Conversion Lists

If you have global customers or do pricing in different currencies, the multi-currency feature enables you to maintain a single price list for multiple currencies.

You can set up and maintain multiple currency conversion rates for a base currency in a single list which can be attached to multiple price lists or agreements. Price list maintenance is reduced because only one currency conversion definition can be attached to multiple base currency price lists. If prices change, you only need to update the base price list.

**Note:** You must have Maintain privileges to make any updates. If you are unable to access or update the multi-currency or related windows, you may not have the appropriate access privileges. Consult your Pricing Administrator.

You can also specify currency-specific markup/markdown equations that are applied as a formula, percent, or fixed amount to mark up the currencies.

When a pricing request is made, the pricing engine converts the price on the base price list to the ordering currency and returns the new price in the ordering currency (including any markup values).

**Note:** To set up the multi-currency feature, the following steps must have been completed (usually by your System Administrator or designate):

- The profile option QP: Multi-Currency Installed must be set to Yes, and the concurrent program *Update Price Lists with Multi-Currency Conversion Criteria* must be run.

- The concurrent program should only be run once. For more information, see: *Update Price Lists with Multi-Currency Conversion Criteria* on page 10-20.

- Advanced Pricing must be installed and licensed.
Overview of Multi-Currency Conversion Lists

Rounding and markup factors
You can define markup criteria for each currency definition by specifying either a fixed value or one derived from a formula. Specific currency rounding can also be defined for the converted selling price.

Any changes to the base currency must be made in the Multi-Currency Conversion window and not the price list window.

The Base Round To value cannot be updated if the Profile QP: Price Rounding is set to Enforce Currency Precision.

Summary of Multi-Currency Changes to Price Lists and Agreements
When the price lists and agreements are converted to multi-currency usage, windows and fields are updated with new multi-currency fields and some existing procedures may change.

The following section summarizes the changes that occur when the multi-currency feature is implemented:

Pricing Engine Changes
The pricing engine matches the order currency to the currencies attached to the price list at the time of selection. It then applies the conversion type, markup and rounding to the price.

Changes to Price Lists window
- New Multi-Currency Conversion field: A new field called Multi-Currency Conversion is added to the Advanced Pricing - Price Lists window where you can select a multi-currency list which has the same base currency as the selected price list.

- Round To procedure: The Round To field in the price list header is grayed out and can no longer be changed directly in the Advanced Pricing - Price Lists window. Instead the Round To value must be changed in the Multi-Currency Conversion window and will update the Round To in the price list header.

Agreements
- New Multi-Currency Conversion field: A new field called Multi-Currency Conversion is added to the Pricing tab in the Agreements window where you can select a multi-currency list which has the same base currency as the selected price list.
Overview of Multi-Currency Conversion Lists

- Round To procedure changed: The Round To field in the Pricing Tab is grayed out and can no longer be changed directly. Instead the Round To value must be changed in the Multi-Currency Conversion window and will update the Round To in the Pricing Tab. The multi-currency list can be updated only for Agreement Price Lists, not for Standard Price Lists.

---

**Warning:** Once the concurrent program has been run successfully, all existing price list and agreement windows are converted to multi-currency price lists. Users should not return to NON multi-currency price lists. Changing the profile back to No may cause undesired results if conversion criteria have been used. Oracle does not support changing the setting back to No.

The following conditions apply if multi-currency is installed: if Oracle General Ledger is not installed, you cannot use the general ledger types as a conversion type.
Creating a Multi-Currency Conversion List

A Multi-Currency Conversion List stores a list of currencies and conversion criteria which enables transactions to be converted from a base currency to other currencies. The conversion list is attached to a price list or agreement which uses the conversion criteria to convert the base list prices to the foreign currency amount.

Multiple conversion methods can be in effect at a time for a currency. For example, if converting USD (US dollars) to FRF (French francs), you could have a fixed conversion type for March and a formula conversion type for April.

If more than one multi-currency conversion list is set up for the same base currency, then each conversion list must be assigned a unique name.

Using Conversion Types

Conversion types determine how the conversion rate is calculated. Some of these seeded conversion types are only available if Oracle General Ledger is installed; however, you can still link to other non-Oracle stored conversion rate information by using the formula functionality. The following seeded conversion types are available:

- **Fixed**: Enter a fixed value that is used as the conversion rate. For example, if you enter a value of 1.5, the list prices from the base price list is multiplied by 1.5 to get the converted amount.

- **Formula**: Attach a pricing formula and the value returned from the formula is the conversion rate. A formula with a component type of PLL (Price List Line) cannot be used as a conversion formula because the line may have a different base currency than the price list to which this currency conversion criteria is attached.

- **Transaction**: Passes the conversion rate or type from the Order Management (OM) Sales Order.

The following conversion types are available only if Oracle Financials (General Ledger) is installed:

- **General Ledger sourced (Corporate, Spot, EMU Fixed, User Defined)**: Gets the conversion rate between the Base Currency and Currency To from Oracle General Ledger. These conversion types are available only if Oracle Financials (General Ledger) is installed.
To create a multi-currency list:
1. Navigate to the Multi-Currency Conversion window.

Figure 6-1  Multi-Currency Conversion window

All the fields in the Multi-Currency Conversion List are applicable to the base currency.

2. Enter the Base Currency Code for the currency that the price list is set up in. For example, if the price list has a base currency of US dollars, enter the code for US dollars such as USD.

3. Enter a Name that identifies the multi-currency list.

4. Enter a Description for the list.

5. Enter a numeric Base Round To that rounds the selling prices to the decimal place that is entered. For example, if you entered a rounding factor of -2, a price calculated as $9874.343 would be rounded as $9874.34.
6. Enter a Percent (%) or Amount as a Base Markup Operator which can be applied against the base currency. This Operator determines how the Base Markup Value should be applied.

7. Enter a numeric Base Markup Value. This value is applied as either a percent or amount depending on the value defined in the Base Markup Operator field.

8. Enter a Base Markup Formula. The value returned by this formula is applied as a markup to the base currency. When entered, the Base Markup Value can be used within the Base Markup Formula. [Component type as modifier value (MV).]

9. In the Multi-Currency Details region, specify the criteria in the following fields to convert the base currency to the currency selected in the Currency To field:
   - To Currency Code: Enter the currency code for a currency that a price list can be converted to using the conversion criteria setup. For example, to convert a base currency in US dollars to Canadian currency (CAD), you enter CAD as the Currency To.
   - Conversion Type: Select one of the following conversion types:
     - Fixed: Enter a fixed number that is used as a fixed conversion rate.
     - Formula: For this type, the value returned by the formula becomes the conversion rate.
     - Transaction: Uses the Conversion rate or Conversion type from the Order Management Sales Order. The following conversion types are available only if Oracle Ledger is installed: Corporate, Spot, EMU Fixed, User Defined.
   - Fixed Value: Enter a numeric value if Fixed was selected as the Conversion Type.
   - Formula: Enter a pricing formula name if you selected Formula as the Conversion Type. The value returned by the Formula is the conversion rate. A formula with a component type as PLL (Price List Line) is not allowed in

Note: If the profile QP: Price Rounding is set to enforce currency precision, then the Round To value cannot be updated in the Multi-Currency Conversion List. To make a change you must first change the profile setting to Enforce Rounding Factor or NULL. Then change the Base Round To. Then change the profile setting back if desired.
a conversion formula because the PLL line may have a different base currency than the price list to which this currency conversion criteria is attached. A formula with a component type as MV (modifier value) is also not allowed.

- **Conversion Date Type**: Enter a date type if the Conversion Type is not Fixed, Formula or Transaction. There are two conversion date types:
  - Pricing Effectivity Date: Uses pricing effectivity date passed by the sales order
  - Fixed: Uses Conversion Date setup for this currency.

- **Conversion Date**: Enter a date if the Conversion Date type is Fixed. This date is used to retrieve the daily conversion rate from GL.

- **Attribute Type**: The following values are valid for this field: Product Attributes, Pricing Attributes, and Qualifier Attributes. This specifies the type of attribute to be set up for a currency conversion. This is not a mandatory field.

- **Attribute Context**: This is a mandatory field if you entered an Attribute Type. Enter the Attribute Context for the selected Attribute Type. For example, if the Attribute Type is Product Attribute, then its context can be ITEM.

- **Attribute Code**: This field is dependent on the value entered for Attribute Context. For example, if Attribute Context is ITEM, this field contains its attributes like Item Number. This is a mandatory field when the Attribute Context is entered.

- **Attribute Value**: This field gives the values of the Attribute Code entered. For example, if the Attribute Code is Item Number, this field displays all the items. This is a mandatory field when the Attribute Code is entered.

- **Attribute Meaning**: This field displays the description of the Attribute Value. This is a display-only field.

- **Precedence**: Enter a numeric Precedence value if more than one conversion has the same Currency-To, Start Date, and End Date but different attribute values.

The pricing engine uses the precedence value to determine selection priority. If more than one attribute passed from OM Sales Order matches with the attribute setup for currency conversions, then the one with the lowest precedence value is selected by the pricing engine for conversion.
Creating a Multi-Currency Conversion List

- Markup Operator: Enter either Percent (%) or Amount. This operator is applied to either Markup Value or Markup Formula whichever is entered.

- Markup Value: This is a numeric constant value that can also be used in the Markup Formula.

- Markup Formula: Enter a pricing formula name if the Conversion Type is Formula. If the formula contains a List Price (LP) component, the formula uses the list price after applying the conversion rate.

  A formula with Component Type PLL (Price List Line) cannot be used as a conversion formula because the PLL line may have a different base currency than the price list to which this currency conversion criteria is attached.

- Conversion Rounding Factor: Enter a numeric Rounding factor that rounds the list price after the conversion and markup is applied. This rounding factor could be different for the same Currency To.

**Table 6–1 Example of Using Precedence**

<table>
<thead>
<tr>
<th>Currency-To</th>
<th>Conv. Type</th>
<th>Attribute Code</th>
<th>Attribute Value</th>
<th>Start Date</th>
<th>End Date</th>
<th>Precedence</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF</td>
<td>Fixed</td>
<td>Country</td>
<td>USA</td>
<td>3/1/01</td>
<td>3/31/01</td>
<td>4</td>
</tr>
<tr>
<td>FRF</td>
<td>Fixed</td>
<td>Country</td>
<td>India</td>
<td>3/1/01</td>
<td>3/31/01</td>
<td>1</td>
</tr>
<tr>
<td>FRF</td>
<td>Fixed</td>
<td>Item Cat</td>
<td>CD Pack</td>
<td>3/1/01</td>
<td>3/31/01</td>
<td>2</td>
</tr>
<tr>
<td>FRF</td>
<td>Fixed</td>
<td>—</td>
<td>—</td>
<td>3/1/01</td>
<td>3/31/01</td>
<td>3</td>
</tr>
</tbody>
</table>

In the preceding scenario, when two conversion types with different attribute codes (Country=India and Item Cat.=CD Pack) are passed from an OM sales order, the pricing engine selects the attribute with the lowest precedence. In this case, the attribute Country=India is selected by the pricing engine because its precedence value (1) is lower than the precedence value of Item Cat.=CD Pack which is 2.
Creating a Multi-Currency Conversion List

**Note:** Both a Markup Value and Markup Formula can be entered, provided the Markup Value is used within the Markup Formula. In this case, the final value is the value returned after computing the Markup Formula.

If both a Conversion Rounding Factor and a Rounding Factor is entered for a currency conversion, the Conversion Rounding Factor is applied first followed by the Rounding Factor. This will be applicable for every item (except for the service item) in every pricing event.

- Round To: Enter a numeric Rounding factor that rounds the selling price after the modifiers are applied. The rounding factor will always be the same for a Currency To as in the following example:

<table>
<thead>
<tr>
<th>Currency-To</th>
<th>Attribute code</th>
<th>Attribute Value</th>
<th>Start date</th>
<th>End Date</th>
<th>Round To</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF</td>
<td>Country</td>
<td>USA</td>
<td>3/01/02</td>
<td>3/31/02</td>
<td>-2</td>
</tr>
<tr>
<td>FRF</td>
<td>Country</td>
<td>India</td>
<td>3/01/02</td>
<td>3/31/02</td>
<td>-2</td>
</tr>
</tbody>
</table>

- Start Date: Start of the currency conversion.
- End Date: End Date of the currency conversion.
Considerations for Modifiers Using Multi-Currency Price List as a Qualifier

A modifier has a single currency. You need to create currency-specific modifiers. Modifiers can be created in different currencies. The modifier will be selected and applied when the modifier currency is the same as price list’s Base or To Currency.

To attach a multi-currency price list as a qualifier for a modifier:
1. Navigate to the Advanced Pricing - Define Modifier window.
2. Do a search or create a modifier and its respective currency; for example, a modifier in CAN (Canadian dollars).
3. Click List or Line Qualifiers button to display the qualifiers window.
4. Enter Modifier List in the Qualifier Context field.
5. Enter Price List in the Qualifier Attribute field.
6. Select a Price List that has Base Currency or To Currency defined with the same currency as in the modifier header.
7. Save your work.

Using a formula with component type as Price List Lines
1. Navigate to the Advanced Pricing - Define Modifier window.
2. Query or create desired modifier for a discount.
3. Select a Formula. If selecting a formula with a component type as Price List Line, the base currency of the price list must be the same as the modifier currency.
4. Save the modifier record.
Creating a Multi-Currency Conversion List

Using Promotional Good type of Modifier Line

For a Promotional Good (PRG) type of modifier line, in the Get Product list for the list line, you must select the price list whose currency is the same as the modifier currency.

If you create a promotion with a Get Item, you must ensure that the base currency for the modifier (promotion) price list is the same as the base currency for the Get Item price list (Header). Otherwise, the pricing engine will not select or apply the Get Item.

To use promotional good type of modifier line with multi-currency:

1. Navigate to the Advanced Pricing - Define Modifier window.
2. Query or create desired modifier for the promotional good that uses the foreign currency; for example, French Francs.
3. In the Modifier Summary window, select a line with the Modifier Type of Promotional Goods.
4. Click Define Details to display the Define Modifier Details window.
5. In the Get region where you specify the Get Item details, select the required information about the Get Item.
6. In the Get Price field, select a price list from the Benefit Price field where the Base Currency = FRF has been defined.
7. Save the modifier record
Rounding Behavior during Currency Conversion Calculation

The following examples show you how rounding is calculated during currency conversion calculations.

If the Conversion Rounding Factor and the Round To values in the Multi-Currency Lists window are entered for a currency conversion, the conversion rounding factor will be applied first, followed by the Round To factor.

This is applicable for every item (except for the service item) in every pricing event.

Example 1

Price List Setup
- Base Currency Code = USD
- List Price for Item A = 60.12345

Multi-Currency Conversion List attached to the Price List
- To Currency Code = CAD
- Conversion Type = FIXED
- Conversion Rate = 2.0
- Conversion Rounding Factor = -2
- Round To = -3

Sales Order Setup for a non-service item A
- Order Currency = CAD
- Converted Price before rounding = 60.12345*2 = 120.24690
- Price after applying conversion rounding = 120.25
- Price after applying the Round To (final rounded price) = 120.250
- Price displayed on the Sales Order = 120.2500 (after applying -4 currency precision for CAD)
Creating a Multi-Currency Conversion List

**Example 2**
In Service Pricing, the service item is rounded using the Round To, not the conversion rounding factor.

**Price List Setup**
- Base Currency = USD
- List Price for Item B = 60.12345

**Multi-Currency Conversion List attached to the Price List**
- To Currency Code = CAD
- Conversion Type = FIXED
- Conversion Rate = 2.0
- Conversion Rounding Factor = -2
- Round To = -3

**Sales Order Setup for a service item B**
- Order Currency = CAD
- Converted Price before rounding = 60.12345*2 = 120.24690
- Price after applying the Round To (final rounded price) = 120.247
- Price displayed on the Sales Order = 120.2470 (after applying -4 currency precision for CAD)

**Example 3**
QP: Selling Price Rounding Options = Individual

The profile QP: Selling Price Rounding Options only affects the rounding factor. If the profile is set to *Individual*, then the rounding factor is applied. If it is set to *No*, the rounding factor is not applied. The profile QP: *Round Unit Selling Price* does not affect the Conversion Rounding Factor. The Conversion Rounding Factor is always applied to the list price.

**Price List Setup**
- Base Currency = USD
- List Price for Item A = 60.12345
Multi-Currency Conversion List attached to the Price List
- To Currency Code = CAD
- Conversion Type = FIXED
- Conversion Rate = 2.0
- Conversion Rounding Factor = -3
- Round To = -2

Sales Order Setup for a non-service item A
- Order Currency = CAD
- Converted Price before rounding = $60.12345 \times 2 = 120.24690$
- Price after applying conversion rounding = 120.247
- Price after applying the Round To (final rounded price) = 120.25
- Price displayed on the Sales Order = 120.2500 (after applying -4 currency precision for CAD)

Example 4
QP: Selling Price Rounding Options = N (No)

Price List Setup
- Base Currency = USD
- List Price for Item A = 60.12345

Multi-Currency Conversion List attached to the Price List
- To Currency Code = CAD
- Conversion Type = FIXED
- Conversion Rate = 2.0
- Conversion Rounding Factor = -3
- Round To = -2

Sales Order Setup for a non-service item A
- Order Currency = CAD
- Converted Price before rounding = $60.12345 \times 2 = 120.24690$
■ Price after applying Conversion Rounding Factor = 120.247
■ Price displayed on the Sales Order = 120.2470 (after applying -4 currency precision for CAD)

Attaching the Multi-Currency Conversion List to a Price List or Pricing Agreement

Once you have created a multi-currency conversion list in the Multi-Currency Conversion window you can attach it to a price list or agreement. You can select the Multi-Currency Conversion List from the Currency Conversion Criteria field in the price list or agreement.

Note: When multi-currency is first set up, a default multi-currency list without conversion criteria is automatically generated by the system and attached to price lists and agreements. You can replace the default list by selecting an alternate Multi-Currency Conversion list.
To attach the multi-currency conversion list to a price list:

1. Navigate to the Advanced Pricing—Price Lists window.

Figure 6–2 Advanced Pricing - Price Lists: Multi-Currency enabled

2. Select the multi-currency list from the Multi-Currency Conversion field.
   
   The field displays all currency conversion lists where conversion criteria \textit{base currency} = currency of the price list.

   When multi-currency is enabled, the Round To field in the price list is grayed out and can only be updated in the Multi-Currency Conversion window.

3. Save your work.
To attach the multi-currency conversion list to an agreement:
1. Navigate to the Pricing Agreements window.

Figure 6–3 Pricing Agreements window

2. Enter Agreement Type, Standard or Agreement.
   For Standard Agreements, you must select a Price List. The base currency, rounding factor, and Multi-Currency Conversion attached to that price list will default to the window.
3. For Agreement price lists, in the Pricing tab, select a Multi-Currency Conversion.
   For Agreement price lists, you can select lists where the base currency of the multi-currency conversion list is the same as the base currency of the agreement. When multi-currency is enabled, the Rounding Factor field in the agreement is grayed out and can only be updated in the attached Multi-Currency Conversion.
4. Save your work.
Updating the Multi-Currency Conversion List

If you want to change or update conversion criteria such as increasing the conversion fixed rate from 2.2 to 2.3, you can make your changes in the Multi-Currency Conversion window. You can update information at both the header and line levels.

**Warning:**

- **Header Level changes:** Be cautious when updating header level information such as Markup because you will lose historical information.

- **Line Level changes:** Be cautious when updating line level information in the Conversion Criteria Detail region to avoid loss of historical information. To prevent unexpected conversion behavior and loss of historical data, enter an End Date for the detail line and enter a new line with the desired changes including a new Start Date before updating any setup information.

**To update the multi-currency conversion list:**

1. Navigate to the Multi-Currency Conversion window.

2. Complete the required changes in the Multi-Currency Conversion List or the Conversion Criteria Detail regions (header and line levels) using the suggested best practice.

   If you are changing Conversion Criteria Details, and you want to prevent unexpected conversion behavior and loss of historical data enter an End Date for the detail line, and enter a new line with the desired changes and a new Start Date.

3. Save your changes.

   All saved changes to a multi-currency conversion list are immediately available to all price lists and pricing agreements to which the list is attached.
Updating the Multi-Currency Conversion List
This chapter describes agreements and includes the topics:

- Overview of Creating Agreements on page 7-2.
- Creating Agreements on page 7-5.
- Revising an Existing Agreement on page 7-14.
- Finding Agreements on page 7-17.
- Deleting Agreements on page 7-18.
Overview of Creating Agreements

Oracle Advanced Pricing enables you to establish agreements with your customers that define the prices, payment terms, and freight terms that you negotiate. You can:

■ Define your agreements using customer part numbers and inventory item numbers.
■ Make revisions to the original terms and maintain these changes and their reasons under separate revision numbers.
■ Attach an already existing price list to the agreement or define new prices.
■ Assign optional price breaks by quantity. Price lists are exclusive by agreement.
■ Set effectivity dates for agreement terms.
■ Set payment terms including invoice rule and accounting rule.
■ Set freight terms including the freight carrier.
■ Apply agreement terms to sales orders by reference agreements.

Note: If you are using the multi-currency feature with agreements, see: Attaching the Multi-Currency Conversion List to a Price List or Pricing Agreement on page 6-16.

■ You can only view or update a price list on an agreement in your pricing transaction entity. The profile QP: Pricing Transaction Entity must match the pricing transaction entity of the price list attached to the agreement.
■ You can only view or update a price list on an agreement in your source system. The profile QP: Source System Code must match the source system of the price list attached to the agreement. Otherwise, the price list on the agreement is view-only.

Types of Agreements

There are two types of agreement:

■ Standard Price List: Used, for example, to have one price list for all customers but to default special terms onto a sales order for a specific customer.
■ Agreement Price List: Used to offer a negotiated price for an item to a customer.
The following table compares the two agreement management methods:

<table>
<thead>
<tr>
<th>Standard Price Lists</th>
<th>Agreement Price Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreement lines not allowed.</td>
<td>Agreement lines required.</td>
</tr>
<tr>
<td>Associated with standard price list (type PRL).</td>
<td>Associated with agreement price list (type AGR).</td>
</tr>
<tr>
<td>Maintain and view price list lines through Price List window.</td>
<td>Maintain and view price list lines through Agreement window.</td>
</tr>
<tr>
<td>Use each standard price list with multiple standard agreements and to price orders associated or not associated with an agreement.</td>
<td>Use each agreement price list with multiple pricing agreements. Not usable to price orders not associated with an agreement.</td>
</tr>
<tr>
<td>Cannot revise price list lines using agreement window.</td>
<td>Can revise price list lines using agreement window.</td>
</tr>
<tr>
<td>Agreement number not automatically created as a qualifier for the associated price list.</td>
<td>Agreement number automatically created as a qualifier for the associated price list. You can specify the pricing agreement on an order.</td>
</tr>
</tbody>
</table>

### Customer Merge

When you merge customers in Oracle Receivables, you can merge:

- The information from one customer (the From customer) with the information from another customer (the To customer).
- The information from one or more customer sites of that customer (the From sites) with the site information from the other customer (the To sites).

If the From customer is party to agreements, the Oracle Receivables merge process executes an Oracle Advanced Pricing process to update the following agreements information:

- If you merge customer: The process changes the customer name on the agreement from the From customer to the To customer. Verify this change in the Pricing Agreements window, Agreement tab, Customer, and Cust Number fields.
If you merge sites: The process changes the invoice address from the From customer site to the To customer site. Verify this change in the Pricing Agreements window, Payment tabbed region, Invoice To and Address fields.

---

**Note:** Pricing Security privileges affect Pricing Agreements by inheriting the security rules associated with any Price Lists. You can select a price list to associate with an agreement at setup if your privileges authorize view access to the price list. You cannot change the price list or change its relationship to an agreement if you do not have Maintain access to the price list.

If you have access issues, consult your Pricing Administrator.
Creating Agreements

Use this process to create pricing agreements.

Note: The Agreement field does not display by default on the Oracle Order Management order header. You must use the Folder icon to display it.

Security Privileges and Agreements

Pricing Security privileges affect pricing agreements by inheriting the security rules associated with any Price Lists. You can select a price list to associate with an agreement at setup if your privileges authorize view access to the price list. You cannot change the price list or change its relationship to an agreement if you do not have Maintain access to the price list.

If you have access issues, consult your Pricing Administrator.
To create a price agreement:

1. Navigate to the Pricing Agreements window.

2. Enter an Agreement Name that identifies the agreement.

3. Enter an Agreement Number if it has been assigned to the agreement.

   The Revision Number defaults to 1. However, this number may change as new revisions are created; for example, from 1 to 2.

   The Revision Date defaults to the current system date.

4. Enter a Customer name and Number.

5. Select an Agreement Type such as a Standard Terms And Conditions.

6. Select a Contact name.

7. Enter the Effective Date range for the agreement. If an end date is not entered, the agreement will be active for an indefinite period. However, if you are creating revisions, you will need to end the current agreement.
8. Enter a name for the Sales Person.
9. Enter the customer’s Purchase Order number.
10. Enter a Signature Date for the purchase order.

   The Agreement Source field (view-only) displays the source of an agreement.

11. Click the Pricing tab.

**Figure 7–2 Pricing Agreements window: Pricing tab**

![](image)

12. Select the Price List Type:

   - Select Standard Price List to associate a standard agreement.
   - Select Agreement Price List to associate an existing agreement price list to an agreement.

13. Select a Price List:

   - For Standard Price Lists: Select Standard Price List. The Currency, Rounding Factor, Description, and Comments fields default from the Standard price list selected. These values cannot be changed in the Pricing Agreements window.
   - For Agreement Price Lists: You can create a new price list name or select an existing Pricing Agreement price list.

   Agreement price lists are maintained only in the Pricing Agreements window. Agreement price lists can be adjusted or modified unlike Standard Price Lists.

   Complete the following steps if creating an Agreement Price List:
Creating Agreements

If you choose an existing Agreement Price List, the Currency, Rounding Factor, Description, Freight Carrier, Freight Terms and Comments fields will default from the price list. However, if you change the values for any of these fields, the information will be changed for all Pricing Agreements using this price list.

15. Enter a Rounding Factor.
16. Enter a price list Description.

Complete the following steps for both Standard and Agreement price lists:

17. Enter a default Freight carrier.
18. Enter default Freight Terms.
19. Enter any Comments.
20. Click the Payment tab.
21. Select the Payment Terms.
   - When you enter a sales order in Oracle Order Management and the agreement uses a Standard price list, the payment terms default from that price list. You can override the price list terms on the agreement.
   - When you enter a sales order in Oracle Order Management and the agreement uses an Agreement price list, the payment terms default from those that you enter in this field.

22. Enter the bill-to name in Invoice To.

23. Enter a bill-to Address.

24. Enter the bill-to contact in Invoice Contact.

25. In the Rules region, select a default Accounting Rule.
26. Select the Invoicing rule.

**Note:** Accounting and invoicing rules are set up in Oracle Receivables.

In the Override Flag region, the override check boxes for the Accounting and Invoicing Rules are for information only.

**To create agreement lines:**

For Standard Price Lists: The agreement line details default from the Standard Price List entered in the Price List field in the Pricing tab. These fields cannot be changed or additional lines cannot be entered from the Agreement Lines. Changes and additional price list lines must be made on the Price List from the Price List Setup window.

For Agreement Price Lists: If you attached an existing Agreement Price List, the agreement lines default from that price list. You can make changes to the agreement line details, and add additional agreement lines. Any changes or additions that you make will be reflected on the other agreements that this price list is attached to.

1. In the lowest region of the window, enter Product Value. If there is a customer item associated, the customer item number will be defaulted to the Customer Item field. Customer item is a pricing attribute.

**Caution:** The defaulted values for customer item, address and address category should not be changed in this window. Changes to these should be made where the customer item relationship is maintained. Create the accounting and invoicing rules in Oracle Receivables.

When you have created a customer item relationship with an internal inventory item and you enter the inventory item product value, the customer item, address, and address category will be defaulted.

2. Enter a unit of measure (UOM).

3. Select Primary UOM if this price list line unit of measure is the primary pricing unit of measure for the item. The pricing engine uses the primary pricing unit of measure and the Oracle Inventory unit of measure conversion information to price an order whose unit of measure does not have a price list line. For
example, a price list has two price list lines for item A11111, one with unit of measure EA, the primary UOM, and one for boxes. When the pricing engine receives an order in unit of measure CS, it accesses the unit of measure conversion tables to convert CS to EA.

4. Select Price List Line in Line Type.
5. Select Unit Price for Application Method
6. Enter a base price in Value.
7. Enter the effectivity dates in Start Date and End Date. They should be within the effectivity dates of the agreement.
8. Enter the Comments.
9. Enter a Revision number.

**Note:** To create list of reasons, see: Oracle Advanced Pricing Implementation Guide, Lookups.

10. Enter a Revision Date.
11. Save your work.

**Note:** You cannot enter an item category in Product Value.

**To define pricing attributes:**

1. Choose the Pricing Attributes button from the Pricing Agreements window to display the Pricing Attributes window.

   The Product Context, Product Attribute and Product Value default from the Agreement Line that you are entering.
2. Enter a Pricing Context.
3. Enter a Pricing Attribute.
4. Enter the Value From/To.
5. Save your work.

**Note:** The pricing attributes are joined as AND conditions since they apply to one price list line.

**To define price breaks:**

1. Enter an agreement line with price breaks:
   - Enter Price Break Header in Line Type.
   - Enter Point or Range in Price Break Type.
2. Click Price Breaks to display the Price Breaks window. The Price Breaks button is enabled only when you select the Price Break Header in Line Type on the agreement line.
In the Price Breaks window, the Pricing Context defaults to Volume; Pricing Attribute defaults to Item Quantity; and the Application Method defaults to Unit Price. The Pricing Context cannot be changed.

Complete the remaining steps for each price break that you define:

3. Enter the Value From/To.
4. Enter the list Price.
5. Save your work.

Revising an Existing Agreement

If you need to make minor changes to an existing agreement such as changing the payment terms, you can simply change the agreement terms and save the changes. This simply updates the existing agreement with your new changes.

However, if significant changes are required and you want to keep a record of previous agreements, you can create a new revision. This does not overwrite the existing agreement but creates a new version of the original agreement. This is useful if you want to track and manage multiple versions of the same agreement.

You must determine when changes warrant a new agreement version, and then manually create a new revision and revision number. For tracking purposes, a logical revision numbering system will help you better manage your agreements such as numbering the revisions 2, 3, 4 and so on.

Once the new agreement revision is created, you can update the agreement header information.

**Note:** You must end the current revision before creating a new revision. An agreement can have multiple revisions but the effective dates cannot overlap. Only one revision can be effective for a given range of effective dates.
Revising an Existing Agreement

To revise an existing agreement:

1. Find the original agreement you want to revise.

**Figure 7–6 Pricing Agreements window**

![Image of Pricing Agreements window]

**Note:** The original agreement must have an effective end date entered and saved before a new revision can be created. The end date can be past, current, or future; however, the date ranges for any revisions cannot overlap. Only one revision can be in effect for a given range of effective dates.

2. Click Create Revision to display the Create Revision window.
Revising an Existing Agreement

Figure 7–7  Create Revision window

The Agreement Name defaults from the original agreement. Although you cannot change the agreement name, you can change the revision number. The Revision Date defaults to the current date.

3. Enter the Revision Number to identify the version of the agreement you are creating. This is helpful in tracking and managing different revisions of the agreement.

4. Enter the effective start and end dates for the agreement. Date ranges cannot overlap, and only one revision can be in effect for a given range of effective dates.

5. Select a Revision Reason that describes why the agreement is being revised.

6. Click Create to display the new agreement in the Pricing Agreements window. The new revision number displays in the Revision field.

Note: Revisions to the agreement header do not revise the pricing lines for the agreement. A change to the price list lines affects all agreements that the price lines are attached to.
Finding Agreements

Use the Find Agreements windows to find agreements or agreement revisions by one or more of the following criteria: Agreement Name, Agreement Number/Revision, Invoice To, Price List, Customer, Cust Number, Agreement Type, Contact, Invoice Contact, or Sales Person.

To find agreements:
1. Navigate to the Find Agreements window.

2. Enter your search criteria.
3. When you have completed your entries, choose Find to display the search results.

Note: To create a new agreement, choose the New button.
Deleting Agreements

Pricing agreements can be deleted if they have not been used in any previous order transactions. Once sales order lines have been attached to an agreement, the agreement cannot be deleted. If you attempt to delete an agreement with sales order lines attached, a warning note notifies you that the agreement cannot be deleted.

To delete agreements:
1. Navigate to the Pricing Agreements window.
2. Find the Pricing Agreement to delete.
3. From the Edit menu, select Delete to delete the pricing agreement.
This chapter describes the Attribute Management features and includes the following topics:

- **Overview of Attribute Management** on page 8-2.
- **Creating Context and Attributes to be used for Pricing Setup windows** on page 8-5.
- **Linking Attributes to a Pricing Transaction Entity** on page 8-11.
- **Running the Build Attribute Mapping Rules Program** on page 8-16.
- **Restoring Seeded Context Default Settings** on page 8-17.
Overview of Attribute Management

Oracle Advanced Pricing enables you to define pricing actions and rules by using price lists, modifiers, qualifiers and formulas to define prices, price adjustments, and other pricing features.

When the pricing engine gets a pricing request, attribute management retrieves all values for the qualifier and pricing attributes associated with the transaction. The pricing engine evaluates these values to determine which price lists and modifiers are eligible for the transaction. The data sources for the qualifiers and pricing attributes can be within Oracle Applications or from outside Oracle Applications.

The Attribute Management feature enables you to create new contexts and attributes, update existing contexts/attribute properties, or disable existing attributes. For example, the following could be set up to define a discount for a specific day of the week:

<table>
<thead>
<tr>
<th>Pricing Action</th>
<th>Pricing Rule</th>
<th>Data Source</th>
<th>Attribute Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount Modifier</td>
<td>Qualifier</td>
<td>Day of the Week</td>
<td>Monday</td>
</tr>
</tbody>
</table>

Creating new contexts and attributes extends Oracle Advanced Pricing’s ability to provide user defined data sources to drive pricing actions. The three methods to source data for an attribute are:

- User entered (attribute value is entered by user)
- Custom sourced (custom code is used to derive an attribute)
- Attribute Mapping (Pricing Engine derives information from other Oracle Applications and non-Oracle data sources)

Qualifier and product attributes are used to define customer or product hierarchies:

- A product hierarchy element defines product pricing characteristics such as a product item, item number, category, or brand.
- A customer hierarchy element defines customer pricing characteristics such as customer name or customer number.
To create contexts and attributes using the Attribute Management feature, you must complete one or more of the following setup steps. The steps may vary depending on your requirements and current setup:

Setting Up a Pricing Transaction Entity

A Pricing Transaction Entity (PTE) consists of a group of applications that share the same setup data and attributes. For example, Istore and Order Management can be part of one Pricing Transaction Entity because they are both Order Fulfillment systems and share the same setup data. Conversely, Oracle Transportation resides in a different Pricing Transaction Entity and has its own attribute and setup information.

You can set up a Pricing Transaction Entity (PTE) that groups the source systems and request types. Attributes can be linked to one or more Pricing Transaction Entities. The Pricing Transaction Entity does the following functions:

- Narrows the data the search engine examines. The search engine examines only the setup data generated by the source systems defined for that Pricing Transaction Entity.
- All applications belonging to the same pricing transaction entity have the same set of attributes available to them.

Note: The following sections provide an overview of the Attribute Management feature. However, it is recommended that you refer to the Oracle Advanced Pricing Implementation Manual for detailed information about setting up Pricing Transaction Entities and other Attribute Management features.

Note: The profile QP: Pricing Transaction Entity indicates the current Pricing Transaction Entity in use. It can be updated at the user level. Only those contexts and attributes assigned to the current Pricing Transaction Entity are available in the list fields on the setup windows. Querying setup data will cause the description to be shown only for those contexts and attributes that are assigned to the current Pricing Transaction Entity. Therefore, it is important to set this profile option to the right value before creating or querying any setup data in the Pricing Application.
Overview of Attribute Management

For detailed information on this topic, see: *Oracle Advanced Pricing Implementation Manual*.

**Creating Context and Attributes to be used for Pricing Setup windows**

Pricing rules such as qualifiers and pricing attributes are used to drive your pricing actions. Users can create new contexts and attributes to help set up their pricing rules. These contexts and attributes can be defined in the Context Setup window. For more information, see: *Creating Context and Attributes to be used for Pricing Setup windows* on page 8-5.

**Linking Attributes to a Pricing Transaction Entity**

Once the context and attributes are created, a context-attribute grouping can be linked to a specific Pricing Transaction Entity (PTE). For a given PTE, this combination can be used within a pricing setup. Each PTE has its own unique combination of attributes. For more information, see: *Setting Up a Pricing Transaction Entity* on page 8-3.

**Running the Build Attribute Mapping Rules program**

Whenever you create or use a new attribute or change any attribute mapping rules rules that use attribute mapping method of Attribute Mapping, you should run the Build Attribute Mapping Rules program. For more information, see: *Running the Build Attribute Mapping Rules Program* on page 8-16. For more information on defining attribute mapping, see: *Oracle Advanced Pricing Implementation Manual*, Attribute mapping.

**Upgrade Considerations from Release 11i**

In the R11i initial release, the qualifiers and pricing attributes were created through the Flexfields and Value Set windows using the Oracle Flexfield Setup features. New windows in Oracle Advanced Pricing have been added for attribute management, but the attribute mapping process remains the same. Attribute Mapping provides new windows to enable these tasks.

**Note:** You must create all new attributes using the new Attribute Manager setup windows. Oracle Pricing Manager Responsibility > Setup > Attribute Management > Context and Attributes.
Creating Context and Attributes to be used for Pricing Setup windows

The following sections describe how to set up contexts and attributes. Contexts are a group of related pricing elements that can have attributes linked to them. Once the context is defined, you can create its attributes. Attributes determine the specific values in which you define pricing rules. For example, customer hierarchy can include pricing characteristics such as customer name = Customer ABC.

Creating Contexts

Contexts are a group of related pricing elements that can have attributes linked to them.

In Attribute Management, you can set up three types of contexts:

- **Qualifier Contexts** and its attributes can be used to create qualifiers that determine eligibility for a modifier (who is eligible to receive the modifier). Qualifiers can be attached to price lists (only in Advanced Pricing) and modifiers.

- **Product Contexts** and its attributes define the product hierarchy and are related to product information. For example, the product context Item may consist of attributes such as Item Number and Item Category.

- **Pricing Contexts** are associated with pricing attributes. They further define eligibility for a price list line or modifier. They can be used for a price list line, as a formula component, or in Modifiers.

For example, a product context such as Item can be further categorized by attributes such as Item Name and Item Number while a qualifier context such as Customer can consist of attributes such as Customer Name and Customer ID.

<table>
<thead>
<tr>
<th>Context Type</th>
<th>Context Name</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifier Context</td>
<td>Customer</td>
<td>Customer Name</td>
</tr>
<tr>
<td>Product Context</td>
<td>Item</td>
<td>Joe's Items</td>
</tr>
</tbody>
</table>

**Note:** You cannot add new contexts of Product Context type. However, you can add attributes to the existing Product Context Item.
Creating Context and Attributes to be used for Pricing Setup windows

Table 8–2  Examples of Context Types and Names

<table>
<thead>
<tr>
<th>Context Type</th>
<th>Context Name</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing Context</td>
<td>Color</td>
<td>Blue</td>
</tr>
</tbody>
</table>

To create new contexts:

1. Navigate to the Context Setup window.

Figure 8–1  Context Setup window

2. Select the Context Type you want to create such as a Qualifier, Pricing, or Product context.

3. Enter a Code which is a short name for the context. Once created, it cannot be updated.

4. Enter a Name and Description for the context. This creates the name that can be selected from the context field in the pricing setup windows.

The Seeded box is selected automatically if the context is a seeded value. It remains selected even if you overwrite a seeded context.
5. Select the Enabled box to make this context available for pricing setup windows. If not selected, the context is disabled and does not display in the context field on the pricing setup windows and all the attributes defined under this context will also be unavailable for setup.

6. When you have completed your entries, enter the attributes information in the Attributes region. For more information on adding attributes, see: Creating Attributes on page 8-8.

Deleting Contexts

You cannot delete a context if it has one or more attributes.
Creating Attributes

Once the context is defined, you can create its attributes. Attributes determine the specific values in which you define pricing rules. For example, customer hierarchy can include pricing characteristics such as customer name = Customer ABC.

The pricing engine evaluates attributes during engine run time to determine which price lists and modifiers are eligible for the transaction. Attribute values can be derived at the order level, line level, or for both order and line levels.

**Note:** You must create all new attributes using the Attribute Management setup windows. Oracle Pricing Manager Responsibility > Setup > Attribute Management > Context and Attributes.

With the Attribute Management feature, you can define attributes for a given context, determine how they are sourced, decide which attributes can be selected from a list in the Pricing Setup windows, and determine which ones are used in promotional limits.
To create new attributes:

1. Navigate to the Context Setup window and select the context to which you want to link attributes.

2. In the Attributes region, enter the Code which is a short name for the attribute. This is an internal name that is unique for a given attribute. Once created, it cannot be updated.

3. Enter a display Name for the attribute.

4. Enter a numeric Precedence value which decides the processing sequence of qualifier/pricing attributes. The precedence is restricted to a maximum of 3 digits (any number between 1 and 999).

   For example, if two incompatible discounts qualify for the same item, then the discount with the higher precedence is given. Precedence numbers in the series of 5's and 10's are reserved for seeded qualifiers/pricing attributes and should not be used.
5. Enter the Application Name that created this attribute. If an Application Name is not entered, the system defaults Oracle Pricing as the creator of the attribute.

6. Select a Column Mapped value to which an attribute will be mapped. The list displays the names of the unused columns only.

Columns QUALIFIER_ATTRIBUTE1 through QUALIFIER_ATTRIBUTE30 are reserved for seeded qualifier attributes. Columns 1-30 are available only for user Datamerger. The Pricing Manager user’s list has unused columns between 31-100.

Columns 1 to 100 are available and it is recommended to use pricing attributes 1 to 30 as user-entered pricing attributes.

7. Select a value from the Value Set field to define a domain of valid values for an attribute.

Alternately, to create a new Value Set or view an existing one, click Value Sets. Once you have created a new value set, you can select the newly created value from the Value Set field.

**Note:** If you want to replace a Value Set of an attribute, the new Value Set must be the same datatype as the old one.

8. Select the Enabled box so that users can select the attribute from the list of values when they are defining the pricing setup.

**Deleting Attributes**

Attributes already used in pricing setup windows cannot be deleted.
Linking Attributes to a Pricing Transaction Entity

Once you have set the context and attributes, you can link an attribute grouping to a specific Pricing Transaction Entity (PTE).

For a given PTE, this combination becomes available in the pricing setup windows. Each PTE has its own unique combination of attributes.

To link attributes to a Pricing Transaction Entity:

2. Select a Pricing Transaction Entity. Alternately, you can search for a Pricing Transaction Entity by clicking the Find icon.

3. Select the Context Type such as Pricing Context, Product Context, or Qualifier Context.

4. Select the Show Linked Contexts box to display only those contexts assigned to the selected Pricing Transaction Entity.
The context(s) matching the criteria for the selected PTE and Context Type display in the Contexts region.

5. Select a context whose attributes you want to link to a PTE. If the Assigned to PTE box is not checked, attributes have not been created/selected for that context in the given PTE.

6. Click Link Attributes to display the Link Attributes window.

Figure 8–4 Link Attributes window

7. Select a Code (short name) for the attribute.

8. Select an attribute level: ORDER, LINE, or BOTH (Order and Line levels).

9. Select an Attribute Mapping Method to define how you want the attribute mapped:
   - ATTRIBUTE MAPPING: Attribute mapping is required. After you complete the remaining entries, click Attribute Mapping to define the Attribute Mapping rules for the selected attribute. For more information on completing these steps, see Oracle Advanced Pricing Implementation Manual, Attribute Mapping.
   - CUSTOM SOURCED: User provides a code.
   - USER ENTERED: Attribute value is entered by user, therefore attribute mapping is not required.
10. Select LOV Enabled if you want the attribute to display in the list of values of the pricing setup windows.

11. Select Use in Limits to enable this attribute to be selected from the Attribute list of values in the Limits setup windows.

12. Select the Attribute Mapping Enabled box if you selected ATTRIBUTE MAPPING in the Attribute Mapping Method field.

**Note for Attribute Mapping:** These steps are required if the Attribute Mapping Method is Attribute Mapping:

- Check the Attribute Mapping Enabled box. The Build Attribute Mapping Rules Program considers attributes that have this box checked.
- Click on Attribute Mapping to define the mapping rule for the attribute.
- Define the Attribute mapping rule for each Request type for that Pricing Transaction Entity.
- The Attribute Mapping Status box is selected automatically by the Build Attribute Mapping Rules program and cannot be updated by the user. For more information, see: *Oracle Advanced Pricing Implementation Manual*, Defining Mapping Rules.

The Column Mapped value is a default value.

The Used in Setup box indicates if the attribute is used in an active pricing setup such as a price list, modifier, formula, qualifier, or limit. The setting for the Used In Setup check box (selected or cleared) depends on the profile option QP: Build Attributes Mapping Options and the Active check box values:

- If the profile option QP: Build Attributes Mapping Options is set to Yes (map attributes used in active pricing setup), then the Used In Setup check box is set to Yes, only when an attribute is used in the active pricing setup.
- If the profile option QP: Build Attributes Mapping Options is set to No (map all attributes), then the Used In Setup check box is set to Yes when an attribute is used in both the active and inactive pricing setup.
- If the profile option QP: Build Attribute Mapping Options is set to Yes, then the Used In Setup check box is set to No when an attribute is used in the inactive pricing setup.
13. For USER ENTERED or CUSTOM SOURCED attributes, once you have completed your entries, the attribute is now linked to a Pricing Transaction Entity.

For ATTRIBUTE MAPPING attributes, click Attribute Mapping to define the Attribute Mapping rules for the selected attribute.

**Note:** A warning box displays if you try to use new attributes with the Attribute Mapping Method as ATTRIBUTE MAPPING and the Mapping Status box as No.

14. The Pricing Transaction Entity-Attribute Linking window displays the newly created context; the Assigned to PTE box indicates that the attributes have been assigned to this PTE. The attributes you created can be viewed in the pricing setup windows.

15. Optionally, click Contexts to add a new context, update, enable, or view an existing context.
Summary of Attribute Levels for Pricing Setup windows

The following describes the attributes that display in each of the pricing component setup lists based on the attribute level assigned to the attribute.

Advanced Pricing - Price Lists window

1. In the Qualifiers tab, the values in the Qualifier Attribute list displays Qualifier Attributes with attribute levels at the line or both header and line levels. This occurs because an Order Line may qualify for a price list based on a qualifier attribute for the Order Line or both the Order Header and Order Line.

2. The values for the pricing attributes display at the line attribute level.

Advanced Pricing - Modifier List Setup window

1. The values for Qualifier Attributes in the Qualifier- Line Level Qualifiers window displays Qualifier Attributes with Attribute Levels for Order or Both if the Modifier level is Order.

2. The values for the Qualifier Attributes in the Line Qualifiers window displays Qualifier Attributes with attribute levels at Line or Both if the Modifier Level Code is Line or Line Group.

3. The values in the Qualifier Attributes in the List Qualifiers window displays Qualifier Attributes with a attribute levels at Line, Order or Both.

4. The values for Pricing Attributes display Pricing Attributes with attribute level at the Line level.

Qualifier Group Setup window

The values for the Qualifier Attributes on the Qualifier Group Setup window displays all levels of Qualifier Attributes. However, a qualifier group cannot have one qualifier attribute with the level Order and another qualifier attribute with the level Line with the same Qualifier Grouping No. All the qualifiers within a Qualifier Grouping No must have the attributes with the level either as Order or Both or as Line or Both.

Formula Lines and Factors List

Since a formula can be applied either at order level or at line level, it is not possible at the definition time to restrict the attributes appearing in the lists based on the attribute level. There will be no level-based restrictions in the list of values.
Running the Build Attribute Mapping Rules Program

The Build Attribute Mapping Rules program generates the attribute mapping rules for all attributes with the Attribute Mapping Enabled box selected. After the program is run, the Attribute Mapping Status box is selected for attributes that were successfully mapped.

If you create or update a new attribute where User Entered or Custom Source is the Attribute Mapping Method, the Build Attribute Mapping Rules program does not need to be run.

If you create or update an attribute with Attribute Mapping as the Attribute Mapping Method, then you should run the Build Attribute Mapping Rules program. Then you can use this attribute in a pricing setup because the attributes are mapped dynamically. However, for better performance, you should still run the Build Attribute Mapping Rules program.

Any new attributes used after the last run of this program are mapped dynamically to prevent any attributes from not getting mapped. You can run the Build Attributes Mapping Rules program during off-peak hours or whenever any downtime is planned so that the new attributes which are defined or used after the last run are included in the static package for better performance.

To run the Build Attribute Mapping Rules program:

1. Navigate to the Pricing Transaction Entity - Attribute Linking window.

2. Select Build Attribute Mapping Rules from the Tools menu to run the Build Attribute Mapping Rules program. This generates a mapping rule code only for those attributes that are used in the pricing setup and have the Attribute Mapping Enabled box selected.

If the program runs successfully, the Attribute Mapping Status box is selected for attributes that were successfully mapped.

Note: Since the Build Attribute Mapping Rules program changes the status of database objects, do not run this program during peak hours.
Restoring Seeded Context Default Settings

When a Seeded context is selected (a seeded context is a system value not created by the user), the Name and Description fields display the seeded values in the Context Setup window. The Seeded box indicates that the context is a seeded value.

However if these seeded values are updated, the new value displays. The seeded values are preserved as Seeded Name and Seeded Description fields respectively but the seeded fields remain hidden.

To restore the original seeded values of a context, click Restore Defaults. The Name and Description fields display the seeded values rather than the user-entered values.

---

**Note:** The Restore Defaults replaces values in all the fields with seeded values. The Restore Defaults button is grayed out for non-seeded attributes and for seeded attributes whose seeded values have not been changed by the user so far.
This chapter describes using the Pricing Engine Request Viewer window to capture the pricing call from any calling application such as order management and display the inputs and outputs of the pricing call. The following topics are described:

- Setting up the user profile options on page 9-3.
Overview of the Pricing Engine Request Viewer

The Pricing Engine Request Viewer window captures the pricing call from any calling application such as order management and displays the inputs and outputs of the pricing call.

The information displayed by the Pricing Engine Request Viewer enables you to diagnose which lines were selected or rejected by the pricing engine to determine why certain prices and adjustments were or were not applied.

The latest pricing request is displayed. However, historical data is maintained because the Pricing Engine Request Viewer window updates the display information each time the pricing engine captures a new transaction. Previous pricing requests are saved in the pricing tables.

The Pricing Engine Request Viewer window is available from the main Advanced Pricing menu (Pricing Manager responsibility) or in Oracle Order Management using the following navigation path: Sales Orders > Tools > Pricing Engine Request Viewer.

Features available in the Pricing Engine Request Viewer window

Using the Pricing Engine Request Viewer window, you can do the following:

- View the pricing, qualifiers, and product attributes passed to the pricing engine along with the other data generated by the engine.
- View which modifier lines the pricing engine applied or rejected for benefit adjustments along with the details of the modifier line. View price request line of the calling application.
- View the relationship between order lines for promotional modifiers, price breaks, and service lines:
- View the formula step values generated by the pricing engine used in formula calculation.
- View the controls passed by the calling application to the pricing engine such as event, Rounding, Search and Calculate Flag, and GSA.
- View and query fields in the Pricing Debug Log
  You can view the debug log in the Pricing Engine Request Viewer window, and query the record within the debug log to display the lines directly. The results will be the 10 previous lines and the remaining lines of the debug file.
- Delete the request(s). Navigation is Edit > Delete.
Process for the Pricing Engine Request Viewer

The following process outlines the series of activities when a pricing call is made:

1. The calling application makes a call to build qualifiers and builds the contexts through sourcing.

2. The calling application then calls the pricing engine with the attributes generated by attribute mapping.

3. The pricing engine processes the request then searches for and evaluates eligible price list and modifier lines.

4. If the profile option QP Debug is set to Request Viewer On, then the pricing engine inserts records into the permanent pricing debug tables and generates a unique request ID, storing the information from the calling application.

5. The pricing request information can then be viewed by querying the request in the Pricing Engine Request Viewer from the OM Sales Order Pad or through the Pricing Manager responsibility menu.

Setting up the user profile options

QP: Debug Set the value of this profile option to Request Viewer On when you want the Request Viewer to capture pricing request details into the pricing debug tables and debug log information into the debug log table. The debug log text file is also created. The default value is Request Viewer Off.

The setting is active for the transactions for the user who set this profile option—other users’ transactions are not affected.

QP: Set Request Name Set the value of the profile option: QP_SET_REQUEST_NAME to Yes if you want to append the Order ID to the Request Name. The default value is Null.

For more information on setting up profile options, see: Oracle Advanced Pricing Implementation Manual, Profile Options.
Note on performance: Setting the profile QP: Debug will slow the performance of the Pricing Engine Request Viewer. The concurrent request Purge Pricing Engine Requests purges the pricing engine requests, and it should be run on a regular basis to purge the historical data from the pricing debug tables. Periodically purging the historical data will improve the performance of the Pricing Engine Request Viewer window. For more information on the concurrent request, see: Purge Pricing Engine Requests on page 10-17.
Viewing Information in the Pricing Engine Request Viewer

The Pricing Engine Request Viewer window displays detailed information about the price list lines and modifier lines that the pricing engine applied or rejected.

**Figure 9–1 Pricing Engine Request window**

The transaction details are displayed in one or more of the following regions in the Pricing Engine Request Viewer window:

**Pricing Engine Requests region**
This region displays information about the pricing requests with its associated controls sent by the calling application to help you locate the problem.

For Request Type ONT only, the order number associated with the request is displayed.
Overview of the Pricing Engine Request Viewer

Note: Depending on the version of Oracle Advanced Pricing installed, the order and line numbers for orders created in prior releases may not display in the Pricing Engine Request Viewer window. However, order and line numbers created in subsequent releases can be viewed.

Pricing Engine Request Lines region
This region shows information about the lines being priced including line number, unit price and adjusted unit price. You can view information related to service and serviceable lines in this region.

Note: For lines of type LINE, the Line No. field displays the appropriate line number from the Order Entry page. For lines of type ORDER, the order number associated with that request displays. For requests of type PRICE, the line number for the request lines of type LINE does not display.

The Request Id + Line Index column maintains the master-detail relationship between the lines and line details. This block is used to change operand value, select/de-select modifiers, change manual modifiers and change buckets.

Pricing Engine Request Line Details region
This region displays information regarding processed price list lines and modifiers lines selected and/discard (eliminated/rejected) by the engine. The Priced box indicates which lines were finally selected for pricing by the pricing engine. The Applied check box indicates which lines were considered in calculating the selling price.

This region also displays the information for item upgrades, coupon issue, term substitution, freight and special charges, and relationships between price breaks.

Attributes window
Select the Attributes button to display all attributes for a selected line or line detail. The region displays information about the pricing attributes that the attribute mapping function passed to the pricing engine. The pricing engine uses these attributes to qualify a line or an order for price and adjustments:

- Click Attributes from the Request Lines region to display the attributes passed to the pricing engine.
Click Attributes from the Request Line Details region to display the attributes related to the selected price list lines/modifier line.

**Pricing Debug Related Lines window**
Choose Related Lines from the Pricing Engine Request Viewer window to display the Pricing Debug Related Lines window. The cursor must be in the Engine Request Lines Details region. You can view the relationship between the Buy and Get items for Other Item Discounts and Promotional Goods.

**Formula Step Values window**
Choose Step Values from the Pricing Engine Request Viewer window to display the Formula Step Values window. Include Formula Names. The cursor needs to be in the Engine Request Lines Detail region.

**Pricing Debug window**
You can view the debug log in the Pricing Engine Request Viewer window, and query the record within the debug log to display the lines directly. The results display the ten previous lines and the remaining lines of the debug file.
Overview of the Pricing Engine Request Viewer
This chapter describes Oracle Advanced Pricing reports and concurrent programs. A general description about the programs and submission parameters is provided for each of the following reports and concurrent programs:

### Reports

### Concurrent Programs
- Build Attribute Mapping Rules Program on page 10-5.
- Build Formula Package Program on page 10-12.
- Purge Pricing Engine Requests on page 10-17.
- QP: Maintains the Denormalized Data in QP Qualifiers on page 10-18.
Overview of Reports

Oracle Advanced Pricing provides reports that enable you to:

- Determine what pricing information has been established; for example, active price lists, formulas and qualifiers.
- Communicate pricing information internally and externally; for example publishing price lists to internal and external users.
- Take action based on order or pricing activity; for example, issuing a credit memo based on reported accruals.

Oracle Advanced Pricing provides the following reports to help you review and manage your pricing setup:

- Attribute Mapping Rules Error Report
- Cross Order Volume Report
- Modifier Details Report
- Price Lists Report
- Pricing Formulas Report
- Qualifier Grouping Report

Oracle Advanced Pricing offers the following concurrent programs:

- Build Attribute Mapping Rules: This program needs to be run before you use a qualifier or pricing attribute for the first time.
- Cross Order Volume Load: This program populates the cross order volume tables.
- Purge Pricing Engine Requests parameters: This program purges all pricing engine requests or selected requests.
- QP: Maintains the denormalized data in QP Qualifiers: This program calculates and populates modifier statistics that the pricing engine uses to find modifiers by the most direct method.
- Update Price Lists with Multi-Currency Conversion Criteria: This program enables you to maintain and use price lists in different currencies. Running this program creates a new multi-currency conversion list for each combination of price list currency and rounding factor.
Note: When Pricing Security is ON, security privileges determine which pricing entities can be viewed from the list of values. View or Maintain privileges determine the actions you can do in various windows.
Attribute Mapping Rules Error Report

This program produces a list of all attribute mapping rules that are invalid. The program will give warning when the program completes with Attribute Mapping errors and provides other status messages:

- Success: Program completes without Attribute Mapping errors.
- Warning: Program completes with one or more Attribute Mapping errors.
- Error: Program cannot complete due to some exception/runtime error. The report displays an entry in the file log for every attribute mapping rule that is invalid. The entry includes details such as the context, attribute, pricing type, request type, attribute mapping rule, and the error message produced by the invalid mapping.

You can run the report for a single Request Type such as ONT (Order Management Order) or all request types.

The number of errors displays on the log after the report is run.

Report Submission
In the Submit Request window, Name field, select Attribute Mapping Rules Error Report.

Report Parameters

Figure 10–1  Attribute Mapping Rules Error Report parameters

Request Type: Select a single Request Type or leave blank to run report for all request types.
Cross Order Volume Report

Run the Cross Order Volume Report to view the information in the cross order volume tables. The report displays the total order amount, total item amounts and total item quantities for each customer and period.

The cross order volume loader only accumulates orders for items in the Cross Order Item Amount/Quantity Summary that have modifiers using the cross order volume attributes. Similarly the engine only gives total Cross Order summaries if a cross order qualifier has been used in a modifier.

Therefore, it is necessary to run the cross order volume concurrent request after you set up any modifiers using either (a) a cross order amount qualifier that has not been used previously or (b) a cross order item amount/quantity pricing attribute for an item that has not been used previously. This ensures that all item totals are accumulated and loaded into the cross order tables.

Report Submission
In the Submit Request window, Name field, select Cross Order Volume Report.

Report Parameters
None
Modifier Details Report

This report displays modifier information.

Report Submission
In the Submit Request window, Name field, select Modifier Details.

Report Parameters

Figure 10–2  Modifier Details Report parameters

- Modifier Number From/To: Enter the range of modifier numbers for which you want the report generated.
- Modifier Name From/To: Enter the range of modifier names.
- Modifier Version From/To: Enter the range of modifier versions.
- Start Date Active/End Date Active: Enter the range of dates for the active modifiers.
- Active Modifier Only: Select Yes to display only active modifier lists and No to display all modifier lists.
- Active Modifier Lines Only: Select Yes to display only active modifier lines or No to display all modifier lines.
- Item Name: Select item name criteria to display modifiers for the item names you specify.
- Item Category: Select item category criteria to display modifiers for the item categories listed.
- Customer Name: Select customer name criteria to display modifiers associated with the specified customer names.
- Customer Class: Select customer class criteria to display modifiers assigned to the specified customer classes.
- Price List: Select the price list criteria to display modifiers associated with the specified price list.
Price Lists Report

This report displays the following price list information:

- Report by price list name.
- Options to print report for active and inactive price lists based on effectivity date. If multi-currency is enabled, prints other currency setup if the price list is multi-currency enabled.
- Display all other header information. If price list is multi-currency enabled, report includes header information from the associated Multi-Currency Conversion list.
- Qualifiers attached to price list.
- Secondary price lists attached to price list.
- Detail of list lines attached to price list.
- Detail of item (for example, inventory item, service item).
- Pricing attributes for item.
- Price breaks for item.
- Price Formulas attached to price list line.

Report Submission
In the Submit Request window, Name field, select Price Lists.

Report Parameters

Figure 10–3  Price List Report parameters
- Price List From/Price List To: Enter a price list or a range of price lists.
- Start Date Active/End Date Active: Enter a date or a range of dates.
- Active Flag: Enter Yes to display active price lists only or No to display all price lists. The default is Yes.
- To Currency Code: Select one Currency To multi-currency conversion list setup information or None.

If the multi-currency feature is enabled for a price lists, the names of the attached Currency Conversion Criteria, Base Markup Operator, Base Markup Value, and Base Markup Formula are returned.
Pricing Formulas Report

This report displays pricing formulas and their details, including factor lists.

Report Submission
In the Submit Request window, Name field, select Pricing Formulas.

Report Parameters

Figure 10–4  Pricing Formulas Report parameters

- Formula From/Formula To: Enter an individual formula or range of formulas.
- Price List From/Price List To: Enter an individual price list or a range of price lists.
- Start Date Active/End Date Active: Enter an individual date or a range of dates.
Qualifier Grouping Report

This report shows details for qualifier groups including grouping conditions and effective dates within the group.

Report Submission
In the Submit Request window, Name field, select Qualifier Grouping.

Report Parameters

Figure 10–5  Qualifier Grouping Report parameters

- Qualifier Context: Enter a qualifier context.
- Qualifier Attribute Value From/Qualifier Attribute Value To: Enter an individual qualifier attribute value or a range of qualifier attribute values.
- Start Date Active/End Date Active: Enter a date or a range of dates.
Build Attribute Mapping Rules Program

This program generates entries into the BUILDCONTEXTS application program interface (API). You pre-generate entries into this API so that the pricing engine evaluates only the qualifier and pricing attributes used in the price lists, modifiers, and formulas that are relevant to each call rather than all of the attribute mapping rules.

**Note:** The Build Attribute Mapping Rules program will source the attributes that are used only in the active pricing setup if the profile value QP: Check For Active Flag is set to Yes. If the profile value QP: Check For Active Flag is set to No, this program sources the attributes that are used in both the active and inactive setup. The default value of the profile QP: Check For Active Flag is No and can be updated only at the site level.

**Submission**
Run this program after you:

- Make a change to the mapping rule for a specific qualifier attribute. For example, run this process after you map the Geography context to a qualifier attribute.

- First use a qualifier in either a modifier or a price list. For example, run this process after the first time that you use Customer Class as a qualifier for a price list or modifier.

In the Submit Request window, Name field, select Build Attribute Mapping Rules.

Run the process during a time when most users are not logged onto the system. You may encounter a record locking problem if this process runs at the same time that the pricing engine is processing calls.

**Parameters**
None

**Recovery**
If the process fails:

- The QP_BUILD_SOURCING_PVT package becomes invalid.

- All subsequent pricing calls fail.
To Recover:

1. Check the concurrent program log to view any errors. If needed, log into SQL/PLUS and check the errors associated with compiling the QP_BUILD_SOURCING_PVT body. Problems may include:
   - You reference an API in an attribute mapping rule and the API is invalid or does not exist.
   - You have a typographical error in an attribute mapping rule that refers to an API or global structure.

2. Fix the attribute mapping rule in the Attribute Mapping window.

3. Rerun this concurrent process.
Build Formula Package Program

Every time when a new formula expression is set up, the concurrent program Build Formula Package should be run to generate the formula package. Every time a new formula expression is created or updated, a Warning dialog box displays a message to run the concurrent program Build Formula Package.

This concurrent program builds the Formula Package containing statements which uses bind variables for evaluating the formula value. This generated package is called from the main engine formula package at run time to calculate the formula value.

**Note:** If the Formula expression already exists in the current generated formula package, the Warning box does not display.

Report Submission

In the Submit Request window, Name field, select Build Formula Package.

Report Parameters

None
Cross Order Volume Load

Run the program Cross Order Volume Load to populate the cross order volume tables. The qualifier and pricing attribute mapping functions determine the cross order volumes for customers and customer-item combinations.

The Cross Order Volume Load considers orders and order lines in Booked status, but does not consider returned or cancelled order lines.

The cross order volume profile options determine the order lines included in the cross order volumes.

For example:
- Profile option QP: Cross Order Volume Period 1: 30
- Profile option QP: Cross Order Volume Period 2: 60
- Profile option QP: Cross Order Volume Period 3: 90
- Concurrent process Cross Order Volume Load, Effective Date: 31-December
- Cross order period 1: Order lines with request date between 1-December and 31-December
- Cross order period 2: Order lines with request date between 1-November and 31-December-2000
- Cross order period 3: Order lines with request date between 2-October and 31-December-2000

Report Submission

In the Submit Request window, Name field, select Cross Order Volume Load.

Report Parameters

Figure 10–6  Cross Order Volume Report parameters
Cross Order Volume Load

- Operating Unit: Enter either a single operating unit or leave blank for all operating units.
- Effective Date: Provide the load effective date; otherwise the program uses the current date.
Purge Pricing Engine Requests

This program purges all pricing engine requests or selected requests. The program should be run on a regular basis to purge the historical data from the pricing debug tables. This improves the performance of the Pricing Engine Request Viewer window.

Parameters

Figure 10–7 Purge Pricing Engine Requests parameters

This program has two input parameters:

- Keep Last (N) Days of Requests: Enter a number of days. The pricing engine will purge requests older than the number of days entered. For example, enter 30 to keep requests created in the last 30 days. Requests older than 30 days are purged.

- Request Name: Enter a Request Name to delete the pricing engine requests that fully or partially match the name you enter.

Recovery

None
QP: Maintains the Denormalized Data in QP Qualifiers

This program populates the denormalized column data in the pricing tables and fixes data corruption specific to the denormalized columns that occur from a patch application or other set-up issues. This program can be run on a periodic basis or if the pricing engine performance decreases.

This program calculates and populates modifier statistics that the pricing engine search optimizer uses to find modifiers by the most direct method. For each modifier at the list and line level, the process calculates information related to its:

- Qualifiers: Indicates if the list or line has qualifiers
- Directness: Indicates how specific (selective) or non-specific (non-selective) its qualifiers are. More specific qualifiers are more direct.
- Fastest search path: The qualifiers in each modifier list and line that are the most direct become primary qualifiers and the remainder become secondary qualifiers. The pricing engine search optimizer searches the primary qualifiers first.

This program automatically runs after you add or change each modifier and recalculates some statistics for that modifier. In addition, you should run it periodically to recalculate all of the statistics for all the modifiers.

Submission

1. In the Submit Request window, Name field, select QP: Maintains the Denormalized Data in QP Qualifiers.
2. Run the program during a time when most users are not logged onto the system. You may encounter a record locking problem if this program runs at the same time that the pricing engine is processing calls.
Parameters

Figure 10–8  QP: Maintains the Denormalized Data in QP Qualifiers parameters

- List Header ID (Low/High): Enter the range of values for the modifier lists. The two parameters can be the same value but neither can be null.
- Update Type: Select the update type such as All, Denormalized Columns, Factor Pricing Attributes, List Header Phases, Pricing Phases, or Qualification Indicator.

Recovery

None
Update Price Lists with Multi-Currency Conversion Criteria

This concurrent program enables you to maintain and use price lists in different currencies. There are a few prerequisite steps before running this program:

1. Apply the multi-currency patch (only if you want to use the multi-currency feature).
2. Set the profile QP: Multi-Currency-Installed to Y (Yes). The valid list of values for the profile are Y and N. The default value of the profile is N.
3. Run the concurrent program Update Price Lists with Multi-Currency Conversion Criteria only once.

Submission
In the Submit Request window, Name field, select Update Price Lists with Multi-Currency Conversion Criteria.

Parameters
Do you want to enable Multi-Currency price lists?: Select Yes to enable multi-currency price lists.

Note: Once the concurrent program has been run successfully, all existing price list or agreement windows will be converted to multi-currency price lists. Users should not return to NON multi-currency price lists. Changing the profile back to No may cause undesired results if conversion criteria have been used. Oracle does not support changing the setting back to No.

The program must be run initially only once to activate the multi-currency feature; otherwise, data corruption may result.

When the concurrent program Update Price Lists with Multi-Currency Conversion Criteria runs, it does the following:

- Adds a new Multi-Currency Conversion field to the Advanced Pricing - Price Lists and Pricing Agreements windows. This field displays the name of the multi-currency list currently attached to the price list—you can select other multi-currency lists from this field; however, only one can be selected at a time.
- Generates a default multi-currency conversion list based on the Base Currency, Currency-To, and Rounding Factor values from existing price lists. This default
multi-currency conversion list does not have other currencies or conversion criteria, just the base currency from the base price list. You must add currencies to the newly created multi-currency lists or create new multi-currency conversion lists if you want to include different currencies. The multi-currency conversion list can then be attached to the respective price list.

The following example displays the setup for five price lists before conversion and the multi-currency list created after the conversion:

<table>
<thead>
<tr>
<th>Table 10–1</th>
<th>Price Lists before concurrent program is run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency</td>
<td>Rounding</td>
</tr>
<tr>
<td>USD</td>
<td>-2</td>
</tr>
<tr>
<td>USD</td>
<td>-2</td>
</tr>
<tr>
<td>USD</td>
<td>-3</td>
</tr>
<tr>
<td>FRF</td>
<td>-1</td>
</tr>
<tr>
<td>CAD</td>
<td>NULL</td>
</tr>
</tbody>
</table>

The concurrent program creates four currency conversion criteria based on the price list currency and rounding factor of the price lists.

<table>
<thead>
<tr>
<th>Table 10–2</th>
<th>Multi-Currency Conversion Lists created after concurrent program is run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency</td>
<td>Currency-To</td>
</tr>
<tr>
<td>USD</td>
<td>USD</td>
</tr>
<tr>
<td>USD</td>
<td>USD</td>
</tr>
<tr>
<td>FRF</td>
<td>FRF</td>
</tr>
<tr>
<td>CAD</td>
<td>CAD</td>
</tr>
</tbody>
</table>

Attach the multi-currency conversion list to the respective price list. The multi-currency conversion list can then be attached to the respective price list. You must add new currencies to the existing multi-currency lists or create new multi-currency lists with the currencies required for conversion.
Update Price Lists with Multi-Currency Conversion Criteria

Note: Attaching a multi-currency list to the respective price list is a mandatory step—without it the pricing engine cannot use the current price lists as multi-currency price lists.

Once the concurrent program has run, you can create additional multi-currency lists or add existing currencies to the created multi-currency lists.

Recovery
None. Once the concurrent program has been run successfully, do not return to non-multi-currency price lists. All existing price list windows will have been converted to multi-currency price lists. Changing the profile option QP: Multi-Currency Installed back to N (No) may cause undesired results if conversion criteria have been used. Oracle does not support this.
This appendix lists the seeded (predefined) pricing attributes, product attributes, qualifier attributes, attribute contexts and default pricing attribute mapping rules for Oracle Advanced Pricing.
Overview of Attribute Seed Data

The seeded (predefined) pricing attributes, product attributes, qualifier attributes, attribute contexts and default pricing attribute mapping rules for Oracle Advanced Pricing are provided for each of the following pricing transaction entities (PTE) used with Oracle Advanced Pricing:

- Demand Planning PTE Attributes on page A-3
- Intercompany Transaction PTE Attributes on page A-4
- Logistics PTE Attributes on page A-6
- Order Fulfillment PTE Attributes on page A-9

To find an attribute(s), refer to the PTE section where the attribute is sourced. For example, to find the Product attribute Item Category, go to the Order Fulfillment PTE Attributes section and look under the Product Attributes heading to find the listed attribute.

A key of the short names and definitions used in the attribute tables are provided in the following table:

<table>
<thead>
<tr>
<th>Short name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>Attribute Mapping</td>
</tr>
<tr>
<td>AMM</td>
<td>Attribute Mapping Method</td>
</tr>
<tr>
<td>Attrib</td>
<td>Attribute</td>
</tr>
<tr>
<td>ASO</td>
<td>Oracle Order Capture</td>
</tr>
<tr>
<td>Lmt</td>
<td>Limits</td>
</tr>
<tr>
<td>ONT</td>
<td>Order Management</td>
</tr>
<tr>
<td>OKC</td>
<td>Oracle Contracts Core</td>
</tr>
<tr>
<td>Prec</td>
<td>Precedence</td>
</tr>
<tr>
<td>UE</td>
<td>User Entered</td>
</tr>
<tr>
<td>—</td>
<td>No value/not applicable</td>
</tr>
</tbody>
</table>
Demand Planning PTE Attributes

The following section displays the attributes for the Demand Planning Pricing Transaction Entity (PTE).

**Pricing Attributes**
There are no seeded pricing attributes for this PTE.

**Product Attributes**
There are no seeded product attributes for this PTE.

**Qualifier Attributes**
The following table lists the seeded qualifier attributes for the Demand Planning PTE:

### Table 10–4 Seeded Qualifier Attributes: Demand Planning PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attrib</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modifier List</td>
<td>List Line Number</td>
<td>110</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>QP_SRS_LIST_LINE_NUMBER</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier List</td>
<td>Coupon Number</td>
<td>120</td>
<td>QUALIFIER_ATTRIBUTE3</td>
<td>QP_SRS_COUPON_NO</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier List</td>
<td>Promotion No</td>
<td>130</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP_SRS_PROMOTION_NO</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Info</td>
<td>Supplier</td>
<td>150</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Info</td>
<td>Buyer</td>
<td>160</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Intercompany Transaction PTE Attributes

The following section displays the attributes for the Intercompany Transaction Pricing Transaction Entity (PTE).

Pricing Attributes
There are no seeded pricing attributes for this PTE.

Product Attributes
There are no seeded product attributes for this PTE.

Qualifier Attributes
The following table lists the seeded qualifier attributes for the Intercompany Transaction PTE:

<table>
<thead>
<tr>
<th>Context</th>
<th>Attribute</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercompany Invoicing</td>
<td>Shipping organization Id</td>
<td>1</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>HR_OPERATING_UNITS</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
</tr>
<tr>
<td>Intercompany Invoicing</td>
<td>Selling Organization Id</td>
<td>2</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>HR_OPERATING_UNITS</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
</tr>
<tr>
<td>Intercompany Invoicing</td>
<td>Customer Id</td>
<td>3</td>
<td>QUALIFIER_ATTRIBUTE3</td>
<td>INV_IC_CUSTOMER</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
</tr>
<tr>
<td>Intercompany Invoicing</td>
<td>Customer Site Id</td>
<td>4</td>
<td>QUALIFIER_ATTRIBUTE4</td>
<td>INV_IC_CUSTOMER_SITE</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier List</td>
<td>List Line Number</td>
<td>110</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>QP_SRS_LIST_LINE_NUMBER</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier List</td>
<td>Coupon Number</td>
<td>120</td>
<td>QUALIFIER_ATTRIBUTE3</td>
<td>QP_SRS_COUPON_NO</td>
<td>Both</td>
<td>UE</td>
<td>No</td>
</tr>
<tr>
<td>Modifier List</td>
<td>Promotion No</td>
<td>130</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP_SRS_PROMOTION_NO</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Order</td>
<td>Order Date</td>
<td>510</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP: Date</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Table 10-5  Seeded Qualifier Attributes: Intercompany Transaction PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attribute</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Information</td>
<td>Supplier</td>
<td>150</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Information</td>
<td>Buyer</td>
<td>160</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Information</td>
<td>SALES ORGANIZATION</td>
<td>170</td>
<td>QUALIFIER_ATTRIBUTE3</td>
<td>QP_SALES_ ORGANIZATION</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Logistics PTE Attributes

The following table lists the seeded pricing attributes for the Logistics Pricing Transaction Entity (PTE):

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>Multipiece Flag</td>
<td>5</td>
<td>PRICING_ATTRIBUTE10</td>
<td>QP: Yes/No</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Commodity</td>
<td>10</td>
<td>PRICING_ATTRIBUTE1</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Container Type</td>
<td>20</td>
<td>PRICING_ATTRIBUTE2</td>
<td>QP_CONTAINER_TYPE</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Service Type</td>
<td>30</td>
<td>PRICING_ATTRIBUTE3</td>
<td>QP_SERVICE_TYPE</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Additional Service</td>
<td>40</td>
<td>PRICING_ATTRIBUTE4</td>
<td>QP_ADDITIONAL_SERVICE</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>HAZARD_CODE</td>
<td>50</td>
<td>PRICING_ATTRIBUTE5</td>
<td>—</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>FREIGHT_CLASS</td>
<td>60</td>
<td>PRICING_ATTRIBUTE6</td>
<td>QP_FREIGHT_CLASS</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Origin Zone</td>
<td>70</td>
<td>PRICING_ATTRIBUTE7</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Destination Zone</td>
<td>80</td>
<td>PRICING_ATTRIBUTE8</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Total Shipment</td>
<td>90</td>
<td>PRICING_ATTRIBUTE9</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Volume</td>
<td>Item Quantity</td>
<td>800</td>
<td>PRICING_ATTRIBUTE10</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Volume</td>
<td>Item Amount</td>
<td>810</td>
<td>PRICING_ATTRIBUTE12</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Volume</td>
<td>Total Item Quantity</td>
<td>880</td>
<td>PRICING_ATTRIBUTE20</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Product Attributes
The following section displays the seeded product attributes for the Logistics PTE:

Table 10-7  Seeded Product Attributes: Logistics PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>ALL_ITEMS</td>
<td>315</td>
<td>PRICING_ATTRIBUTE3</td>
<td>QP:ITEM_ALL</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Qualifier Attributes
The following section displays the seeded qualifier attributes for the Logistics PTE:

Table 10-8  Seeded Qualifier Attributes: Logistics PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>Contract Reference</td>
<td>700</td>
<td>QUALIFIER_ATTRIBUTE4</td>
<td>QP_LANE_CONTRACT_REFERENCE</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Origin</td>
<td>710</td>
<td>QUALIFIER_ATTRIBUTE5</td>
<td>QP_REGIONS</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Destination</td>
<td>720</td>
<td>QUALIFIER_ATTRIBUTE6</td>
<td>QP_REGIONS</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Mode of Transportation</td>
<td>730</td>
<td>QUALIFIER_ATTRIBUTE7</td>
<td>QP_TRANSPORTATION_METHOD</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Additional Service</td>
<td>740</td>
<td>QUALIFIER_ATTRIBUTE8</td>
<td>QP_ADDITIONAL_SERVICE</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Logistics</td>
<td>Contracted Lane</td>
<td>750</td>
<td>QUALIFIER_ATTRIBUTE9</td>
<td>QP: Yes/No</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier</td>
<td>List List Line Number</td>
<td>110</td>
<td>QUALIFIER_ATTRIBUTE2</td>
<td>QP_SRS_LIST_LINE_NUMBER</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier</td>
<td>Promotion No</td>
<td>130</td>
<td>QUALIFIER_ATTRIBUTE1</td>
<td>QP_SRS_PROMOTION_NO</td>
<td>Both</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Modifier</td>
<td>Price List</td>
<td>140</td>
<td>QUALIFIER_ATTRIBUTE4</td>
<td>QP_SRS_PRICE_LIST_NAME</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Table 10–8  Seeded Qualifier Attributes: Logistics PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Information</td>
<td>Supplier</td>
<td>150</td>
<td>QUALIFIER_ATTRIBUETE1</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Information</td>
<td>Buyer</td>
<td>160</td>
<td>QUALIFIER_ATTRIBUETE2</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
<tr>
<td>Party Information</td>
<td>SALES ORGANIZATION</td>
<td>170</td>
<td>QUALIFIER_ATTRIBUETE3</td>
<td>QP_SALES_ORGANIZATION</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Order Fulfillment PTE Attributes

The following section displays the attributes for the Order Fulfillment Pricing Transaction Entity (PTE):

Pricing Attributes

The following table lists the seeded pricing attributes for the Order Fulfillment PTE:

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
<th>Request Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA Pricing</td>
<td>Number of students</td>
<td>10</td>
<td>PRICING_ATTRIBUTE1</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Parent List Price</td>
<td>710</td>
<td>PRICING_ATTRIBUTE10</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Customer Item</td>
<td>720</td>
<td>PRICING_ATTRIBUTE11</td>
<td>QP_CUSTOMER_ITEMS</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Insurance Cost</td>
<td>730</td>
<td>PRICING_ATTRIBUTE12</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Handling Cost</td>
<td>740</td>
<td>PRICING_ATTRIBUTE13</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Export Cost</td>
<td>750</td>
<td>PRICING_ATTRIBUTE14</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Duty Cost</td>
<td>760</td>
<td>PRICING_ATTRIBUTE15</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Freight Cost</td>
<td>770</td>
<td>PRICING_ATTRIBUTE10</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Administration Cost</td>
<td>780</td>
<td>PRICING_ATTRIBUTE17</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Grade</td>
<td>782</td>
<td>OPM_QC_GRADE</td>
<td>QP_ITEM_ID</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Model Id</td>
<td>790</td>
<td>PRICING_ATTRIBUTE1</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Item Quantity</td>
<td>800</td>
<td>PRICING_ATTRIBUTE10</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Item Amount</td>
<td>810</td>
<td>PRICING_ATTRIBUTE12</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td>OKC</td>
</tr>
</tbody>
</table>
Overview of Attribute Seed Data

Table 10-9  Seeded Pricing Attributes: Order Fulfillment PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
<th>Request Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>Item Amount</td>
<td>810</td>
<td>PRICING_ATTRIBUTE12</td>
<td>QP: Number</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td>ASO, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Period1 Item Quantity</td>
<td>820</td>
<td>PRICING_ATTRIBUTE3</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>No</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Period2 Item Quantity</td>
<td>830</td>
<td>PRICING_ATTRIBUTE1</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>No</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Period3 Item Quantity</td>
<td>840</td>
<td>PRICING_ATTRIBUTE11</td>
<td>QP: Number</td>
<td>Line</td>
<td>AM</td>
<td>No</td>
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Product Attributes
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Table 10-10  Seeded Product Attributes: Order Fulfillment PTE

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Qualifier Attributes

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### Seeded Qualifier Attributes: Order Fulfillment PTE

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## Table 10–11  Seeded Qualifier Attributes: Order Fulfillment PTE

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<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
<th>Request Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Information</td>
<td>Ship to Party Site</td>
<td>2</td>
<td>QUALIFIER_ ATTRIBUTE10</td>
<td>QP_SHIP_TO_ PARTY_SITE</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Party Information</td>
<td>Bill to Party Site</td>
<td>3</td>
<td>QUALIFIER_ ATTRIBUTE11</td>
<td>QP_SHIP_TO_ PARTY_SITE</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Party Information</td>
<td>Supplier</td>
<td>150</td>
<td>QUALIFIER_ ATTRIBUTE1</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>Party Information</td>
<td>Buyer</td>
<td>160</td>
<td>QUALIFIER_ ATTRIBUTE2</td>
<td>QP_PARTY</td>
<td>Line</td>
<td>UE</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>Party Information</td>
<td>SALES_ ORGANIZATION</td>
<td>170</td>
<td>QUALIFIER_ ATTRIBUTE3</td>
<td>QP_SALES_ ORGANIZATION</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Segments</td>
<td>Market Segment</td>
<td>1</td>
<td>QUALIFIER_ ATTRIBUTE1</td>
<td>—</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Segments</td>
<td>Target Segment</td>
<td>2</td>
<td>QUALIFIER_ ATTRIBUTE2</td>
<td>—</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Terms</td>
<td>Freight Terms</td>
<td>640</td>
<td>QUALIFIER_ ATTRIBUTE10</td>
<td>QP_FREIGHT_ TERMS</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Terms</td>
<td>Shipping Method</td>
<td>650</td>
<td>QUALIFIER_ ATTRIBUTE11</td>
<td>QP_SHIP_ METHODS</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Terms</td>
<td>Payment Terms</td>
<td>660</td>
<td>QUALIFIER_ ATTRIBUTE1</td>
<td>QP_PAYMENT_ TERMS</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Territories</td>
<td>Trade Management Territories</td>
<td>1</td>
<td>QUALIFIER_ ATTRIBUTE1</td>
<td>AMS_TM_ OFFER_ TERRITORIES</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Territories</td>
<td>Sales Territories</td>
<td>2</td>
<td>QUALIFIER_ ATTRIBUTE2</td>
<td>AMS_SALES_ ACCT_ TERRITORIES</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
<tr>
<td>Volume</td>
<td>Order Amount</td>
<td>500</td>
<td>QUALIFIER_ ATTRIBUTE10</td>
<td>QP: Number</td>
<td>Both</td>
<td>AM</td>
<td>Yes</td>
<td>ASO, OKC, ONT</td>
</tr>
</tbody>
</table>
### Seed Qualifier Attributes: Order Fulfillment PTE

<table>
<thead>
<tr>
<th>Context</th>
<th>Attributes</th>
<th>Prec</th>
<th>Mapped</th>
<th>Value Name</th>
<th>Level</th>
<th>AMM</th>
<th>Lmt</th>
<th>Request Type</th>
</tr>
</thead>
</table>
| Volume     | Period1 Order 590 QUALIFIER_ AM Yes ASO, Amount ATTRIBUTE12 OKC, ONT
| Volume     | Period2 Order 600 QUALIFIER_ AM Yes ASO, Amount ATTRIBUTE13 OKC, ONT
| Volume     | Period3 Order 610 QUALIFIER_ AM Yes ASO, Amount ATTRIBUTE11 OKC, ONT
| Volume     | Line Weight 620 QUALIFIER_ AM Yes ASO, Amount ATTRIBUTE14 OKC, ONT
| Volume     | Line Volume 630 QUALIFIER_ AM Yes ASO, Amount ATTRIBUTE15 OKC, ONT
| Volume     | Order Weight 640 QUALIFIER_ AM Yes OKC ATTRIBUTE16
| Volume     | Order Weight 640 QUALIFIER_ AM Yes ASO, Order ATTRIBUTE16 ONT
| Volume     | Order Volume 650 QUALIFIER_ AM Yes ASO, Order ATTRIBUTE17 ONT

Table 10–11  Seeded Qualifier Attributes: Order Fulfillment PTE
This appendix lists the seeded (predefined) formulas that you can use when setting up freight charges for Oracle Advanced Pricing. The following topics are described:

- **Overview of Seeded Formulas** on page B-2.
- **Seeded Cost to Charge Conversion Formulas** on page B-3.
Overview of Seeded Formulas

Oracle Advanced Pricing provides two types of seeded formulas that you can use when setting up freight charges:

- Cost to charge conversion formulas (simple pass-through formulas)
- Cost to charge markup formulas (simple markup formulas)

Each seeded formula is customized with its own formula expression. So rather than create a new formula and expression, you can select an existing seeded formula when setting up freight charges: for example, you could select the QP: Cost to charge conversion of Administration Cost formula to convert the Administration Cost pricing attribute to a charge.

Alternately, you can update the formula header or formula lines for an existing seeded formula.

You can review the available seeded and non-seeded formulas in the Advanced Pricing - Pricing Formulas window. The Seeded box indicates if the formula is seeded or not.

**Note:** If the name of a seeded formula is updated then the formula will no longer be identified as seeded.
Seeded Cost to Charge Conversion Formulas

The following list describes the names and setup details about the seeded cost to charge conversion (pass-through) formulas:

1) **QP: Cost to charge conversion of Administration Cost**
   Description: Formula to convert Administration Cost to charge.

   \[
   \begin{array}{|c|c|c|}
   \hline
   \text{Field Name} & \text{Value} & \text{Field Level} \\
   \hline
   \text{Formula} & 1 & \text{Header} \\
   \text{Formula Type} & \text{Pricing Attribute} & \text{Line} \\
   \text{Pricing Attribute Context} & \text{Pricing Attribute} & \text{Line} \\
   \text{Pricing Attribute} & \text{Administration Cost} & \text{Line} \\
   \text{Step} & 1 & \text{Line} \\
   \hline
   \end{array}
   \]

2) **QP: Cost to charge conversion of Duty Cost**
   Description: Formula to convert Duty Cost to charge.

   \[
   \begin{array}{|c|c|c|}
   \hline
   \text{Field Name} & \text{Value} & \text{Field Level} \\
   \hline
   \text{Formula} & 1 & \text{Header} \\
   \text{Formula Type} & \text{Pricing Attribute} & \text{Line} \\
   \text{Pricing Attribute Context} & \text{Pricing Attribute} & \text{Line} \\
   \text{Pricing Attribute} & \text{Duty Cost} & \text{Line} \\
   \text{Step} & 1 & \text{Line} \\
   \hline
   \end{array}
   \]

3) **QP: Cost to charge conversion of Export Cost**
   Description: Formula to convert Export Cost to charge.

   \[
   \begin{array}{|c|c|c|}
   \hline
   \text{Field Name} & \text{Value} & \text{Field Level} \\
   \hline
   \text{Formula} & 1 & \text{Header} \\
   \hline
   \end{array}
   \]
Overview of Seeded Formulas

4) QP: Cost to charge conversion of Freight Cost
Description: Formula to convert Freight Cost to charge.

Table 10–15  QP: Cost to charge conversion of Freight Cost

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Export Cost</td>
<td>Line</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line</td>
</tr>
</tbody>
</table>

5) QP: Cost to charge conversion of Handling Cost
Description: Formula to convert Handling Cost to charge.

Table 10–16  QP: Cost to charge conversion of Handling Cost

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Handling Cost</td>
<td>Line</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line</td>
</tr>
</tbody>
</table>

6) QP: Cost to charge conversion of Insurance Cost
Description: Formula to convert Insurance Cost to charge.
Table 10–17  QP: Cost to charge conversion of Insurance Cost

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Insurance Cost</td>
<td>Line</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line</td>
</tr>
</tbody>
</table>

7) QP: Cost to charge conversion of Transportation Price
Description: Formula to convert Transportation Price to charge.

Table 10–18  QP: Cost to charge conversion of Transportation Price

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Transportation Price</td>
<td>Line</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line</td>
</tr>
</tbody>
</table>

8) QP: Cost to charge conversion of Transportation Charge
Description: Formula to convert Transportation Charge to charge.

Table 10–19  QP: Cost to charge conversion of Transportation Charge

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Transportation Charge</td>
<td>Line</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line</td>
</tr>
</tbody>
</table>
Seeded Markup formulas

The following list describes the names and setup details about the seeded cost-to-charge with markup formulas:

1) QP: Cost to charge markup of Administration Cost
Description: Formula to convert Administration Cost to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Administration Cost</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>

2) QP: Cost to charge markup of Duty Cost
Description: Formula to convert Duty Cost to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Duty Cost</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
</tbody>
</table>
3) QP: Cost to charge markup of Export Cost
Description: Formula to convert Export Cost to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>

4) QP: Cost to charge markup of Freight Cost
Description: Formula to convert Freight Cost to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Export Cost</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>
5) **QP: Cost to charge markup of Handling Cost**
Description: Formula to convert Handling Cost to charge.

*Table 10–24  QP: Cost to charge markup of Handling Cost*

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Handling Cost</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>

6) **QP: Cost to charge markup of Insurance Cost**
Description: Formula to convert Insurance Cost to charge.

*Table 10–25  QP: Cost to charge markup of Insurance Cost*

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Insurance Cost</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>
7) QP: Cost to charge markup of Transportation Price
Description: Formula to convert Transportation Price to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Transportation Price</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>

8) QP: Cost to charge markup of Transportation Charge
Description: Formula to convert Transportation Charge to charge.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
<th>Field Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>1*2</td>
<td>Header</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute Context</td>
<td>Pricing Attribute</td>
<td>Line 1</td>
</tr>
<tr>
<td>Pricing Attribute</td>
<td>Transportation Charge</td>
<td>Line 1</td>
</tr>
<tr>
<td>Step</td>
<td>1</td>
<td>Line 1</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Numeric Constant</td>
<td>Line 2</td>
</tr>
<tr>
<td>Component</td>
<td>1</td>
<td>Line 2</td>
</tr>
<tr>
<td>Step</td>
<td>2</td>
<td>Line 2</td>
</tr>
</tbody>
</table>
This appendix describes formula scenarios.
Formula Scenarios

Splinters Glass Company manufactures windshields for cars and trucks. It sells both to wholesale customers and to retail customers.

Scenario 1
To its retail customers, Splinters prices windshields based on the dimension of the sheet of glass according to the formula 3 currency units * Width * Height * Thickness Factor.

The following table shows the thickness factors.

<table>
<thead>
<tr>
<th>Glass Thickness</th>
<th>Thickness Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 mm</td>
<td>10%</td>
</tr>
<tr>
<td>5 mm - 10 mm</td>
<td>15%</td>
</tr>
<tr>
<td>&gt; 10 mm</td>
<td>20%</td>
</tr>
</tbody>
</table>

Splinters sets up Oracle Pricing to use formula and factor-based pricing.

Step 1
1. In the flexfield definition window, query the pricing attributes flexfield.
2. Define three new pricing attributes flexfield segments—width, height, and thickness. Use the context Pricing Attributes.
3. Save your work and close the window.

Step 2
Create a pricing formula.
1. Create a formula header.
   Formula Name: Glass Pricing Formula and Formula = 1 * 2 * 3 *4
2. Create a formula line.
   Formula Type: Numeric Constant
   Component: 3
   Step Number: 1
3. Create a second formula line.
   Formula Type: Pricing Attributes
   Pricing Attribute Context: Pricing Attributes
   Pricing Attribute: Width
   Step Number: 2

4. Create a third formula line.
   Formula Type: Pricing Attributes
   Pricing Attribute Context: Pricing Attributes
   Pricing Attribute: Height
   Step Number: 3

5. Create a fourth formula line.
   Formula Type: Factor List
   Component: Thickness Factor
   Step Number: 4

6. Click Factors.

7. In the Base Pricing Attributes region, create a row.
   Base Pricing Attribute: Thickness
   Comparison Operator: Between
   Value From: 0
   Value To: 5
   Adjustment Factor: 0.10

8. Create a second row in the Base Pricing Attributes region.
   Base Pricing attribute: Thickness
   Comparison Operator: Between
   Value From: 5
   Value To: 10
   Adjustment Factor: 0.15

9. Create a third row in the Base Pricing Attributes region.
Base Pricing Attribute: Thickness
Comparison Operator: Between
Value From: 10
Adjustment Factor: 0.20

10. Save your work and close the window.

**Step 3**
Create a price list for retail customers, create a list line, and attach the formula.

1. Create a price list.
   Name: Retail
2. Select the Qualifiers tabbed region.
3. Add a qualifier.
   Context: Customer
   Attribute: Customer Class
   Value: Retail
4. Create a new list line.
   Item: Windshield
   UOM: Each
   Dynamic Formula: Glass Pricing Formula
   Method: Amount
   Line Type: PLL
5. Save your work and close the window.
Scenario 2
To its retail customers, Splinters charges for its windshield warranty protection plan at 10% of the cost of the replacement windshield. The formula is $10\% \times \text{price of the Windshield item on the Replacement price list}$.

Splinters sets up Oracle Pricing to use formula-based pricing.

Step 1
Create a new pricing formula.

1. Create a formula header.
   - Formula Name: Warranty Pricing Formula
   - Formula: $1\times2$

2. Create a formula line.
   - Formula Type: Numeric Constant
   - Component: 0.10
   - Step Number: 1

3. Create a second formula line.
   - Formula Type: Price List Line
   - Component: Windshield line of Replacement price list
   - Step Number: 2

4. Save your work and close the window.

Step 2
Create a price list for retail customers, create a list line, and attach the formula.

1. Create a price list.
   - Name: Warranties

2. In the Qualifiers region, add a qualifier.
   - Context: Customer
   - Attribute: Customer Class
     - Value: Retail

3. Create a list line.
Formula Scenarios

Item: Protection Plan  
UOM: Each  
Dynamic Formula: Warranty Pricing Formula  
Method: Amount  
Line Type: PLL

4. Save your work and close the window.
This appendix describes modifier scenarios.
Modifier Scenarios

The following scenarios illustrate how to meet business needs by creating modifiers. The scenarios are organized by the following modifier concepts:

- Discount
- Surcharge
- Price break
- Other item discount
- Promotional goods
- Coupon issue
- Item upgrade
- Terms substitution
- Freight and special charges
- Newprice

Each scenario is identified by a number and the numbers do not re-start with one at the beginning of each modifier concept; they are continuous throughout the appendix.

Discount

Scenario 1
If the customer is a preferred customer or customer spends more than 150 currency units, they receive 10% off the order.

1. Create a modifier.
   Modifier Type: Discount
   Modifier Level: Order
   Application Method: Percent
   Value: 10

2. In the Line Qualifiers window, create two line qualifiers.
   Grouping Number: 1
   Qualifier Context: Volume
Modifier Scenarios

Qualifier Attribute: Order Amount
Operator: Between
Value From: 150
Grouping Number: 2
Qualifier Context: Customer
Qualifier Attribute: Customer Class
Operator: =
Value From: Preferred

Scenario 2
For any ten compact discs purchased by April 2000, the customer receives 2 currency units off.

Create a modifier.
Modifier Type: Discount
Modifier Level: Line
End Date: 30 April 2000
Product Attribute: Item Category
Product Attribute Value: CD
Volume Type: Item Quantity
Break Type: Recurring
Value From: 10
Application Method: Lumpsum
Value: 2

Scenario 3
For every eight currency units spent on cat food, the customer accrues five shopper points.

Create a modifier.
Modifier Type: Discount
Modifier Level: Line
Modifier Scenarios

Product Attribute: Item Category
Product Attribute Value: Cat Food
Volume Type: Item Amount
Break Type: Recurring
Value From: 8
Select Accrue
Benefit Quantity: 5
Benefit UOM: Shopper Point

Scenario 4
Customers mentioning the Summer Special Promotion receive 5 currency units off of any tennis racket except the FastFireIII model

1. Create a modifier.
   Modifier No: SUMMER SPECIAL
   Modifier Type: Discount
   Modifier Level: Line
   Product Attribute: Item Category
   Product Attribute Value: Tennis Rackets
   Application Method: Amount
   Value: 5

2. In the Exclude window, create an excluded item.
   Product Attribute: Item
   Product Value: FastFire III
   Select Exclude

Scenario 5
Customers who buy two bottles of shampoo receive one currency unit off of the third bottle of shampoo.
Create a modifier.
   Modifier Type: Discount
Modifier Level: Line  
Product Attribute: Item  
Product Attribute Value: Shampoo  
Volume Type: Item Quantity  
Break Type: Recurring  
UOM: Each  
Value From: 3  
Application Method: Lumpsum  
Value: 1

**Surcharge**

**Scenario 6**
Customers in the National Accounts territory who spends less than 1000 currency units per order receives a 2% surcharge.

1. Create a modifier.  
   Modifier Type: Surcharge  
   Modifier Level: Order  
   Application Method: Percent  
   Value: 10

2. In the Line Qualifiers window, create two line qualifiers for the modifier.  
   Grouping Number: 1  
   Qualifier Context: Volume  
   Qualifier Attribute: Order Amount  
   Operator: Between  
   Value To: 1000  
   Grouping Number: 1  
   Qualifier Context: Customer  
   Qualifier Attribute: Customer Class
Operator: =
Value From: National Accounts

Scenario 7
Any customer placing a rush order (delivery required within two days) for replacement motors receives a 50 currency unit surcharge.

1. Create a modifier.
   Modifier Type: Surcharge
   Modifier Level: Line
   Product Attribute: Item Category
   Product Attribute Value: Motors, Spare
   Application Method: Amount
   Value: 50

2. In the Line Qualifiers window, create a qualifier for the modifier. You have created qualifier attribute Days to Requested Delivery and created the appropriate sourcing rules for this attribute.
   Grouping Number: 1
   Qualifier Context: Order
   Qualifier Attribute: Days to Requested Delivery
   Operator: Between
   Value To: 2

Price Break

Scenario 8
All employees in Company ABC’s mobile phone plan receive per minute discounts based on minutes used, as follows:

- 0-120 minutes: 0.5 currency units per minute
- 121-240 minutes: 0.10 currency units per minute
- 241-420 minutes: 0.12 currency units per minute
- > 421 minutes: 0.15 currency units per minute
A customer who uses 150 minutes receives the following discounts:

- 0.5 currency unit per minute discount on 120 minutes
- 0.10 currency unit per minute discount on 30 minutes

1. Create a modifier.
   - Modifier Type: Price Break Header
   - Modifier Level: Line
   - Product Attribute: Item
   - Product Attribute Value: Minutes
   - Volume Type: Item Quantity
   - Break Type: Range
   - Adjustment Type: Discount

2. In the Price Break Lines region, enter the break lines.
   - Value From: 0
   - Value To: 120
   - Application Method: Amount
   - Value: 5
   - Value From: 121
   - Value To: 240
   - Application Method: Amount
   - Value: 10
   - Value From: 241
   - Value To: 420
   - Application Method: Amount
   - Value: 12
   - Value From: 421
   - Application Method: Amount
   - Value: 15

3. In the Line Qualifiers window, create a qualifier for the price break modifier.
Scenario 9
Customers who buy cases of TY brand products across an order receive a percent rebate per case as follows:

- 1 - 500 cases: 2% rebate per case
- 501 - 1000 cases: 3% rebate per case
- > 1000 cases: 5% rebate per case

1. Create a modifier.
   Modifier Type: Price Break Header
   Modifier Level: Group of Lines
   Product Attribute: Item Category
   Product Attribute Value: TY
   Volume Type: Item Quantity
   Break Type: Point
   UOM: Case
   Adjustment Type: Discount
   Select Accrue

2. In the Price Break Lines window, enter the break lines.
   Value From: 1
   Value To: 500
   Application Method: Percent
   Value: 2
   Value From: 501
   Value To: 1000
Other Item Discount

Scenario 10
Customers who buy more than three meters of fabric across an order receive 10% off thermal curtain linings and 5% off drapery services.

1. Create a modifier.
   Modifier Type: Other Item Discount
   Modifier Level: Group of Lines
   Product Attribute: Item Category
   Product Attribute Value: Fabric
   Volume Type: Item Quantity
   Break Type: Point
   UOM: Yard
   Value From: 10

2. In the modifier details, enter the get products.
   Product Attribute: Item
   Product Value: Thermal Linings
   Application Method: Percent
   Value: 10
   Product Attribute: Item
   Product Value: Drapery Services
   Application Method: Percent
   Value: 5
Scenario 11
Customers who buy a set of six chairs, a coffee table, or two standard lamps receive 400 currency units off of a dining table.

1. Create a modifier.
   Modifier Type: Other Item Discount
   Modifier Level: Line
   Product Attribute: Item
   Product Attribute Value: Dining Chair
   Volume Type: Item Quantity
   Break Type: Point
   UOM: Each
   Value From: 6

2. In the modifier details, enter the related product.
   Group No: 1
   Product Attribute: Item
   Product Value: Coffee Table
   UOM: Each
   Group No: 2
   Product Attribute: Item
   Product Value: Standard Lamp
   Pricing Attribute: Item Quantity
   Operator: Between
   Value From: 2
   UOM: Each

3. In the modifier details, enter the get product.
   Product Attribute: Item
   Product Value: Dining Table
   Application Method: Amount
Value: 400

**Promotional Goods**

**Scenario 12**
Customers who buy one bottle of shampoo receive a free bottle of conditioner.

1. Create a modifier.
   - Modifier Type: Promotional Goods
   - Modifier Level: Line
   - Product Attribute: Item
   - Product Attribute Value: Shampoo
   - Volume Type: Item Quantity
   - Break Type: Recurring
   - UOM: Each
   - Value From: 1

2. In the modifier details, enter the get product.
   - Product Attribute: Item
   - Product Value: Conditioner
   - Get Quantity: 1
   - Get Price: <price list line for conditioner>
   - Get UOM: Each
   - Application Method: Percent
   - Value: 100

**Scenario 13**
Customers who buy two bottles of shampoo receive 10% off the purchase of a third bottle of shampoo.

1. Create a modifier.
   - Modifier Type: Promotional Goods
   - Modifier Level: Line
Product Attribute: Item
Product Attribute Value: Shampoo
Volume Type: Item Quantity
Break Type: Recurring
UOM: Each
Value From: 2

2. In the modifier details, enter the get product.
   Product Attribute: Item
   Product Value: Shampoo
   Get Quantity: 1
   Get Price: <price list line for shampoo>
   Get UOM: Each
   Application Method: Percent
   Value: 10

Scenario 14
Customers who spend over 45 currency units on an order receive a free cosmetic bag.

1. Create a modifier.
   Modifier Type: Promotional Goods
   Modifier Level: Order

2. In the Line Qualifiers window, create a qualifier.
   Grouping Number: 1
   Qualifier Context: Volume
   Qualifier Attribute: Order Amount
   Operator: Between
   Value From: 45

3. In the modifier details, enter the get product.
   Product Attribute: Item
Product Value: Cosmetic Bag
Get Quantity: 1
Get Price: <price list line for cosmetic bag>
Get UOM: Each
Application Method: Percent
Value: 100

**Coupon Issue**

**Scenario 15**
Customers who buy any product in the Chubo brand receive 10% off any item in the Chubo brand on their next order.

1. Create a modifier list
   Main region
   Type: Promotion
   Number: Coupon15
   Select Active
   Name: Coupon15
   Clear Automatic

1. Create a modifier line for the discount.
   Modifiers Summary tabbed region
   Modifier Level: Line
   Modifier Type: Discount
   Product Attribute: Item Category
   Product Attribute Value: Chubo
   Discounts/Charges tabbed region
   Application Method: Percent
   Value: 10
2. Create a second modifier line for the coupon issue and assign it to the modifier from step 1.
   Modifier Type: Coupon Issue
   Modifier Level: Line
   Product Attribute: Item Category
   Product Attribute Value: Chubo
   Coupon Modifier: <discount modifier from previous step>

Scenario 16
Customers ordering from the website receive a coupon for 10% off a future order.

1. Create a modifier line.
   Modifier Type: Discount
   Modifier Level: Order
   Application Method: Percent
   Value: 10

2. Create a second modifier line for the coupon issue and assign it to the modifier from step 1.
   Modifier Type: Coupon Issue
   Modifier Level: Order
   Coupon Modifier: <modifier from step 1>

3. In the line qualifiers window, create a qualifier for the coupon issue modifier from step 2. You have created the qualifier attribute Website Domain and created the appropriate sourcing rules for it.
   Grouping Number: 1
   Qualifier Context: Customer
   Qualifier Attribute: Website Domain
   Operator: =
   Value From: co.uk

Scenario 17
With any order, receive a coupon for two free bags of coffee on a future order.
1. Create a modifier line.
   Modifier Type: Promotional Goods
   Modifier Level: Order

2. In the modifier details, enter the get product.
   Product Attribute: Item
   Product Value: Coffee
   Get Quantity: 2
   Get Price: <price list line for bag of coffee>
   Get UOM: Bag
   Application Method: Percent
   Value: 100

3. Create a second modifier line for the coupon issue and assign it to the modifier from step 1.
   Modifier Type: Coupon Issue
   Modifier Level: Order
   Coupon Modifier: <modifier from step 1>

Item Upgrade

Scenario 18
Customers who order a standard video recorder before end of April 2000 receive a deluxe video recorder for the same price.

1. Create a modifier.
   Type: Promotion or Deal
   Date Type: Requested Ship Date
   End Date: 31 April 2000

2. Assign a modifier line to the modifier list in Step 1. You have defined the item relationship between the standard video recorder and deluxe video recorder.
   Modifier Type: Item Upgrade
**Modifier Scenarios**

|----------------------|-------------------------|--------------------------------------------------|-------------------------------------|

**Scenario 19**
Customers who buy a shirt receive the shirt and a tie for the shirt price.
Create a modifier. You have defined the item relationship between the shirt and the marketing bill shirt and tie pack.

- Modifier Type: Item Upgrade
- Modifier Level: Line
- Product Attribute: Item
- Product Attribute Value: Shirt
- Upgrade Item: Marketing item shirt and tie pack

**Terms Substitution**

**Scenario 20**
Customers who spend more than 1000 currency units on a sofa pay nothing for shipping.
Create a modifier.

- Modifier Type: Terms Substitution
- Modifier Level: Line
- Product Attribute: Item Category
- Product Attribute Value: Sofa
- Volume Type: Item Amount
- Break Type: Point
- UOM: Each
- Value From: 1000
- Terms Attribute: Shipping Terms
Terms Value: No Charge

**Scenario 21**
Customers who buy more than 100 currency units of one item on an order receive terms of 2% 30/NET 60.

1. Create a modifier.
   Modifier Type: Terms Substitution
   Modifier Level: Line
   Terms Attribute: Payment Terms
   Terms Value: 2% 30/NET 60

2. In the Line Qualifiers window, create a qualifier.
   Grouping Number: 1
   Qualifier Context: Volume
   Qualifier Attribute: Line Amount
   Operator: Between
   Value From: 100

**Freight and Special Charges**

**Scenario 22**
For all low priority shipments, calculate shipping charges by order line total weight as follows:

- 0 - 500 kg: 2.50 currency units
- 501 - 1000 kg: 3.50 currency units
- > 1000 kg: 5.00 currency units

Profile Option QP: Line Weight UOM Code is kg.

1. Create a modifier.
   Modifier Type: Freight Charge
   Modifier Level: Line
   Application Method: Lumpsum
2. In the Line Qualifiers window, create a qualifier for the modifier from step 1.
   Grouping Number: 1
   Qualifier Context: Order
   Qualifier Attribute: Shipment Priority
   Operator: =
   Value From: Low
   Grouping Number: 1
   Qualifier Context: Volume
   Qualifier Attribute: Line Weight
   Operator: =
   Value From: 0
   Value To: 500

3. Create a second modifier.
   Modifier Type: Freight Charge
   Modifier Level: Line
   Application Method: Lumpsum
   Value: 3.50

4. In the Line Qualifiers window, create a qualifier for the second modifier from step 3.
   Grouping Number: 1
   Qualifier Context: Order
   Qualifier Attribute: Shipment Priority
   Operator: =
   Value From: Low
   Grouping Number: 1
   Qualifier Context: Volume
   Qualifier Attribute: Line Weight
Operator: =
Value From: 501
Value To: 1000

5. Create a third modifier.
   Modifier Type: Freight Charge
   Modifier Level: Line
   Application Method: Lumpsum
   Value: 3.50

6. In the Line Qualifiers window, create a qualifier for the third modifier from step 5.
   Grouping Number: 1
   Qualifier Context: Order
   Qualifier Attribute: Shipment Priority
   Operator: =
   Value From: Low
   Grouping Number: 1
   Qualifier Context: Volume
   Qualifier Attribute: Line Weight
   Operator: =
   Value From: 1001

Scenario 23
Calculate freight handling charge as a 10% markup of actual handling cost.

1. Create a formula.
   Formula Name: Handling Cost
   Formula: 1 * 2

2. Create a formula line.
   Formula Line Type: Pricing Attribute
   Pricing Attribute Context: Pricing Attribute
Modifier Scenarios

Pricing Attribute: Handling Cost Amount

Step: 1
Formula Line Type: Constant
Component: 1.1

Step: 2

3. Create a modifier.
   Modifier Type: Freight Charge
   Modifier Level: Line
   Application Method: Lumpsum
   Formula: <reference formula Handling Cost from step 1>

4. In the Line Qualifiers window, create a qualifier for the third modifier from step 2.
   Grouping Number: 1
   Qualifier Context: Order
   Qualifier Attribute: Freight Cost Type
   Operator: =
   Value From: Handling

Newprice

Scenario 24
The following table states the scenario for this newprice example. Following the table, the text analyzes the scenario:

<table>
<thead>
<tr>
<th>Incompatibility Level</th>
<th>Precedence</th>
<th>Bucket</th>
<th>Operator</th>
<th>Value</th>
<th>Engine Selects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>30</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>25</td>
<td>Yes</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>40</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Within the same incompatibility group, when all of the lines have the same Precedence, the pricing engine performs best price processing. The final selling price is in line 2, 25 currency units. In this scenario, the bucket is not important to the result.

**Scenario 25**
The following table states the scenario for this newprice example. Following the table, the text analyzes the scenario:

**Table D–2 Newprice Scenario: List Price 1000, Selling Price -1005**

<table>
<thead>
<tr>
<th>Incompatibility Level</th>
<th>Precedence</th>
<th>Bucket</th>
<th>Operator</th>
<th>Value</th>
<th>Engine Selects</th>
<th>Adjusted Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>30</td>
<td>Yes</td>
<td>-970</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>25</td>
<td>Yes</td>
<td>-975</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>40</td>
<td>Yes</td>
<td>-960</td>
</tr>
</tbody>
</table>

With different incompatibility levels, the pricing engine evaluates the lines according to buckets. Since all of the lines are in the same bucket, the pricing engine calculates Adjusted Amount from the list price. It calculates the selling price as follows:

List Price - Sum of the Adjusted Amounts

1000 - (970 + 975 + 960) = 1000 - 2095 = -1905

**Scenario 26**
The following table states the scenario for this newprice example. Following the table, the text analyzes the scenario:

**Table D–3 Newprice Scenario 3: List Price 1000, Selling Price 40**

<table>
<thead>
<tr>
<th>Incompatibility Level</th>
<th>Precedence</th>
<th>Bucket</th>
<th>Operator</th>
<th>Value</th>
<th>Engine Selects</th>
<th>Adjusted Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>NEWPRICE</td>
<td>30</td>
<td>Yes</td>
<td>-970 (Base price: 1000)</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>2</td>
<td>NEWPRICE</td>
<td>25</td>
<td>Yes</td>
<td>-5 (Base price: 30)</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>3</td>
<td>NEWPRICE</td>
<td>40</td>
<td>Yes</td>
<td>15 (Base price: 25)</td>
</tr>
</tbody>
</table>
With different incompatibility levels, the pricing engine evaluates the lines according to buckets. Since each line is in a different bucket, the pricing engine calculates Adjusted Amount from the base price of the previous bucket (list price is in bucket 0). It calculates the selling price as follows:

List Price - Sum of the Adjusted Amounts

\[ 1000 - (970 + 5 - 15) = 1000 - 960 = 40 \]

As the pricing engine evaluates the eligible list lines, it resolves incompatibilities in all phases. You can set up your modifiers such that the pricing engine determines most of the list line eligibility at the search stage. Then, the pricing engine calculates the final selling price bucket by bucket.
This appendix shows the default navigator paths for Oracle Pricing application.

Windows and Navigator Paths

Refer to the following sources for other window and application information:

- Oracle Order Management User’s Guide
- Oracle Application User’s Guide

The following table lists the navigation path for each window (or page name if using the Self Service navigation path). Brackets surrounding a path indicate a button.

<table>
<thead>
<tr>
<th>Window Name</th>
<th>Navigation Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Items to Price List</td>
<td>Price Lists &gt; Add Items to Price List</td>
</tr>
<tr>
<td>Adjust Price List</td>
<td>Price Lists &gt; Adjust Price List</td>
</tr>
<tr>
<td>Advanced Pricing - Define Modifier</td>
<td>Modifiers &gt; Modifier Setup</td>
</tr>
<tr>
<td>Advanced Pricing - Price Lists</td>
<td>Price Lists &gt; Price List Setup</td>
</tr>
<tr>
<td>Advanced Pricing - Pricing Formulas</td>
<td>Pricing Formulas &gt; Formulas Setup</td>
</tr>
<tr>
<td>Advanced Search</td>
<td>Self Service &gt; Oracle Pricing User &gt; Price List Maintenance &gt; [Advanced Search]</td>
</tr>
</tbody>
</table>
## Table E–1 Window Names and Navigation Paths

<table>
<thead>
<tr>
<th>Window Name</th>
<th>Navigation Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign Attributes</td>
<td>Setup &gt; Attribute Management &gt; Attribute Linking and Mapping &gt; [Assign Attributes]</td>
</tr>
<tr>
<td>Attribute Defaulting Rules</td>
<td>Setup &gt; Attribute Mapping &gt; [Defaulting Rules...]</td>
</tr>
<tr>
<td>Bulk Change</td>
<td>Self Service &gt; Oracle Pricing User &gt; Price List Maintenance &gt; [Advanced Search] &gt; [Search] &gt; From Advanced Search page &gt; [Bulk Change]</td>
</tr>
<tr>
<td></td>
<td>Alternate: Self Service &gt; Oracle Pricing User &gt; Price List Maintenance &gt; (Do Search) &gt; [Bulk Change]</td>
</tr>
<tr>
<td>Context Setup</td>
<td>Setup &gt; Attribute Mapping &gt; Context and Attributes</td>
</tr>
<tr>
<td>Copy Modifiers</td>
<td>Modifiers &gt; Copy Modifiers</td>
</tr>
<tr>
<td>Copy Price List</td>
<td>Price Lists &gt; Copy Price List</td>
</tr>
<tr>
<td>Defaulting Condition Validation Templates</td>
<td>Setup &gt; Attribute Mapping &gt; [Defaulting Condition Templates...]</td>
</tr>
<tr>
<td>Defaulting Setup</td>
<td>Setup &gt; Attribute Mapping</td>
</tr>
<tr>
<td>Define Limits</td>
<td>Modifiers &gt; Modifier Setup &gt; Define Modifier (W) &gt; [List Limits] &gt;</td>
</tr>
<tr>
<td>Define Modifier - Define GSA price</td>
<td>Price Lists &gt; GSA Pricing Setup</td>
</tr>
<tr>
<td>Define Modifier Details</td>
<td>Modifiers &gt; Modifier Setup &gt; [Define Details*]</td>
</tr>
<tr>
<td>Descriptive Flexfield Segments</td>
<td>Setup &gt; FlexFields</td>
</tr>
<tr>
<td>Detail Change</td>
<td>Self Service &gt; Oracle Pricing User &gt; Price List Maintenance &gt; [Advanced Search] &gt; From Advanced Search page &gt; [Detail Change]</td>
</tr>
<tr>
<td></td>
<td>Alternate: Self Service &gt; Oracle Pricing User &gt; Price List Maintenance &gt; (Do Search) &gt; [Detail Change]</td>
</tr>
<tr>
<td>Event Phases</td>
<td>Setup &gt; Event Phases</td>
</tr>
<tr>
<td>Exclude Items</td>
<td>Modifiers &gt; Modifier Setup &gt; [Exclude]</td>
</tr>
<tr>
<td>Factors</td>
<td>Pricing Formulas &gt; Formulas Setup &gt; [Factors]</td>
</tr>
<tr>
<td>Find Personal Profile Values</td>
<td>Setup &gt; Profiles</td>
</tr>
<tr>
<td>Find Modifiers</td>
<td>Pricing Organizer</td>
</tr>
<tr>
<td>Find Requests</td>
<td>View Concurrent Requests</td>
</tr>
<tr>
<td>Window Name</td>
<td>Navigation Path</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Find Requests (alternate)</td>
<td>View Concurrent Requests &gt; [Find] &gt; [Find Requests]</td>
</tr>
<tr>
<td>GSA Qualifiers</td>
<td>Price Lists &gt; GSA Pricing Setup &gt; [List Qualifiers]</td>
</tr>
<tr>
<td>Incompatibility Groups</td>
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A

accrual
In Oracle Advanced Pricing are monetary or non-monetary units that are earned and accumulated for later remittance in a form of a monetary or non-monetary payment. Remittance settlement is based on a predefined basis for performance.

Ask For Modifier
A promotion modifier type that requires a customer to specifically request the promotion on the order.

attribute
A basic data element used by Oracle Advanced Pricing to control pricing activity. For example, Pricing uses attributes to define the eligibility of a customer order to receive a particular price or modifier. In Oracle Advanced Pricing, individual attributes are obtained from data sources that are called contexts. Pricing attributes may also be used as elements of a pricing formula.

Automatic Modifier
In Oracle Advanced Pricing, a control that allows you to specify that the Pricing Engine apply a modifier automatically to a transaction, assuming that the transactions meets the qualifier eligibility.
**B**

**Base Price**
The original price for an item obtained from the Price List; the price before any price adjustments are applied. Also known as List Price.

**Benefits**
In Oracle Advanced Pricing, modifiers that result in non-monetary adjustments to an order. Types of benefits include: Item upgrade, free items, change in payment or shipment terms. *See also* Price Adjustments.

**best price**
- The modifier which gives the lowest price or most advantageous price to the customer on the given pricing line will be applied.
- An alternative method to precedence which is used to determine which modifier should be selected when multiple modifiers in the same exclusivity or incompatibility group are eligible to be applied to the same pricing line within a pricing phase. The modifier which gives the lowest price or most advantageous price to the customer on the given pricing line will be applied. *See also* Precedence.

**Buckets - Pricing**
A feature in Oracle Advanced Pricing that determines how modifier price adjustments are applied to the list price of an item to calculate the selling price. Modifiers use the previous buckets sub-total for percentage calculation. Modifiers within the same bucket are Additive i.e. added together, and subtracted from the previous buckets total. The user can create an unlimited amount of buckets to calculate selling price. For example, discounts associated with bucket 0 use list price as their calculation basis. Bucket 1 prices use the subtotal resulting from subtracting bucket 0 discounts from list price as their calculation. Bucket 2 uses the subtotal remaining after subtracting bucket 1 discounts from the bucket 0 subtotal, and so forth.

**C**

**Calculation Engine**
In Oracle Advanced Pricing the calculation engine is a part of pricing engine. It returns the price of an item/service.
**CTD (Capable to Deliver)**

Refers to considering the transportation resources and transportation lead time to meet your customers delivery needs. In this release, only transportation lead time is being considered. Transportation resources will be added in a future release.

*See* Compound Discounts, also Buckets, Pricing.

**compound discounts**

Discounts that are applied on top of already discounted prices. *See* buckets, pricing.

**context**

A data source used by Oracle Advanced Pricing to obtain attributes. For example, Oracle Advanced Pricing considers the customer order itself to be a context. Various attributes from the order, such as order date, can be used by Pricing to control the selection of a price or modifier. Oracle Advanced Pricing does not limit the number of contexts that can be defined. Any single context can supply up to 100 pricing attributes. *See also* Dimension.

**customer class**

A method to classify and group your customers. For example, you could group them by their business type, size, or location. You can create an unlimited number of customer classes.

**D**

**deal**

A Modifier List type in Oracle Advanced Pricing that is a child of the modifier list type Promotion. A Deal is a group of modifiers that share the same header level qualifications and are reported together. A Deal is tied to a Promotion for reporting purposes only.

**defaulting**

Used in Oracle Advanced Pricing to identify the supply of a value for an attribute. *See* sourcing.

**defaulting condition**

Used in Oracle Advanced Pricing to refer to the context/dimension name as well as the source system. Each attribute is defaulted differently according to which context is being defaulted.
**dimension sourcing**

Provides the rules for finding attribute values that have been defined in qualifier and pricing dimensions. For a given transaction, the Pricing Engine must receive all the values of the attributes defined in the qualifier and pricing dimensions (contexts) in order to determine which prices and/or benefits the transaction is qualified for. See context.

**discounts**

Is a Modifier type in Oracle Advanced Pricing that creates Pricing Adjustments which allows Pricing Engine to extend a reduced price for an order, specific line item, or group of lines.

**E**

**effective dates**

Start date and end date that a price, discount, surcharge, deal, promotion, or change is active.

**exclusivity**

A feature in Oracle Advanced Pricing that determines if an order qualifies for multiple modifiers on an order, and if one of the modifiers is exclusive, then only the exclusive modifier is applied.

**F**

**factor list**

In Oracle Advanced Pricing Formulas, factor lists may be linked to multiple pricing attributes or range of these attributes. For example, a glass with thickness between 0.1 to 0.3 mm will have a factor of 3 and a glass with thickness between 0.4 to 0.8 mm will have a factor of 5. The choice of factors from the factor list is made by the Pricing engine at the time the formula is computed. See formula.

**formula**

A mathematical formula used in Oracle Advanced Pricing to define item pricing or modifier adjustments. You create a pricing formula by combining pricing components and assigning a value to the components.
GSA (General Services Administration)
GSA (General Services Administration): a customer classification that indicates the customer is a U.S. government customer. For products on the GSA price list, a fixed price must be used, defined on the GSA contract. The items contained on the GSA price list cannot be sold to commercial customers for the same or less price than the government price. In other terms, the price offered to the government must be the minimum in the market.

Incompatibility
A feature in Oracle Advanced Pricing that allows you to define groups of modifiers where the modifiers in a group are incompatible with each other. Modifiers in the same incompatibility group may not be used together on the same transaction. See Precedence.

list price
In Oracle Advanced Pricing, the base selling price per unit of the item, item category or service offered. You define the list price on a price list. All price adjustments are applied against the list price.

list price (Pricing Formula)
A Formula type used in Oracle Advanced Pricing to notify the pricing engine to use the Price on the line that the formula is attached to for calculating the formula.

list price (Price List)
In Oracle Advanced Pricing, the base selling price per unit of the item, item category or service offered. You define the list price on a price list. All price adjustments are applied against the list price.

modifier
Defines the terms of how Oracle Advanced Pricing will make adjustments. For example, a modifier can take the form of: discounts, or surcharges. In Oracle Advanced Pricing, when you setup modifiers, you define the adjustments your customers may receive. You control the application of modifiers by the pricing
engine by also setting up rules that specify qualifiers and attributes governing their use.

**modifier list**
A grouping of modifiers in Oracle Advanced Pricing.

For the rest of the document, we will use ‘Multilevel ATP’ as a short form for this feature.

**P**

**precedence**
Used by Oracle Advanced Pricing to resolve Incompatibility. Precedence controls the priority of modifiers and price lists. If a customer qualifies for multiple modifiers that are incompatible with each other, precedence determines the discount that the customer is eligible for based on the precedence level of the modifier. See also incompatibility.

**price adjustments**
In Oracle Advanced Pricing, modifiers that result in monetary adjustments to an order. Types of benefits include: discount in %, amount or new price, discounts on other items, surcharges. See benefits.

**price breaks**
A quantity delimiters to which are associated prices or discounts by range of quantity and amount. These breaks may occur at either the line item level or at the total order level and associated with a item/ item group.

**price list**
A list containing the base selling price per unit for a group of items, item categories or service offered. All prices in a price list are for the same currency.

**pricing date**
In Oracle Advanced Pricing, the date according to which selling price will be calculated. Pricing Date can be Order Date, Ship Date or sysdate.

**pricing event**
A point in the process flow of a Pricing Line, e.g. Order, Contract etc. at which a call is made to the Pricing Engine to fully or partially price the Order or Contract. A
Pricing event is analogous to a Workflow event; for example, Booking Order, Reprice Order, Shipping Order.

**Pricing Phase**
A user defined control that can be applied to Price Lists, Discount Lists, Promotions, Deals, etc. In Oracle Advanced Pricing, the Pricing Engine looks at the phase when deciding which lists should be considered in a Pricing Event. See Pricing Event.

**pricing request structure**
In Oracle Advanced Pricing the Pricing Request Structure is the parameter information that is passed to the Pricing Engine for calculating the final price which is inclusive of all the modifiers that the customer is eligible for.

**product pricing attributes**
In Oracle Advanced Pricing, these define the products referenced in a deal, discount, promotion, or price list.

**promotion**
A Modifier List type in Oracle Advanced Pricing. A Promotion is a group of modifiers that share the same header level qualifications and are reported together.

**Q**

**qualifier**
Used in Oracle Advanced Pricing to determine eligibility for a price, price adjustment or benefit.

**R**

**request type**
Used by Oracle Advanced Pricing to identify the transaction system which calls the Pricing Engine for calculation of the price. Ex: Order Management, Order Capture, Oracle Service, Contracts etc.
S

selection engine
In Oracle Advanced Pricing the selection engine is a part of pricing engine. Selection engine is responsible for selecting price lists and modifiers based on the Pricing Request.

selling price
The selling price is the unit cost for a particular item. Thus, if two of item A cost $10.00 each, the selling price is $10.00 for each unit.

selling price
Selling Price is defined as the price derived after applying price adjustments to the list price.

Source Transaction System
The source application that populates the pricing tables with information using the Pricing APIs. These include Order Management, iMarketing, Trade Management, Contracts, etc.

sourcing
Used in Oracle Advanced Pricing to refer to the supply of a value for an attribute. See defaulting and dimension sourcing.

Suggested Order Date
The date that the planning process suggests an order for goods or services is entered. The earliest order date allowed is today and no compression days are allowed.
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